10-7-11

DEPARTMENT OF THE AIR FORCE

HEADQUARTERS 49TH WING (ACC)
HOLLOMAN AIR FORCE BASE, NEW MEXICO

ENTERED

OCT 2011

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Attn: Mr. John Kieling
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Dear New Mexico Environment Department

Holloman AFB is pleased to submit the Long-Term Monitoring Report July 2010-January 2011 (sites DP-30/SD-33, SD-27, and SS39) for your review.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions, please contact Mr. David Scruggs of our Asset Management Flight at (575) 572-5395.

Sincerely

20111004

A. DAVID BUDAK, GS-14, DAFC

Attachment:
Long-Term Monitoring Report July 2010-January 2011

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LONG-TERM MONITORING REPORT
JULY 2010 – JANUARY 2011
for
DP-30/SD-33 (SWMU 113B),
SD-27 (SWMU 141), AND
SS-39 (SWMUs 165, 167, 177, 179, AND 181)
HOLLOMAN AIR FORCE BASE, NEW MEXICO
EPA ID# NM6572124422

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Contract No. FA4890-06-D-0009
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SEPTEMBER 2011

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ACRONYMS

ACC	Air Combat Command
AFCEE	Air Force Center for Engineering and the Environment
AMC	Air Materiel Command
bgs	below ground surface
cm^2/day	square centimeters per day
CMS	corrective measures study
COC	chemical of concern
COPC	chemical of potential concern
CRDL	contract required detection limit
DCE	dichloroethene
DO	dissolved oxygen
DQO	data quality objective
EE/CA	Engineering Evaluation/Cost Analysis
EPA	U.S. Environmental Protection Agency
ERP	Environmental Restoration Program
FEC	Foothills Engineering Consultants, Inc.
GPS	global positioning system
ft	foot (or feet)
HAFB	Holloman Air Force Base
HGL	HydroGeoLogic, Inc.
HHRA	Human Health Risk Assessment
HI	Hazard Index
ILCR	incremental lifetime cancer risk
in.	inch (es)
IRP	Installation Restoration Program
JP	jet propellant
LTM	long-term monitoring
LUC	land-use controls
m^3/hour	cubic meters per hour
MCL	maximum contaminant level
µg/L	micrograms per liter
µR/hr	micro-Roentgen per hour
mg/L	milligrams per liter

mV	millivolts
NFA	no further action
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NMWQCC	New Mexico Water Quality Control Commission
NOD	Notice of Deficiency
NTU	nephelometric turbidity unit
ORP	oxidation-reduction potential
PA/SI	preliminary assessment/site investigation
PCB	polychlorinated biphenyl
PVC	polyvinyl chloride
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
RFI	RCRA Facility Investigation
RSL	regional screening level
S/m	Siemens per meter
SSL	soil screening level
SVOC	semivolatile organic compound
SWMU	Solid Waste Management Unit
TAL	target analyte list
TCE	trichloroethene
TDS	total dissolved solids
Tetra Tech	Tetra Tech, Inc.
TPH	total petroleum hydrocarbons
TRPH	total recoverable petroleum hydrocarbons
Radian	Radian Corporation
UDMH	unsymmetrical dimethylhydrazine
USACE	U.S. Army Corps of Engineers
USAF	U.S. Air Force
VOC	volatile organic compound

1.0 INTRODUCTION

This Long-Term Monitoring (LTM) Report was prepared by Tetra Tech, Inc. (Tetra Tech) on behalf of Holloman Air Force Base (HAFB). LTM activities were conducted at the Environmental Restoration Program (ERP) sites DP-30/SD-33 – Grease Trap Disposal Pits and Cooking Grease Disposal Trench [Solid Waste Management Unit (SWMU) 113B], SD-27 – Pad 9 Drainage Pit (SWMU 141), and SS-39 – Missile Fuel Spill Area (SWMUs 165, 167, 177, 179, and 181). Tetra Tech has prepared this document under contract to the U.S. Air Force Center for Engineering and the Environment (AFCEE), Contract No. FA4890-06-D-0009, Task Order Number 5002, in accordance with the New Mexico Environment Department (NMED) Hazardous and Radioactive Materials Bureau position paper on *General Reporting Requirements for Routine Groundwater Monitoring at RCRA Sites* (NMED, 2003).

This report presents the results, analysis, and recommendations for the following:

<u>DP-30/SD-33 and SS-39</u>

- Semi-annual groundwater sampling events (July 2010 and January 2011); and

- A summary of the Human Health Risk Assessment (HHRA) conducted by Tetra Tech, for sites DP-30/SD-33 and SS-39.

<u>SD-27</u>

- Quarterly groundwater sampling events (November 2010 and January 2011).

1.1 BASIS FOR LONG-TERM MONITORING

In the 1990s, remedial investigations (RIs) were conducted at DP-30/SD-33, SD-27, and SS-39. In 1995, Decision Documents were developed for DP-30/SD-33 and SS-39 and submitted to NMED. NMED signed the Decision Document granting no further action (NFA) for DP-30/SD-33 with groundwater monitoring, but did not sign the Decision Document for SS-39. In 1997, biennial LTM began at DP-30/SD-33 and SS-39. In 2001, a site close out petition recommending NFA was developed for SD-27 and submitted to NMED. Based upon historical soil and groundwater sample results, NMED stated that further characterization was required at these sites.

A supplemental Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) work plan was submitted to NMED in July 2005 to address additional characterization requirements at these sites

(HGL, 2005). Upon review of the supplemental RFI work plan, NMED responded that semi-annual groundwater monitoring would be required at DP-30/SD-33, and a minimum of two years of semi-annual groundwater monitoring would be required at SS-39 in addition to the supplemental RFI activities proposed in the work plan (NMED, 2006). The supplemental RFIs were conducted at DP-30/SD-33, SD-27, and SS-39 in 2005 and 2006 with the results submitted in RFI reports to NMED in July 2007 (HGL, 2007). The results of the first two semi-annual groundwater monitoring events for DP-30/SD-33 and SS-39, completed in July 2006 and January 2007, were included within these reports, which are currently under NMED review.

1.2 PURPOSE

This LTM Report is part of the on-going effort to monitor groundwater quality at DP-30/SD-33, SD-27, and SS-39. The purpose of the LTM program is to ensure that degradation to groundwater quality is not occurring and that the sites are not acting as continuing sources for groundwater contamination. The overall objective of this LTM Program is to obtain Regulatory Site Closure for these four sites.

1.3 REPORT ORGANIZATION

This July 2010 – January 2011 LTM Report presents site-specific background information, summary of the HHRA for DP-30/SD-33 and SS-39, groundwater sampling procedures, analytical results, and recommendations. The document contains the following sections:

- Section 1 – Introduction
- Section 2 – Background
- Section 3 – Sampling Procedures
- Section 4 – Groundwater Monitoring Results
- Section 5 – Human Health Risk Assessment
- Section 6 – Summary And Recommendations
- Section 7 – References

The tables and figures referenced in this LTM report are included following Section 6.0. This report also includes five appendices.

- Appendix A provides the laboratory data review checklists.
- Appendix B provides the Chain of Custody Records.

- Appendix C contains laboratory analytical data, which is provided on the attached CD-ROM.
- Appendix D presents the field data forms.
- Appendix E contains the Radiation Protection Program and Baseline Gamma Survey Summary.

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2.0 BACKGROUND

The following sections present location and background information for HAFB and the individual sites that are addressed in this LTM Report.

2.1 FACILITY BACKGROUND

HAFB is situated in south-central New Mexico, in the northwest-central part of Otero County. HAFB is located approximately 75 miles northeast of El Paso, Texas, and seven miles west of Alamogordo, New Mexico. HAFB occupies approximately 50,000 acres in the northeast quarter of section Township 17 South, Range 8 East. Additional land extending northward is occupied by the White Sands Missile Range testing facilities. An installation location map is included as Figure 2-1. The locations of DP-30/SD-33, SD-27, and SS-39 with respect to the surrounding area are shown on Figure 2-2.

HAFB, formally Alamogordo Army Airfield, was initiated as a temporary facility during World War II, with construction commencing on February 6, 1942. Its status, mission, and Command have periodically changed over its 68-year history.

Prior to 1942, the property occupied by HAFB was undeveloped rangeland. The Alamogordo Army Airfield was established in 1942 and was deactivated in 1945. The facility was reactivated in 1945 and was operated by the Air Materiel Command (AMC) until 1951. AMC tested pilot-less aircraft, guided missiles, and other equipment. The facility mission remained largely unchanged until 1971. However, the facility identification changed several times during the 20-year span as follows:

- Air Force Missile Test Center (1951-1952),
- Holloman Air Development Center (1952-1957), and
- Air Force Missile Test Center (1957-1971).

The Tactical Air Command operated the facility from 1972 to 1992 and housed the 49th Tactical Fighter Wing, 479th Tactical Training Wing, 833rd Air Division, and 4449th Mobile Support Squadron. In 1992, HAFB was realigned under the Air Combat Command (ACC). Currently, HAFB is still operated under the Command of the ACC.

2.2 SITE-SPECIFIC BACKGROUND

The following sections present an overview of the site characteristics and history at DP-30/SD-33, SD-27, and SS-39.

2.2.1 DP-30/SD-33 – Grease Trap Disposal Pits And Cooking Grease Disposal Trench

The Grease Trap Disposal Pits (DP-30) and the Cooking Grease Disposal Trench (SD-33) (SWMU 113B) are located in the southeastern portion of HAFB, northwest of the airfield and Sabre Road and west of the Fire Protection Training Area. As shown on Figure 2-3, DP-30 and SD-33 are located on opposite sides of an unpaved and unnamed service road, approximately 15 ft apart. The unnamed service road connects the two sites to Sabre Road and provides vehicle access. Several highly restricted buildings are located northwest of the two sites; consequently, unauthorized access to the DP-30/SD-33 area is prohibited.

DP-30 and SD-33 are currently unpaved, undeveloped, and moderately vegetated with shrubs and grasses. DP-30 is located immediately north of the unpaved service road and encompasses approximately 0.76 acres. Several linear depressions, most likely remnants of former disposal and site investigation trenches, cross the site in primarily northwest-southeast and secondary northeast-southwest orientations. SD-33 is located south of the unpaved service road and encompasses approximately 0.17 acres. A semi-circular shaped soil berm is located along the northern edge of SD-33. The soil berm is approximately 4 ft high and 50 ft long and composed primarily of reworked native soil. Several metal signs indicate the area was a former disposal unit. As with site DP-30, several linear depressions, most likely remnants of former disposal and site investigation trenches, cross the site in a northwest-southeast orientation. The two sites cover an area of approximately 2 acres combined.

The disposal pits/trenches consisted of elongated excavations approximately 40 to 50 ft long and 2 to 3 ft wide. Drilling and trenching activities indicated that the depths of the disposal pits/trenches ranged from 2.5 to 9 ft below ground surface (bgs). The pits reportedly received wastes from HAFB grease traps, oil/water separators, and grit from the wastewater treatment system. Occasionally, the pits/trenches would accept sludge from vacuum trucks used to unclog sewer lines at the Primate Research Laboratory (Radian, 1992). One interviewee indicated that quantities of various pesticides were also disposed of in the pits/trenches; however, this could not be verified.

Soil and groundwater samples were collected from the Grease Trap Disposal Pits during an RI conducted by the Radian (Radian 1992). Soil and waste sludge samples contained volatile organic compounds (VOCs), metals, oils and grease, and pesticides. Four groundwater monitoring wells (MW30&33-01,

MW30&33-02, MW30&33-03, and MW30&33-04) were installed during the RI. Analytes reported above the contract required detection limit (CRDL) in groundwater included metals (antimony, beryllium, cadmium, chromium, copper, nickel, zinc, lead, and selenium) and toluene.

The risk screen performed in the RI indicated that unacceptable risk for sites DP-30/SD-33, based on several soil analytes exceeding action levels. Therefore, it was recommended that a feasibility study and corrective measures study (CMS) be conducted, and if necessary, the implementation of an Installation Restoration Program (IRP) Remedial Action/ RCRA Corrective Action Remedy.

The CMS prepared by Radian in December 1992, stated that an Engineering Evaluation/Cost Analysis (EE/CA) would be performed to determine the appropriate remedial alternative to the removal of buried waste in order to achieve site closure. A subsequent Decision Document was signed by NMED and the Base Commander in September 1995, which alternatively recommended NFA for groundwater with groundwater monitoring based on the absence of exposure pathways and receptors and the remote locations of the two sites. LTM began in 1995. In 2005, a Supplemental RFI Work Plan was completed by HydroGeoLogic, Inc. (HGL) and submitted to NMED to address additional characterization requirements at these sites. Upon review of the Supplemental RFI Work Plan, NMED recommended that semi-annual groundwater monitoring would be required at DP-30/SD-33.

2.2.2 SD-27 – Pad 9 Drainage Pit

The SD-27 Pad 9 Drainage Pit (SWMU 141), as shown on Figure 2-4, is located within the airfield, east of Taxiway F near former Building T884.

SD-27 is an inactive washrack area that consists of the following:

- A circular concrete pad that is approximately 150 ft in diameter;
- A concrete constructed sump that is approximately 4 ft wide, 7 ft long, and 1 to 1.5 ft deep;
- An associated concrete-lined drainage gallery that is 0.5 ft wide and 0.5 feet deep and runs the radius of the concrete washrack; and
- A former unlined drainage pit that is approximately 50 ft in diameter and 12 ft deep.

The concrete pad slopes gently to the center toward the grate covered drainage gallery. The wash water in the gallery then flows through a trough in the pad to the discharge pipe, which extends to the unlined drainage pit approximately 215 ft south of the concrete pad. Since its use, the drainage pit has been

backfilled to within 2 to 3 ft of grade, and can only be identified as a small depression. The backfilled pit supports a thick concentration of shrubs.

The area immediately surrounding SD-27 is unpaved, undeveloped, and currently used as a safety buffer for Base runway operations. An active taxiway, Taxiway F, is located approximately 200 ft west of SD-27.

The SD-27 Pad 9 Washrack Area was used to wash down drones and manned aircraft that had flown through clouds of nuclear blast materials in the late 1940s and early 1950s. No information on the exact year when washrack activities ceased at SD-27 was obtained. However, according to former military personnel, no aircraft maintenance activities have occurred at SD-27 since the cessation of washing down potentially radioactive contaminated drones and manned aircraft (Radian, 1993).

In May 1976, a radiation site screening was conducted at SD-27. Based upon the results of this investigation, it was determined that no radiation above background was present in soils within the discharge pit and the pit was backfilled to grade (Radian, 1993). During a Preliminary Assessment/Site Investigation (PA/SI) conducted by Radian in 1993, four soil borings were advanced adjacent to Pad 9, within the former drainage pit, and within the footprint of a former transformer. Within the drainage pit, stained soils and fuel odors were encountered between 6 and 16 ft bgs, at and below the top of the water table. Sample results from within the drainage pit contained total petroleum hydrocarbons (TPH), ethyl benzene, toluene, and xylenes. None of these analytes exceeded applicable NMED soil screening levels (SSLs). Based on the results of the PA/SI, a Phase II RI was conducted, which included the advancement of one boring through the discharge pit to a depth of 16 ft bgs. Five VOCs, semivolatile organic compounds (SVOCs), and total recoverable petroleum hydrocarbons (TRPH) were detected in the three samples collected from this soil boring. These results were not compared to SSLs due to the samples being collected below the water table. In December 2001, a Site Close Out Petition letter was submitted to NMED requesting NFA at SD-27. In March 2002, NMED responded to the letter requesting additional soil and groundwater characterization. Between May and June 2006, Supplemental RFI activities were conducted by HGL. This investigation included sediment sampling from the drainage gallery/sump, soil sampling throughout the site, and groundwater sampling. Based on the results of the supplemental RFI, further investigation of SD-27 was recommended to determine appropriate remedial actions, if necessary.

In November 2010 and March 2011, Tetra Tech conducted additional investigation activities at SD-27 as part of the accelerated corrective measures. During investigation activities, 31 soil borings

were advanced to a maximum depth of 25 ft bgs and 5 permanent flush mount monitoring wells (MW27-01 through MW27-05) were installed to depths ranging from 15.24 to 19.91 ft bgs. During the two sampling events, 80 soil samples were collected and sent to an off-site laboratory for analysis of TDS, total and dissolved RCRA 8 metals, SVOCs, VOCs, TPH-diesel range organics (DRO), TPH-gasoline range organics (GRO), and various radioactive isotopes, including lead-210, radium-226 and -228, isotopic thorium, and isotopic uranium. Preliminary data results indicate that TPH-DRO and TPH-GRO are the only soil contaminants at SD-27. TPH-DRO and TPH-GRO concentrations above NMED industrial SSLs were observed within and downgradient of the former drainage pit. Additional information regarding groundwater results and soil radionuclide results is included in Section 4.2.3.

2.2.3 SS-39 – Missile Fuel Spill Area

The Missile Fuel Spill Area [SS-39 (SWMUs 165, 167, 177, 179, and 181)], is located in the central portion of HAFB at the Test Sled Launch Area, at Building 1176, and along the northern slope of the Lost River Drainage Basin. A site map is provided on Figure 2-5. The site consists of two outfall areas located downgradient of the oxidizer and propellant spill drainpipes and drainage troughs and sumps located near Building 1176. Previous reports indicate that Building 1176 Pond (SWMU 165) is located between Building 1176 and the Lost River; however, no evidence of the pond was found at the reported location or at any location in the vicinity of Building 1176 (Radian, 1992).

The central portion of the slope to the Lost River Drainage Basin is moderately hummocky in topography. Steeply incised rills and drainage swales are present throughout the area, trending in a north-south orientation toward the Lost River Drainage Basin. Vegetation consisting of salt cedars, shrubs, and grasses are present throughout this area with a vegetation line running along the edge of the basin. Relief decreases near the base of the slope until nearly flat with an overall southerly dip toward the center of the drainage basin. The edge of the basin typically marks the high water level during and immediately after heavy rainstorms. An unpaved service road parallels the basin edge providing access to the lower portion of the site.

Historical activities within and adjacent to SS-39 included the fueling, detanking, and routine maintenance of test sleds. The launch pad at the south end of the sled test track was constructed with a concrete collection basin (SWMU 167) and a water deluge system. Spilled oxidizers and fuels were delivered to separate drains, diluted with water, and flushed into the Lost River Drainage Basin. In 1975, catch basins were installed to collect the spilled liquid fuels (Discharge Box, SWMU 179). Oxidizer vent lines from the engines were also installed and designed to discharge into the catch basins. Fuels used at

the track included unsymmetrical dimethylhydrazine (UDMH), aniline, jet propellant (JP)-4, inhibited red fuming nitric acid, inhibited white fuming acid, liquid oxygen, JPX, and solid rocket propellants. Solvents such as trichloroethene (TCE) were commonly used in sled maintenance activities (FEC, 1997). Since 1975, no propellants have been intentionally released to the open drains.

SS-39 was identified as a potential contaminant source during a 1983 IRP records search. An RI was completed in 1992 revealing arsenic, beryllium, lead, and TCE in soils near Building 1176 (Radian, 1992). Additionally, TCE, carbon tetrachloride, and lead were detected in groundwater at SS-39. The RI concluded that additional field investigation was warranted. Additional fieldwork at SS-39 was performed by Radian in 1993. Groundwater samples were collected at SS-39 from 15 temporary groundwater sampling locations using direct push methods, and screened in the field for chlorinated compounds. Eight groundwater samples were submitted to the laboratory for confirmation analysis. Results of these analyses indicated that TCE was present above the New Mexico Water Quality Control Commission (NMWQCC) groundwater standards and the U.S. Environmental Protection Agency (EPA) drinking water maximum contaminant level (MCL) at four locations, and above the EPA MCL at two additional locations. A 1995 request for NFA was not granted. Further delineation of groundwater was completed in 1998, and the subsequent RI report requested NFA. Conditional closure of SS-39 required LTM for VOCs and total dissolved solids (TDS) biennially for 10 years. The site was added to the LTM program in 1997 and continued on a biennial basis until December 2005. Supplemental RFI activities were conducted in May and July 2006, which and included sediment and soil sample collection and installation of four permanent and five temporary monitoring wells. A soil source for TCE was identified in vicinity of SWMU 177, and contaminants in groundwater consisted of TCE and perchlorate. After the 2005 submittal of the Supplemental RFI Work Plan by HGL and HGL's response to the Notice of Deficiency (NOD) in 2006, NMED required groundwater LTM activities be conducted on a semi-annual basis.

In November 2010, Tetra Tech conducted additional investigation activities at SS-39 as part of the supplemental RFI. During the investigation, 48 soil samples were collected from 16 soil boring locations advanced adjacent to the sumps and the drainage swale east of Building 1176. Soil borings were advanced to a maximum depth of 15 ft bgs. Additionally, 4 permanent monitoring wells were installed (MW39-13 through MW39-16) at depths ranging from 7.21 to 21.73 ft bgs. Soil samples were sent to an off-site laboratory and were selectively analyzed for metals, VOCs, TPH-DRO, and TPH-GRO. Preliminary data results from these soil samples indicate that none of the detected analytes were present at concentrations exceeding NMED residential or industrial screening values. Additional information regarding groundwater results is included in Section 4.3.3.

3.0 SAMPLING PROCEDURES

The approved LTM Program protocol for HAFB was first established for baseline sampling conducted in 1995 and was implemented for the 2006 and 2007 events. The 2010 and 2011 sampling events applied the same protocol followed during the previous sampling events. All analytical procedures followed SW-846 methods with groundwater samples being analyzed as follows:

- Perchlorate by EPA Method 6860
- Metals by EPA Method 6010C and 7470A
- SVOCs by EPA Method 8270D
- VOCs by EPA Method 8260B and 8015C
- TDS by Method SM19 2540C
- TPH-DRO and -GRO by EPA Method 8015C
- Gross Alpha and Beta by EPA Method 900.0

Groundwater monitoring and sampling activities conducted during July and November 2010; and January 2011 were conducted in accordance with the site-specific work plans of DP-30/SD-33 and SS-39 (USACE, 2003) as well as SD-27 (Tetra Tech, 2009). It should be noted that the methodologies used to conduct LTM at SD-27 match those methods employed at DP-30/SD-33 and SS-39. Variations from the specified procedures are discussed in the following section.

3.1 VARIATIONS FROM THE WORK PLAN

The sampling procedures and analytical protocol presented in the LTM Work Plan (USACE, 2003; Tetra Tech, 2009) were followed; however, deviations did occur based on the issues presented below:

- During the January 2011 sampling event, a low flow peristaltic pump malfunctioned; therefore, monitoring well MW39-13 at SS-39 was purged using a 2-in. diameter disposable Teflon® bailer. However, the use of disposable bailers was considered acceptable since the use of bailers is consistent with previous LTM sampling methods employed at SS-39.

- Vegetation was previously encountered within monitoring well MW39-03 at site SS-39. MW39-03 was sampled during the July 2010 sampling event; however, due to its compromised condition, it was not sampled during the January 2011 sampling event.

- Monitoring well MW39-04 at site SS-39 was dry during water level collection and thus was not sampled.

3.2 DATA EVALUATION

Analytical results from the 2010 and 2011 sampling events were reviewed and compared with the results of the previous LTM events in order to determine whether further action or additional investigation at any site is warranted. Although historical data dates back to 1989 for some of these sites, quarterly and semi-annual sampling to support site closure commenced in 2006 (DP-30/SD-33 and SS-39) and 2010 (SD-27). Thus, the sampling events corresponding to this LTM Program will be used to determine site closure.

Natural TDS levels in the groundwater at DP-30/SD-33, SD-27, and SS-39 are above 10,000 mg/L, and are thus above the threshold at which groundwater is not considered a potential domestic or agricultural water supply (NMAC, 20.6.2.3101). Because groundwater is not considered a potential source of domestic water at sites DP-30/SD-33, SD-27, and SS-39, the EPA Regional Screening Levels (RSLs) for tap water were not used to compare analytical results.

NMWQCC groundwater standards and EPA MCLs are used for comparison purposes in the data tables to identify constituents that are potential contaminants and require evaluation. This comparison is conducted in order to ascertain whether plume stabilization/reduction is occurring.

3.3 PROJECT REPORTING

This LTM report summarizes contamination and provides a comparison of results from quarterly and semi-annual sampling events conducted from January 2006 to January 2011 at DP-30/SD-33 and SS-39; and from November 2010 to January 2011 at SD-27. Potentiometric surface maps were prepared for each site based on the water level measurements collected during each sampling event and are included following Section 7.0 (behind the Figures tab). When possible, information was tabulated similar to prior LTM reports to provide easy comparison between sampling rounds.

3.4 DATA VALIDATION

Detailed information regarding laboratory methods and data quality is provided in the data review checklists included in Appendix A. The Chain of Custody Record for all samples is included in Appendix B. The laboratory analytical data deliverable packages are included on a CD-ROM as

Appendix C. In summary, data completeness of the laboratory analyses for all samples collected at DP-30/SD-33, SD-27, and SS-39 was determined to be 99 percent during each sampling event, which meets the project data quality objective (DQO) of 95 percent. Based on the data review and validation, the analytical data were determined to be acceptable, representative, comparable, and useable for its intended purpose.

3.5 SS-39 PRE-PACK WELL INSTALLATION

In support of RFI activities, NMED required the installation of several monitoring wells within the Lost River drainage basin to define the southern extent of the TCE plume. The Lost River Drainage Basin is subject to periodic flooding after large rain events, and repeated flooding would most likely compromise the long-term structural integrity of any monitoring wells installed within the basin. In addition, the U.S. Air Force (USAF) and U.S. Army Corps of Engineers (USACE) do not permit permanent structures to be constructed within the Lost River Drainage Basin (Livingston, 2006). Therefore, five pre-pack monitoring wells, designated MW39-08 through MW39-12 (Figure 2-5), are utilized to collect groundwater samples from within the Lost River Drainage Basin during each LTM sampling event. Survey stakes and a global positioning system (GPS) are used to locate the pre-pack well locations for repeated sampling events. The pre-pack monitoring wells are constructed of a 2-in. diameter, 5 ft long, 0.010-slotted Schedule 40 polyvinyl chloride (PVC) well screen wrapped with a stainless steel wire mesh containing a 0.25 in. thick filter pack. The screen is capped with a flush-jointed well cap and attached to a 2-in. diameter, 5 ft long Schedule 40 PVC riser pipe. The pre-pack wells are installed through an open borehole drilled using a 3-in. decontaminated stainless steel hand auger. The hand auger borings are completed to maximum depths ranging between 5 to 10 ft bgs. After installation, the pre-pack wells are allowed to sit undisturbed for a minimum of 12 hours prior to groundwater sampling. Once groundwater sampling activities are completed, the pre-pack wells are removed from the subsurface, decontaminated, and placed in dedicated storage containers. The abandoned boreholes are backfilled with the sediment removed during borehole advancement.

3.6 WATER LEVEL MEASUREMENTS

Prior to initiating groundwater sampling activities, static water levels are obtained from the 5 permanent monitoring wells (MW30&33-01 through MW30&33-05R) at DP-30/SD-33, the 5 permanent monitoring wells (MW27-01 through MW27-05) at SD-27, and 12 permanent monitoring wells (MW39-01 through MW39-7, MW39-06D, and MW39-13 through MW39-16) and five pre-pack temporary monitoring wells (MW39-08 through MW39-12) at SS-39. Monitoring well construction and survey information for the

monitoring wells at DP-30/SD-33, SD-27, and SS-39 are summarized in Table 3-1. Water level measurements were collected by lowering an audible sounding probe attached to a graduated tape into the well until the alarm sounded, indicating the air/water boundary in the well. The corresponding value on the tape, measured to the nearest 0.01 ft from the top of the PVC casing, was then recorded as "Depth to Water." The alarm was then turned off, and the probe was lowered to the bottom of the well. The corresponding measurement, to the nearest 0.01 ft, was recorded as "Total Well Depth." The probe and tape were then removed from the well and decontaminated. This process was repeated for all of the monitored wells. MW39-04 was determined to be dry during water level collection, consistent with historical conditions. Vegetation was encountered within well MW39-03 during RFI activities. Due to its compromised condition, MW39-03 is not sampled.

3.7 GROUNDWATER PURGING AND SAMPLING

The monitoring wells at SD-27 require quarterly monitoring and were sampled in November 2010 and January 2011. The wells at DP-30/SD-33 and SS-39 are monitored semi-annually and were sampled in July 2010 and January 2011. All wells at these sites were purged using a peristaltic pump fitted with disposable tubing and employing low-flow purging and sampling methods. The exception to this was monitoring well MW39-13 at SS-39, which was purged and sampled using a 2-in. diameter disposable Teflon® bailer. During the purging process, water quality parameters [pH, specific conductance, temperature, oxidation-reduction potential (ORP), turbidity, and salinity] were measured using a water quality meter. Well purging was considered complete when stabilization of the water quality parameters was achieved in accordance with the work plan and the NMED position paper regarding the use of low-flow sampling techniques (USACE, 2003 and NMED, 2001). In general, water quality parameter stabilization was achieved after purging approximately 2 to 3 groundwater casing volumes from each well. After achieving stabilization, the appropriate sample containers were filled using direct fill sampling techniques.

Groundwater samples collected from DP-30/SD-33 were submitted to an offsite laboratory for analysis of TDS, target analyte list (TAL) total and dissolved metals, and VOCs. Groundwater samples collected at SD-27 were submitted to an off-site laboratory and analyzed for TDS, RCRA 8 total and dissolved metals, SVOCs, VOCs, TPH- DRO, and TPH- GRO. Groundwater samples collected at SS-39 were submitted to an off-site laboratory and analyzed for TDS, RCRA 8 total and dissolved metals, perchlorate, and VOCs. Additionally, samples collected at monitoring wells MW39-13 through MW39-16 at SS-39 were analyzed for TPH-DRO and TPH-GRO.

4.0 GROUNDWATER MONITORING RESULTS

The following sections present a summary of the findings from the fieldwork conducted as part of the LTM conducted at sites DP-30/SD-33, SD-27, and SS-39 during the July 2010 – January 2011 sampling events.

4.1 DP-30/SD-33 – GREASE TRAP DISPOSAL PIT AND COOKING GREASE DISPOSAL TRENCH

The following sections present the hydrogeology, water quality, and analytical results from the semi-annual ground sampling events conducted in July 2010 and January 2011. Monitoring well MW30&33-05 was found damaged during the July 2009 sampling event. Therefore, a replacement well (MW30&33-05R) was installed and is sampled in substitution of MW30&33-05.

4.1.1 Hydrogeology

A summary of the groundwater measurements and calculated groundwater elevations for the July 2010 and January 2011 events is provided on Table 4-1. Water level and total well depth measurements were recorded on the individual sample data sheets included in Appendix D. The results of the water level measurements were used to prepare the July 2010 and January 2011 groundwater potentiometric surface maps (Figures 4-1 and 4-2, respectively). As shown on Figures 4-1 and 4-2, the groundwater potentiometric surface at DP-30/SD-33 is nearly flat, with an overall slight gradient to the south-southeast during the two sampling events. Depth to groundwater at DP-30/SD-33 ranged from approximately 21 to 24 ft bgs during the two sampling events.

4.1.2 Water Quality

Water quality parameters were collected during the purging of the wells and are presented on Table 4-2 along with water quality parameters recorded from previous semi-annual events. During the July 2010 and January 2011 sampling events, groundwater pH ranged from slightly acidic to neutral (6.26 to 7.69). Specific conductance ranged from 34.9 to greater than 99.9 S/m, likely due to the high salt content of the groundwater at HAFB. Salinity at DP-30/SD-33 ranged from 2.6 to greater than 4 percent indicating that the groundwater at the site is brackish to slightly saline. Turbidity in the wells at DP-30/SD-33 is highly variable, ranging from 0 to 48.9 nephelometric turbidity units (NTUs). The ORP of groundwater at DP-30/SD-33 ranged from 82 to 171 mV, indicating that oxidized conditions are likely present.

Dissolved oxygen (DO) concentrations were variable over the site ranging from 0.00 to 4.08 mg/L during the two sampling events.

No field observations or conditions that would influence the results of groundwater monitoring were noted.

4.1.3 Groundwater Sampling Results

Groundwater was sampled from four of the five permanent monitoring wells (MW30&33-01 through MW30&33-04 and MW30&33-05R) at the site in July 2010 and January 2011. All samples were analyzed for TDS, total and dissolved TAL metals, and VOCs. The groundwater sample data sheets for both events have been included in Appendix D.

DP-30/SD-33 groundwater analytical positive results from the July 2010 and January 2011 sampling events are summarized in Table 4-3. Historical groundwater analytical data from the previous eight semi-annual events conducted in July 2006; January and July 2007; January and July 2008; January, July, and October 2009; and January 2010 are summarized in Table 4-4. NMWQCC groundwater standards and EPA MCLs are also included in these tables for comparison purposes. The location of sample exceedances and the concentration observed are shown on Figure 4-3. A summary of the July 2010 and January 2011 results is presented in the following paragraphs.

<u>Total Dissolved Solids</u>

TDS groundwater concentrations at DP-30/SD-33 were detected at greater than 10,000 mg/L in all five wells and ranged from 16,900 mg/L (MW30&33-05R) to 28,500 mg/L (MW30&33-02) in July 2010 and 20,400 mg/L (MW30&33-05R) to 31,500 mg/L (MW30&33-02) in January 2011. A TDS concentration above 10,000 mg/L is the point where groundwater is no longer considered a potential domestic or agricultural water supply (NMAC, 20.6.2.3101). The TDS results for these sampling events are consistent with historic results.

<u>Dissolved Metals</u>

Seventeen of the 23 TAL metals were detected in various samples, including aluminum, antimony, arsenic, barium, calcium, chromium, cobalt, copper, lead, magnesium, manganese, mercury, nickel,

potassium, selenium, sodium, and vanadium. None of the metals exceeded NMWQCC groundwater standards or EPA MCLs.

Total Metals

Seventeen of the 23 TAL metals were detected in various samples, including aluminum, antimony, arsenic, barium, calcium, chromium, cobalt, copper, lead, magnesium, manganese, mercury, nickel, potassium, selenium, sodium, and vanadium. Total arsenic was the only metal that exceeded screening values. Total arsenic exceeded the NMWQCC groundwater standard (0.448 µg/L) and/or the EPA MCL (10 µg/L) as follows:

- In samples collected in July 2010, total arsenic exceeded both the NMWQCC groundwater standard and EPA MCL in monitoring wells MW30&33-01 (12 µg/L) and MW30&33-04 (10.3 µg/L).
- In samples collected in January 2011, total arsenic exceeded the NMWQCC groundwater standard in monitoring wells MW30&33-01 (9.2 µg/L), MW30&33-02 (6.1 µg/L), MW30&33-03 (3 µg/L), MW30&33-04 (9.3 µg/L), and MW30&33-05R (8.5 µg/L).

Volatile Organic Compounds

Five VOCs were detected in various samples collected during the July 2010 and January 2011 sampling events, including 1,1-dichloroethane; 1,1-dichloroethene (DCE); chloroform; cis-1,2-DCE; and TCE. Only TCE exceeded established screening values. TCE exceeded the NMWQCC groundwater standard (16.5 µg/L) and/or the EPA MCL (5 µg/L) as follows:

- In samples collected in July 2010, TCE exceeded the EPA MCL in monitoring wells MW30&33-02 (9 µg/L), MW30&33-03 (12 µg/L), and MW30&33-04 (6.5 µg/L); and exceeded both the NMWQCC groundwater standard and EPA MCL in monitoring well MW30&33-05R (22.3 µg/L).
- In samples collected in January 2011, TCE exceeded the EPA MCL in monitoring wells MW30&33-02 (14.5 µg/L) and MW30&33-04 (6.9 µg/L); and exceeded both the NMWQCC groundwater standard and EPA MCL in monitoring wells MW30&33-03 (19.1 µg/L) and MW30&33-05R (25.2 µg/L).

As shown on Figure 4-4, TCE concentrations have fluxuated during LTM sampling events, but in general have remained stable within samples collected from monitoring wells MW30&33-02, -03, and -04 since 2006. TCE concentrations in samples collected from monitoring well MW30&33-05/MW30&33-05R decreased noticeably from January 2006 to October 2009. Since October 2009, TCE concentrations have remained stable, indicating that DP-30/SD-33 is not a continuing source of TCE.

4.2 SD-27 – PAD 9 DRAINAGE PIT

The following sections present the hydrogeology, water quality, and analytical results from the semi-annual ground sampling events conducted in November 2010 and January 2011.

4.2.1 Hydrogeology

A summary of the groundwater measurements and calculated groundwater elevations for the November 2010 and January 2011 events are provided on Table 4-5. Water level and total well depth measurements were recorded on the individual sample data sheets included in Appendix D. The results of the water level measurements were used to prepare the November 2010 and January 2011 groundwater potentiometric surface map (Figure 4-5). As shown on Figure 4-5, the groundwater potentiometric surface at SD-27 is nearly flat, with an overall slight gradient to the south-southwest during the two sampling events. Depth to groundwater at SD-27 ranged from approximately 8 to approximately 9 ft bgs during the two sampling events.

4.2.2 Water Quality

Water quality parameters were collected during the purging of the wells and are presented on Table 4-6. Groundwater quality parameter measurements obtained during the purging process were recorded on groundwater field sampling data sheets, which have been included in Appendix D.

During the November 2010, and January 2011, sampling events, groundwater pH ranged from slightly acidic to neutral (6.87 to 7.74). Specific conductance ranged from 21.0 to 45.9 S/m during the two sampling events, likely due to the high salt content of the groundwater at HAFB. Salinity at SD-27 ranged from 2.00 to 2.98 percent, indicating that the groundwater at the site is brackish. Turbidity in the monitoring wells at SD-27 is highly variable, ranging from 4.3 to 147 NTUs during the two sampling events. The ORP of groundwater at SD-27 ranged from 117 to -248 mV during the two events. However, an overall negative ORP was observed in monitoring wells MW27-02 through MW27-05 during the two events, indicating that reduced conditions are present in and around the former drainage

pit. Moreover, DO concentrations were 0.00 mg/L at these monitoring wells, providing further evidence that reducing conditions are present in and around the drainage pit. DO at monitoring well MW27-01 ranged from 0.00 to 5.31 mg/L during the two events.

No field observations or conditions that would influence the results of groundwater monitoring were noted.

4.2.3 Groundwater Sampling Results

Groundwater was sampled from four of the five permanent monitoring wells (MW27-01 through MW27-05) at the site in November 2010 and January 2011. All samples were analyzed for TDS, TPH-DRO, TPH-GRO, total and dissolved RCRA 8 metals, SVOCs, and VOCs. Additionally, gross alpha and beta were analyzed in the groundwater samples collected in November 2010. The groundwater sample data sheets for both events have been included in Appendix D.

SD-27 groundwater analytical positive results from the November 2010 and January 2011 sampling events are summarized in Table 4-7, while complete results can be found in Table 4-8. NMWQCC groundwater standards and EPA MCLs are also included in these tables for comparison purposes. The location of sample exceedances and the concentration observed are shown on Figure 4-6. A summary of the November 2010 and January 2011 results is presented in the following paragraphs.

Total Dissolved Solids

TDS groundwater concentrations at SD-27 were detected at greater than 10,000 mg/L in all five wells and ranged from 13,300 mg/L (MW27-02) to 29,600 mg/L (MW27-04) in November 2010 and 11,100 mg/L (MW27-02) to 28,300 mg/L (MW27-04) in January 2011. A TDS concentration above 10,000 mg/L is the point where groundwater is no longer considered a potential domestic or agricultural water supply (NMAC, 20.6.2.3101). The TDS concentrations at SD-27 are consistent with those observed at other sites at HAFB.

Total Petroleum Hydrocarbons

TPH-DRO and TPH-GRO were detected in samples collected from monitoring wells MW27-02 through MW27-05 during both sampling events. A low concentration detection of TPH-DRO was observed in a sample collected from monitoring well MW27-01 during the November 2010 sampling event. Neither

the NMWQCC nor the EPA have established screening values for TPH in groundwater; therefore, exceedances of a screening value cannot reported. However, elevated concentrations of TPH-DRO and TPH-GRO were observed in monitoring wells MW27-02 and MW27-05. Concentrations of TPH-DRO ranged from 1,320 µg/L (MW27-05) to 1,380 µg/L (MW27-02) during the November 2010 sampling event and from 609 µg/L (MW27-02) to 1,160 µg/L (MW27-05) during the January 2011 event. Concentrations of TPH-GRO ranged from 3,550 µg/L (MW27-02) to 6,100 µg/L (MW27-05) during the November 2010 sampling event and from 1,250 µg/L (MW27-02) to 6,100 µg/L (MW27-05) during the January 2011 event.

Dissolved Metals

Six of the eight RCRA 8 metals were detected in various groundwater samples collected at SD-27, including arsenic, barium, chromium, lead, mercury, and selenium. Arsenic was the only metal that exceeded established screening values. Dissolved arsenic exceeded the NMWQCC groundwater standard (0.448 µg/L) as follows:

- In samples collected in November 2010, dissolved arsenic exceeded the NMWQCC groundwater standard in monitoring wells MW27-02 (7.7 µg/L), MW27-03 (2.5 µg/L), MW27-04 (6.9 µg/L), and MW27-05 (6.4 µg/L).
- In samples collected in January 2011, dissolved arsenic exceeded the NMWQCC groundwater standard in monitoring well MW27-02 with a concentration of 5.4 µg/L.

Total Metals

Six of the eight RCRA 8 metals were detected in various groundwater samples collected at SD-27, including arsenic, barium, chromium, lead, mercury, and selenium. Arsenic was the only metal that exceeded established screening values. Dissolved arsenic exceeded the NMWQCC groundwater standard (0.448 µg/L) and/or the EPA MCL (10 µg/L) as follows:

- In samples collected in November 2010, total arsenic exceeded both the NMWQCC groundwater standard and EPA MCL in monitoring well MW27-01 with a concentration of 16.8 µg/L.

- In samples collecting in January 2011, total arsenic exceeded the NMWQCC groundwater standard in monitoring wells MW27-01 (6.5 µg/L), MW27-02 (2.5 µg/L), MW27-03 (3.3 µg/L), MW27-04 (7.8 µg/L), and MW27-05 (9.3 µg/L).

Radiochemistry

Gross alpha and beta were analyzed in groundwater samples collected during the November 2010 sampling event. However, due to high total solids content, these samples were not amenable to the procedures used to analyze gross alpha and beta. Therefore, the sample results were rejected.

It should be noted that during soil sampling activities conducted in November 2010, a radiation protection program was implemented to assess the ubiquitous background radiation at SD-27. Gamma radiation evaluations were performed on soil borings extracted during sampling events. Ten soil borings were advanced to a maximum depth of 25 ft bgs, which is below the water table at SD-27. Gamma exposure rates were determined for each 5-ft interval section by passing a Ludlum Model 44-10 sodium iodide (NAL) radiation detector along the soil cylinder. The gamma exposure rate ranged between 3.6 µR/hr and 5.8 µR/hr, with an average of 4.6 µR/hr. Based on a baseline gamma radiation survey conducted at SD-27, the average background gamma exposure rate was determined to be approximately 6 µR/hr. No significant excess in gamma exposure rate was noted for any tested sample. Additionally, soil samples collected from these soil borings were sent to an off-site laboratory for analysis of various radioactive isotopes, including lead-210, radium-226 and -228, isotopic thorium, and isotopic uranium. The concentrations observed in the results of these samples were below all established industrial and construction worker screening values. Based on the results of the radiation protection program and sample analyses, SD-27 does not appear to be a source of radiation contamination. The Radiation Protection Program and Baseline Gamma Survey Summary is included in Appendix E.

Semivolatile Organic Compounds

Eight SVOCs were detected in various groundwater samples collected at SD-27, including 1-methylnapthalene; 2,4-dimethylphenol; 2-methylnapthalene; 4-methylphenol; di-n-butyl phthalate; m,p-cresol; naphthalene; and phenol. Naphthalene was the only SVOC that exceeded established screening values. Naphthalene exceeded the NMWQCC groundwater standard (1.43 µg/L) as follows:

- In samples collected in November 2010, naphthalene exceeded the NMWQCC groundwater standard in monitoring wells MW27-02 (7.7 µg/L) and MW27-05 (60 µg/L).
- In samples collected in January 2011, naphthalene exceeded the NMWQCC groundwater standard in monitoring well MW27-05 with a concentration of 27 µg/L.

Volatile Organic Compounds

Sixteen VOCs were detected in various groundwater samples collected at SD-27, including 1,2,4-trimethylbenzene; 1,3,5-trimethylbenzene; 2-butylbenzene; acetone; benzene; chloroform; cymene; ethylbenzene; isopropylbenzene; m,p-xylene; naphthalene; n-propylbenzene; o-xylene; sec-butylbenzene; tert-butyl benzene; and toluene. Benzene, chloroform, ethylbenzene, and naphthalene were detected at concentrations that exceeded established screening values, and were observed as follows:

- In samples collected in November 2010, the following VOCs exceeded screening values:
  - Benzene exceeded both the NMWQCC groundwater standard (4.13 µg/L) and EPA MCL (5 µg/L) in monitoring well MW27-02 (6.7 µg/L) and MW27-05 (371 µg/L).
  - Chloroform exceeded the NMWQCC groundwater standard (1.93 µg/L) in monitoring well MW27-02 (6.7 µg/L).
  - Ethylbenzene exceeded the NMWQCC groundwater standard (14.8 µg/L) in monitoring wells MW27-02 (168 µg/L) and MW27-05 (504 µg/L).
  - Naphthalene exceeded the NMWQCC groundwater standard (1.43 µg/L) in monitoring wells MW27-02 (6.6 µg/L) and MW27-05 (57.4 µg/L).
- In samples collected in November 2010, the following VOCs exceeded screening values:
  - Benzene exceeded both the NMWQCC groundwater standard (4.13 µg/L) and EPA MCL (5 µg/L) in monitoring well MW27-02 (9.6 µg/L) and MW27-05 (776 µg/L).
  - Chloroform exceeded the NMWQCC groundwater standard (1.93 µg/L) in monitoring well MW27-02 (9.6 µg/L).
  - Ethylbenzene exceeded the NMWQCC groundwater standard (14.8 µg/L) in monitoring wells MW27-02 (130 µg/L) and MW27-05 (41 µg/L).
  - Naphthalene exceeded the NMWQCC groundwater standard (1.43 µg/L) in monitoring wells MW27-02 (2.6 µg/L) and MW27-05 (48.5 µg/L).

Due to the limited number of LTM sampling events conducted at SD-27, trends in the data cannot be determined. To date, VOC exceedances of screening values have been limited to samples collected from monitoring wells MW27-02, located northeast of the former drainage pit, and MW27-05, located southwest of the former drainage pit. The source of VOCs at monitoring well MW27-02 is unknown; however, given its location (at the bend in the drainage pipe), the potential source could be a leak from the drainage pipe that transported wash water from the drainage gallery to the former drainage pit. Due to the direction of groundwater being south to southwest toward MW39-05 and the presence of VOCs at monitoring well MW39-05, it appears that organics have migrated downgradient of the former drainage pit.

4.3 SS-39 – MISSILE FUEL SPILL AREA

The following sections present the hydrogeology, water quality, and analytical results from the semi-annual ground sampling events conducted in July 2010 and January 2011.

4.3.1 Hydrogeology

The groundwater level data collected during the July 2010 and January 2011 sampling events and associated calculated groundwater elevations are summarized in Table 4-9. Water level and total well depth measurements were recorded on the individual sample data sheets included in Appendix D. The results of the static water level measurements were used to prepare the July 2010 and January 2011 groundwater potentiometric surface maps (Figures 4-7 and 4-8, respectively). As shown on Figures 4-7 and 4-8, groundwater flow at SS-39 is primarily to the south-southwest, consistent with previous events. Depth to groundwater at SS-39 ranged from approximately 1 to approximately 22 ft bgs during the two sampling events.

4.3.2 Water Quality

Groundwater parameter measurements obtained during the purging process were recorded on groundwater field sampling data sheets, which have been included in Appendix D. Table 4-10 summarizes the groundwater quality parameters recorded for this and previous semi-annual events, which are shown to be consistent throughout the period.

During the July 2010, and January 2011, sampling events, groundwater pH ranged from slightly acidic to slightly alkaline (6.17 to 8.03). Specific conductance ranged from 17.8 to greater than 99.9 S/m during the two sampling events, likely due to the high salt content of the groundwater at HAFB. Salinity at SS-39 ranged from 1.1 to greater than 4 percent, indicating that the groundwater at the site is brackish to

saline. Turbidity in the wells at SS-39 is highly variable, ranging from 0.0 to 454 NTUs during the two sampling events. The ORP of groundwater at SS-39 ranged from 54 to 212 mV during the two events, indicating that oxidized conditions are present. Do concentrations at SS-39 were highly variable during the two sampling events ranging from 0.0 to 8.11 mg/L.

No field observations or conditions that would influence the results of groundwater monitoring were noted.

4.3.3 Groundwater Sampling Results

Groundwater samples were collected from monitoring wells MW39-02, -03 -05, -06, -06D, and -07 through -11 at the site in July 2010; and from monitoring wells MW39-02, -05, -06, -06D, and -07 through -16 in January 2011. All samples were analyzed for TDS, total and dissolved RCRA 8 metals, perchlorate, and VOCs. Additionally, samples collected from monitoring wells MW39-13 through -16 were analyzed for TPH-DRO and TPH-GRO during the January 2011 sampling event. MW39-03 was not sampled during the January sampling event due to previous observations of vegetation within the well. MW39-04 was not sampled because it was dry during water level measurements. The groundwater sample data sheets for both events have been included in Appendix D.

SS-39 groundwater analytical results from the July 2010 and January 2011 events are summarized in Table 4-11. Historical groundwater analytical data from the previous eight semi-annual events conducted in July 2006; January and July 2007; January and July 2008; January, July, and October 2009; and January 2010 are presented in Table 4-12. NMWQCC groundwater standards and EPA MCLs are also included in these tables for comparison purposes. The location of sample exceedances and the concentration observed are shown on Figure 4-9. A summary of the results per analyte is present in the following paragraphs.

<u>Total Dissolved Solids</u>

TDS concentrations at SS-39 were detected at greater than 10,000 mg/L in all of the groundwater samples, ranging from 11,900 mg/L (MW39-03) to 116,000 mg/L (MW39-11) in July 2010 and from 12,500 mg/L (MW39-02) to 133,000 mg/L (MW39-12) in January 2011. A TDS concentration above 10,000 mg/L is the point where groundwater is no longer considered a potential domestic or agricultural water supply (NMAC, 20.6.2.3101). The TDS results for both sampling events are consistent with historic results.

Total Petroleum Hydrocarbons

TPH-GRO was analyzed in samples collected from monitoring wells MW39-13 through MW39-16 during the January 2011 sampling event. TPH-GRO was detected in monitoring well MW39-13 at a concentration of 86.4 µg/L. Neither the NMWQCC nor the EPA have established screening values for TPH in groundwater; therefore, exceedances of a screening value cannot reported.

Dissolved Metals

All eight RCRA metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver) were detected in various samples collected at SS-39 during the two sampling events. Arsenic, cadmium, lead, and selenium were detected at concentrations above established screening values. Screening value exceedances were observed as follows:

- In samples collected in July 2010, the following dissolved metals exceeded screening values:
  - Arsenic exceeded both the NMWQCC groundwater standard (0.448 µg/L) and EPA MCL (10 µg/L) in monitoring well MW39-03 with a concentration of 10.1 µg/L.
  - Selenium exceeded the EPA MCL (50 µg/L) in monitoring wells MW39-06D (116 µg/L), MW39-08 (96.1 µg/L), MW39-09 (91.4 µg/L), MW39-10 (50.7 µg/L), MW39-11 (128 µg/L), and MW39-12 (98.1 µg/L).
- In samples collected in January 2011, the following dissolved metals exceeded screening values:
  - Arsenic exceeded the NMWQCC groundwater standard (0.448 µg/L) in monitoring wells MW39-02 (5.1 µg/L), MW39-06 (5.5 µg/L), MW39-13 (7.8 µg/L), MW39-14 (3.6 µg/L), MW39-15 (4.2 µg/L), and MW39-16 (6 µg/L); and exceeded both the NMWQCC groundwater standard (0.448 µg/L) and EPA MCL (10 µg/L) in monitoring well MW39-06D (21.3 µg/L).
  - Cadmium exceeded the EPA MCL (5 µg/L) in monitoring well MW39-11 with a concentration of 7.3 µg/L.
  - Lead exceeded the EPA MCL (15 µg/L) in monitoring well MW39-12 with a concentration of 26.4 µg/L.
  - Selenium exceeded the EPA MCL (50 µg/L) in monitoring wells MW39-05 (55.5 µg/L), MW39-11 (85.1 µg/L), and MW39-12 (97.6 µg/L).

Total Metals

All eight RCRA metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver) were detected in various samples collected at SS-39 during the two sampling events. Arsenic, lead, and selenium were detected at concentrations above established screening values. Screening value exceedances were observed as follows:

- In samples collected in July 2010, the following total metals exceeded screening values:
  - Arsenic exceeded the NMWQCC groundwater standard (0.448 µg/L) in monitoring well MW39-03 (7.4 µg/L) and exceeded both the NMWQCC groundwater standard (0.448 µg/L) and EPA MCL (10 µg/L) in monitoring well MW39-06 (11.4 µg/L).
  - Selenium exceeded the EPA MCL (50 µg/L) in monitoring wells MW39-05 (78.7 µg/L), MW39-06D (97.8 µg/L), and MW39-12 (62.9 µg/L).
- In samples collected in January 2011, the following total metals exceeded screening values:
  - Arsenic exceeded the NMWQCC groundwater standard (0.448 µg/L) in monitoring wells MW39-02 (4.7 µg/L), MW39-06 (3.4 µg/L), MW39-13 (6 µg/L), MW39-14 (3.6 µg/L), MW39-15 (5.3 µg/L), MW39-16 (6.4 µg/L); and exceeded both the NMWQCC groundwater standard (0.448 µg/L) and EPA MCL (10 µg/L) in monitoring well MW39-09 (32.5 µg/L).
  - Lead exceeded the EPA MCL (15 µg/L) in monitoring wells MW39-09 (64.4 µg/L) and MW39-10 (25.4 µg/L).
  - Selenium exceeded the EPA MCL (50 µg/L) in monitoring wells MW39-05 (54.6 µg/L), MW39-11 (126 µg/L), and MW39-12 (62.9 µg/L).

Perchlorate

Perchlorate was detected above the NMWQCC groundwater standard (26 µg/L) in samples collected during both sampling events. The exceedances occurred in 9 of the 14 monitoring wells that were sampled as indicated below.

- MW39-03 in July 2010 (31 µg/L)
- MW39-06D in July 2010 (28 µg/L) and in January 2011 (30 µg/L),
- MW39-07 in July 2010 (59 µg/L) and in January 2011 (63 µg/L),

- MW39-08 in July 2010 (61 µg/L) and in January 2011 (63 µg/L),
- MW39-09 in July 2010 (110 µg/L) and in January 2011 (140 µg/L)
- MW39-10 in July 2010 (110 µg/L) and in January 2011 (100 µg/L),
- MW39-11 in July 2010 (78 µg/L) and in January 2011 (79 µg/L),
- MW39-12 in July 2010 (66 µg/L) and in January 2011 (61 µg/L), and
- MW39-13 in January 2011 (28 µg/L).

Although perchlorate concentrations are above the NMWQCC groundwater standard, the concentrations within the monitoring wells on the side slope of SS-39 (MW39-05, -06, -06D, and -07) show a stable trend and a steadily decreasing trend in monitoring well MW39-07. A chart illustrating perchlorate trends in the monitoring wells on the side slope at SS-39 can be found on Figure 4-10. However, perchlorate concentrations within the Lost River Basin are highly variable. A perchlorate concentration gradient map depicting the January 2011 data is shown on Figure 4-11. As shown on this figure, perchlorate concentrations are highest within the Lost River Drainage Basin at monitoring wells MW39-09 and MW39-10.

Volatile Organic Compounds

Fourteen VOCs were detected in various groundwater samples collected at SS-39, including 1,1,2-trichloroethane; 1,1-DCE; 2-butanone; 2-hexanone; 4-methyl-2-pentanone; acetone; benzene; carbon tetrachloride; chloroform; chloromethane; cis-1,2-DCE; cymene; tetrachloroethene; and TCE. Of the VOCs detected, 1,1-DCE, carbon tetrachloride, chloroform, tetrachloroethene, and TCE were detected at concentrations above NMWQCC groundwater standards or EPA MCLs during the two sampling events. Screening value exceedances were observed as follows:

- In samples collected in July 2010, the following VOCs exceeded screening values:
  - Carbon tetrachloride exceeded the NMWQCC groundwater standard (1.99 µg/L) in monitoring well MW39-02 with a concentration of 2.9 µg/L.
  - Chloroform exceeded the NMWQCC groundwater standard (1.93 µg/L) in monitoring well MW39-06 with a concentration of 2.1 µg/L.
  - TCE exceeded the EPA MCL (5 µg/L) in monitoring wells MW39-02 (15.3 µg/L), MW39-05 (15.6 µg/L), MW39-11 (11.6 µg/L); and exceeded both the NMWQCC groundwater standard and

EPA MCL in monitoring wells MW39-06 (98.6 µg/L), MW39-06D (330 µg/L), and MW39-08 (18.8 µg/L).

- In samples collected in July 2010, the following VOCs exceeded screening values:
  - 1,1-DCE exceeded the EPA MCL (7 µg/L) in monitoring well MW39-13 with a concentration of 8 µg/L.
  - Carbon tetrachloride exceeded the NMWQCC groundwater standard (1.99 µg/L) in monitoring well MW39-14 with a concentration of 3.3 µg/L.
  - Chloroform exceeded the NMWQCC groundwater standard (1.93 µg/L) in monitoring well MW39-13 with a concentration of 3.1 µg/L.
  - Tetrachloroethene exceeded the NMWQCC groundwater standard (1.08 µg/L) in monitoring well MW39-13 with a concentration of 1.6 µg/L.
  - TCE exceeded the EPA MCL (5 µg/L) in monitoring wells MW39-02 (12.4 µg/L), MW39-08 (14.2 µg/L), MW39-14 (10.7 µg/L), MW39-15 (8.3 µg/L); and exceeded both the NMWQCC groundwater standard (16.5 µg/L) and EPA MCL in monitoring wells MW39-05 (18.4 µg/L), MW39-06 (119 µg/L), MW39-06D (353 µg/L), MW39-11 (42.1 µg/L), MW39-13 (132 µg/L), and MW39-16 (30.7 µg/L).

Detections of 1,1-DCE have historically been sporadic and limited to an area encompassing monitoring wells MW39-06, -06D, -11, -13, and -16. 1,1-DCE has only exceeded in one sample collected at monitoring well MW39-13 during the January 2011 sampling event. This exceedance is a nominal exceedance (8 µg/L versus the EPA MCL of 7 µg/L). SS-39 does not appear to be a significant or a continuing source of 1,1-DCE.

Carbon Tetrachloride detections appear to be limited to the area encompassing monitoring wells MW39-02, -03, -06, -13, -14, -15, and -16. Exceedances of the NMWQCC groundwater standard; however, have historically been limited to a smaller area encompassing monitoring wells MW39-02, -06, and -14 (Figure 4-9). Concentrations of carbon tetrachloride appear to be stable, ranging from 1.5 to 3.13 µg/L at MW39-02 and from 1.51 to 2.4 µg/L at MW39-06, which indicates that SS-39 is not a continuing source of carbon tetrachloride.

Chloroform detections are limited to monitoring wells MW39-02, -06, -13, -14, -15, and -16. Exceedances of the NMWQCC groundwater standards have historically been limited to an area encompassing monitoring

wells MW39-02, -06, and -13 (Figure 4-9). Concentrations of chloroform are stable, ranging from 1.1 to 2 µg/L at MW39-02 and from 2.2 to 2.85 µg/L at MW39-06, which indicates that SS-39 is not a continuing source of chloroform.

Methylene chloride has historically been detected at concentrations exceeding screening values in monitoring wells MW39-06 and MW39-06D. The exceedances are sporadic with no apparent trends. Methylene chloride has only exceeded the EPA MCL during the January 2009 sampling event at MW39-06 and -06D and July 2009 at MW39-06D. Methylene chloride was not detected in any samples collected at SS-39 during the July 2010, and January 2011, sampling events.

Detections of tetrachloroethene have historically been sporadic and limited to an area encompassing monitoring wells MW39-02, -06, and -13. Tetrachloroethene has only exceeded in one sample collected from monitoring well MW39-13 during the January 2011 sampling event. This exceedance is a nominal exceedance (1.6 µg/L versus the NMWQCC groundwater standard of 1.08 µg/L). SS-39 does not appear to be a significant or a continuing source of tetrachloroethene.

TCE concentrations are either stable or decreasing at all monitoring wells. A concentration gradient map is shown on Figure 4-12. As shown on Figure 4-12, the highest concentrations of TCE are found at monitoring wells MW39-06, -06D, and -13, which in January 2010 were detected at 208 µg/L, 328 µg/L, and 132 µg/L, respectively. Concentrations of TCE in the remaining monitoring wells were 42.1 µg/L and below. Because TCE concentrations appear to be stable or decreasing at all monitoring wells, SS-39 does not appear to be a continuing source of TCE.

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5.0 HUMAN HEALTH RISK ASSESSMENT

This section summarizes the results of the HHRA, which was conducted to characterize the risks to humans associated with the potential current or future exposures to chemicals in groundwater at DP-30/SD-33 and SS-39 at HAFB. This assessment evaluates the potential risks to human health if no remedial action is taken and, therefore, represents the "No Action" alternative. The complete HHRA for groundwater at these two sites can be found in Appendix E of the April 2009 – January 2010 Long-Term Monitoring Report for HAFB (Tetra Tech, 2010).

The methods for the HHRA consisted of the following six steps:

- **Step 1** – Data evaluation – The selection of chemicals of potential concern (COPCs) for groundwater at HAFB. The COPCs identified in Step 1 are evaluated quantitatively (when possible) and discussed qualitatively otherwise.
- **Step 2** – Exposure assessment – The identification of potential current and future human receptors that may be exposed to the COPCs, the evaluation of the pathways by which the receptors may be exposed, and the estimation of chemical intake resulting from exposure.
- **Step 3** – Toxicity assessment – An assessment of toxicity of each COPC including the presentation of the toxicity criteria (i.e., cancer slope factors, reference doses) typically used by EPA to estimate risk.
- **Step 4** – Risk characterization – The estimation of cancer and non-cancer risks using the intakes and toxicity criteria presented in the exposure assessment and toxicity assessment, respectively.
- **Step 5** – Uncertainty analysis – The identification of major uncertainties affecting the interpretation of the HHRA results.
- **Step 6** – Summary and conclusions – The summary and conclusions of the HHRA.

The objectives of the HHRA were to (1) document and evaluate risks to human health; (2) determine the need, if any, for remedial action; and (3) identify chemicals of concern (COCs).

5.1 CHEMICALS OF POTENTIAL CONCERN

COPCs in groundwater are summarized for each site in Tables 2.4 through 2.6 of the HHRA. COPCs include inorganics, perchlorate, and VOCs.

5.1.1 DP-30/SD-33 – Grease Trap Disposal Pits and Cooking Grease Disposal Trench

COPCs for groundwater at DP-30/SD-33 are listed in Table 2.4 of the complete HHRA, and include antimony, arsenic, manganese, thallium, and TCE. All groundwater samples at DP-30/SD-33 were collected at depths greater than 10 ft bgs.

5.1.2 SS-39 – Missile Fuel Spill Area

COPCs for groundwater at SS-39 are listed in Tables 2.5 and 2.6 of the complete HHRA, and include arsenic, cadmium, selenium, perchlorate, carbon tetrachloride, chloroform, naphthalene, and TCE. These chemicals are COPCs for groundwater at all depths at SS-39.

5.2 RECEPTORS

Potential current and future receptors considered include:

- Industrial Workers,
- Construction Workers,
- Agricultural Workers,
- Residents,
- Trespassers, and
- Visitors.

<u>Industrial Workers</u>

As there are no potable wells utilized on-site, industrial workers would not be exposed to groundwater through ingestion or dermal contact. Industrial workers may be exposed to inhalation of vapors intruding into a building. There are currently no buildings on the sites in question, and none are expected in the future but was evaluated to be conservative.

The industrial worker was assumed to be on-site 250 days/year for 25 years.

Construction Worker

At DP-30/SD-33, groundwater was found at depths greater than 10 ft bgs; therefore, this pathway is not complete for that site. Groundwater was found between 0 and 10 ft bgs at SS-39, thus the construction worker pathway was evaluated for site SS-39.

The construction worker was assumed to be onsite 250 days/year for 1 year. The trench was assumed to contain groundwater every other day or 125 days/year. The incidental ingestion rate of groundwater in a trench was assumed to be 0.1 liters/day (EPA, 2002) and was assumed to be exposed 1 hour/day to groundwater in a trench. The construction worker was expected to be dermally exposed to groundwater by the hands, forearms, lower legs, and feet or 5672 cm^2/day [Exhibit C-1 of RAGS E, Dermal Guidance (EPA, 2004)]. The inhalation rate of the construction worker was assumed to be 0.83 m^3/hour.

Agricultural Workers and Resident

The areas of contamination do not include agricultural use areas, nor is agricultural use planned in the future, so exposure to agricultural workers would not be a complete pathway. This pathway was not evaluated further.

Resident

Currently, there are no residential structures at DP-30/SD-33 or SS-39. Future residential use is not expected at either site. Additionally, as there are no potable wells utilized onsite, hypothetical residents would not be exposed to groundwater through ingestion or dermal contact. This pathway was not evaluated further.

Trespassers/Visitors

The area north of DP-30/SD-33 is restricted. Several highly restricted buildings are located near the two sites; consequently, unauthorized access to the DP-30/SD-33 area is prohibited and trespassers and visitors are unlikely. Because of its central location on HAFB, trespassers are considered unlikely at SS-39 because of its distance from facility boundaries. SS-39 is not an area frequented by visitors. This pathway was not evaluated further.

5.3 RISK CHARACTERIZATION

Information from the exposure and toxicity assessments were evaluated to estimate cancer risks and hazard indices (HIs) in the risk characterization. Total noncarcinogenic and carcinogenic risk estimates for the exposure routes, as well as the cumulative risks for each receptor are presented in Table 3.2 of the complete HHRA. Total noncarcinogenic and carcinogenic risk estimates for the vapor intrusion exposure route are presented in Tables 5.1 and 5.2 of the complete HHRA.

5.3.1 Carcinogenic Risks for HAFB Groundwater

The incremental lifetime cancer risk (ILCR) estimates developed for a construction worker exposed to unfiltered inorganics and organics in groundwater were as follows:

Receptor	Media and Cancer Risk Estimate		Table
SS-39 0-10 ft bgs	Groundwater	7.4E-07	3.2

ILCR estimates calculated the construction worker at SS-39 do not exceed 1E-06, the conservative end of the EPA target risk range.

ILCR estimates calculated for a commercial/industrial worker exposed to VOC intrusion into buildings were as follows:

Receptor	Media and Cancer Risk Estimate		Table
DP-30/ SD-33	Groundwater	5.6E-06	5.1
SS-39	Groundwater	5.1E-05	5.2

The ILCR estimates for the commercial/industrial worker at DP-30/ SD-33 and SS-39 are within the EPA target risk range of 1E-04 to 1E-06 but exceeds the conservative end of the range (1E-06), due to inhalation of TCE. The ICLR estimate for inhalation of other VOCs at SS-39 is 1.7E-07.

5.4 NONCARCINOGENIC RISKS FOR HAFB GROUNDWATER

HIs developed for a construction worker exposed to unfiltered inorganics and organics in groundwater were as follows:

Receptor	Media and Hazard Index		Table in Appendix
SS-39 0-10 ft bgs	Groundwater	0.28	3.2

HIs developed for a commercial/industrial worker exposed to VOC intrusion into buildings were as follows:

Receptor	Media and Hazard Index		Table in Appendix
DP-30/ SD-33	Groundwater	0.0036	5.1
SS-39	Groundwater	0.032	5.2

HIs calculated for both a construction worker in an excavation and for vapor intrusion are less than one, indicating that adverse noncarcinogenic health effects are not anticipated under the conditions established in the exposure assessment.

5.5 SUMMARY

The COPCs for DP-30/SD-33 include antimony, arsenic, manganese, thallium, and TCE. The COPCs for SS-39 include arsenic, cadmium, selenium, perchlorate, carbon tetrachloride, chloroform, naphthalene, and TCE.

The potential receptors for these COPCs include industrial workers exposed to inhalation of vapors intruding into a building at both DP-30/SD-33 and SS-39, and construction workers that may come into contact with shallow groundwater while excavating or performing work in a trench (0 to 10 ft bgs) at SS-39.

ILCR estimates calculated the construction worker at SS-39 do not exceed 1E-06, the conservative end of the EPA target risk range.

The ILCR estimates for carcinogenic risks for the commercial/industrial worker at DP-30/ SD-33 and SS-39 are within the EPA target risk range of 1E-04 to 1E-06 but exceeds the conservative end of the range (1E-06), due to inhalation of TCE. The ICLR estimate for inhalation of other VOCs at SS-39 is 1.7E-07.

HIs calculated for vapor intrusion at both sites are less than one, indicating that adverse noncarcinogenic health effects are not anticipated under the conditions established in the exposure assessment.

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6.0 SUMMARY AND RECOMMENDATIONS

This July 2010 - January 2011 LTM report concludes the ninth and tenth sampling events for SD-30/SD-33 and SS-39 and the first and second sampling events for SD-27. Groundwater samples were submitted for site-specific chemical analysis and analytical results were evaluated and compared with historical results. Results were generally consistent with previous sampling events. Site-specific summaries and recommendations are included in the sections below.

6.1 DP-30/SD-33 (SWMU 113B)

The following sections present a summary and the recommendation for site DP-30/SD-33.

6.1.1 Summary

According to sampling results, TCE is the only site-related groundwater contaminant. When detected above screening criteria, metals were generally detected at similar concentrations in dissolved and total metals sample results. In some samples, total metals exceeded screening values while dissolved metals were qualified "U" and classified as non-detect. However, due to matrix interference caused by the high TDS within the samples, the reporting limits for those dissolved metals were elevated to a similar concentration as the detected values of the total metals analysis. All of the metal exceedances occurred in monitoring wells with high TDS concentrations and all of the exceedances are within the same order of magnitude. Furthermore, TDS are not consistent from round to round and the highest TDS concentrations are not associated with the highest TCE concentrations. This suggests that the elevated metals concentrations are unrelated to the site but are likely related to high TDS concentrations. The TDS concentrations in all of the monitoring wells were above 10,000 mg/L, which is the point where groundwater is no longer considered a potential domestic or agricultural water supply (NMAC, 20.6.2.3101).

Although TCE was detected above the NMWQCC groundwater standard and/or the EPA MCL, from 2006 to 2009 concentrations decreased in samples collected from the source area wells (MW30&33-05 and MW30&33-05R) and have remained relatively stable since 2009 (Figure 4-4). In samples collected from downgradient wells (MW30&33-02, MW30&33-03, and MW30&33-04), TCE concentrations have remained stable since 2006 (Figure 4-4). The data show that the plume has stabilized, indicating that DP-30/SD-33 is not acting as a continuing source of groundwater contamination.

Historically, TCE has been detected in the waste material present in three former disposal trenches located in the south-central portion of DP-30 and immediately north of MW30&33-05 and MW30&33-05R.

The continual decrease of TCE concentrations in the groundwater at MW30&33-05 and MW30&33-05R demonstrates that the residual material is not acting as a continuous source of groundwater contamination. Additionally, the daughter product of TCE breakdown (cis-1,2-DCE) is present in samples collected from monitoring wells MW30&33-05 and MW30&33-05R indicating the potential of biodegradation of TCE. Groundwater water level measurements collected during LTM events indicate that groundwater flow is primarily in a southeastern direction along a very low hydraulic gradient. Both the southerly flow direction and low hydraulic gradient explains the minimal migration of TCE beyond the extent of SD-33.

An HHRA conducted by Tetra Tech characterized the risks to humans associated with the potential current or future exposures to chemicals in groundwater at DP-30/SD-33. The potential receptors at DP-30/SD-33 include industrial workers that may be exposed to inhalation of vapors intruding into a building. There are currently no buildings on the sites in question, and none are expected in the future but was evaluated in the HHRA to be conservative. Construction workers may come into contact with shallow groundwater while excavating or performing work in a trench 0 to 10 ft bgs. However, Site DP-30/SD-33 did not have groundwater from 0 to 10 ft bgs; therefore, this pathway is not complete for this site. The ILCR estimates for carcinogenic risks for the commercial/industrial worker at DP-30/ SD-33 are within the EPA target risk range of 1E-04 to 1E-06, but exceeds the conservative end of the range, due to inhalation of TCE. HIs calculated for vapor intrusion at DP-30/SD/33 are less than 1, indicating that adverse noncarcinogenic health effects are not anticipated under the conditions established in the exposure assessment.

6.1.2 Recommendation

Based upon the above information, it is recommended that LTM be discontinued and conditional site closure be granted at DP-30/SD-33 with Land-Use Restrictions (LUCs). LUCs at the site would restrict the construction of buildings due to the risk of vapor intrusion. Although TCE was detected above the NMWQCC groundwater standard and/or the EPA MCL, it is recommended that LTM cease and a conditional site closure be granted for DP-30/SD-33 for the following reasons:

- TCE concentrations in monitoring wells MW30&33-05 and -05R (source wells) decreased from 2006 through 2009 and have remained stable since 2009.
- TCE has remained relatively stable in downgradient wells (MW39-02, -03, and -04) since 2006.

- Cis-1,2-DCE, the breakdown product of TCE, has been detected in samples collected from monitoring wells MW39-05 and -05R since 2006, indicating the potential for biodegradation of TCE at DP-30/SD-33.
- The data indicates that TCE concentrations are stable and decreasing, indicating that DP-30/SD-33 is not acting as a continued source of TCE contamination.
- An HHRA conducted for groundwater at DP-30/SD-33 indicated that the only significant risk to human health is vapor intrusion of TCE into buildings, which can be avoided with LUCs restricting development at this site.

6.2 SD-27 (SWMU 141)

The following sections present a summary and the recommendation for site SD-27.

6.2.1 Summary

Metals analysis at SD-27 is inconclusive. Due to matrix interference caused by high TDS within the samples, the reporting limits were elevated to concentrations above screening values. This often resulted in a concentration of total metals exceeding screening criteria while the dissolved metals concentration was qualified "U" and classified as non-detect. It should be noted that total arsenic exceeded screening criteria in the upgradient well (MW27-01). Elevated metals concentrations are most likely unrelated to the site, but are likely related to high TDS concentrations. The TDS concentrations in all of the monitoring wells were above 10,000 mg/L, which is the point where groundwater is no longer considered a potential domestic or agricultural water supply (NMAC, 20.6.2.3101).

To date, exceedances of benzene, chloroform, ethylbenzene, and naphthalene have been limited to samples collected from monitoring wells MW27-02, located northeast of the former drainage pit, and MW27-05, located southwest of the former drainage pit. The source of VOCs at monitoring well MW27-02 is unknown; however, given its location (at the bend in the drainage pipe), the source is most likely a leak from the drainage pipe that transported wash water from the drainage gallery to the former drainage pit. Due to the presence of VOCs at monitoring well MW39-05 and the direction of groundwater being south to southwest toward MW39-05, it appears that organics have migrated downgradient of the former drainage pit.

6.2.2 Recommendations

Based on the above information, it is recommended that LTM continue at SD-27 to monitor the movement of contaminants (hydrocarbons, SVOCs, and VOCs) at the site. Additionally, it is recommended that the impacted soil within and adjacent to the former drainage pit be excavated at SD-27. Once impacted soil is removed from SD-27, four rounds of quarterly sampling should be conducted to ensure that SD-27 is not acting as a continuing source of contamination.

6.3 SS-39 (SWMUS 165, 167, 177, 179, 181)

The following sections present a summary and the recommendation for site SS-39.

6.3.1 Summary

When detected above screening criteria, metals were generally detected at similar concentrations in dissolved and total metals sample results. All of the metal exceedances occurred in monitoring wells with high TDS concentrations and all of the exceedances are within the same order of magnitude. Furthermore, TDS are not consistent from round to round and the highest TDS concentrations are not associated with the highest TCE concentrations. This suggests that the elevated metals concentrations are unrelated to the site but are likely related to high TDS concentrations. The TDS concentrations in all of the monitoring wells were above 10,000 mg/L, which is the point where groundwater is no longer considered a potential domestic or agricultural water supply (NMAC, 20.6.2.3101).

According to sampling results, 1,1-DCE, carbon tetrachloride, chloroform, tetrachloroethene, and TCE are the site-related groundwater contaminants. Carbon tetrachloride and chloroform concentrations appear to be stable, indicating SS-39 is not acting as a continued source of groundwater contamination for these chemicals.

Detections of 1,1-DCE have been sporadic and a concentration exceeding screening criteria has only been observed in one sample collected at monitoring well MW39-13 during the January 2011 sampling event. This exceedance is a nominal exceedance (8 µg/L versus the EPA MCL of 7 µg/L). SS-39 does not appear to be a significant or a continuing source of 1,1-DCE.

Detections of tetrachloroethene have been sporadic and a concentration exceeding screening criteria has only been observed in one sample collected from monitoring well MW39-13 during the January 2011 sampling event. This exceedance is a nominal exceedance (1.6 µg/L versus the NMWQCC groundwater standard of 1.08 µg/L). SS-39 does not appear to be a significant or a continuing source of tetrachloroethene.

As previously reported in the SS-39 RFI, and illustrated on Figure 4-11, perchlorate concentrations increase closer to the Lost River drainage basin; indicating the source of the perchlorate in this area appears to be the Lost River drainage basin and not SS-39 (HGL, 2007).

TCE concentrations appear to be stable or decreasing in all monitoring wells. As shown on Figure 4-12, the highest concentrations of TCE are located downgradient of the two drainage troughs and sumps associated with Building 1176 in an area encompassing monitoring wells MW39-06, -06D, and -13. The source areas of TCE, which include the two drainage troughs and sumps that drained wastewater from Building 1176, show stable concentrations that are an order of magnitude lower than concentrations exhibited at monitoring wells downgradient. This indicates that the higher concentrations of TCE have moved downgradient and that the sumps associated with Building 1176 are not a continued source of groundwater contamination.

An HHRA conducted for groundwater at SS-39 indicated that the only significant risk to human health is vapor intrusion of TCE into buildings, which can be avoided with LUCs requiring proper ventilation at all current and future buildings at the site.

6.3.2 Recommendations

Previous LTM Reports for SS-39 and the Supplemental RFI conducted at SS-39 by HGL recommended the removal of TCE contaminated soil adjacent to the sumps associated with Building 1176. Additional soil sampling activities were conducted in November 2010, adjacent to these sumps and within the drainage swale east of Building 1176. Thirty-six soil samples were collected adjacent to the sumps from 12 soil boring locations and 12 soil samples were collected within the drainage swale from 4 soil boring locations. Samples were sent to an off-site laboratory and were selectively analyzed for metals, VOCs, TPH-DRO, and TPH-GRO. The analytical results from these soil samples indicated that none of the detected analytes were present at concentrations exceeding NMED residential or industrial screening values.

Based upon the above information, it is recommended that spot excavation of contaminated soils at SS-39 be conducted at locations were analytes exceeded NMED soil screening values. Following this corrective measure, it is recommended that several rounds of semi-annual groundwater monitoring be conducted to ensure that TCE concentrations are stable. Once TCE concentrations are found to be stable or decreasing, conditional site closure with LUCs can be achieved. Based on the HHRA conducted for HAFB groundwater, LUCs at site SS-39 would restrict the construction of buildings unless proper ventilation is installed to reduce/eliminate vapor intrusion of TCE into current and future buildings.

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TABLES

Table 3-1
Monitoring Well Construction Details for DP-30/SD-33, SD-27, and SS-39
Holloman AFB, New Mexico

Well ID	Installation Date	Survey Data					Boring Information		Well Construction Information						
		Northing[1]	Easting[1]	Elevation (ft msl)			Borehole Depth (ft bgs)	Borehole diameter (in)	Total Well Depth (ft bgs)	PVC Diameter (in)	Length of Riser Pipe (ft)[3]	Screen Slot Size (in)	Length of Screen (ft)	Screened Interval (ft bgs)	
				Top of Casing[2]	Top of Monument[2]	Ground[2]								Top	Bottom
DP-30/SD-33 - Grease Trap Disposal Pits and Cooking Grease Disposal Trench															
MW30&33-01	8/28/1991	676382.234	1692954.76	4104.460	4106.52	4105.38	31.0	7.50	30.80	2	20.49	0.01	9.5	19.35	28.85
MW30&33-02	8/27/1991	675814.196	1693088.88	4103.711	4106.09	4104.37	32.5	7.50	31.45	2	23.72	0.01	9.5	22.00	31.75
MW30&33-03	8/28/1991	675864.760	1693203.05	4102.685	4105.15	4103.39	25.0	7.50	26.30	2	25.76	0.01	9.5	24.00	23.75
MW30&33-04	8/28/1991	675962.302	1693280.77	4101.985	4104.41	4102.92	30.5	7.50	30.95	2	30.50	0.01	9.5	29.00	28.75
MW30&33-05[4]	6/12/2006	676092.849	1693119.47	4106.360	4106.43	4103.14	30.8	6.25	32.45	2	22.45	0.01	9.5	19.17	28.92
MW30&33-05R	8/22/2009	###########	1309375.275	4103.057	Not specified	Not specified	30.0	6.25	30.00	2	Not specified	0.01	10.0	17.75	27.75
SD-27 - Pad 9 Washrack Area															
MW27-01	11/10/2010	673935.93	1684057.36	4063.93	NA	4063.84	18.03	3.25	17.99	2	8.08	0.01	10.0	7.99	17.69
MW27-02	11/6/2010	673560.57	1683937.63	4063.20	NA	4063.33	17.33	3.25	17.29	2	7.16	0.01	10.0	7.29	16.99
MW27-03	11/5/2010	673541.52	1683974.40	4063.08	NA	4063.24	15.28	3.25	15.24	2	7.58	0.01	7.5	7.74	14.94
MW27-04	11/6/2010	673586.15	1684019.49	4063.43	NA	4063.52	17.44	3.25	17.43	2	7.34	0.01	10.0	7.43	17.13
MW27-05	11/9/2010	673654.29	1684003.46	4063.58	NA	4063.59	19.95	3.25	19.91	2	9.90	0.01	10.0	9.91	19.61
SS-39 - Missile Fuel Spill Area[6]															
MW39-01	9/25/1991	685830.382	1671298.19	4059.65	4061.89	4057.56	28.00	7.50	27.50	2	20.25	0.01	9.5	17.75	27.25
MW39-02	9/25/1991	685113.105	1670479.98	4050.78	4052.85	4048.77	25.50	7.50	24.50	2	17.45	0.01	9.5	14.75	24.25
MW39-03	9/25/1991	685124.020	1670833.30	4040.4	4042.36	4037.91	14.00	7.50	14.00	2	6.75	0.01	9.5	4.25	13.75
MW39-04	9/25/1991	685319.268	1671156.83	4053.11	4055.14	4051.27	24.00	7.50	23.10	2	15.55	0.01	9.5	13.35	22.85
MW39-05	6/14/2006	684944.840	1669838.81	4036.43	4038.46	4036.43	15.33	6.25	15.33	2	Not specified	0.01	10.0	5.00	15.00
MW39-06	6/13/2006	684858.132	1670521.45	4038.77	4040.78	4035.28	16.80	6.25	16.30	2	3.33	0.01	10.0	6.00	16.00
MW39-06D	6/13/2006	684846.261	1670531.07	4038.17	4040.14	4034.86	26.80	6.25	26.80	2	3.13	0.01	10.0	16.50	26.50
MW39-07	6/14/2006	684804.006	1671083.81	4038.1	4040.20	4034.82	14.78	6.25	14.78	2	3.07	0.01	10.0	4.70	14.40
MW39-08	Event[5]	684654.799	1670377.33	NA	NA	4032.12	8.50	3.0	8.50	2	5.00	0.01	5.0	3.50	8.50
MW39-09	Event[5]	684612.479	1670592.70	NA	NA	4032.27	10.00	3.0	10.00	2	5.00	0.01	5.0	5.00	10.00
MW39-10	Event[5]	684650.942	1670853.50	NA	NA	4032.39	8.50	3.0	8.50	2	5.00	0.01	5.0	3.50	8.50
MW39-11	Event[5]	684669.596	1670101.08	NA	NA	4032.15	6.00	3.0	6.00	2	5.00	0.01	5.0	1.00	6.00
MW39-12	Event[5]	684691.675	1669910.95	NA	NA	4031.87	9.50	3.0	9.50	2	5.00	0.01	5.0	4.50	9.50
MW39-13	11/7/2010	684977.26	1670660.10	4037.01	NA	4036.03	10.04	3.25	7.21	2	2.89	0.01	5.0	1.91	6.91
MW39-14	11/8/2010	685034.30	1670473.19	4045.85	NA	4044.05	22.20	3.25	22.20	2	13.70	0.01	10.0	11.9	21.9
MW39-15	11/8/2010	685027.62	1670301.20	4045.60	NA	4044.03	22.65	3.25	21.73	2	13.00	0.01	10.0	1.57	21.43
MW39-16	11/7/2010	684891.53	1670302.95	4040.97	NA	4039.36	17.40	3.25	17.15	2	8.46	0.01	10.0	1.61	16.85

Notes:

[1] All locations are in NAD 83 State Plane New Mexico C Grid with the exception of well MW30&33-05R whose location is in US survey feet.

[2] NAVD 88, with the exception of wells at SD-27 and SS-39 which are in EMG96.

[3] Includes stickup

[4] Well has been abandonded due to damage observed during the July 2009 sampling event.

[5] Installed every sampling event - measurements from January 2009

amsl - above mean sea level

bgs - below ground surface

EMG96 - Earth Gravitational Model 1996

ft - feet

ID - identification

in - inches

NA - not applicable

NAD 83 - North American Datum 1983

NAVD 88 - North American Vertical Datum 1988

NP - not provided

PVC - polyvinyl chloride

Table 4-1
Groundwater Level Measurements for DP-30/SD-33
Holloman AFB, New Mexico

Well	Water Level Data									
	Jul-06		Jan-07		Jul-07		Jan-08		Jul-08	
	Depth to Water (ft BTOC)	Groundwater Elevation (ft amsl)	Depth to Water (ft BTOC)	Groundwater Elevation (ft amsl)	Depth to Water (ft BTOC)	Groundwater Elevation (ft amsl)	Depth to Water (ft BTOC)	Groundwater Elevation (ft amsl)	Depth to Water (ft BTOC)	Groundwater Elevation (ft amsl)
MW30&33-01	23.10	4083.42	22.26	4084.26	22.18	4084.34	22.19	4084.33	22.59	4084.45
MW30&33-02	23.10	4082.99	22.31	4083.78	22.07	4084.02	22.18	4083.91	22.52	4083.80
MW30&33-03	22.03	4083.12	22.29	4082.86	21.01	4084.14	20.95	4084.20	21.44	4083.91
MW30&33-04	21.10	4083.31	20.32	4084.09	20.13	4084.28	20.15	4084.26	20.49	4084.01
MW30&33-05[(1)]	22.86	4083.57	22.05	4084.38	21.90	4084.53	21.95	4084.48	22.32	4084.04
MW30&33-05R[(2)]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Notes:

[(1)] MW30&33-05 was damaged sometime between January and July 2009 and was abandoned.

[(2)] Monitoring well was installed in July 2009 to replace MW30&33-05.

amsl - above mean sea level

BTOC - below top of casing

ft - feet

n/a - not applicable

NC - Water levels were not collected due to the well being damaged.

Table 4-1
Groundwater Level Measurements for DP-30/SD-33
Holloman AFB, New Mexico

Well	Water Level Data							
	Jan-09		Jul-09		Oct-09		Jan-10	
	Depth to Water (ft BTOC)	Groundwater Elevation (ft amsl)	Depth to Water (ft BTOC)	Groundwater Elevation (ft amsl)	Depth to Water (ft BTOC)	Groundwater Elevation (ft amsl)	Depth to Water (ft BTOC)	Groundwater Elevation (ft amsl)
MW30&33-01	22.05	4084.99	22.34	4084.70	22.41	4082.05	22.50	4081.96
MW30&33-02	21.98	4084.34	22.2	4084.12	22.32	4081.39	22.41	4081.30
MW30&33-03	21.92	4083.23	21.15	4084.20	21.24	4081.45	21.31	4081.38
MW30&33-04	19.99	4084.51	20.22	4084.28	20.32	4081.67	20.43	4081.56
MW30&33-05[(1)]	21.78	4084.58	NC	NC	n/a	n/a	n/a	n/a
MW30&33-05R[(2)]	n/a	n/a	n/a	n/a	21.25	4081.81	21.34	4081.72

Notes:

[(1)] MW30&33-05 was damaged sometime between January and July 2009 and was abandoned.

[(2)] Monitoring well was installed in July 2009 to replace MW30&33-05.

amsl - above mean sea level

BTOC - below top of casing

ft - feet

n/a - not applicable

NC - Water levels were not collected due to the well being damaged.

Table 4-1
Groundwater Level Measurements for DP-30/SD-33
Holloman AFB, New Mexico

Well	Water Level Data			
	Jul-10		Jan-11	
	Depth to Water (ft BTOC)	Groundwater Elevation (ft amsl)	Depth to Water (ft BTOC)	Groundwater Elevation (ft amsl)
MW30&33-01	22.65	4081.81	22.32	4082.14
MW30&33-02	22.52	4081.191	22.29	4081.421
MW30&33-03	21.46	4081.225	21.22	4081.465
MW30&33-04	20.57	4081.415	20.27	4081.715
MW30&33-05[(1)]	n/a	n/a	n/a	n/a
MW30&33-05R[(2)]	21.47	4081.587	21.18	4081.877

Notes:

[(1)] MW30&33-05 was damaged sometime between January and July 2009 and was abandoned.

[(2)] Monitoring well was installed in July 2009 to replace MW30&33-05.

amsl - above mean sea level

BTOC - below top of casing

ft - feet

n/a - not applicable

NC - Water levels were not collected due to the well being damaged.

Table 4-2
Groundwater Quality Parameters for DP-30/SD-33
Holloman AFB, New Mexico

Well ID	pH											Specific Conductance (S/m)										
	Jul-06	Jan-07	Jul-07	Jan-08	Jul-08	Jan-09	Jul-09	Oct-09	Jan-10	Jul-10	Jan-11	Jul-06	Jan-07	Jul-07	Jan-08	Jul-08	Jan-09	Jul-09	Oct-09	Jan-10	Jul-10	Jan-11
MW30&33-01	7.09	7.31	7.26	7.09	6.91	7.55	7.05	NC	7.29	7.22	7.22	30	24.42	2.76	32.4	37.3	25.3	45.3	NC	40.7	99.9*	39.7
MW30&33-02	7.15	7.28	7.25	7.11	7.31	7.65	7.14	NC	6.98	7.3	7.68	39.28	30.8	3.78	41.46	57.3	34	66.3	NC	54.4	49.1	48.9
MW30&33-03	7.12	7.15	7.74	7.07	7.49	7.56	6.99	NC	6.95	6.26	7.69	22.3	28.76	4.38	44.71	57.2	31.8	18.2	NC	51.4	99.9*	43.8
MW30&33-04	6.96	7.12	7.1	6.94	7.38	7.38	6.85	NC	6.76	6.35	7.37	29.79	24.06	2.32	36.1	50.9	28.8	15.7	NC	43.9	34.9	39.5
MW30&33-05[(2)]	6.92	7.14	7.12	6.9	7.44	7.17	n/a	n/a	n/a	n/a	n/a	27.66	22.43	2.6	30.61	41	33.8	n/a	n/a	n/a	n/a	n/a
MW30&33-05R[(3)]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	6.99	7	7.14	7.22	n/a	n/a	n/a	n/a	n/a	n/a	n/a	52.7	38.4	99.9*	41.2

Notes:
[(1)] - result in percent saturation
[(2)] MW30&33-05 was damaged sometime between January and July 2009 and was abandoned.
[(3)] - Monitoring well was installed in July 2009 to replace MW30&33-05.
ºC - degrees Celsius
ID - identification
mg/L - milligrams per liter
mV - millivolt
n/a - Not applicable.
NC - not collected
NTU - nephelometric turbidity unit
ppt - parts per thousand
S/m - siemens per meter
-- meter malfunctioned
% - percent

Table 4-2
Groundwater Quality Parameters for DP-30/SD-33
Holloman AFB, New Mexico

Well ID	Temperature (ºC)											Turbidity (NTU)										
	Jul-06	**Jan-07**	**Jul-07**	**Jan-08**	**Jul-08**	**Jan-09**	**Jul-09**	**Oct-09**	**Jan-10**	**Jul-10**	**Jan-11**	**Jul-06**	**Jan-07**	**Jul-07**	**Jan-08**	**Jul-08**	**Jan-09**	**Jul-09**	**Oct-09**	**Jan-10**	**Jul-10**	**Jan-11**
MW30&33-01	20.73	18.4	20.3	15.88	19.7	18.1	21.06	NC	17.1	21.47	22.85	31	164	0	0.5	918	--	14.4	NC	0	9.7	7.2
MW30&33-02	20.24	16.42	26.7	14.28	20.51	17	22.52	NC	17.48	20.63	19.95	50	80	1.7	1.49	68.9	--	54.8	NC	-5.2	5.9	0
MW30&33-03	40.26	16.42	22.9	16.02	19.75	15.4	21.65	NC	14.67	20.5	19.42	4.2	13	0	1.35	55.2	15	100	NC	-6.2	34.4	11.3
MW30&33-04	26.96	17.03	25.7	17.14	19.92	17.5	20.63	NC	14.16	19.86	19.23	3.6	43.8	1.2	1	30	--	230	NC	-6.5	48.9	18.2
MW30&33-05[(2)]	30.17	18.02	28.4	16.83	20.1	18	n/a	n/a	n/a	n/a	n/a	6	123	0.15	0.2	25	--	n/a	n/a	n/a	n/a	n/a
MW30&33-05R[(3)]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	20.58	15.65	20.98	20.21	n/a	n/a	n/a	n/a	n/a	n/a	n/a	87.5	0	4.3	23.1

Notes:
(1) - result in percent saturation
(2) MW30&33-05 was damaged sometime between January and July 2009 and was abandoned.
(3) - Monitoring well was installed in July 2009 to replace MW30&33-05.
ºC - degrees Celsius
ID - identification
mg/L - milligrams per liter
mV - millivolt
n/a - Not applicable.
NC - not collected
NTU - nephelometric turbidity unit
ppt - parts per thousand
S/m - siemens per meter
-- meter malfunctioned
% - percent

Table 4-2
Groundwater Quality Parameters for DP-30/SD-33
Holloman AFB, New Mexico

Well ID	Oxidation Reduction Potential (mV)											Dissolved Oxygen (mg/L)										
	Jul-06	**Jan-07**	**Jul-07**	**Jan-08**	**Jul-08**	**Jan-09**	**Jul-09**	**Oct-09**	**Jan-10**	**Jul-10**	**Jan-11**	**Jul-06**	**Jan-07**	**Jul-07**	**Jan-08**	**Jul-08**	**Jan-09**	**Jul-09**	**Oct-09**	**Jan-10**	**Jul-10**	**Jan-11**
MW30&33-01	225.8	20.8	33	121.2	156	22.1	294	NC	119	82	89	5.3	3.5	0.85	0.85	2.33	9.65	1.05	NC	3.48	0.5	0
MW30&33-02	208.9	-24.6	5	141.5	195	--	292	NC	140	106	114	5.7	4.42	1.96	5.21	4.3	8.72	3.44	NC	5.55	4.08	3.9
MW30&33-03	24.55	-21.4	90	135	182	--	112	NC	134	171	125	5.78	2.66	2.82	2.3	3.47	9.23	3.43	NC	7.86	4.07	2.91
MW30&33-04	202.1	-17.1	-19	136.8	167	20.31	117	NC	143	126	103	5.71	1.95	0.69	433.15[1]	3	9.01	1.92	NC	3.38	2.13	0
MW30&33-05[2]	81.8	20.6	24	57.3	184	--	n/a	n/a	n/a	n/a	n/a	3.3	1.91	0.2	0.31	3	12.29	n/a	n/a	n/a	n/a	n/a
MW30&33-05R[3]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	106	128	95	120	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.14	3.85	0.52	0

Notes:
[1] - result in percent saturation
[2] MW30&33-05 was damaged sometime between January and July 2009 and was abandoned.
[3] - Monitoring well was installed in July 2009 to replace MW30&33-05.
ºC - degrees Celsius
ID - identification
mg/L - milligrams per liter
mV - millivolt
n/a - Not applicable.
NC - not collected
NTU - nephelometric turbidity unit
ppt - parts per thousand
S/m - siemens per meter
-- meter malfunctioned
% - percent

Table 4-2
Groundwater Quality Parameters for DP-30/SD-33
Holloman AFB, New Mexico

Well ID	Salinity										
	Jul-07	Jan-07 (ppt)	Jul-07 (%)	Jan-08 (ppt)	Jul-08 (%)	Jan-09 (%)	Jul-09 (%)	Oct-09 (%)	Jan-10 (%)	Jul-10 (%)	Jan-11 (%)
MW30&33-01	NC	28.06	1.7	25.05	3.13	1.54	2.97	NC	2.6	4*	2.5
MW30&33-02	NC	36.55	2.4	34.32	3.81	2.14	4*	NC	3.5	3.2	3.2
MW30&33-03	NC	34.5	2.9	35.71	3.8	1.98	1.08	NC	3.3	4*	2.82
MW30&33-04	NC	284.5	1.4	27.27	3.33	1.79	0.92	NC	2.8	2.2	2.53
MW30&33-05[(2)]	NC	25.92	1.6	22.97	2.65	2.12	n/a	n/a	n/a	n/a	n/a
MW30&33-05R[(3)]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	3.47	2.4	4*	2.6

Notes:
[(1)] - result in percent saturation
[(2)] MW30&33-05 was damaged sometime between January and July 2009 and was abandoned.
[(3)] - Monitoring well was installed in July 2009 to replace MW30&33-05.
ºC - degrees Celsius
ID - identification
mg/L - milligrams per liter
mV - millivolt
n/a - Not applicable.
NC - not collected
NTU - nephelometric turbidity unit
ppt - parts per thousand
S/m - siemens per meter
-- meter malfunctioned
% - percent

Table 4-3
Analytical Detections from Groundwater Sampling at DP-30/SD-33
Holloman AFB, New Mexico

		Well Name:	MW30&33-01		MW30&33-01		MW30&33-02		MW30&33-02		MW30&33-03		MW30&33-03		MW30&33-04	
		Collection Date:	07/06/2010		01/24/2011		07/06/2010		01/24/2011		07/06/2010		01/24/2011		07/06/2010	
		SampleID:	MW30&33-01-070610		MW30&33-01-012411		MW30&33-02-070610		MW30&33-02-012411		MW30&33-03-070610		MW30&33-03-012411		MW30&33-04-070610	
		QCType:	N		N		N		N		N		N		N	
Analyte	**NMWQCC [1]**	**MCL[2]**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**
General Chemistry Parameters (mg/L)																
Solids, total dissolved [3]	n/a	n/a	27100		22800		28500		31500		20900		27200		27300	
Dissolved Metals (µg/L)																
Aluminum	36500	n/a	100	U	25	U	100	U	25	U	100	U	27.6	J	100	U
Antimony	14.6	6	8	U	2	U	8	U	2	U	8	U	2	U	8	U
Arsenic	0.448	10	8	U	2	U	8	U	2	U	8	U	2	U	8	U
Barium	7300	2000	20.8	J	16.1	J	20	U	17	J	20	U	20.6	J	20	U
Calcium	n/a	n/a	710000		624000	J	909000		847000		789000		816000		656000	
Chromium	110	100	4	U	2	U	4	U	2	U	4	U	2	U	4	U
Cobalt	n/a	n/a	4	U	1.3	J	4	U	1.5	J	4	U	1.5	J	4	U
Copper	1460	1300	8	U	4.8	J	8	U	6.3	J	8	U	6.2	J	8	U
Lead	n/a	15	4	U	5	U	9.5	J	5	U	8.3	J	5	U	8	J
Magnesium	n/a	n/a	1280000		1200000		1850000		1780000		1590000		1660000		1350000	
Manganese	876	n/a	4	U	1	U	4	U	1	U	4	U	1	U	4	U
Mercury	0.562	2	0.071	U	0.05	U	0.071	U	0.05	U	0.071	U	0.05	U	0.082	J
Nickel	730	n/a	8	U	10	U	8	U	10	U	8	U	10	U	8	U
Potassium	n/a	n/a	6740	J	5730	J	10100	J	8540	J	5510	J	4740	J	3010	J
Selenium	183	50	23.4	J	4	U	33.6	J	4	U	24.3	J	20.3		14.9	J
Sodium	n/a	n/a	5500000		5860000	J	7330000		7970000		6900000		7630000		6050000	
Vanadium	183	n/a	40.1	J	35	J	27.8	J	24.6	J	16.3	J	17.1	J	27.2	J
Total Metals (µg/L)																
Aluminum	36500	n/a	100	U	30.1	J	100	U	29.6	J	100	U	25	U	100	U
Antimony	14.6	6	8	U	2	U	8	U	2	U	8	U	2	U	8	U
Arsenic	0.448	10	**12**	J	9.2	J	8	U	6.1	J	8	U	3	J	**10.3**	J
Barium	7300	2000	20	U	14.5	J	20	U	17.5	J	20.8	J	20.9	J	20	U
Calcium	n/a	n/a	707000		690000		805000		887000		803000		871000		718000	
Chromium	110	100	4	U	2	U	4	U	2	U	4	U	2	U	4	U
Cobalt	n/a	n/a	4	U	1.1	J	4	U	1.3	J	4	U	1.6	J	4	U
Copper	1460	1300	8	U	5.1	J	10.6	J	6.2	J	10	J	6.8	J	9.7	J
Lead	n/a	15	9.1	J	5	U	4	U	5	U	4	U	5	U	6.1	J
Magnesium	n/a	n/a	1250000		1260000		1600000		1840000		1610000		1740000		1470000	
Manganese	876	n/a	4	U	1	U	4	U	1	U	4	U	1	U	4	U
Mercury	0.562	2	0.071	U	0.05	U	0.071	U	0.05	U	0.071	U	0.05	U	0.088	J
Nickel	730	n/a	8	U	10	U	8	U	10	U	8	U	10	U	8	U
Potassium	n/a	n/a	8400	J	7140	J	10100	J	9430	J	7110	J	5370	J	4490	J
Selenium	183	50	25.2	J	15.6	J	34.3	J	18.3	J	32.6	J	20.4		24.1	J
Sodium	n/a	n/a	5820000		6170000	J	7450000		8390000		7220000		7810000		6120000	
Vanadium	183	n/a	40.1	J	36.6	J	22.6	J	25.9	J	16.8	J	18.8	J	30.1	J

Table 4-3
Analytical Detections from Groundwater Sampling at DP-30/SD-33
Holloman AFB, New Mexico

		Well Name:	MW30&33-01		MW30&33-01		MW30&33-02		MW30&33-02		MW30&33-03		MW30&33-03		MW30&33-04	
		Collection Date:	07/06/2010		01/24/2011		07/06/2010		01/24/2011		07/06/2010		01/24/2011		07/06/2010	
		SampleID:	MW30&33-01-070610		MW30&33-01-012411		MW30&33-02-070610		MW30&33-02-012411		MW30&33-03-070610		MW30&33-03-012411		MW30&33-04-070610	
		QCType:	N		N		N		N		N		N		N	
Analyte	**NMWQCC [1]**	**MCL[2]**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**
Volatile Organic Compounds (µg/L)																
1,1-Dichloroethane	24.2	n/a	0.22	U	0.25	U	2.1		2.7		2.2		3.4		1.4	
1,1-Dichloroethene	340	7	0.29	U	0.23	U	0.29	U	0.23	U	0.29	U	0.25	J	0.29	U
Chloroform	1.93	80	0.25	U	0.22	U	0.7	J	0.87	J	0.82	J	1.2		0.54	J
Cis-1,2-dichloroethene	365	70	0.32	U	0.26	U	0.32	U	0.26	U	0.32	U	0.33	J	0.32	U
Trichloroethene	16.5	5	0.24	U	0.26	U	**9**		**14.5**		**12**		**19.1**		**6.5**	

Notes:

[1] **NMWQCC** - New Mexico Water Quality Control Commission. These values are Tap Water Screening Values (ug/L) from Table A-1: NMED Soil Screening Levels,Technical Background Document for Development of Soil Screening Levels, Revision 5.0, July 2009.

[2] **EPA MCL** - United States Environmental Protection Agency Maximum Contaminant Level. From January 2011 Edition of the Drinking Water Standards and Health

[3] Groundwater with TDS concentrations above 10,000 mg/L is not considered a potential domestic or agricultural water supply (NMAC, 20.6.2.3101).

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC standards and EPA MCLs

EPA - United States Environmental Protection Agency

FD - field duplicate

mg/L - milligrams per liter

µg/L - micrograms per liter

n/a - not available

Q - analytical result qualifier

Value - reported analytical concentration

U - Not detected.

J - Detected. Quantitation estimated.

Table 4-3
Analytical Detections from Groundwater Sampling at DP-30/SD-33
Holloman AFB, New Mexico

		Well Name:	MW30&33-04		MW30&33-05R		MW30&33-05R		MW-30&33-05R		MW-30&33-05R	
		Collection Date:	01/24/2011		07/06/2010		07/06/2010		01/25/2011		01/25/2011	
		SampleID:	MW30&33-04-012411		MW30&33-05R-070610		MW30&33-DUP01-070610		MW30&33-DUP01-012511		MW30&33-05-012511	
		QCType:	N		N		FD		FD		N	
Analyte	**NMWQCC (1)**	**MCL(2)**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**
General Chemistry Parameters (mg/L)												
Solids, total dissolved (3)	n/a	n/a	24800		16900		19800		20400		19500	
Dissolved Metals (µg/L)												
Aluminum	36500	n/a	25	U	100	U	100	U	25	U	25	U
Antimony	14.6	6	2	U	8	U	8	U	2	U	2	U
Arsenic	0.448	10	2	U	8	U	8	U	2	U	2	U
Barium	7300	2000	15.1	J	21.2	J	20	U	21.1	J	19.4	J
Calcium	n/a	n/a	686000		742000		685000		716000		714000	
Chromium	110	100	2	U	4	U	4	U	2	U	2	U
Cobalt	n/a	n/a	1.6	J	4	U	4	U	2.1	J	1.9	J
Copper	1460	1300	6.9	J	8	U	8	U	6.7	J	6.2	J
Lead	n/a	15	5	U	10	J	8.3	J	5	U	5	U
Magnesium	n/a	n/a	1400000		1210000		1100000		1140000		1170000	
Manganese	876	n/a	1	U	189		196		357		344	
Mercury	0.562	2	0.09	J	0.071	U	0.071	U	0.05	U	0.05	U
Nickel	730	n/a	10	U	8	U	8	U	10	U	10.1	J
Potassium	n/a	n/a	2470	J	6720	J	6170	J	5260	J	5360	J
Selenium	183	50	4	U	14.1	J	13.8	J	4	U	4	U
Sodium	n/a	n/a	6190000		5080000		4760000		5070000		5170000	
Vanadium	183	n/a	28.1	J	51	J	47.3	J	47.7	J	46.4	J
Total Metals (µg/L)												
Aluminum	36500	n/a	30.8	J	100	U	100	U	25	U	25	U
Antimony	14.6	6	2	U	8	U	8	U	2	U	3.1	J
Arsenic	0.448	10	9.3	J	8	U	8	U	6.3	J	8.5	J
Barium	7300	2000	12.9	J	20.1	J	20.4	J	20.6	J	21.3	J
Calcium	n/a	n/a	714000		674000		686000		724000		753000	
Chromium	110	100	5.7	J	4	U	4	U	2	U	2	U
Cobalt	n/a	n/a	1.7	J	4	U	4	U	2.5	J	2.4	J
Copper	1460	1300	6.5	J	10.7	J	10.6	J	6.5	J	6.6	J
Lead	n/a	15	5	U	4	U	4	U	5	U	5	U
Magnesium	n/a	n/a	1470000		1070000		1090000		1210000		1230000	
Manganese	876	n/a	1	U	224		240		451		455	
Mercury	0.562	2	0.13	J	0.071	U	0.071	U	0.05	U	0.05	U
Nickel	730	n/a	10	U	8	U	8	U	10	U	10	U
Potassium	n/a	n/a	2670	J	6910	J	6850	J	5230	J	5610	J
Selenium	183	50	8.7	J	20.9	J	14.9	J	5.4	J	4.6	J
Sodium	n/a	n/a	6470000		4850000		4860000		5510000		5620000	
Vanadium	183	n/a	27.7	J	46.1	J	47.7	J	50.5		50.9	

Table 4-3
Analytical Detections from Groundwater Sampling at DP-30/SD-33
Holloman AFB, New Mexico

		Well Name:	MW30&33-04		MW30&33-05R		MW30&33-05R		MW-30&33-05R		MW-30&33-05R	
		Collection Date:	01/24/2011		07/06/2010		07/06/2010		01/25/2011		01/25/2011	
		SampleID:	MW30&33-04-012411		MW30&33-05R-070610		MW30&33-DUP01-070610		MW30&33-DUP01-012511		MW30&33-05-012511	
		QCType:	N		N		FD		FD		N	
Analyte	**NMWQCC [1]**	**MCL[2]**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**
Volatile Organic Compounds (µg/L)												
1,1-Dichloroethane	24.2	n/a	1.4		6.7		7		7		6.6	
1,1-Dichloroethene	340	7	0.23	U	0.6	J	0.63	J	0.84	J	0.75	J
Chloroform	1.93	80	0.53	J	0.31	J	0.31	J	0.32	J	0.27	J
Cis-1,2-dichloroethene	365	70	0.26	U	11.4		11.3		11.4		10.5	
Trichloroethene	16.5	5	**6.9**		**22.2**		**22.3**		**25.2**		**24**	

Notes:

[1] **NMWQCC** - New Mexico Water Quality Control Commission. These values are Tap Water Screening Values (ug/L) from Table A-1: NMED Soil Screening Levels,Technical Background Document for Development of Soil Screening Levels, Revision 5.0, July 2009.

[2] **EPA MCL** - United States Environmental Protection Agency Maximum Contaminant Level. From January 2011 Edition of the Drinking Water Standards and Health

[3] Groundwater with TDS concentrations above 10,000 mg/L is not considered a potential domestic or agricultural water supply (NMAC, 20.6.2.3101).

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC standards and EPA MCLs

EPA - United States Environmental Protection Agency
FD - field duplicate
mg/L - milligrams per liter
µg/L - micrograms per liter
n/a - not available
Q - analytical result qualifier
Value - reported analytical concentration
U - Not detected.
J - Detected. Quantitation estimated.

Table 4-4
Analytical Results from Groundwater Sampling at DP-30/SD-33 (July 2006-January 2011)
Holloman AFB, New Mexico

		Well Name:	MW30&33-01												MW30&33-02			
		Collection Date:	07/11/2008		01/09/2009		07/08/2009		01/07/2010		07/06/2010		01/24/2011		07/11/2008		01/09/2009	
		Sample ID:	MW-30&33-01-071108		MW-30&33-01-010909		MW30&33-01-070809		MW30&33-01-010710		MW30&33-01-070610		MW30&33-01-012411		MW-30&33-02-071108		MW-30&33-02-010909	
		QC Type:	N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**EPA MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
General Chemistry Parameters (mg/L)																		
Solids, total dissolved [3]	n/a	n/a	24500		18900	J	34300		19800		27100		22800		26900		31700	
Dissolved Metals (µg/L)																		
Aluminum	36500	n/a	115	U	44	U	46.9		130		100	U	25	U	114	U	44	U
Antimony	14.6	6	18	U	18	U	18	U	9	U	8	U	2	U	23	U	18	U
Arsenic	0.448	10	14	U	22	U	26.5		11	U	8	U	2	U	18	U	22	U
Barium	7300	2000	20	U	20	U	20	U	12.7		20.8	J	16.1	J	25	U	20	U
Beryllium	73	4	4	U	4	U	4	U	1	U	4	U	1	U	5	U	4	U
Cadmium	18.3	5	4	U	4	U	4	U	1	U	4	U	1	U	5	U	4	U
Calcium	n/a	n/a	689000		735000		741000		674000	J	710000		624000	J	854000		980000	
Chromium	110	100	6.4	U	8	U	8	U	2	U	4	U	2	U	8	U	8	U
Cobalt	n/a	n/a	3.3	U	4	U	4	U	1	U	4	U	1.3	J	4.2	U	4	U
Copper	1460	1300	8.4	U	20	U	27.9		5	U	8	U	4.8	J	11	U	20	U
Iron	25600	n/a	92	U	3700	U	92	U	92	U	140	U	35	U	120	U	3700	U
Lead	n/a	15	8	U	8	U	8	U	8	U	4	U	5	U	10	U	8	U
Magnesium	n/a	n/a	1350000		1230000		1320000		1240000		1280000		1200000		1800000		1810000	
Manganese	876	n/a	2	U	4	U	4	U	1	U	4	U	1	U	2.5	U	4	U
Mercury	0.562	2	0.14	U	0.15	J	0.15	UJ	0.15	U	0.071	U	0.05	U	0.14	U	0.15	U
Molybdenum	183	180	--		--		--		--		--		--		--		--	
Nickel	730	n/a	9.2	U	9.2	U	9.4		2.3	U	8	U	10	U	12	U	9.2	U
Potassium	n/a	n/a	23800	U	15700	J	15700		20200	J	6740	J	5730	J	30600	U	25300	J
Selenium	183	50	35	J	24	J	23.6		22.8	J	23.4	J	4	U	37.9	J	41.7	
Silver	183	n/a	4.8	U	5.6	U	7.6		1.4	U	4	U	1	U	6	U	5.6	U
Sodium	n/a	n/a	5070000		3120000	J	5260000		4970000		5500000		5860000	J	6890000		3860000	J
Thallium	2.41	2	14	U	14	U	14	U	3.6	U	6	U	9.3	U	17	U	14	U
Vanadium	183	n/a	39.5	J	40.6	J	48.5		37.9	J	40.1	J	35	J	29.3	J	30.2	J
Zinc	11000	n/a	15	U	30	U	35.4		7.4	U	20	U	10	U	19	U	30	U
Total Metals (µg/L)																		
Aluminum	36500	n/a	18700		44	U	44	U	96.1		100	U	30.1	J	458	U	44	U
Antimony	14.6	6	36	U	18	U	18	U	9	U	8	U	2	U	23	U	18	U
Arsenic	0.448	10	14	U	22	U	28.9		13.3	J	12	J	**9.2**	J	18	U	22	U
Barium	7300	2000	228	J	20	U	20	U	11.9		20	U	14.5	J	25	U	20	U
Beryllium	73	4	4	U	4	U	4	U	1	U	4	U	1	U	5	U	4	U
Cadmium	18.3	5	4	U	4	U	4	U	1	U	4	U	1	U	5	U	4	U
Calcium	n/a	n/a	1070000		724000		670000		683000	J	707000		690000		1040000		985000	
Chromium	110	100	22.8	J	8	U	8	U	2	U	4	U	2	U	8	U	8	U
Cobalt	n/a	n/a	16.3	J	4	U	4	U	1	U	4	U	1.1	J	4.2	U	4	U
Copper	1460	1300	8.4	U	20	U	20	U	5	U	8	U	5.1	J	11	U	20	U
Iron	25600	n/a	14600		3700	U	92	U	92	U	140	U	35	U	4800	U	3700	U
Lead	n/a	15	21.5		8	U	8	U	8	U	9.1	J	5	U	10	U	8	U
Magnesium	n/a	n/a	1420000		1230000		1190000		1240000		1250000		1260000		1950000		1820000	
Manganese	876	n/a	**1080**		4	U	4	U	1	U	4	U	1	U	18.4	J	4	U
Mercury	0.562	2	0.14	U	0.27	J	0.15	UJ	0.15	U	0.071	U	0.05	U	0.14	U	0.15	U
Molybdenum	183	180	--		--		--		--		--		--		--		--	

Table 4-4
Analytical Results from Groundwater Sampling at DP-30/SD-33 (July 2006-January 2011)
Holloman AFB, New Mexico

		Well Name:	MW30&33-01												MW30&33-02			
		Collection Date:	07/11/2008		01/09/2009		07/08/2009		01/07/2010		07/06/2010		01/24/2011		07/11/2008		01/09/2009	
		Sample ID:	MW-30&33-01-071108		MW-30&33-01-010909		MW30&33-01-070809		MW30&33-01-010710		MW30&33-01-070610		MW30&33-01-012411		MW-30&33-02-071108		MW-30&33-02-010909	
		QC Type:	N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[(1)]**	**EPA MCL[(2)]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Nickel	730	n/a	26.7	J	9.2	U	9.2	U	2.3	U	8	U	10	U	12	U	9.2	U
Potassium	n/a	n/a	25900	U	15800	J	14300		20300	J	8400	J	7140	J	23900	U	24900	J
Selenium	183	50	33.2	J	27.4	J	20.5		37.6	J	25.2	J	15.6	J	34.2	J	33.3	J
Silver	183	n/a	4.8	U	5.6	U	5.6	U	1.4	U	4	U	1	U	6	U	5.6	U
Sodium	n/a	n/a	5470000		3150000	J	5290000		5000000		5820000		6170000	J	6700000		3840000	J
Thallium	2.41	2	14	U	14	U	14	U	3.6	U	6	U	9.3	U	17	U	14.7	J
Vanadium	183	n/a	84.2	J	42.3	J	41.9		38.2	J	40.1	J	36.6	J	35.1	J	32.7	J
Zinc	11000	n/a	65.3	U	30	U	30	U	7.4	U	20	U	10	U	19	U	30	U
Volatile Organic Compounds (µg/L)																		
1,1,1,2-Tetrachloroethane	5.24	n/a	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
1,1,1-Trichloroethane	9130	200	0.33	U	0.33	U	0.33	U	0.33	U	0.22	U	0.2	U	0.33	U	0.33	U
1,1,2,2-Tetrachloroethane	0.671	n/a	0.21	U	0.21	U	0.21	U	0.21	U	0.29	U	0.23	UJ	0.21	U	0.21	U
1,1,2-Trichloro-1,2,2-trifluoroethane	59200	n/a	0.34	U	0.34	U	0.34	U	0.34	U	0.43	U	0.47	UJ	0.34	U	0.34	U
1,1,2-Trichloroethane	2.42	5	0.26	U	0.26	U	0.26	U	0.26	U	0.29	U	0.22	U	0.26	U	0.26	U
1,1-Dichloroethane	24.2	n/a	0.24	U	0.24	U	0.24	U	0.24	U	0.22	U	0.25	U	1		1.6	
1,1-Dichloroethene	340	7	0.54	U	0.54	U	0.54	U	0.54	U	0.29	U	0.23	U	0.54	U	0.54	U
1,1-Dichloropropene	n/a	n/a	0.23	U	0.23	U	0.23	U	0.23	U	0.25	UJ	0.28	UJ	0.23	U	0.23	U
1,2,3-Trichlorobenzene	n/a	n/a	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.096	n/a	0.34	U	0.34	U	0.34	U	0.34	U	0.37	U	0.3	U	0.34	U	0.34	U
1,2,4-Trichlorobenzene	8.16	70	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trimethylbenzene	n/a	n/a	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.27	UJ	0.22	U	0.22	U
1,2-Dibromo-3-chloropropane	0.00803	0.2	0.32	U	0.32	U	0.32	U	0.32	U	0.59	UJ	0.5	U	0.32	U	0.32	U
1,2-Dibromoethane (Ethylene Dibromide)	0.0653	0.05	0.28	U	0.28	U	0.28	U	0.28	U	0.23	U	0.37	U	0.28	U	0.28	U
1,2-Dichlorobenzene	370	600	0.2	U	0.2	U	0.2	U	0.2	U	0.26	U	0.25	UJ	0.2	U	0.2	U
1,2-Dichloroethane	1.49	5	0.34	U	0.34	U	0.34	U	0.34	U	0.33	U	0.2	U	0.34	U	0.34	U
1,2-Dichloropropane	3.86	5	0.21	U	0.21	U	0.21	U	0.21	U	0.27	U	0.25	U	0.21	U	0.21	U
1,3,5-Trimethylbenzene (Mesitylene)	n/a	n/a	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U	0.21	U	0.2	U	0.2	U
1,3-Dichlorobenzene	n/a	n/a	0.23	U	0.23	U	0.23	U	0.23	U	0.29	U	0.2	U	0.23	U	0.23	U
1,3-Dichloropropane	n/a	n/a	0.26	U	0.26	U	0.26	U	0.26	U	0.28	U	0.2	U	0.26	U	0.26	U
1,4-Dichlorobenzene	4.27	75	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.23	U	0.22	U	0.22	U
1-Chlorohexane	n/a	n/a	0.27	U	0.27	U	0.27	U	0.27	U	0.29	U	0.25	U	0.27	U	0.27	U
2,2-Dichloropropane	n/a	n/a	0.28	U	0.28	U	0.28	U	0.28	U	0.37	U	0.44	U	0.28	U	0.28	U
2-Butanone	7060	n/a	2	U	2	U	2	U	2	U	2	UJ	2	U	2	U	2	U
2-Butylbenzene	n/a	n/a	0.28	U	0.28	U	0.28	U	0.28	U	0.24	U	0.26	U	0.28	U	0.28	U
2-Chloroethyl vinyl ether	n/a	n/a	1	UJ	1	UJ	1	UJ	1	UJ	1.1	UJ	1.2	UJ	1	UJ	1	UJ
2-Chlorotoluene	730	n/a	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.22	U	0.25	U	0.25	U
2-Hexanone	n/a	n/a	5	U	5	U	5	U	5	U	5	U	4	U	5	U	5	U
2-Propylbenzene	n/a	n/a	--		--		--		--		--		--		--		--	
4-Bromofluorobenzene	n/a	n/a	--		--		--		--		--		--		--		--	
4-Chlorotoluene	n/a	n/a	0.21	U	0.21	U	0.21	U	0.21	U	0.23	U	0.2	U	0.21	U	0.21	U
4-Methyl-2-pentanone	1990	n/a	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Acetone	21800	n/a	10	U	10	U	10	U	10	U	10	UJ	10	U	10	U	10	U
Acetonitrile	n/a	n/a	5	U	5	U	5	U	5	U	5	UJ	5	U	5	U	5	U
Acrolein	0.0416	n/a	5	U	5	U	5	U	5	U	10	UJ	5	UJ	5	U	5	U

Table 4-4
Analytical Results from Groundwater Sampling at DP-30/SD-33 (July 2006-January 2011)
Holloman AFB, New Mexico

		Well Name:	MW30&33-01												MW30&33-02			
		Collection Date:	07/11/2008		01/09/2009		07/08/2009		01/07/2010		07/06/2010		01/24/2011		07/11/2008		01/09/2009	
		Sample ID:	MW-30&33-01-071108		MW-30&33-01-010909		MW30&33-01-070809		MW30&33-01-010710		MW30&33-01-070610		MW30&33-01-012411		MW-30&33-02-071108		MW-30&33-02-010909	
		QC Type:	N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[(1)]**	**EPA MCL[(2)]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Acrylonitrile	0.454	n/a	2	UJ	2	U	2	U	2	U	3	UJ	3	U	2	UJ	2	U
Allyl chloride (3-Chloropopene)	n/a	n/a	2	U	2	U	2	U	2	U	2	U	0.3	UJ	2	U	2	U
Benzene	4.13	5	0.4	U	0.4	U	0.4	U	0.4	U	0.21	U	0.2	U	0.4	U	0.4	U
Benzyl Chloride	n/a	n/a	0.36	U	0.36	U	0.36	U	0.36	U	0.4	U	0.5	UJ	0.36	U	0.36	U
Bromobenzene	n/a	n/a	0.26	U	0.26	U	0.26	U	0.26	U	0.21	U	0.25	U	0.26	U	0.26	U
Bromochloromethane	n/a	n/a	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.22	U	0.23	U	0.23	U
Bromodichloromethane	1.17	80	0.2	U	0.2	U	0.2	U	0.2	U	0.28	U	0.2	UJ	0.2	U	0.2	U
Bromoform	85.1	80	0.33	U	0.33	U	0.33	U	0.33	U	0.24	U	0.2	UJ	0.33	U	0.33	U
Bromomethane	8.66	n/a	0.78	U	0.78	U	0.78	U	0.78	U	0.78	U	0.5	U	0.78	U	0.78	U
Carbon disulfide	1040	n/a	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.5	UJ	0.4	U	0.4	U
Carbon tetrachloride	1.99	5	0.22	U	0.22	U	0.22	U	0.22	U	0.34	U	0.25	UJ	0.22	U	0.22	U
Chlorobenzene	91.3	100	0.22	U	0.22	U	0.22	U	0.22	U	0.2	U	0.2	U	0.22	U	0.22	U
Chloroethane	20900	n/a	0.48	U	0.48	U	0.48	U	0.48	U	0.51	U	0.5	UJ	0.48	U	0.48	U
Chloroform	1.93	80	0.28	U	0.28	U	0.28	U	0.28	U	0.25	U	0.22	U	0.64	J	0.66	J
Chloromethane	17.8	n/a	0.61	U	0.61	U	0.61	U	0.61	U	0.5	UJ	0.5	UJ	0.61	U	0.61	U
cis-1,2-dichloroethene	365	70	0.2	U	0.2	U	0.2	U	0.2	U	0.32	U	0.26	U	0.2	U	0.2	U
cis-1,3-dichloropropene	n/a	n/a	0.21	U	0.21	U	0.21	U	0.21	UJ	0.2	U	0.2	UJ	0.21	U	0.21	U
cis-1,4-Dichloro-2-Butene	n/a	n/a	1	U	1	U	1	U	1	U	2	U	1	UJ	1	U	1	U
Cymene	n/a	n/a	0.32	U	0.32	U	0.32	U	0.32	U	0.21	UJ	0.21	U	0.32	U	0.32	U
Dibromochloromethane	1.47	80	0.2	U	0.2	U	0.2	U	0.2	U	0.33	U	0.2	UJ	0.2	U	0.2	U
Dibromofluoromethane	n/a	n/a	--		--		--		--		--		--		--		--	
Dibromomethane	365	n/a	0.3	U	0.3	U	0.3	U	0.3	U	0.27	U	0.25	U	0.3	U	0.3	U
Dichlorodifluoromethane	395	n/a	1	U	1	U	1	U	1	U	0.67	UJ	0.5	U	1	U	1	U
Ether, tert-butyl methyl	125	n/a	0.26	U	0.26	U	0.26	U	0.26	U	0.25	U	0.34	U	0.26	U	0.26	U
Ethyl methacrylate	3290	n/a	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Ethylbenzene	14.8	700	0.43	U	0.43	U	0.43	U	0.43	U	0.2	U	0.2	U	0.43	U	0.43	U
Hexachlorobutadiene	8.62	n/a	0.69	U	0.69	U	0.69	U	0.69	U	0.4	U	0.8	U	0.69	U	0.69	U
Hexane	876	n/a	0.5	U	0.5	U	0.5	U	0.5	U	0.66	U	0.59	UJ	0.5	U	0.5	U
Iodomethane	n/a	n/a	1	U	1	U	1	U	1	U	0.31	U	0.2	UJ	1	U	1	U
Isopropylbenzene	679	n/a	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
m,p-Xylene	n/a	n/a	0.78	U	0.78	U	0.78	U	0.78	U	0.34	U	0.32	U	0.78	U	0.78	U
Methacrylonitrile	1.04	n/a	5	U	5	U	5	U	5	U	5	UJ	5	UJ	5	U	5	U
Methyl methacrylate	1420	n/a	1	U	1	U	1	U	1	U	1	UJ	1	U	1	U	1	U
Methylene chloride	48	5	1	U	1	U	1	U	5	U	2	UJ	2	UJ	1	U	1	U
Naphthalene	1.43	n/a	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
n-Propylbenzene	n/a	n/a	0.25	U	0.25	U	0.25	U	0.25	U	0.2	U	0.2	U	0.25	U	0.25	U
O-Xylene	1430	n/a	0.37	U	0.37	U	0.37	U	0.37	U	0.2	U	0.2	U	0.37	U	0.37	U
Pentachloroethane	n/a	n/a	2	U	2	U	2	U	2	U	2	U	2	UJ	2	U	2	U
Propane Nitrile (Propionitrile)	n/a	n/a	10	U	10	U	10	U	10	U	5	UJ	5	U	10	U	10	U
Sec-Butylbenzene	n/a	n/a	0.25	U	0.25	U	0.25	U	0.25	U	0.23	U	0.22	UJ	0.25	U	0.25	U
Styrene	1620	100	0.36	U	0.36	U	0.36	U	0.36	U	0.2	U	0.2	UJ	0.36	U	0.36	U
Tert-butyl benzene	n/a	n/a	0.32	U	0.32	U	0.32	U	0.32	U	0.24	U	0.27	U	0.32	U	0.32	U
Tetrachloroethene	1.08	5	0.22	U	0.22	U	0.22	U	0.22	U	0.44	U	0.25	U	0.22	U	0.22	U
Toluene	2280	1000	0.35	U	0.35	U	0.35	U	0.35	U	0.2	U	0.2	U	0.35	U	0.35	U

Table 4-4
Analytical Results from Groundwater Sampling at DP-30/SD-33 (July 2006-January 2011)
Holloman AFB, New Mexico

		Well Name:	MW30&33-01												MW30&33-02			
		Collection Date:	07/11/2008		01/09/2009		07/08/2009		01/07/2010		07/06/2010		01/24/2011		07/11/2008		01/09/2009	
		Sample ID:	MW-30&33-01-071108		MW-30&33-01-010909		MW30&33-01-070809		MW30&33-01-010710		MW30&33-01-070610		MW30&33-01-012411		MW-30&33-02-071108		MW-30&33-02-010909	
		QC Type:	N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[(1)]**	**EPA MCL[(2)]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Trans-1,2-dichloroethene	107	100	0.45	U	0.45	U	0.45	U	0.45	U	0.34	U	0.35	UJ	0.45	U	0.45	U
Trans-1,3-dichloropropene	n/a	n/a	0.21	U	0.21	U	0.21	U	0.21	U	0.22	UJ	0.2	UJ	0.21	U	0.21	U
Trans-1,4-Dichloro-2-Butene	n/a	n/a	2	U	2	U	2	U	2	U	2	UJ	2	UJ	2	U	2	U
Trichloroethene	16.5	5	0.32	U	0.36	J	0.32	U	0.32	U	0.24	U	0.26	U	5.2		7.4	
Trichlorofluoromethane	1290	n/a	0.5	U	0.5	U	0.5	U	0.5	U	0.4	U	0.5	U	0.5	U	0.5	U
Vinyl acetate	412	n/a	3.6	U	3.6	U	3.6	U	3.6	U	2.4	U	2	U	3.6	U	3.6	U
Vinyl chloride	0.861	2	0.3	U	0.3	U	0.3	U	0.3	U	0.28	U	0.22	U	0.3	U	0.3	U

Notes:

[(1)] **NMWQCC** - New Mexico Water Quality Control Commission. These values are Tap Water Screening Values (ug/L) from Table A-1: NMED Soil Screening

[(2)] **EPA MCL** - United States Environmental Protection Agency Maximum

[(3)] Groundwater with TDS concentrations above 10,000 mg/L is not considered a

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC

EPA - United States Environmental Protection Agency

FD - field duplicate

mg/L - milligrams per liter

µg/L - micrograms per liter

n/a - not available

Q - analytical result qualifier

Value - reported analytical concentration

U - Not detected.

J - Detected. Quantitation estimated.

Table 4-4
Analytical Results from Groundwater Sampling at DP-30/SD-33 (July 2006-January 2011)
Holloman AFB, New Mexico

		Well Name:	MW30&33-02								MW30&33-03							
		Collection Date:	07/08/2009		01/07/2010		07/06/2010		01/24/2011		7/15/2006		7/15/2006		17-Jan-2007		17-Jul-2007	
		Sample ID:	MW30&33-02-070809		MW30&33-02-010710		MW30&33-02-070610		MW30&33-02-012411		HGL		HGL		HGL		HGL	
		QC Type:	N		N		N		N		N		FD		N		N	
Analyte	**NMWQCC[(1)]**	**EPA MCL[(2)]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
General Chemistry Parameters (mg/L)																		
Solids, total dissolved [(3)]	n/a	n/a	38700		27200		28500		31500		35400		--		28700		32000	J
Dissolved Metals (µg/L)																		
Aluminum	36500	n/a	55	U	149		100	U	25	U	9.8	U	9.8	U	30	U	1000	U
Antimony	14.6	6	23	U	9	U	8	U	2	U	3.2	U	3.2	U	5	UJ	100	U
Arsenic	0.448	10	28.2		11	U	8	U	2	U	3.6	U	3.6	U	5	U	50	U
Barium	7300	2000	25	U	15.2		20	U	17	J	0.4	U	0.4	U	15	J	24	J
Beryllium	73	4	5	U	1	U	4	U	1	U	46		41		2.5	U	3	J
Cadmium	18.3	5	5	U	1	U	4	U	1	U	n/a*		n/a*		n/a*		n/a*	
Calcium	n/a	n/a	854000		839000		909000		847000		969000		978000		903000		880000	
Chromium	110	100	10	U	2	U	4	U	2	U	n/a*		n/a*		n/a*		n/a*	
Cobalt	n/a	n/a	5	U	1	U	4	U	1.5	J	32		34		5	UJ	25	U
Copper	1460	1300	56		5	U	8	U	6.3	J	n/a*		n/a*		n/a*		n/a*	
Iron	25600	n/a	120	U	226		140	U	35	U	2.8	U	2.8	U	10	UJ	750	U
Lead	n/a	15	10	U	8	U	9.5	J	5	U	n/a*		n/a*		n/a*		n/a*	
Magnesium	n/a	n/a	1680000		1830000		1850000		1780000		0.2		0.2		1460000		1800000	
Manganese	876	n/a	5	U	1	U	4	U	1	U	n/a*		n/a*		n/a*		n/a*	
Mercury	0.562	2	0.15	UJ	0.15	U	0.071	U	0.05	U	n/a*		n/a*		n/a*		n/a*	
Molybdenum	183	180									--		--		--		28	J
Nickel	730	n/a	12	U	2.3	U	8	U	10	U	21		0.4	U	5	UJ	50	U
Potassium	n/a	n/a	20800		29700		10100	J	8540	J	21700		20900		10400		7900	
Selenium	183	50	44.6		32.1		33.6	J	4	U	5.5	U	5.5	U	10	UJ	26	J
Silver	183	n/a	7	U	1.4	U	4	U	1	U	n/a*		n/a*		n/a*		n/a*	
Sodium	n/a	n/a	6790000		6410000		7330000		7970000		5870000		6070000		7860000		7000000	
Thallium	2.41	2	18	U	3.6	U	6	U	9.3	U	109		27.7	U	5	UJ	110	U
Vanadium	183	n/a	32.6		26.8		27.8	J	24.6	J	1	U	1	U	20	UJ	26	U
Zinc	11000	n/a	45.1		7.4	U	20	U	10	U	3	U	3	U	5	UJ	100	U
Total Metals (µg/L)																		
Aluminum	36500	n/a	55	U	114		100	U	29.6	J	--		--		54		1000	U
Antimony	14.6	6	23	U	10		8	U	2	U	--		--		50	U	25	J
Arsenic	0.448	10	27	U	14.3	J	8	U	**6.1**	J	--		--		5	U	50	U
Barium	7300	2000	25	U	14.4		20	U	17.5	J	--		--		15		22	J
Beryllium	73	4	5	U	1	U	4	U	1	U	n/a*		n/a*		n/a*		n/a*	
Cadmium	18.3	5	5	U	1	U	4	U	1	U	n/a*		n/a*		n/a*		n/a*	
Calcium	n/a	n/a	919000		874000		805000		887000		--		--		924000		870000	
Chromium	110	100	10	U	2	U	4	U	2	U	n/a*		n/a*		n/a*		n/a*	
Cobalt	n/a	n/a	5	U	1	U	4	U	1.3	J	--		--		5	U	8.7	J
Copper	1460	1300	52.1		5	U	10.6	J	6.2	J	n/a*		n/a*		n/a*		n/a*	
Iron	25600	n/a	120	U	169		140	U	35	U	--		--		129		750	U
Lead	n/a	15	10	U	8	U	4	U	5	U	n/a*		n/a*		n/a*		n/a*	
Magnesium	n/a	n/a	1830000		1800000		1600000		1840000		--		--		1510000		1800000	
Manganese	876	n/a	5	U	1	U	4	U	1	U	--		--		1	J	50	U
Mercury	0.562	2	0.15	UJ	0.15	U	0.071	U	0.05	U	--		--		0.2	U	0.3	U
Molybdenum	183	180	--		--		--		--		--		--		--		33	J

Table 4-4
Analytical Results from Groundwater Sampling at DP-30/SD-33 (July 2006-January 2011)
Holloman AFB, New Mexico

		Well Name:	MW30&33-02								MW30&33-03							
		Collection Date:	07/08/2009		01/07/2010		07/06/2010		01/24/2011		7/15/2006		7/15/2006		17-Jan-2007		17-Jul-2007	
		Sample ID:	MW30&33-02-070809		MW30&33-02-010710		MW30&33-02-070610		MW30&33-02-012411		HGL		HGL		HGL		HGL	
		QC Type:	N		N		N		N		N		FD		N		N	
Analyte	**NMWQCC[(1)]**	**EPA MCL[(2)]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Nickel	730	n/a	12	U	2.3	U	8	U	10	U	n/a*		n/a*		n/a*		n/a*	
Potassium	n/a	n/a	23200		30900		10100	J	9430	J	--		--		8910		8500	J
Selenium	183	50	40.1		54.7		34.3	J	18.3	J	--		--		10	U	29	J
Silver	183	n/a	7	U	1.4	U	4	U	1	U	n/a*		n/a*		n/a*		n/a*	
Sodium	n/a	n/a	7180000		6750000		7450000		8390000		--		--		7710000		7000000	
Thallium	2.41	2	18	U	3.6	U	6	U	9.3	U	--		--		50	U	110	U
Vanadium	183	n/a	29.6		27.2		22.6	J	25.9	J	--		--		19	U	32	U
Zinc	11000	n/a	44.6		7.4	U	20	U	10	U	n/a*		n/a*		n/a*		n/a*	
Volatile Organic Compounds (µg/L)																		
1,1,1,2-Tetrachloroethane	5.24	n/a	0.2	U	0.2	U	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*	
1,1,1-Trichloroethane	9130	200	0.33	U	0.33	U	0.22	U	0.2	U	n/a*		n/a*		n/a*		n/a*	
1,1,2,2-Tetrachloroethane	0.671	n/a	0.21	U	0.21	U	0.29	U	0.23	U	n/a*		n/a*		n/a*		n/a*	
1,1,2-Trichloro-1,2,2-trifluoroethane	59200	n/a	0.34	U	0.34	U	0.43	U	0.47	U	n/a*		n/a*		n/a*		n/a*	
1,1,2-Trichloroethane	2.42	5	0.26	U	0.26	U	0.29	U	0.22	U	n/a*		n/a*		n/a*		n/a*	
1,1-Dichloroethane	24.2	n/a	1.8		2.2		2.1		2.7		0.49	J	--		3.61		1	U
1,1-Dichloroethene	340	7	0.54	U	0.54	U	0.29	U	0.23	U	0.0736	U	--		0.54	J	1	U
1,1-Dichloropropene	n/a	n/a	0.23	U	0.23	U	0.25	U	0.28	U	n/a*		n/a*		n/a*		n/a*	
1,2,3-Trichlorobenzene	n/a	n/a	0.5	U	0.5	U	0.5	U	0.5	U	n/a*		n/a*		n/a*		n/a*	
1,2,3-Trichloropropane	0.096	n/a	0.34	U	0.34	U	0.37	U	0.3	U	n/a*		n/a*		n/a*		n/a*	
1,2,4-Trichlorobenzene	8.16	70	0.5	U	0.5	U	0.5	U	0.5	U	n/a*		n/a*		n/a*		n/a*	
1,2,4-Trimethylbenzene	n/a	n/a	0.22	U	0.22	U	0.22	U	0.27	U	n/a*		n/a*		n/a*		n/a*	
1,2-Dibromo-3-chloropropane	0.00803	0.2	0.32	U	0.32	U	0.59	UJ	0.5	U	n/a*		n/a*		n/a*		n/a*	
1,2-Dibromoethane (Ethylene Dibromide)	0.0653	0.05	0.28	U	0.28	U	0.23	U	0.37	U	n/a*		n/a*		n/a*		n/a*	
1,2-Dichlorobenzene	370	600	0.2	U	0.2	U	0.26	U	0.25	U	n/a*		n/a*		n/a*		n/a*	
1,2-Dichloroethane	1.49	5	0.34	U	0.34	U	0.33	U	0.2	U	n/a*		n/a*		n/a*		n/a*	
1,2-Dichloropropane	3.86	5	0.21	U	0.21	U	0.27	U	0.25	U	n/a*		n/a*		n/a*		n/a*	
1,3,5-Trimethylbenzene (Mesitylene)	n/a	n/a	0.2	U	0.2	U	0.21	U	0.21	U	n/a*		n/a*		n/a*		n/a*	
1,3-Dichlorobenzene	n/a	n/a	0.23	U	0.23	U	0.29	U	0.2	U	0.0672	U	--		--		--	
1,3-Dichloropropane	n/a	n/a	0.26	U	0.26	U	0.28	U	0.2	U	n/a*		n/a*		n/a*		n/a*	
1,4-Dichlorobenzene	4.27	75	0.22	U	0.22	U	0.22	U	0.23	U	n/a*		n/a*		n/a*		n/a*	
1-Chlorohexane	n/a	n/a	0.27	U	0.27	U	0.29	U	0.25	U	n/a*		n/a*		n/a*		n/a*	
2,2-Dichloropropane	n/a	n/a	0.28	U	0.28	U	0.37	U	0.44	U	n/a*		n/a*		n/a*		n/a*	
2-Butanone	7060	n/a	2	U	2	U	2	UJ	2	U	0.394	U	--		5	U	5	U
2-Butylbenzene	n/a	n/a	0.28	U	0.28	U	0.24	U	0.26	U	n/a*		n/a*		n/a*		n/a*	
2-Chloroethyl vinyl ether	n/a	n/a	1	U	1	U	1.1	UJ	1.2	U	n/a*		n/a*		n/a*		n/a*	
2-Chlorotoluene	730	n/a	0.25	U	0.25	U	0.25	U	0.22	U	n/a*		n/a*		n/a*		n/a*	
2-Hexanone	n/a	n/a	5	U	5	U	5	U	4	U	n/a*		n/a*		n/a*		n/a*	
2-Propylbenzene	n/a	n/a	--		--		--		--		n/a*		n/a*		n/a*		n/a*	
4-Bromofluorobenzene	n/a	n/a	--		--		--		--		--		--		48.4		--	
4-Chlorotoluene	n/a	n/a	0.21	U	0.21	U	0.23	U	0.2	U	n/a*		n/a*		n/a*		n/a*	
4-Methyl-2-pentanone	1990	n/a	2	U	2	U	2	U	2	U	n/a*		n/a*		n/a*		n/a*	
Acetone	21800	n/a	10	U	10	U	10	UJ	10	U	n/a*		n/a*		n/a*		n/a*	
Acetonitrile	n/a	n/a	5	U	5	U	5	UJ	5	U	n/a*		n/a*		n/a*		n/a*	
Acrolein	0.0416	n/a	5	U	5	U	10	UJ	5	U	n/a*		n/a*		n/a*		n/a*	

Table 4-4
Analytical Results from Groundwater Sampling at DP-30/SD-33 (July 2006-January 2011)
Holloman AFB, New Mexico

		Well Name:	MW30&33-02								MW30&33-03							
		Collection Date:	07/08/2009		01/07/2010		07/06/2010		01/24/2011		7/15/2006		7/15/2006		17-Jan-2007		17-Jul-2007	
		Sample ID:	MW30&33-02-070809		MW30&33-02-010710		MW30&33-02-070610		MW30&33-02-012411		HGL		HGL		HGL		HGL	
		QC Type:	N		N		N		N		N		FD		N		N	
Analyte	**NMWQCC[(1)]**	**EPA MCL[(2)]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Acrylonitrile	0.454	n/a	2	U	2	U	3	UJ	3	U	n/a*		n/a*		n/a*		n/a*	
Allyl chloride (3-Chloropopene)	n/a	n/a	2	U	2	U	2	U	0.3	U	n/a*		n/a*		n/a*		n/a*	
Benzene	4.13	5	0.4	U	0.4	U	0.21	U	0.2	U	0.0495	U	--		1	U	1	U
Benzyl Chloride	n/a	n/a	0.36	U	0.36	U	0.4	U	0.5	U	n/a*		n/a*		n/a*		n/a*	
Bromobenzene	n/a	n/a	0.26	U	0.26	U	0.21	U	0.25	U	n/a*		n/a*		n/a*		n/a*	
Bromochloromethane	n/a	n/a	0.23	U	0.23	U	0.23	U	0.22	U	n/a*		n/a*		n/a*		n/a*	
Bromodichloromethane	1.17	80	0.2	U	0.2	U	0.28	U	0.2	U	n/a*		n/a*		n/a*		n/a*	
Bromoform	85.1	80	0.33	U	0.33	U	0.24	U	0.2	U	n/a*		n/a*		n/a*		n/a*	
Bromomethane	8.66	n/a	0.78	U	0.78	U	0.78	U	0.5	U	n/a*		n/a*		n/a*		n/a*	
Carbon disulfide	1040	n/a	0.4	U	0.4	U	0.4	U	0.5	UJ	n/a*		n/a*		n/a*		n/a*	
Carbon tetrachloride	1.99	5	0.22	U	0.22	U	0.34	U	0.25	U	n/a*		n/a*		n/a*		n/a*	
Chlorobenzene	91.3	100	0.22	U	0.22	U	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*	
Chloroethane	20900	n/a	0.48	U	0.48	U	0.51	U	0.5	UJ	n/a*		n/a*		n/a*		n/a*	
Chloroform	1.93	80	0.71	J	0.75	J	0.7	J	0.87	J	0.26	J	--		1.72		1	U
Chloromethane	17.8	n/a	0.61	U	0.61	U	0.5	UJ	0.5	U	n/a*		n/a*		n/a*		n/a*	
cis-1,2-dichloroethene	365	70	0.2	U	0.2	U	0.32	U	0.26	U	0.101	U	--		0.35	J	1	U
cis-1,3-dichloropropene	n/a	n/a	0.21	U	0.21	U	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*	
cis-1,4-Dichloro-2-Butene	n/a	n/a	1	U	1	U	2	U	1	U	n/a*		n/a*		n/a*		n/a*	
Cymene	n/a	n/a	0.32	U	0.32	U	0.21	U	0.21	U	n/a*		n/a*		n/a*		n/a*	
Dibromochloromethane	1.47	80	0.2	U	0.2	U	0.33	U	0.2	U	n/a*		n/a*		n/a*		n/a*	
Dibromofluoromethane	n/a	n/a	--		--		--		--		--		--		52.4		--	
Dibromomethane	365	n/a	0.3	U	0.3	U	0.27	U	0.25	U	n/a*		n/a*		n/a*		n/a*	
Dichlorodifluoromethane	395	n/a	1	U	1	U	0.67	UJ	0.5	U	n/a*		n/a*		n/a*		n/a*	
Ether, tert-butyl methyl	125	n/a	0.26	U	0.26	U	0.25	U	0.34	U	n/a*		n/a*		n/a*		n/a*	
Ethyl methacrylate	3290	n/a	1	U	1	U	1	U	1	U	n/a*		n/a*		n/a*		n/a*	
Ethylbenzene	14.8	700	0.43	U	0.43	U	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*	
Hexachlorobutadiene	8.62	n/a	0.69	U	0.69	U	0.4	U	0.8	U	n/a*		n/a*		n/a*		n/a*	
Hexane	876	n/a	0.5	U	0.5	U	0.66	U	0.59	U	n/a*		n/a*		n/a*		n/a*	
Iodomethane	n/a	n/a	1	U	1	U	0.31	U	0.2	U	n/a*		n/a*		n/a*		n/a*	
Isopropylbenzene	679	n/a	0.2	U	0.2	U	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*	
m,p-Xylene	n/a	n/a	0.78	U	0.78	U	0.34	U	0.32	U	0.0363	U	--		1	U	2	U
Methacrylonitrile	1.04	n/a	5	U	5	U	5	UJ	5	UJ	n/a*		n/a*		n/a*		n/a*	
Methyl methacrylate	1420	n/a	1	U	1	U	1	UJ	1	U	n/a*		n/a*		n/a*		n/a*	
Methylene chloride	48	5	1	U	1	U	2	UJ	2	U	n/a*		n/a*		n/a*		n/a*	
Naphthalene	1.43	n/a	1	U	1	U	1	U	1	U	n/a*		n/a*		n/a*		n/a*	
n-Propylbenzene	n/a	n/a	0.25	U	0.25	U	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*	
O-Xylene	1430	n/a	0.37	U	0.37	U	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*	
Pentachloroethane	n/a	n/a	2	U	2	U	2	U	2	U	n/a*		n/a*		n/a*		n/a*	
Propane Nitrile (Propionitrile)	n/a	n/a	10	U	10	U	5	UJ	5	U	n/a*		n/a*		n/a*		n/a*	
Sec-Butylbenzene	n/a	n/a	0.25	U	0.25	U	0.23	U	0.22	U	n/a*		n/a*		n/a*		n/a*	
Styrene	1620	100	0.36	U	0.36	U	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*	
Tert-butyl benzene	n/a	n/a	0.32	U	0.32	U	0.24	U	0.27	U	n/a*		n/a*		n/a*		n/a*	
Tetrachloroethene	1.08	5	0.22	U	0.22	U	0.44	U	0.25	U	n/a*		n/a*		n/a*		n/a*	
Toluene	2280	1000	0.35	U	0.35	U	0.2	U	0.2	U	--		--		47.8		--	

Table 4-4
Analytical Results from Groundwater Sampling at DP-30/SD-33 (July 2006-January 2011)
Holloman AFB, New Mexico

		Well Name:	MW30&33-02								MW30&33-03							
		Collection Date:	07/08/2009		01/07/2010		07/06/2010		01/24/2011		7/15/2006		7/15/2006		17-Jan-2007		17-Jul-2007	
		Sample ID:	MW30&33-02-070809		MW30&33-02-010710		MW30&33-02-070610		MW30&33-02-012411		HGL		HGL		HGL		HGL	
		QC Type:	N		N		N		N		N		FD		N		N	
Analyte	**NMWQCC[(1)]**	**EPA MCL[(2)]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Trans-1,2-dichloroethene	107	100	0.45	U	0.45	U	0.34	U	0.35	U	n/a*		n/a*		n/a*		n/a*	
Trans-1,3-dichloropropene	n/a	n/a	0.21	U	0.21	U	0.22	UJ	0.2	U	n/a*		n/a*		n/a*		n/a*	
Trans-1,4-Dichloro-2-Butene	n/a	n/a	2	U	2	U	2	UJ	2	U	n/a*		n/a*		n/a*		n/a*	
Trichloroethene	16.5	5	7.7		10.6		9		14.5		3.53		--		21.1		5.8	
Trichlorofluoromethane	1290	n/a	0.5	U	0.5	U	0.4	U	0.5	U	n/a*		n/a*		n/a*		n/a*	
Vinyl acetate	412	n/a	3.6	U	3.6	U	2.4	U	2	U	n/a*		n/a*		n/a*		n/a*	
Vinyl chloride	0.861	2	0.3	U	0.3	U	0.28	U	0.22	U	n/a*		n/a*		n/a*		n/a*	

Notes:

[(1)] **NMWQCC** - New Mexico Water Quality Control Commission. These values are Tap Water Screening Values (ug/L) from Table A-1: NMED Soil Screening

[(2)] **EPA MCL** - United States Environmental Protection Agency Maximum

[(3)] Groundwater with TDS concentrations above 10,000 mg/L is not considered a

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC

EPA - United States Environmental Protection Agency

FD - field duplicate

mg/L - milligrams per liter

µg/L - micrograms per liter

n/a - not available

Q - analytical result qualifier

Value - reported analytical concentration

U - Not detected.

J - Detected. Quantitation estimated.

Table 4-4
Analytical Results from Groundwater Sampling at DP-30/SD-33 (July 2006-January 2011)
Holloman AFB, New Mexico

		Well Name:	MW30&33-03														MW30&33-04	
		Collection Date:	15-Jan-2008		07/11/2008		01/09/2009		07/08/2009		01/07/2010		07/06/2010		01/24/2011		7/19/2007	
		Sample ID:	HGL		MW-30&33-03-071108		MW-30&33-03-010909		MW30&33-03-070809		MW30&33-03-010710		MW30&33-03-070610		MW30&33-03-012411		HGL	
		QC Type:	N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**EPA MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
General Chemistry Parameters (mg/L)																		
Solids, total dissolved [3]	n/a	n/a	29000		31900		29300		39500		28100		20900		27200		25000	
Dissolved Metals (µg/L)																		
Aluminum	36500	n/a	200	J	129	U	44	U	55	U	158		100	U	27.6	J	1000	U
Antimony	14.6	6	100	U	23	U	18	U	23	U	9	U	8	U	2	U	100	U
Arsenic	0.448	10	50	U	18	U	22	U	27	U	11	U	8	U	2	U	50	U
Barium	7300	2000	25	J	25	U	20.6	J	25	U	22.6		20	U	20.6	J	55	U
Beryllium	73	4	20	U	5	U	4	U	5	U	1	U	4	U	1	U	20	U
Cadmium	18.3	5	n/a*		5	U	4	U	5	U	1	U	4	U	1	U	n/a*	
Calcium	n/a	n/a	840000		860000		876000		831000		757000		789000		816000		740000	
Chromium	110	100	n/a*		8	U	8	U	10	U	2	U	4	U	2	U	n/a*	
Cobalt	n/a	n/a	25	U	4.2	U	4	U	5	U	1	U	4	U	1.5	J	25	U
Copper	1460	1300	n/a*		11	U	20	U	25	U	5	U	8	U	6.2	J	n/a*	
Iron	25600	n/a	750	UJ	120	U	3700	U	120	U	92	U	140	U	35	U	750	UJ
Lead	n/a	15	n/a*		10	U	8	U	10	U	8	U	8.3	J	5	U	n/a*	
Magnesium	n/a	n/a	1800000		1920000		1610000		1720000		1620000		1590000		1660000		1400000	
Manganese	876	n/a	n/a*		2.5	U	4	U	5	U	1	U	4	U	1	U	n/a*	
Mercury	0.562	2	n/a*		0.14	U	0.15	U	0.15	UJ	0.15	U	0.071	U	0.05	U	n/a*	
Molybdenum	183	180	43	J													70	U
Nickel	730	n/a	50	U	12	U	9.2	U	12	U	2.3	U	8	U	10	U	50	U
Potassium	n/a	n/a	8000	J	23100	U	12400	J	12500		15900		5510	J	4740	J	1800	J
Selenium	183	50	24	J	46	J	24.6	J	46.2		29.3		24.3	J	20.3		75	U
Silver	183	n/a	n/a*		6	U	5.6	U	7	U	1.4	U	4	U	1	U	n/a*	
Sodium	n/a	n/a	6800000		6470000		3640000	J	7010000		6200000		6900000		7630000		5300000	J
Thallium	2.41	2	110	U	17	U	18.5	J	18	U	3.6	U	6	U	9.3	U	110	U
Vanadium	183	n/a	30		20.7	J	22.3	J	22.8		17.1		16.3	J	17.1	J	43	U
Zinc	11000	n/a	100	U	19	U	30	U	37	U	7.4	U	20	U	10	U	100	U
Total Metals (µg/L)																		
Aluminum	36500	n/a	200	J	171	U	44	U	55	U	110		100	U	25	U	1000	U
Antimony	14.6	6	100	U	23	U	18	U	23	U	9	U	8	U	2	U	**30**	J
Arsenic	0.448	10	50	U	18	U	22	U	27	U	11	UJ	8	U	**3**	J	50	U
Barium	7300	2000	24	J	25	U	21.5	J	25	U	22.1		20.8	J	20.9	J	55	U
Beryllium	73	4	n/a*		5	U	4	U	5	U	1	U	4	U	1	U	n/a*	
Cadmium	18.3	5	n/a*		5	U	4	U	5	U	1	U	4	U	1	U	n/a*	
Calcium	n/a	n/a	840000		943000		873000		866000		803000		803000		871000		750000	
Chromium	110	100	n/a*		8	U	8	U	10	U	2	U	4	U	2	U	n/a*	
Cobalt	n/a	n/a	25	U	4.2	U	4	U	5	U	1	U	4	U	1.6	J	6.9	J
Copper	1460	1300	n/a*		11	U	20	U	25	U	5	U	10	J	6.8	J	n/a*	
Iron	25600	n/a	750	UJ	4800	U	3700	U	120	U	105		140	U	35	U	750	UJ
Lead	n/a	15	n/a*		10	U	8	U	10	U	8	U	4	U	5	U	n/a*	
Magnesium	n/a	n/a	1800000		1930000		1600000		1790000		1690000		1610000		1740000		1400000	
Manganese	876	n/a	50	U	10	J	4	U	5	U	1	U	4	U	1	U	50	U
Mercury	0.562	2	0.3	U	0.14	U	0.15	U	0.15	UJ	0.15	U	0.071	U	0.05	U	0.099	J
Molybdenum	183	180	40	J													70	U

Table 4-4
Analytical Results from Groundwater Sampling at DP-30/SD-33 (July 2006-January 2011)
Holloman AFB, New Mexico

		Well Name:	MW30&33-03														MW30&33-04	
		Collection Date:	15-Jan-2008		07/11/2008		01/09/2009		07/08/2009		01/07/2010		07/06/2010		01/24/2011		7/19/2007	
		Sample ID:	HGL		MW-30&33-03-071108		MW-30&33-03-010909		MW30&33-03-070809		MW30&33-03-010710		MW30&33-03-070610		MW30&33-03-012411		HGL	
		QC Type:	N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[(1)]**	**EPA MCL[(2)]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Nickel	730	n/a	n/a*		12	U	9.2	U	12	U	2.3	U	8	U	10	U	n/a*	
Potassium	n/a	n/a	7700	J	17900	U	12600	J	13000		17100		7110	J	5370	J	2600	J
Selenium	183	50	25	J	24.7	J	32.1	J	50.2		49.2		32.6	J	20.4		75	U
Silver	183	n/a	n/a*		6	U	5.6	U	7	U	1.4	U	4	U	1	U	n/a*	
Sodium	n/a	n/a	6600000	J	6960000		3610000	J	6990000		6450000		7220000		7810000		5300000	J
Thallium	2.41	2	110	U	18.9	J	14	U	18	U	3.6	U	6	U	9.3	U	**39**	J
Vanadium	183	n/a	30		25	J	22.1	J	24		17.7		16.8	J	18.8	J	38	U
Zinc	11000	n/a	n/a*		19	U	30	U	37	U	7.4	U	20	U	10	U	n/a*	
Volatile Organic Compounds (µg/L)																		
1,1,1,2-Tetrachloroethane	5.24	n/a	n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	n/a*	
1,1,1-Trichloroethane	9130	200	n/a*		0.33	U	0.33	U	0.33	U	0.33	U	0.22	U	0.2	U	n/a*	
1,1,2,2-Tetrachloroethane	0.671	n/a	n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.29	U	0.23	U	n/a*	
1,1,2-Trichloro-1,2,2-trifluoroethane	59200	n/a	n/a*		0.34	U	0.34	U	0.34	U	0.34	U	0.43	U	0.47	U	n/a*	
1,1,2-Trichloroethane	2.42	5	n/a*		0.26	U	0.26	U	0.26	U	0.26	U	0.29	U	0.22	U	n/a*	
1,1-Dichloroethane	24.2	n/a	1	U	1.1		2.6		1.3		1.5		2.2		3.4		2.1	
1,1-Dichloroethene	340	7	1	U	0.54	U	0.54	U	0.54	U	0.54	U	0.29	U	0.25	J	1	U
1,1-Dichloropropene	n/a	n/a	n/a*		0.23	U	0.23	U	0.23	U	0.23	U	0.25	U	0.28	U	n/a*	
1,2,3-Trichlorobenzene	n/a	n/a	n/a*		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	n/a*	
1,2,3-Trichloropropane	0.096	n/a	n/a*		0.34	U	0.34	U	0.34	U	0.34	U	0.37	U	0.3	U	n/a*	
1,2,4-Trichlorobenzene	8.16	70	n/a*		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	n/a*	
1,2,4-Trimethylbenzene	n/a	n/a	n/a*		0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.27	U	n/a*	
1,2-Dibromo-3-chloropropane	0.00803	0.2	n/a*		0.32	U	0.32	U	0.32	U	0.32	U	0.59	UJ	0.5	U	n/a*	
1,2-Dibromoethane (Ethylene Dibromide)	0.0653	0.05	n/a*		0.28	U	0.28	U	0.28	U	0.28	U	0.23	U	0.37	U	n/a*	
1,2-Dichlorobenzene	370	600	n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.26	U	0.25	U	n/a*	
1,2-Dichloroethane	1.49	5	n/a*		0.34	U	0.34	U	0.34	U	0.34	U	0.33	U	0.2	U	n/a*	
1,2-Dichloropropane	3.86	5	n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.27	U	0.25	U	n/a*	
1,3,5-Trimethylbenzene (Mesitylene)	n/a	n/a	n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.21	U	0.21	U	n/a*	
1,3-Dichlorobenzene	n/a	n/a	1	U	0.23	U	0.23	U	0.23	U	0.23	U	0.29	U	0.2	U	--	
1,3-Dichloropropane	n/a	n/a	n/a*		0.26	U	0.26	U	0.26	U	0.26	U	0.28	U	0.2	U	n/a*	
1,4-Dichlorobenzene	4.27	75	n/a*		0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.23	U	n/a*	
1-Chlorohexane	n/a	n/a	n/a*		0.27	U	0.27	U	0.27	U	0.27	U	0.29	U	0.25	U	n/a*	
2,2-Dichloropropane	n/a	n/a	n/a*		0.28	U	0.28	U	0.28	U	0.28	U	0.37	U	0.44	U	n/a*	
2-Butanone	7060	n/a	5	UJ	2	U	2	U	2	U	2	U	2	UJ	2	U	5	UJ
2-Butylbenzene	n/a	n/a	n/a*		0.28	U	0.28	U	0.28	U	0.28	U	0.24	U	0.26	U	n/a*	
2-Chloroethyl vinyl ether	n/a	n/a	n/a*		1	UJ	1	UJ	1	U	1	U	1.1	UJ	1.2	U	n/a*	
2-Chlorotoluene	730	n/a	n/a*		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.22	U	n/a*	
2-Hexanone	n/a	n/a	n/a*		5	U	5	U	5	U	5	U	5	U	4	U	n/a*	
2-Propylbenzene	n/a	n/a	n/a*		--		--		--		--		--		--		n/a*	
4-Bromofluorobenzene	n/a	n/a	--		--		--		--		--		--		--		--	
4-Chlorotoluene	n/a	n/a	n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.23	U	0.2	U	n/a*	
4-Methyl-2-pentanone	1990	n/a	n/a*		2	U	2	U	2	U	2	U	2	U	2	U	n/a*	
Acetone	21800	n/a	n/a*		10	U	10	U	10	U	10	U	10	UJ	10	U	n/a*	
Acetonitrile	n/a	n/a	n/a*		5	U	5	U	5	U	5	U	5	UJ	5	U	n/a*	
Acrolein	0.0416	n/a	n/a*		5	U	5	U	5	U	5	U	10	UJ	5	U	n/a*	

Table 4-4
Analytical Results from Groundwater Sampling at DP-30/SD-33 (July 2006-January 2011)
Holloman AFB, New Mexico

		Well Name:	MW30&33-03														MW30&33-04	
		Collection Date:	15-Jan-2008		07/11/2008		01/09/2009		07/08/2009		01/07/2010		07/06/2010		01/24/2011		7/19/2007	
		Sample ID:	HGL		MW-30&33-03-071108		MW-30&33-03-010909		MW30&33-03-070809		MW30&33-03-010710		MW30&33-03-070610		MW30&33-03-012411		HGL	
		QC Type:	N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[(1)]**	**EPA MCL[(2)]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Acrylonitrile	0.454	n/a	n/a*		2	UJ	2	U	2	U	2	U	3	UJ	3	U	n/a*	
Allyl chloride (3-Chloropopene)	n/a	n/a	n/a*		2	U	2	U	2	U	2	U	2	U	0.3	U	n/a*	
Benzene	4.13	5	1	U	0.4	U	0.4	U	0.4	U	0.4	U	0.21	U	0.2	U	1	U
Benzyl Chloride	n/a	n/a	n/a*		0.36	U	0.36	U	0.36	U	0.36	U	0.4	U	0.5	U	n/a*	
Bromobenzene	n/a	n/a	n/a*		0.26	U	0.26	U	0.26	U	0.26	U	0.21	U	0.25	U	n/a*	
Bromochloromethane	n/a	n/a	n/a*		0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.22	U	n/a*	
Bromodichloromethane	1.17	80	n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.28	U	0.2	U	n/a*	
Bromoform	85.1	80	n/a*		0.33	U	0.33	U	0.33	U	0.33	U	0.24	U	0.2	U	n/a*	
Bromomethane	8.66	n/a	n/a*		0.78	U	0.78	U	0.78	U	0.78	U	0.78	U	0.5	U	n/a*	
Carbon disulfide	1040	n/a	n/a*		0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.5	UJ	n/a*	
Carbon tetrachloride	1.99	5	n/a*		0.22	U	0.22	U	0.22	U	0.22	U	0.34	U	0.25	U	n/a*	
Chlorobenzene	91.3	100	n/a*		0.22	U	0.22	U	0.22	U	0.22	U	0.2	U	0.2	U	n/a*	
Chloroethane	20900	n/a	n/a*		0.48	U	0.48	U	0.48	U	0.48	U	0.51	U	0.5	UJ	n/a*	
Chloroform	1.93	80	1	U	0.48	J	1		0.51	J	0.56	J	0.82	J	1.2		1	U
Chloromethane	17.8	n/a	n/a*		0.61	U	0.61	U	0.61	U	0.61	U	0.5	UJ	0.5	U	n/a*	
cis-1,2-dichloroethene	365	70	1	U	0.2	U	0.2	U	0.2	U	0.2	U	0.32	U	0.33	J	1	U
cis-1,3-dichloropropene	n/a	n/a	n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U	n/a*	
cis-1,4-Dichloro-2-Butene	n/a	n/a	n/a*		1	U	1	U	1	U	1	U	2	U	1	U	n/a*	
Cymene	n/a	n/a	n/a*		0.32	U	0.32	U	0.32	U	0.32	U	0.21	U	0.21	U	n/a*	
Dibromochloromethane	1.47	80	n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.33	U	0.2	U	n/a*	
Dibromofluoromethane	n/a	n/a	--		--		--		--		--		--		--		--	
Dibromomethane	365	n/a	n/a*		0.3	U	0.3	U	0.3	U	0.3	U	0.27	U	0.25	U	n/a*	
Dichlorodifluoromethane	395	n/a	n/a*		1	U	1	U	1	U	1	U	0.67	UJ	0.5	U	n/a*	
Ether, tert-butyl methyl	125	n/a	n/a*		0.26	U	0.26	U	0.26	U	0.26	U	0.25	U	0.34	U	n/a*	
Ethyl methacrylate	3290	n/a	n/a*		1	U	1	U	1	U	1	U	1	U	1	U	n/a*	
Ethylbenzene	14.8	700	n/a*		0.43	U	0.43	U	0.43	U	0.43	U	0.2	U	0.2	U	n/a*	
Hexachlorobutadiene	8.62	n/a	n/a*		0.69	U	0.69	U	0.69	U	0.69	U	0.4	U	0.8	U	n/a*	
Hexane	876	n/a	n/a*		0.5	U	0.5	U	0.5	U	0.5	U	0.66	U	0.59	U	n/a*	
Iodomethane	n/a	n/a	n/a*		1	U	1	U	1	U	1	U	0.31	U	0.2	U	n/a*	
Isopropylbenzene	679	n/a	n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	n/a*	
m,p-Xylene	n/a	n/a	2	U	0.78	U	0.78	U	0.78	U	0.78	U	0.34	U	0.32	U	2	U
Methacrylonitrile	1.04	n/a	n/a*		5	U	5	U	5	U	5	U	5	UJ	5	UJ	n/a*	
Methyl methacrylate	1420	n/a	n/a*		1	U	1	U	1	U	1	U	1	UJ	1	U	n/a*	
Methylene chloride	48	5	n/a*		1	U	1	U	1	U	1	U	2	UJ	2	U	n/a*	
Naphthalene	1.43	n/a	n/a*		1	U	1	U	1	U	1	U	1	U	1	U	n/a*	
n-Propylbenzene	n/a	n/a	n/a*		0.25	U	0.25	U	0.25	U	0.25	U	0.2	U	0.2	U	n/a*	
O-Xylene	1430	n/a	n/a*		0.37	U	0.37	U	0.37	U	0.37	U	0.2	U	0.2	U	n/a*	
Pentachloroethane	n/a	n/a	n/a*		2	U	2	U	2	U	2	U	2	U	2	U	n/a*	
Propane Nitrile (Propionitrile)	n/a	n/a	n/a*		10	U	10	U	10	U	10	U	5	UJ	5	U	n/a*	
Sec-Butylbenzene	n/a	n/a	n/a*		0.25	U	0.25	U	0.25	U	0.25	U	0.23	U	0.22	U	n/a*	
Styrene	1620	100	n/a*		0.36	U	0.36	U	0.36	U	0.36	U	0.2	U	0.2	U	n/a*	
Tert-butyl benzene	n/a	n/a	n/a*		0.32	U	0.32	U	0.32	U	0.32	U	0.24	U	0.27	U	n/a*	
Tetrachloroethene	1.08	5	n/a*		0.22	U	0.22	U	0.22	U	0.22	U	0.44	U	0.25	U	n/a*	
Toluene	2280	1000	--		0.35	U	0.35	U	0.35	U	0.35	U	0.2	U	0.2	U	--	

Table 4-4
Analytical Results from Groundwater Sampling at DP-30/SD-33 (July 2006-January 2011)
Holloman AFB, New Mexico

		Well Name:	MW30&33-03														MW30&33-04	
		Collection Date:	15-Jan-2008		07/11/2008		01/09/2009		07/08/2009		01/07/2010		07/06/2010		01/24/2011		7/19/2007	
		Sample ID:	HGL		MW-30&33-03-071108		MW-30&33-03-010909		MW30&33-03-070809		MW30&33-03-010710		MW30&33-03-070610		MW30&33-03-012411		HGL	
		QC Type:	N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[(1)]**	**EPA MCL[(2)]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Trans-1,2-dichloroethene	107	100	n/a*		0.45	U	0.45	U	0.45	U	0.45	U	0.34	U	0.35	U	n/a*	
Trans-1,3-dichloropropene	n/a	n/a	n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.22	UJ	0.2	U	n/a*	
Trans-1,4-Dichloro-2-Butene	n/a	n/a	n/a*		2	U	2	U	2	U	2	U	2	UJ	2	U	n/a*	
Trichloroethene	16.5	5	3.6		6.1		13.8		6.9		8.2		12		19.1		11	
Trichlorofluoromethane	1290	n/a	n/a*		0.5	U	0.5	U	0.5	U	0.5	U	0.4	U	0.5	U	n/a*	
Vinyl acetate	412	n/a	n/a*		3.6	U	3.6	U	3.6	U	3.6	U	2.4	U	2	U	n/a*	
Vinyl chloride	0.861	2	n/a*		0.3	U	0.3	U	0.3	U	0.3	U	0.28	U	0.22	U	n/a*	

Notes:

[(1)] **NMWQCC** - New Mexico Water Quality Control Commission. These values are Tap Water Screening Values (ug/L) from Table A-1: NMED Soil Screening

[(2)] **EPA MCL** - United States Environmental Protection Agency Maximum

[(3)] Groundwater with TDS concentrations above 10,000 mg/L is not considered a

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC

EPA - United States Environmental Protection Agency

FD - field duplicate

mg/L - milligrams per liter

µg/L - micrograms per liter

n/a - not available

Q - analytical result qualifier

Value - reported analytical concentration

U - Not detected.

J - Detected. Quantitation estimated.

Table 4-4
Analytical Results from Groundwater Sampling at DP-30/SD-33 (July 2006-January 2011)
Holloman AFB, New Mexico

		Well Name:	MW30&33-04															
		Collection Date:	1/15/2008		07/11/2008		01/09/2009		07/08/2009		07/08/2009		01/07/2010		07/06/2010		01/24/2011	
		Sample ID:	HGL		MW-30&33-04-071108		MW-30&33-04-010909		MW30&33-DUP01-070809		MW30&33-04-070809		MW30&33-04-010710		MW30&33-04-070610		MW30&33-04-012411	
		QC Type:	N		N		N		FD		N		N		N		N	
Analyte	**NMWQCC[1]**	**EPA MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
General Chemistry Parameters (mg/L)																		
Solids, total dissolved [3]	n/a	n/a	24000		22600		28000		31100		35500		21800		27300		24800	
Dissolved Metals (µg/L)																		
Aluminum	36500	n/a	160	J	139	U	44	U	55	U	55	U	143		100	U	25	U
Antimony	14.6	6	100	U	18	U	18	U	23	U	23	U	9	U	8	U	2	U
Arsenic	0.448	10	50	U	14	U	22	U	31.6		27	U	11	U	8	U	2	U
Barium	7300	2000	55	U	20	U	20	U	25	U	25	U	12.8		20	U	15.1	J
Beryllium	73	4	20	U	4	U	4	U	5	U	5	U	1	U	4	U	1	U
Cadmium	18.3	5	n/a*		4	U	4	U	5	U	5	U	1	U	4	U	1	U
Calcium	n/a	n/a	730000		705000		760000		778000		725000		684000		656000		686000	
Chromium	110	100	n/a*		6.4	U	8	U	10	U	10	U	2	U	4	U	2	U
Cobalt	n/a	n/a	25	U	3.3	U	4	U	5	U	5	U	1	U	4	U	1.6	J
Copper	1460	1300	n/a*		8.4	U	20	U	25	U	25	U	5	U	8	U	6.9	J
Iron	25600	n/a	750	UJ	92	U	3700	U	120	U	120	U	92	U	140	U	35	U
Lead	n/a	15	n/a*		8	U	8	U	10	U	10	U	8	U	8	J	5	U
Magnesium	n/a	n/a	1500000		1660000		1520000		1670000		1560000		1440000		1350000		1400000	
Manganese	876	n/a	n/a*		2	U	4	U	5	U	5	U	1	U	4	U	1	U
Mercury	0.562	2	n/a*		0.14	U	0.15	U	0.15	UJ	0.15	UJ	0.15	U	0.082	J	0.09	J
Molybdenum	183	180	70	U														
Nickel	730	n/a	50	U	9.2	U	9.2	U	12	U	12	U	2.3	U	8	U	10	U
Potassium	n/a	n/a	2200	J	14200	U	7390	J	7650		7150		8120		3010	J	2470	J
Selenium	183	50	75	U	29.3	J	14	U	26.3		17	U	20.6		14.9	J	4	U
Silver	183	n/a	n/a*		4.8	U	5.6	U	7	U	7	U	1.4	U	4	U	1	U
Sodium	n/a	n/a	5400000		5800000		3340000	J	6040000		5980000		5320000		6050000		6190000	
Thallium	2.41	2	110	U	14	U	14	U	18	U	18	U	3.6	U	6	U	9.3	U
Vanadium	183	n/a	39		31.2	J	32.7	J	39		38.1		30		27.2	J	28.1	J
Zinc	11000	n/a	100	U	15	U	30	U	37	U	37	U	7.4	U	20	U	10	U
Total Metals (µg/L)																		
Aluminum	36500	n/a	270	J	813		44	U	55	U	55	U	89.5		100	U	30.8	J
Antimony	14.6	6	100	U	36	U	18	U	23	U	23	U	9	U	8	U	2	U
Arsenic	0.448	10	50	U	28.8	J	22	U	27	U	27	U	11	UJ	10.3	J	**9.3**	J
Barium	7300	2000	18	J	20	U	20	U	25	U	25	U	12.7		20	U	12.9	J
Beryllium	73	4	n/a*		4	U	4	U	5	U	5	U	1	U	4	U	1	U
Cadmium	18.3	5	n/a*		4	U	4	U	5	U	5	U	1	U	4	U	1	U
Calcium	n/a	n/a	700000		858000		774000		743000		761000		708000		718000		714000	
Chromium	110	100	n/a*		6.4	U	8	U	10	U	10	U	2	U	4	U	5.7	J
Cobalt	n/a	n/a	25	U	3.3	U	4	U	5	U	5	U	1	U	4	U	1.7	J
Copper	1460	1300	n/a*		8.4	U	20	U	25	U	25	U	5	U	9.7	J	6.5	J
Iron	25600	n/a	750	UJ	3680	U	3700	U	120	U	120	U	92	U	140	U	35	U
Lead	n/a	15	n/a*		8	U	8	U	10	U	10	U	8	U	6.1	J	5	U
Magnesium	n/a	n/a	1400000		1840000		1560000		1590000		1640000		1500000		1470000		1470000	
Manganese	876	n/a	50	U	18.7	J	4	U	5	U	5	U	1	U	4	U	1	U
Mercury	0.562	2	0.3	U	0.14	U	0.15	U	0.15	UJ	0.15	UJ	0.15	U	0.088	J	0.13	J
Molybdenum	183	180	70	U	--		--		--		--		--		--		--	

Table 4-4
Analytical Results from Groundwater Sampling at DP-30/SD-33 (July 2006-January 2011)
Holloman AFB, New Mexico

		Well Name:	MW30&33-04															
		Collection Date:	1/15/2008		07/11/2008		01/09/2009		07/08/2009		07/08/2009		01/07/2010		07/06/2010		01/24/2011	
		Sample ID:	HGL		MW-30&33-04-071108		MW-30&33-04-010909		MW30&33-DUP01-070809		MW30&33-04-070809		MW30&33-04-010710		MW30&33-04-070610		MW30&33-04-012411	
		QC Type:	N		N		N		FD		N		N		N		N	
Analyte	**NMWQCC[1]**	**EPA MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Nickel	730	n/a	n/a*		9.2	U	9.2	U	12	U	12	U	2.3	U	8	U	10	U
Potassium	n/a	n/a	2100	J	12000	U	8120	J	7480		7410		8810		4490	J	2670	J
Selenium	183	50	75	U	16.8	J	23	J	19.9		17.2		37.2		24.1	J	8.7	J
Silver	183	n/a	n/a*		4.8	U	5.6	U	7	U	7	U	1.4	U	4	U	1	U
Sodium	n/a	n/a	5200000	J	6080000		3400000	J	6070000		5930000		5570000		6120000		6470000	
Thallium	2.41	2	110	U	20.4	J	14	U	18	U	18	U	3.6	U	6	U	9.3	U
Vanadium	183	n/a	40		38.7	J	33.1	J	39.2		37.9		30.7		30.1	J	27.7	J
Zinc	11000	n/a	n/a*		15	U	30	U	37	U	37	U	7.4	U	20	U	10	U
Volatile Organic Compounds (µg/L)																		
1,1,1,2-Tetrachloroethane	5.24	n/a	n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
1,1,1-Trichloroethane	9130	200	n/a*		0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.22	U	0.2	U
1,1,2,2-Tetrachloroethane	0.671	n/a	n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.21	U	0.29	U	0.23	U
1,1,2-Trichloro-1,2,2-trifluoroethane	59200	n/a	n/a*		0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.43	U	0.47	U
1,1,2-Trichloroethane	2.42	5	n/a*		0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	0.29	U	0.22	U
1,1-Dichloroethane	24.2	n/a	1.7		2.1		1.5		1		1.1		1.2		1.4		1.4	
1,1-Dichloroethene	340	7	1	U	0.54	U	0.54	U	0.54	U	0.54	U	0.54	U	0.29	U	0.23	U
1,1-Dichloropropene	n/a	n/a	n/a*		0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.25	U	0.28	U
1,2,3-Trichlorobenzene	n/a	n/a	n/a*		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.096	n/a	n/a*		0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.37	U	0.3	U
1,2,4-Trichlorobenzene	8.16	70	n/a*		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trimethylbenzene	n/a	n/a	n/a*		0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.27	U
1,2-Dibromo-3-chloropropane	0.00803	0.2	n/a*		0.32	U	0.32	U	0.32	U	0.32	U	0.32	U	0.59	UJ	0.5	U
1,2-Dibromoethane (Ethylene Dibromide)	0.0653	0.05	n/a*		0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.23	U	0.37	U
1,2-Dichlorobenzene	370	600	n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.26	U	0.25	U
1,2-Dichloroethane	1.49	5	n/a*		0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.33	U	0.2	U
1,2-Dichloropropane	3.86	5	n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.21	U	0.27	U	0.25	U
1,3,5-Trimethylbenzene (Mesitylene)	n/a	n/a	n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U	0.21	U
1,3-Dichlorobenzene	n/a	n/a	1	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.29	U	0.2	U
1,3-Dichloropropane	n/a	n/a	n/a*		0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	0.28	U	0.2	U
1,4-Dichlorobenzene	4.27	75	n/a*		0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.23	U
1-Chlorohexane	n/a	n/a	n/a*		0.27	U	0.27	U	0.27	U	0.27	U	0.27	U	0.29	U	0.25	U
2,2-Dichloropropane	n/a	n/a	n/a*		0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.37	U	0.44	U
2-Butanone	7060	n/a	5	UJ	2	U	2	U	2	U	2	U	2	U	2	UJ	2	U
2-Butylbenzene	n/a	n/a	n/a*		0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.24	U	0.26	U
2-Chloroethyl vinyl ether	n/a	n/a	n/a*		1	UJ	1	UJ	1	U	1	U	1	U	1.1	UJ	1.2	U
2-Chlorotoluene	730	n/a	n/a*		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.22	U
2-Hexanone	n/a	n/a	n/a*		5	U	5	U	5	U	5	U	5	U	5	U	4	U
2-Propylbenzene	n/a	n/a	n/a*		--		--		--		--		--		--		--	
4-Bromofluorobenzene	n/a	n/a	--		--		--		--		--		--		--		--	
4-Chlorotoluene	n/a	n/a	n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.21	U	0.23	U	0.2	U
4-Methyl-2-pentanone	1990	n/a	n/a*		2	U	2	U	2	U	2	U	2	U	2	U	2	U
Acetone	21800	n/a	n/a*		10	U	10	U	10	U	10	U	10	U	10	UJ	10	U
Acetonitrile	n/a	n/a	n/a*		5	U	5	U	5	U	5	U	5	U	5	UJ	5	U
Acrolein	0.0416	n/a	n/a*		5	U	5	U	5	U	5	U	5	U	10	UJ	5	U

Table 4-4
Analytical Results from Groundwater Sampling at DP-30/SD-33 (July 2006-January 2011)
Holloman AFB, New Mexico

		Well Name:	MW30&33-04															
		Collection Date:	1/15/2008		07/11/2008		01/09/2009		07/08/2009		07/08/2009		01/07/2010		07/06/2010		01/24/2011	
		Sample ID:	HGL		MW-30&33-04-071108		MW-30&33-04-010909		MW30&33-DUP01-070809		MW30&33-04-070809		MW30&33-04-010710		MW30&33-04-070610		MW30&33-04-012411	
		QC Type:	N		N		N		FD		N		N		N		N	
Analyte	**NMWQCC[(1)]**	**EPA MCL[(2)]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Acrylonitrile	0.454	n/a	n/a*		2	UJ	2	U	2	U	2	U	2	U	3	UJ	3	U
Allyl chloride (3-Chloropopene)	n/a	n/a	n/a*		2	U	2	U	2	U	2	U	2	U	2	U	0.3	U
Benzene	4.13	5	1	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.21	U	0.2	U
Benzyl Chloride	n/a	n/a	n/a*		0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	0.4	U	0.5	U
Bromobenzene	n/a	n/a	n/a*		0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	0.21	U	0.25	U
Bromochloromethane	n/a	n/a	n/a*		0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.22	U
Bromodichloromethane	1.17	80	n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.28	U	0.2	U
Bromoform	85.1	80	n/a*		0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.24	U	0.2	U
Bromomethane	8.66	n/a	n/a*		0.78	U	0.78	U	0.78	U	0.78	U	0.78	U	0.78	U	0.5	U
Carbon disulfide	1040	n/a	n/a*		0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.5	UJ
Carbon tetrachloride	1.99	5	n/a*		0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.34	U	0.25	U
Chlorobenzene	91.3	100	n/a*		0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.2	U	0.2	U
Chloroethane	20900	n/a	n/a*		0.48	U	0.48	U	0.48	U	0.48	U	0.48	U	0.51	U	0.5	UJ
Chloroform	1.93	80	1	U	0.86	J	0.61	J	0.48	J	0.47	J	0.52	J	0.54	J	0.53	J
Chloromethane	17.8	n/a	n/a*		0.61	U	0.61	U	0.61	U	0.61	U	0.61	U	0.5	UJ	0.5	U
cis-1,2-dichloroethene	365	70	1	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.32	U	0.26	U
cis-1,3-dichloropropene	n/a	n/a	n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
cis-1,4-Dichloro-2-Butene	n/a	n/a	n/a*		1	U	1	U	1	U	1	U	1	U	2	U	1	U
Cymene	n/a	n/a	n/a*		0.32	U	0.32	U	0.32	U	0.32	U	0.32	U	0.21	U	0.21	U
Dibromochloromethane	1.47	80	n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.33	U	0.2	U
Dibromofluoromethane	n/a	n/a	--		--		--		--		--		--		--		--	
Dibromomethane	365	n/a	n/a*		0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.27	U	0.25	U
Dichlorodifluoromethane	395	n/a	n/a*		1	U	1	U	1	U	1	U	1	U	0.67	UJ	0.5	U
Ether, tert-butyl methyl	125	n/a	n/a*		0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	0.25	U	0.34	U
Ethyl methacrylate	3290	n/a	n/a*		1	U	1	U	1	U	1	U	1	U	1	U	1	U
Ethylbenzene	14.8	700	n/a*		0.43	U	0.43	U	0.43	U	0.43	U	0.43	U	0.2	U	0.2	U
Hexachlorobutadiene	8.62	n/a	n/a*		0.69	U	0.69	U	0.69	U	0.69	U	0.69	U	0.4	U	0.8	U
Hexane	876	n/a	n/a*		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.66	U	0.59	U
Iodomethane	n/a	n/a	n/a*		1	U	1	U	1	U	1	U	1	U	0.31	U	0.2	U
Isopropylbenzene	679	n/a	n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
m,p-Xylene	n/a	n/a	2	U	0.78	U	0.78	U	0.78	U	0.78	U	0.78	U	0.34	U	0.32	U
Methacrylonitrile	1.04	n/a	n/a*		5	U	5	U	5	U	5	U	5	U	5	UJ	5	UJ
Methyl methacrylate	1420	n/a	n/a*		1	U	1	U	1	U	1	U	1	U	1	UJ	1	U
Methylene chloride	48	5	n/a*		1	U	1	U	1	U	1	U	1	U	2	UJ	2	U
Naphthalene	1.43	n/a	n/a*		1	U	1	U	1	U	1	U	1	U	1	U	1	U
n-Propylbenzene	n/a	n/a	n/a*		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.2	U	0.2	U
O-Xylene	1430	n/a	n/a*		0.37	U	0.37	U	0.37	U	0.37	U	0.37	U	0.2	U	0.2	U
Pentachloroethane	n/a	n/a	n/a*		2	U	2	U	2	U	2	U	2	U	2	U	2	U
Propane Nitrile (Propionitrile)	n/a	n/a	n/a*		10	U	10	U	10	U	10	U	10	U	5	UJ	5	U
Sec-Butylbenzene	n/a	n/a	n/a*		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.23	U	0.22	U
Styrene	1620	100	n/a*		0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	0.2	U	0.2	U
Tert-butyl benzene	n/a	n/a	n/a*		0.32	U	0.32	U	0.32	U	0.32	U	0.32	U	0.24	U	0.27	U
Tetrachloroethene	1.08	5	n/a*		0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.44	U	0.25	U
Toluene	2280	1000	--		0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.2	U	0.2	U

Table 4-4
Analytical Results from Groundwater Sampling at DP-30/SD-33 (July 2006-January 2011)
Holloman AFB, New Mexico

		Well Name:	MW30&33-04															
		Collection Date:	1/15/2008		07/11/2008		01/09/2009		07/08/2009		07/08/2009		01/07/2010		07/06/2010		01/24/2011	
		Sample ID:	HGL		MW-30&33-04-071108		MW-30&33-04-010909		MW30&33-DUP01-070809		MW30&33-04-070809		MW30&33-04-010710		MW30&33-04-070610		MW30&33-04-012411	
		QC Type:	N		N		N		FD		N		N		N		N	
Analyte	**NMWQCC[(1)]**	**EPA MCL[(2)]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Trans-1,2-dichloroethene	107	100	n/a*		0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.34	U	0.35	U
Trans-1,3-dichloropropene	n/a	n/a	n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.21	U	0.22	UJ	0.2	U
Trans-1,4-Dichloro-2-Butene	n/a	n/a	n/a*		2	U	2	U	2	U	2	U	2	U	2	UJ	2	U
Trichloroethene	16.5	5	8		10.1		7.5		4.5		4.4		5.2		6.5		6.9	
Trichlorofluoromethane	1290	n/a	n/a*		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.4	U	0.5	U
Vinyl acetate	412	n/a	n/a*		3.6	U	3.6	U	3.6	U	3.6	U	3.6	U	2.4	U	2	U
Vinyl chloride	0.861	2	n/a*		0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.28	U	0.22	U

Notes:

[(1)] **NMWQCC** - New Mexico Water Quality Control Commission. These values are Tap Water Screening Values (ug/L) from Table A-1: NMED Soil Screening

[(2)] **EPA MCL** - United States Environmental Protection Agency Maximum

[(3)] Groundwater with TDS concentrations above 10,000 mg/L is not considered a

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC

EPA - United States Environmental Protection Agency

FD - field duplicate

mg/L - milligrams per liter

µg/L - micrograms per liter

n/a - not available

Q - analytical result qualifier

Value - reported analytical concentration

U - Not detected.

J - Detected. Quantitation estimated.

Table 4-4
Analytical Results from Groundwater Sampling at DP-30/SD-33 (July 2006-January 2011)
Holloman AFB, New Mexico

		Well Name:	MW30&33-05															
		Collection Date:	7/15/2006		1/17/2007		1/17/2007		7/16/2007		7/16/2007		1/14/2008		1/14/2008		07/11/2008	
		Sample ID:	HGL		HGL		HGL		HGL		HGL		HGL		HGL		MW-30&33-DUP01-071108	
		QC Type:	N		N		FD		N		FD		N		FD		FD	
Analyte	**NMWQCC[1]**	**EPA MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
General Chemistry Parameters (mg/L)																		
Solids, total dissolved [3]	n/a	n/a	24500		21500		--		21000		--		19000		18000		22100	
Dissolved Metals (µg/L)																		
Aluminum	36500	n/a	9.8	U	30	U	30	U	1000	U	1000	U	1000	U	1000	U	147	U
Antimony	14.6	6	3.2	U	5	UJ	5	UJ	100	U	**42**	J	100	U	100	U	18	U
Arsenic	0.448	10	3.6	U	5	U	5	U	50	U	50	U	50	U	50	U	14	U
Barium	7300	2000	14		17	J	18	J	26	J	55	U	19	J	18	J	20	U
Beryllium	73	4	4		2.5	U	2.5	U	20	U	20	U	20	U	20	U	4	U
Cadmium	18.3	5	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		4	U
Calcium	n/a	n/a	785000		771000		754000		760000		750000		740000		730000		735000	
Chromium	110	100	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		6.4	U
Cobalt	n/a	n/a	4	J	5	UJ	5	UJ	6.5	J	11	J	25	U	25	U	3.3	U
Copper	1460	1300	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		8.4	U
Iron	25600	n/a	19		10	UJ	10	UJ	750	U	750	U	750	UJ	750	UJ	92	U
Lead	n/a	15	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		8	U
Magnesium	n/a	n/a	259		53		1150000		1200000		1200000		1200000		1200000		1320000	
Manganese	876	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		10.7	J
Mercury	0.562	2	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.14	U
Molybdenum	183	180	--		--		--		27	J	32	J	32	J	31	J	--	
Nickel	730	n/a	7		9	UJ	7	UJ	50	U	50	U	50	U	50	U	9.2	U
Potassium	n/a	n/a	47000		13300		11900		16000		17000		17000	J	16000	J	35800	U
Selenium	183	50	5.5	U	10	UJ	10	UJ	75	U	75	U	75	U	75	U	24	J
Silver	183	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		4.8	U
Sodium	n/a	n/a	3970000		5860000		5320000		4300000		4300000		4300000		4200000		4620000	
Thallium	2.41	2	27.7	U	5	UJ	5	UJ	110	U	110	U	110	UJ	110	UJ	14	U
Vanadium	183	n/a	14		31	J	32	J	42	U	50	U	32		34		39.8	J
Zinc	11000	n/a	133		5	UJ	5	UJ	100	U	100	U	100	U	100	U	15	U
Total Metals (µg/L)																		
Aluminum	36500	n/a	--		1020	J	1440	J	1000	U	1000	U	1000	U	1000	U	19900	
Antimony	14.6	6	--		50	U	50	U	100	U	**32**	J	100	U	100	U	18	U
Arsenic	0.448	10	--		5	U	5	U	50	U	50	U	50	U	50	U	31.3	J
Barium	7300	2000	--		27		31		49	J	21	J	26	J	19	J	245	J
Beryllium	73	4	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		4	U
Cadmium	18.3	5	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		4	U
Calcium	n/a	n/a	--		843000		812000		760000		750000		770000		750000		1400000	
Chromium	110	100	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		24.5	J
Cobalt	n/a	n/a	--		5	U	5	U	14	J	17	J	25	U	25	U	11.5	J
Copper	1460	1300	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		8.4	U
Iron	25600	n/a	--		1100		1410		750	U	750	U	750	UJ	750	UJ	17200	
Lead	n/a	15	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		20.1	
Magnesium	n/a	n/a	--		1290000		1230000		1200000		1200000		1300000		1200000		1290000	
Manganese	876	n/a	--		105		99		29	J	14	J	76		70		**1190**	
Mercury	0.562	2	--		0.2	U	0.2	U	0.3	U	0.3	U	0.3	U	0.3	U	0.14	U
Molybdenum	183	180	--		--		--		47	J	35	J	35	J	35	J	--	

Table 4-4
Analytical Results from Groundwater Sampling at DP-30/SD-33 (July 2006-January 2011)
Holloman AFB, New Mexico

		Well Name:	MW30&33-05															
		Collection Date:	7/15/2006		1/17/2007		1/17/2007		7/16/2007		7/16/2007		1/14/2008		1/14/2008		07/11/2008	
		Sample ID:	HGL		HGL		HGL		HGL		HGL		HGL		HGL		MW-30&33-DUP01-071108	
		QC Type:	N		N		FD		N		FD		N		FD		FD	
Analyte	**NMWQCC[1]**	**EPA MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Nickel	730	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		27.3	J
Potassium	n/a	n/a	--		22100		14700		17000		17000		18000	J	17000	J	33100	U
Selenium	183	50	--		10	U	10	U	75	U	75	U	75	U	75	U	17.9	J
Silver	183	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		4.8	U
Sodium	n/a	n/a	--		5950000		5570000		4200000		4300000		4400000		4300000		4640000	
Thallium	2.41	2	--		50	U	50	U	110	U	110	U	110	UJ	110	UJ	14	U
Vanadium	183	n/a	--		36		36		42	U	56	U	38		36		102	J
Zinc	11000	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		80.8	
Volatile Organic Compounds (µg/L)																		
1,1,1,2-Tetrachloroethane	5.24	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.2	U
1,1,1-Trichloroethane	9130	200	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.33	U
1,1,2,2-Tetrachloroethane	0.671	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.21	U
1,1,2-Trichloro-1,2,2-trifluoroethane	59200	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.34	U
1,1,2-Trichloroethane	2.42	5	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.26	U
1,1-Dichloroethane	24.2	n/a	11.5		11.1		11		8.7		8.6		8.7		8.6		8.9	
1,1-Dichloroethene	340	7	1.44		1.92		1.81		1.7		1.7		1.4		1.5		1.4	
1,1-Dichloropropene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.23	U
1,2,3-Trichlorobenzene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.5	U
1,2,3-Trichloropropane	0.096	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.34	U
1,2,4-Trichlorobenzene	8.16	70	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.5	U
1,2,4-Trimethylbenzene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.22	U
1,2-Dibromo-3-chloropropane	0.00803	0.2	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.32	U
1,2-Dibromoethane (Ethylene Dibromide)	0.0653	0.05	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.28	U
1,2-Dichlorobenzene	370	600	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.2	U
1,2-Dichloroethane	1.49	5	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.34	U
1,2-Dichloropropane	3.86	5	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.21	U
1,3,5-Trimethylbenzene (Mesitylene)	n/a	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.2	U
1,3-Dichlorobenzene	n/a	n/a	0.07	J	--		--		--		--		1	U	1	U	0.23	U
1,3-Dichloropropane	n/a	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.26	U
1,4-Dichlorobenzene	4.27	75	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.22	U
1-Chlorohexane	n/a	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.27	U
2,2-Dichloropropane	n/a	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.28	U
2-Butanone	7060	n/a	0.59	J	5	U	5	U	5	U	5	U	5	U	5	U	2	U
2-Butylbenzene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.28	U
2-Chloroethyl vinyl ether	n/a	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		1	UJ
2-Chlorotoluene	730	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.25	U
2-Hexanone	n/a	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		5	U
2-Propylbenzene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		--	
4-Bromofluorobenzene	n/a	n/a	--		47.3		48.4		--		--		--		--		--	
4-Chlorotoluene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.21	U
4-Methyl-2-pentanone	1990	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		2	U
Acetone	21800	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		10	U
Acetonitrile	n/a	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		5	U
Acrolein	0.0416	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		5	U

Table 4-4
Analytical Results from Groundwater Sampling at DP-30/SD-33 (July 2006-January 2011)
Holloman AFB, New Mexico

		Well Name:	MW30&33-05															
		Collection Date:	7/15/2006		1/17/2007		1/17/2007		7/16/2007		7/16/2007		1/14/2008		1/14/2008		07/11/2008	
		Sample ID:	HGL		HGL		HGL		HGL		HGL		HGL		HGL		MW-30&33-DUP01-071108	
		QC Type:	N		N		FD		N		FD		N		FD		FD	
Analyte	**NMWQCC[1]**	**EPA MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Acrylonitrile	0.454	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		2	UJ
Allyl chloride (3-Chloropopene)	n/a	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		2	U
Benzene	4.13	5	0.29	J	1	U	1	U	1	U	1	U	1	U	1	U	0.4	U
Benzyl Chloride	n/a	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.36	U
Bromobenzene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.26	U
Bromochloromethane	n/a	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.23	U
Bromodichloromethane	1.17	80	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.2	U
Bromoform	85.1	80	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.33	U
Bromomethane	8.66	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.78	U
Carbon disulfide	1040	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.4	U
Carbon tetrachloride	1.99	5	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.22	U
Chlorobenzene	91.3	100	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.22	U
Chloroethane	20900	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.48	U
Chloroform	1.93	80	0.48	J	0.52	J	0.53	J	1	U	1	U	1	U	1	U	0.45	J
Chloromethane	17.8	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.61	U
cis-1,2-dichloroethene	365	70	7.5		7.68		7.62		6.1		6.2		6		5.8		5.6	
cis-1,3-dichloropropene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.21	U
cis-1,4-Dichloro-2-Butene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		1	U
Cymene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.32	U
Dibromochloromethane	1.47	80	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.2	U
Dibromofluoromethane	n/a	n/a	--		51.1		52.1		--		--		--		--		--	
Dibromomethane	365	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.3	U
Dichlorodifluoromethane	395	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		1	U
Ether, tert-butyl methyl	125	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.26	U
Ethyl methacrylate	3290	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		1	U
Ethylbenzene	14.8	700	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.43	U
Hexachlorobutadiene	8.62	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.69	U
Hexane	876	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.5	U
Iodomethane	n/a	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		1	U
Isopropylbenzene	679	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.2	U
m,p-Xylene	n/a	n/a	0.04	J	1	U	1	U	2	U	2	U	2	U	2	U	0.78	U
Methacrylonitrile	1.04	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		5	U
Methyl methacrylate	1420	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		1	U
Methylene chloride	48	5	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		1	U
Naphthalene	1.43	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		1	U
n-Propylbenzene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.25	U
O-Xylene	1430	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.37	U
Pentachloroethane	n/a	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		2	U
Propane Nitrile (Propionitrile)	n/a	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		10	U
Sec-Butylbenzene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.25	U
Styrene	1620	100	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.36	U
Tert-butyl benzene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.32	U
Tetrachloroethene	1.08	5	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.22	U
Toluene	2280	1000	--		46.9		47		--		--		--		--		0.35	U

Table 4-4
Analytical Results from Groundwater Sampling at DP-30/SD-33 (July 2006-January 2011)
Holloman AFB, New Mexico

		Well Name:	MW30&33-05															
		Collection Date:	7/15/2006		1/17/2007		1/17/2007		7/16/2007		7/16/2007		1/14/2008		1/14/2008		07/11/2008	
		Sample ID:	HGL		HGL		HGL		HGL		HGL		HGL		HGL		MW-30&33-DUP01-071108	
		QC Type:	N		N		FD		N		FD		N		FD		FD	
Analyte	**NMWQCC[(1)]**	**EPA MCL[(2)]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Trans-1,2-dichloroethene	107	100	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.45	U
Trans-1,3-dichloropropene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.21	U
Trans-1,4-Dichloro-2-Butene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		2	U
Trichloroethene	16.5	5	**59.3**		**58.1**		**55.7**		**51**		**49**		**43**		**44**		41.7	
Trichlorofluoromethane	1290	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.5	U
Vinyl acetate	412	n/a	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		3.6	U
Vinyl chloride	0.861	2	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*		0.3	U

Notes:

[(1)] **NMWQCC** - New Mexico Water Quality Control Commission. These values are Tap Water Screening Values (ug/L) from Table A-1: NMED Soil Screening

[(2)] **EPA MCL** - United States Environmental Protection Agency Maximum

[(3)] Groundwater with TDS concentrations above 10,000 mg/L is not considered a

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC

EPA - United States Environmental Protection Agency

FD - field duplicate

mg/L - milligrams per liter

µg/L - micrograms per liter

n/a - not available

Q - analytical result qualifier

Value - reported analytical concentration

U - Not detected.

J - Detected. Quantitation estimated.

Table 4-4
Analytical Results from Groundwater Sampling at DP-30/SD-33 (July 2006-January 2011)
Holloman AFB, New Mexico

		Well Name:	MW30&33-05						MW30&33-05R							
		Collection Date:	07/11/2008		01/07/2009		01/09/2009		10/06/2009		01/07/2010		01/07/2010		07/06/2010	
		Sample ID:	MW-30&33-05-071108		MW-30&33-05-010709		MW-30&33-DUP01-010909		MW30&33-05R-100609		MW30&33-DUP01-010710		MW30&33-05R-010710		MW30&33-05R-070610	
		QC Type:	N		N		FD		N		FD		N		N	
Analyte	**NMWQCC[1]**	**EPA MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
General Chemistry Parameters (mg/L)																
Solids, total dissolved [3]	n/a	n/a	22500		21000		22200		25300		18100		13600		16900	
Dissolved Metals (µg/L)																
Aluminum	36500	n/a	116	U	46.3	J	45.8	J	120		164		153		100	U
Antimony	14.6	6	18	U	18	U	18	U	12	U	9	U	9	U	8	U
Arsenic	0.448	10	14	U	22	U	22	U	15.4		11	U	11	U	8	U
Barium	7300	2000	20	U	20	U	20	U	34.3		27.4		25.7		21.2	J
Beryllium	73	4	4	U	4	U	4	U	1	U	1	U	1	U	4	U
Cadmium	18.3	5	4	U	4	U	4	U	1	U	1	U	1	U	4	U
Calcium	n/a	n/a	687000		785000		778000		709000		704000		672000		742000	
Chromium	110	100	6.4	U	8	U	8	U	2	U	2	U	2	U	4	U
Cobalt	n/a	n/a	3.3	U	4	U	4	U	1.9		1.4		1.6		4	U
Copper	1460	1300	8.4	U	20	U	20	U	5	U	5	U	5	U	8	U
Iron	25600	n/a	92	U	3700	U	3700	U	92	U	92	U	92	U	140	U
Lead	n/a	15	8	U	8	U	8	U	8	U	8	U	8	U	10	J
Magnesium	n/a	n/a	1230000		1210000		1190000		1280000		1160000		1100000		1210000	
Manganese	876	n/a	2	U	98.1		113		661		452		455		189	
Mercury	0.562	2	0.14	U	0.15	U	0.15	U	0.15	U	0.15	U	0.15	U	0.071	U
Molybdenum	183	180	--		--		--		--		--		--		--	
Nickel	730	n/a	9.2	U	9.2	U	9.2	U	8.7		4.9		5.4		8	U
Potassium	n/a	n/a	32100	U	29100	J	28700	J	19400		20000		18000		6720	J
Selenium	183	50	16.4	J	14	U	14	U	20		15.5		14.1		14.1	J
Silver	183	n/a	4.8	U	5.6	U	5.6	U	1.4	U	1.4	U	1.4	U	4	U
Sodium	n/a	n/a	4310000		2900000	J	2870000	J	4590000		4280000		4150000		5080000	
Thallium	2.41	2	14	U	14	U	14	U	3.6	U	3.6	U	3.6	U	6	U
Vanadium	183	n/a	38	J	42.2	J	41.4	J	34.3		44.7		45.6		51	J
Zinc	11000	n/a	15	U	30	U	30	U	7.4	U	7.4	U	7.4	U	20	U
Total Metals (µg/L)																
Aluminum	36500	n/a	26900		85.4	J	67.6	J	108		107		251		100	U
Antimony	14.6	6	36	U	18	U	18	U	9	U	9	U	9	U	8	U
Arsenic	0.448	10	23.3	J	22	U	22	U	15.3		11	UJ	11	UJ	8	U
Barium	7300	2000	315	J	20	U	20	U	34.3		26.4		27.4		20.1	J
Beryllium	73	4	4	U	4	U	4	U	1	U	1	U	1	U	4	U
Cadmium	18.3	5	4	U	4	U	4	U	1	U	1	U	1	U	4	U
Calcium	n/a	n/a	1560000		862000		762000		713000		716000		722000		674000	
Chromium	110	100	31	J	8	U	8	U	2	U	2	U	2	U	4	U
Cobalt	n/a	n/a	14.6	J	4	U	4	U	1.5		1	U	1.1		4	U
Copper	1460	1300	8.4	U	20	U	20	U	5	U	5	U	5	U	10.7	J
Iron	25600	n/a	23600		3700	U	3700	U	92	U	92	U	92	U	140	U
Lead	n/a	15	22		8.7	U	8	U	8	U	8	U	8	U	4	U
Magnesium	n/a	n/a	1280000		1330000		1170000		1220000		1160000		1230000		1070000	
Manganese	876	n/a	**1460**		110		109		672		477		493		224	
Mercury	0.562	2	0.14	U	0.15	U	0.15	U	0.15	U	0.15	U	0.15	U	0.071	U
Molybdenum	183	180	--		--		--		--		--		--		--	

Table 4-4
Analytical Results from Groundwater Sampling at DP-30/SD-33 (July 2006-January 2011)
Holloman AFB, New Mexico

		Well Name:	MW30&33-05						MW30&33-05R							
		Collection Date:	07/11/2008		01/07/2009		01/09/2009		10/06/2009		01/07/2010		01/07/2010		07/06/2010	
		Sample ID:	MW-30&33-05-071108		MW-30&33-05-010709		MW-30&33-DUP01-010909		MW30&33-05R-100609		MW30&33-DUP01-010710		MW30&33-05R-010710		MW30&33-05R-070610	
		QC Type:	N		N		FD		N		FD		N		N	
Analyte	**NMWQCC[1]**	**EPA MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Nickel	730	n/a	33.2	J	9.2	U	9.2	U	10.1		5.6		6.5		8	U
Potassium	n/a	n/a	36500	U	33000	J	27800	J	20200		20400		20400		6910	J
Selenium	183	50	22.8	J	15.9	J	14.6	J	22		25.8		32.5		20.9	J
Silver	183	n/a	4.8	U	5.6	U	5.6	U	1.4	U	1.4	U	1.4	U	4	U
Sodium	n/a	n/a	4850000		3120000	J	2820000	J	4660000		4450000		4600000		4850000	
Thallium	2.41	2	14	U	16.9	J	14	U	3.6	U	3.6	U	3.6	U	6	U
Vanadium	183	n/a	121	J	47.5	J	40.4	J	35.9		47.1		48.4		46.1	J
Zinc	11000	n/a	112		30	U	30	U	7.4	U	7.4	U	7.4	U	20	U
Volatile Organic Compounds (µg/L)																
1,1,1,2-Tetrachloroethane	5.24	n/a	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
1,1,1-Trichloroethane	9130	200	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.22	U
1,1,2,2-Tetrachloroethane	0.671	n/a	0.21	U	0.21	U	0.21	U	0.21	U	0.21	U	0.21	U	0.29	U
1,1,2-Trichloro-1,2,2-trifluoroethane	59200	n/a	0.34	U	0.34	U	0.34	U	0.34	UJ	0.34	U	0.34	U	0.43	U
1,1,2-Trichloroethane	2.42	5	0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	0.29	U
1,1-Dichloroethane	24.2	n/a	9.2		8.7		7.7		6		8.2		8.8		6.7	
1,1-Dichloroethene	340	7	1.5		1.3		1.2		0.86	J	1.1		1.2		0.6	J
1,1-Dichloropropene	n/a	n/a	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.25	U
1,2,3-Trichlorobenzene	n/a	n/a	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.096	n/a	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.37	U
1,2,4-Trichlorobenzene	8.16	70	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trimethylbenzene	n/a	n/a	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U
1,2-Dibromo-3-chloropropane	0.00803	0.2	0.32	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32	U	0.59	UJ
1,2-Dibromoethane (Ethylene Dibromide)	0.0653	0.05	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.23	U
1,2-Dichlorobenzene	370	600	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.26	U
1,2-Dichloroethane	1.49	5	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.33	U
1,2-Dichloropropane	3.86	5	0.21	U	0.21	U	0.21	U	0.21	U	0.21	U	0.21	U	0.27	U
1,3,5-Trimethylbenzene (Mesitylene)	n/a	n/a	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
1,3-Dichlorobenzene	n/a	n/a	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.29	U
1,3-Dichloropropane	n/a	n/a	0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	0.28	U
1,4-Dichlorobenzene	4.27	75	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U
1-Chlorohexane	n/a	n/a	0.27	U	0.27	U	0.27	U	0.27	U	0.27	U	0.27	U	0.29	U
2,2-Dichloropropane	n/a	n/a	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.37	U
2-Butanone	7060	n/a	2	U	2	U	2	U	2	U	2	U	2	U	2	UJ
2-Butylbenzene	n/a	n/a	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.24	U
2-Chloroethyl vinyl ether	n/a	n/a	1	UJ	1	UJ	1	UJ	1	U	1	U	1	U	1.1	UJ
2-Chlorotoluene	730	n/a	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
2-Hexanone	n/a	n/a	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Propylbenzene	n/a	n/a	--		--		--		--		--		--		--	
4-Bromofluorobenzene	n/a	n/a	--		--		--		--		--		--		--	
4-Chlorotoluene	n/a	n/a	0.21	U	0.21	U	0.21	U	0.21	U	0.21	U	0.21	U	0.23	U
4-Methyl-2-pentanone	1990	n/a	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Acetone	21800	n/a	10	U	10	U	10	U	10	U	10	U	10	U	10	UJ
Acetonitrile	n/a	n/a	5	U	5	U	5	U	5	U	5	U	5	U	5	UJ
Acrolein	0.0416	n/a	5	U	5	U	5	U	5	U	5	U	5	U	10	UJ

Table 4-4
Analytical Results from Groundwater Sampling at DP-30/SD-33 (July 2006-January 2011)
Holloman AFB, New Mexico

		Well Name:	MW30&33-05						MW30&33-05R							
		Collection Date:	07/11/2008		01/07/2009		01/09/2009		10/06/2009		01/07/2010		01/07/2010		07/06/2010	
		Sample ID:	MW-30&33-05-071108		MW-30&33-05-010709		MW-30&33-DUP01-010909		MW30&33-05R-100609		MW30&33-DUP01-010710		MW30&33-05R-010710		MW30&33-05R-070610	
		QC Type:	N		N		FD		N		FD		N		N	
Analyte	**NMWQCC[1]**	**EPA MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Acrylonitrile	0.454	n/a	2	UJ	2	U	2	U	2	UJ	2	U	2	U	3	UJ
Allyl chloride (3-Chloropopene)	n/a	n/a	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Benzene	4.13	5	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.21	U
Benzyl Chloride	n/a	n/a	0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	0.4	U
Bromobenzene	n/a	n/a	0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	0.21	U
Bromochloromethane	n/a	n/a	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U
Bromodichloromethane	1.17	80	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.28	U
Bromoform	85.1	80	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.24	U
Bromomethane	8.66	n/a	0.78	U	0.78	U	0.78	U	0.78	U	0.78	U	0.78	U	0.78	U
Carbon disulfide	1040	n/a	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Carbon tetrachloride	1.99	5	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.34	U
Chlorobenzene	91.3	100	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.2	U
Chloroethane	20900	n/a	0.48	U	0.48	U	0.48	U	0.48	U	0.48	U	0.48	U	0.51	U
Chloroform	1.93	80	0.45	J	0.42	J	0.38	J	0.28	U	0.36	J	0.33	J	0.31	J
Chloromethane	17.8	n/a	0.61	U	0.61	U	0.61	U	0.61	U	0.61	U	0.61	U	0.5	UJ
cis-1,2-dichloroethene	365	70	5.8		5.9		5.5		9.7		13.9		14.9		11.4	
cis-1,3-dichloropropene	n/a	n/a	0.21	U	0.21	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U
cis-1,4-Dichloro-2-Butene	n/a	n/a	1	U	1	U	1	U	1	U	1	U	1	U	2	U
Cymene	n/a	n/a	0.32	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32	U	0.21	U
Dibromochloromethane	1.47	80	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.33	U
Dibromofluoromethane	n/a	n/a	--		--		--		--		--		--		--	
Dibromomethane	365	n/a	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.27	U
Dichlorodifluoromethane	395	n/a	1	U	1	U	1	U	1	U	1	U	1	U	0.67	UJ
Ether, tert-butyl methyl	125	n/a	0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	0.25	U
Ethyl methacrylate	3290	n/a	1	U	1	U	1	U	1	UJ	1	U	1	U	1	U
Ethylbenzene	14.8	700	0.43	U	0.43	U	0.43	U	0.43	U	0.43	U	0.43	U	0.2	U
Hexachlorobutadiene	8.62	n/a	0.69	U	0.69	U	0.69	U	0.69	U	0.69	U	0.69	U	0.4	U
Hexane	876	n/a	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.66	U
Iodomethane	n/a	n/a	1	U	1	U	1	U	1	U	1	U	1	U	0.31	U
Isopropylbenzene	679	n/a	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
m,p-Xylene	n/a	n/a	0.78	U	0.78	U	0.78	U	0.78	U	0.78	U	0.78	U	0.34	U
Methacrylonitrile	1.04	n/a	5	U	5	U	5	U	5	U	5	U	5	U	5	UJ
Methyl methacrylate	1420	n/a	1	U	1	U	1	U	1	UJ	1	U	1	U	1	UJ
Methylene chloride	48	5	1	U	1	U	1	U	1	U	5	U	1	U	2	UJ
Naphthalene	1.43	n/a	1	U	1	U	1	U	1	U	1	U	1	U	1	U
n-Propylbenzene	n/a	n/a	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.2	U
O-Xylene	1430	n/a	0.37	U	0.37	U	0.37	U	0.37	U	0.37	U	0.37	U	0.2	U
Pentachloroethane	n/a	n/a	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Propane Nitrile (Propionitrile)	n/a	n/a	10	U	10	U	10	U	10	UJ	10	U	10	U	5	UJ
Sec-Butylbenzene	n/a	n/a	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.23	U
Styrene	1620	100	0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	0.2	U
Tert-butyl benzene	n/a	n/a	0.32	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32	U	0.24	U
Tetrachloroethene	1.08	5	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.44	U
Toluene	2280	1000	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.2	U

Table 4-4
Analytical Results from Groundwater Sampling at DP-30/SD-33 (July 2006-January 2011)
Holloman AFB, New Mexico

		Well Name:	MW30&33-05						MW30&33-05R							
		Collection Date:	07/11/2008		01/07/2009		01/09/2009		10/06/2009		01/07/2010		01/07/2010		07/06/2010	
		Sample ID:	MW-30&33-05-071108		MW-30&33-05-010709		MW-30&33-DUP01-010909		MW30&33-05R-100609		MW30&33-DUP01-010710		MW30&33-05R-010710		MW30&33-05R-070610	
		QC Type:	N		N		FD		N		FD		N		N	
Analyte	**NMWQCC[1]**	**EPA MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Trans-1,2-dichloroethene	107	100	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.34	U
Trans-1,3-dichloropropene	n/a	n/a	0.21	U	0.21	U	0.21	U	0.21	U	0.21	U	0.21	U	0.22	UJ
Trans-1,4-Dichloro-2-Butene	n/a	n/a	2	U	2	U	2	U	2	U	2	U	2	U	2	UJ
Trichloroethene	16.5	5	42.5		35.2		32.4		21		29.2		30.6		22.2	
Trichlorofluoromethane	1290	n/a	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.4	U
Vinyl acetate	412	n/a	3.6	U	3.6	U	3.6	U	3.6	UJ	3.6	U	3.6	U	2.4	U
Vinyl chloride	0.861	2	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.28	U

Notes:

[1] **NMWQCC** - New Mexico Water Quality Control Commission. These values are Tap Water Screening Values (ug/L) from Table A-1: NMED Soil Screening

[2] **EPA MCL** - United States Environmental Protection Agency Maximum

[3] Groundwater with TDS concentrations above 10,000 mg/L is not considered a

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC

EPA - United States Environmental Protection Agency

FD - field duplicate

mg/L - milligrams per liter

µg/L - micrograms per liter

n/a - not available

Q - analytical result qualifier

Value - reported analytical concentration

U - Not detected.

J - Detected. Quantitation estimated.

Table 4-4
Analytical Results from Groundwater Sampling at DP-30/SD-33 (July 2006-January 2011)
Holloman AFB, New Mexico

		Well Name:	MW30&33-05R					
		Collection Date:	07/06/2010		01/25/2011		01/25/2011	
		Sample ID:	MW30&33-DUP01-070610		MW30&33-DUP01-012511		MW30&33-05-012511	
		QC Type:	FD		FD		N	
Analyte	**NMWQCC[1]**	**EPA MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
General Chemistry Parameters (mg/L)								
Solids, total dissolved [3]	n/a	n/a	19800		20400		19500	
Dissolved Metals (µg/L)								
Aluminum	36500	n/a	100	U	25	U	25	U
Antimony	14.6	6	8	U	2	U	2	U
Arsenic	0.448	10	8	U	2	U	2	U
Barium	7300	2000	20	U	21.1	J	19.4	J
Beryllium	73	4	4	U	1	U	1	U
Cadmium	18.3	5	4	U	1	U	1	U
Calcium	n/a	n/a	685000		716000		714000	
Chromium	110	100	4	U	2	U	2	U
Cobalt	n/a	n/a	4	U	2.1	J	1.9	J
Copper	1460	1300	8	U	6.7	J	6.2	J
Iron	25600	n/a	140	U	35	U	35	U
Lead	n/a	15	8.3	J	5	U	5	U
Magnesium	n/a	n/a	1100000		1140000		1170000	
Manganese	876	n/a	196		357		344	
Mercury	0.562	2	0.071	U	0.05	U	0.05	U
Molybdenum	183	180	--		--		--	
Nickel	730	n/a	8	U	10	U	10.1	J
Potassium	n/a	n/a	6170	J	5260	J	5360	J
Selenium	183	50	13.8	J	4	U	4	U
Silver	183	n/a	4	U	1	U	1	U
Sodium	n/a	n/a	4760000		5070000		5170000	
Thallium	2.41	2	6	U	9.3	U	9.3	U
Vanadium	183	n/a	47.3	J	47.7	J	46.4	J
Zinc	11000	n/a	20	U	10	U	10	U
Total Metals (µg/L)								
Aluminum	36500	n/a	100	U	25	U	25	U
Antimony	14.6	6	8	U	2	U	3.1	J
Arsenic	0.448	10	8	U	**6.3**	J	**8.5**	J
Barium	7300	2000	20.4	J	20.6	J	21.3	J
Beryllium	73	4	4	U	1	U	1	U
Cadmium	18.3	5	4	U	1	U	1	U
Calcium	n/a	n/a	686000		724000		753000	
Chromium	110	100	4	U	2	U	2	U
Cobalt	n/a	n/a	4	U	2.5	J	2.4	J
Copper	1460	1300	10.6	J	6.5	J	6.6	J
Iron	25600	n/a	140	U	35	U	35	U
Lead	n/a	15	4	U	5	U	5	U
Magnesium	n/a	n/a	1090000		1210000		1230000	
Manganese	876	n/a	240		451		455	
Mercury	0.562	2	0.071	U	0.05	U	0.05	U
Molybdenum	183	180	--		--		--	

Table 4-4
Analytical Results from Groundwater Sampling at DP-30/SD-33 (July 2006-January 2011)
Holloman AFB, New Mexico

		Well Name:	MW30&33-05R					
		Collection Date:	07/06/2010		01/25/2011		01/25/2011	
		Sample ID:	MW30&33-DUP01-070610		MW30&33-DUP01-012511		MW30&33-05-012511	
		QC Type:	FD		FD		N	
Analyte	**NMWQCC[1]**	**EPA MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Nickel	730	n/a	8	U	10	U	10	U
Potassium	n/a	n/a	6850	J	5230	J	5610	J
Selenium	183	50	14.9	J	5.4	J	4.6	J
Silver	183	n/a	4	U	1	U	1	U
Sodium	n/a	n/a	4860000		5510000		5620000	
Thallium	2.41	2	6	U	9.3	U	9.3	U
Vanadium	183	n/a	47.7	J	50.5		50.9	
Zinc	11000	n/a	20	U	10	U	10	U
Volatile Organic Compounds (µg/L)								
1,1,1,2-Tetrachloroethane	5.24	n/a	0.2	U	0.2	U	0.2	U
1,1,1-Trichloroethane	9130	200	0.22	U	0.2	U	0.2	U
1,1,2,2-Tetrachloroethane	0.671	n/a	0.29	U	0.23	U	0.23	U
1,1,2-Trichloro-1,2,2-trifluoroethane	59200	n/a	0.43	U	0.47	U	0.47	U
1,1,2-Trichloroethane	2.42	5	0.29	U	0.22	U	0.22	U
1,1-Dichloroethane	24.2	n/a	7		7		6.6	
1,1-Dichloroethene	340	7	0.63	J	0.84	J	0.75	J
1,1-Dichloropropene	n/a	n/a	0.25	U	0.28	U	0.28	U
1,2,3-Trichlorobenzene	n/a	n/a	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.096	n/a	0.37	U	0.3	U	0.3	U
1,2,4-Trichlorobenzene	8.16	70	0.5	U	0.5	U	0.5	U
1,2,4-Trimethylbenzene	n/a	n/a	0.22	U	0.27	U	0.27	U
1,2-Dibromo-3-chloropropane	0.00803	0.2	0.59	UJ	0.5	U	0.5	U
1,2-Dibromoethane (Ethylene Dibromide)	0.0653	0.05	0.23	U	0.37	U	0.37	U
1,2-Dichlorobenzene	370	600	0.26	U	0.25	U	0.25	U
1,2-Dichloroethane	1.49	5	0.33	U	0.2	U	0.2	U
1,2-Dichloropropane	3.86	5	0.27	U	0.25	U	0.25	U
1,3,5-Trimethylbenzene (Mesitylene)	n/a	n/a	0.21	U	0.21	U	0.21	U
1,3-Dichlorobenzene	n/a	n/a	0.29	U	0.2	U	0.2	U
1,3-Dichloropropane	n/a	n/a	0.28	U	0.2	U	0.2	U
1,4-Dichlorobenzene	4.27	75	0.22	U	0.23	U	0.23	U
1-Chlorohexane	n/a	n/a	0.29	U	0.25	U	0.25	U
2,2-Dichloropropane	n/a	n/a	0.37	U	0.44	U	0.44	U
2-Butanone	7060	n/a	2	UJ	2	U	2	U
2-Butylbenzene	n/a	n/a	0.24	U	0.26	U	0.26	U
2-Chloroethyl vinyl ether	n/a	n/a	1.1	UJ	1.2	U	1.2	U
2-Chlorotoluene	730	n/a	0.25	U	0.22	U	0.22	U
2-Hexanone	n/a	n/a	5	U	4	U	4	U
2-Propylbenzene	n/a	n/a	--		--		--	
4-Bromofluorobenzene	n/a	n/a	--		--		--	
4-Chlorotoluene	n/a	n/a	0.23	U	0.2	U	0.2	U
4-Methyl-2-pentanone	1990	n/a	2	U	2	U	2	U
Acetone	21800	n/a	10	UJ	10	U	10	U
Acetonitrile	n/a	n/a	5	UJ	5	U	5	U
Acrolein	0.0416	n/a	10	UJ	5	U	5	U

Table 4-4
Analytical Results from Groundwater Sampling at DP-30/SD-33 (July 2006-January 2011)
Holloman AFB, New Mexico

		Well Name:	MW30&33-05R					
		Collection Date:	07/06/2010		01/25/2011		01/25/2011	
		Sample ID:	MW30&33-DUP01-070610		MW30&33-DUP01-012511		MW30&33-05-012511	
		QC Type:	FD		FD		N	
Analyte	**NMWQCC[1]**	**EPA MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Acrylonitrile	0.454	n/a	3	UJ	3	U	3	U
Allyl chloride (3-Chloropopene)	n/a	n/a	2	U	0.3	U	0.3	U
Benzene	4.13	5	0.21	U	0.2	U	0.2	U
Benzyl Chloride	n/a	n/a	0.4	U	0.5	U	0.5	U
Bromobenzene	n/a	n/a	0.21	U	0.25	U	0.25	U
Bromochloromethane	n/a	n/a	0.23	U	0.22	U	0.22	U
Bromodichloromethane	1.17	80	0.28	U	0.2	U	0.2	U
Bromoform	85.1	80	0.24	U	0.2	U	0.2	U
Bromomethane	8.66	n/a	0.78	U	0.5	U	0.5	U
Carbon disulfide	1040	n/a	0.4	U	0.5	UJ	0.5	UJ
Carbon tetrachloride	1.99	5	0.34	U	0.25	U	0.25	U
Chlorobenzene	91.3	100	0.2	U	0.2	U	0.2	U
Chloroethane	20900	n/a	0.51	U	0.5	UJ	0.5	UJ
Chloroform	1.93	80	0.31	J	0.32	J	0.27	J
Chloromethane	17.8	n/a	0.5	UJ	0.5	U	0.5	U
cis-1,2-dichloroethene	365	70	11.3		11.4		10.5	
cis-1,3-dichloropropene	n/a	n/a	0.2	U	0.2	U	0.2	U
cis-1,4-Dichloro-2-Butene	n/a	n/a	2	U	1	U	1	U
Cymene	n/a	n/a	0.21	U	0.21	U	0.21	U
Dibromochloromethane	1.47	80	0.33	U	0.2	U	0.2	U
Dibromofluoromethane	n/a	n/a	--		--		--	
Dibromomethane	365	n/a	0.27	U	0.25	U	0.25	U
Dichlorodifluoromethane	395	n/a	0.67	UJ	0.5	U	0.5	U
Ether, tert-butyl methyl	125	n/a	0.25	U	0.34	U	0.34	U
Ethyl methacrylate	3290	n/a	1	U	1	U	1	U
Ethylbenzene	14.8	700	0.2	U	0.2	U	0.2	U
Hexachlorobutadiene	8.62	n/a	0.4	U	0.8	U	0.8	U
Hexane	876	n/a	0.66	U	0.59	U	0.59	U
Iodomethane	n/a	n/a	0.31	U	0.2	U	0.2	U
Isopropylbenzene	679	n/a	0.2	U	0.2	U	0.2	U
m,p-Xylene	n/a	n/a	0.34	U	0.32	U	0.32	U
Methacrylonitrile	1.04	n/a	5	UJ	5	UJ	5	UJ
Methyl methacrylate	1420	n/a	1	UJ	1	U	1	U
Methylene chloride	48	5	2	UJ	2	U	2	U
Naphthalene	1.43	n/a	1	U	1	U	1	U
n-Propylbenzene	n/a	n/a	0.2	U	0.2	U	0.2	U
O-Xylene	1430	n/a	0.2	U	0.2	U	0.2	U
Pentachloroethane	n/a	n/a	2	U	2	U	2	U
Propane Nitrile (Propionitrile)	n/a	n/a	5	UJ	5	U	5	U
Sec-Butylbenzene	n/a	n/a	0.23	U	0.22	U	0.22	U
Styrene	1620	100	0.2	U	0.2	U	0.2	U
Tert-butyl benzene	n/a	n/a	0.24	U	0.27	U	0.27	U
Tetrachloroethene	1.08	5	0.44	U	0.25	U	0.25	U
Toluene	2280	1000	0.2	U	0.2	U	0.2	U

Table 4-4
Analytical Results from Groundwater Sampling at DP-30/SD-33 (July 2006-January 2011)
Holloman AFB, New Mexico

		Well Name:	MW30&33-05R					
		Collection Date:	07/06/2010		01/25/2011		01/25/2011	
		Sample ID:	MW30&33-DUP01-070610		MW30&33-DUP01-012511		MW30&33-05-012511	
		QC Type:	FD		FD		N	
Analyte	**NMWQCC[(1)]**	**EPA MCL[(2)]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Trans-1,2-dichloroethene	107	100	0.34	U	0.35	U	0.35	U
Trans-1,3-dichloropropene	n/a	n/a	0.22	UJ	0.2	U	0.2	U
Trans-1,4-Dichloro-2-Butene	n/a	n/a	2	UJ	2	U	2	U
Trichloroethene	16.5	5	22.3		25.2		24	
Trichlorofluoromethane	1290	n/a	0.4	U	0.5	U	0.5	U
Vinyl acetate	412	n/a	2.4	U	2	U	2	U
Vinyl chloride	0.861	2	0.28	U	0.22	U	0.22	U

Notes:

[(1)] **NMWQCC** - New Mexico Water Quality Control Commission. These values are Tap Water Screening Values (ug/L) from Table A-1: NMED Soil Screening

[(2)] **EPA MCL** - United States Environmental Protection Agency Maximum

[(3)] Groundwater with TDS concentrations above 10,000 mg/L is not considered a

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC

EPA - United States Environmental Protection Agency

FD - field duplicate

mg/L - milligrams per liter

µg/L - micrograms per liter

n/a - not available

Q - analytical result qualifier

Value - reported analytical concentration

U - Not detected.

J - Detected. Quantitation estimated.

Table 4-5
Groundwater Level Measurements for SD-27
Holloman AFB, New Mexico

Well	Water Level Data			
	10-Nov		Jan-11	
	Depth to Water (ft BTOC)	Groundwater Elevation (ft amsl)	Depth to Water (ft BTOC)	Groundwater Elevation (ft amsl)
MW30&33-01	10.12	n/a*	8.51	4055.42
MW30&33-02	11.48	n/a*	8.95	4054.25
MW30&33-03	10.76	n/a*	8.88	4054.20
MW30&33-04	11.26	n/a*	8.94	4054.49
MW30&33-05	8.65	n/a*	8.58	4055.00

Notes:
amsl - above mean sea level
BTOC - below top of casing
ft - feet
n/a* - groundwater level measurements were collected prior to development of well.

Table 4-6
Groundwater Quality Parameters for SD-27
Holloman AFB, New Mexico

Well	pH		Specific Conductance (S/m)		Temperature (ºC)		Turbidity (NTU)		Reduction Potential (mV)		Dissolved Oxygen (mg/L)		Salinity (%)	
	Nov-10	Jan-11	Nov-10	Jan-11	Nov-10	Jan-11	Nov-10	Jan-11	Nov-10	Jan-11	Nov-10	Jan-11	Nov-10	Jan-11
MW27-01	7.68	6.98	27.40	32.00	22.85	19.84	37.30	42.40	102.00	117.00	0.00	5.31	NC	2.00
MW27-02	7.57	7.11	21.00	33.40	18.33	17.86	4.30	74.20	-248.00	-233.00	0.00	0.00	NC	2.10
MW27-03	7.33	7.24	34.40	43.80	19.40	18.17	80.70	43.70	-113.00	-106.00	0.00	0.00	NC	2.83
MW27-04	7.51	7.51	35.70	45.90	20.42	17.89	147.00	20.10	-185.00	-214.00	0.00	0.00	NC	2.98
MW27-05	7.74	6.87	23.10	32.00	18.43	20.30	14.10	15.90	48.00	-98.00	0.00	0.00	NC	2.00

Notes:

ºC - degrees Celsius

mg/L - milligrams per liter

mV - millivolt

NC - not collected

NTU - nephelometric turbidity unit

S/m - siemens per meter

% - percent

Table 4-7
Analytical Detections from Groundwater Sampling at SD-27 (November 2010 - January 2011)
Holloman AFB, New Mexico

		Well Name:	SD27-MW01		SD27-MW01		SD27-MW02		SD27-MW02		SD27-MW02		SD27-MW02		SD27-MW03		SD27-MW03	
		Collection Date:	11/11/2010		01/25/2011		11/10/2010		11/10/2010		01/25/2011		01/25/2011		11/10/2010		01/25/2011	
		Sample ID:	SD27-TTMW-01		MW27-01-012511		SD27-TTMW-02		SD27-TTMW-02-FD		MW27-02-012511		MW27-DUP01-012511		SD27-TTMW-03		MW27-03-012511	
		QC Type:	N		N		N		FD		N		FD		N		N	
Analyte	**NMWQCC [1]**	**EPA MCL[2]**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**
General Chemistry Parameters (mg/L)																		
Solids, total dissolved [3]	n/a	n/a	21700		16500	J	16300		16700		11100		13300		28200		25800	
Total Petroleum Hydrocarbons (µg/L)																		
Petroleum Hydrocarbons C10-C28	n/a	n/a	129	J	95	U	1380		1160		609		584		247		226	J
TPH-GRO (C6-C10)	n/a	n/a	50	U	50	U	3310		3550		1150		1250		217		82.1	J
Dissolved Metals (µg/L)																		
Arsenic	0.448	10	8	U	2	U	7.7	J	5.4	J	2	U	2	U	2.5	J	2	U
Barium	7300	2000	48.9	J	27.1	J	29.2	J	25.6	J	24.1	J	23.6	J	55.9	J	35.7	J
Chromium	110	100	4	U	5	U	4	U	4	U	5	U	5	U	4	U	5	U
Lead	n/a	15	4	U	5	U	4	U	4	U	5	U	5	U	4	U	5	U
Mercury	0.562	2	0.05	U	0.05	U	0.056	J	0.051	J	0.05	U	0.05	U	0.05	U	0.05	U
Selenium	183	50	8	U	10	U	9.4	J	8	U	10	U	10	U	8	U	10	U
Total Metals (µg/L)																		
Arsenic	0.448	10	**16.8**	J	6.5	J	8	U	8	U	2.3	J	2	U	8	U	3.3	J
Barium	7300	2000	290	J	25.2	J	46.9	J	37.5	J	23.9	J	24.2	J	67.9	J	35.8	J
Chromium	110	100	23.2	J	5	U	7.6	J	4.2	J	5	U	5	U	4	U	5	U
Lead	n/a	15	11.9	J	5	U	4	U	4	U	5	U	5	U	5	U	5	U
Mercury	0.562	2	0.05	U	0.05	U	0.086	J	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
Selenium	183	50	10	U	10	U	8	U	8	U	10	U	10	U	8	U	10	U
Radiochemistry (pCi/L)																		
Alpha, gross	n/a	15	129.4636	R			0	R	17.71832	R					-10.17456	R		
Beta, gross	n/a	50	117.5525	R			35.14753	R	24.58147	R					50.10005	R		
Semivolatile Organic Compounds (µg/L)																		
1-Methylnaphthalene	n/a	n/a	0.48	U	0.49	U	41		32.4		12.5		14.4		2	J	1.7	J
2,4-Dimethylphenol	730	n/a	1	U	1.1	U	4.2	U	4.2	U	1.1	U	1.1	U	1	U	1.1	U
2-Methylnaphthalene	n/a	n/a	0.54	U	0.56	U	11.3	J	9.8	J	0.69	J	0.74	J	0.54	U	0.56	U
4-Methylphenol	n/a	n/a	0.51	U	0.53	U	2.1	U	2.1	U	0.52	U	0.52	U	0.51	U	0.53	U
Di-n-butyl phthalate	3650	n/a	1.9	J	0.85	U	3.3	U	3.3	U	0.84	U	0.84	U	0.83	U	0.85	U
M,P-Cresol	n/a	n/a	1	U	1.1	U	4.2	U	4.2	U	1.1	U	1.1	U	1	U	1.1	U
Naphthalene	1.43	n/a	0.76	U	0.78	U	7.7	J	6.2	J	0.9	J	0.95	J	0.76	U	0.78	U
Phenol	11000	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
Volatile Organic Compounds (µg/L)																		
1,2,4-Trimethylbenzene	n/a	n/a	0.27	U	0.27	U	168	J	190	J	101		97		2	J	0.27	U
1,3,5-Trimethylbenzene (Mesitylene)	n/a	n/a	0.21	U	0.21	U	50.6	J	56.7	J	41		40.2		3.5	J	2.1	
2-Butylbenzene	n/a	n/a	0.26	UJ	0.26	U	3.9	J	4.2	J	2.4		2.1		0.26	UJ	0.26	U
Acetone	21800	n/a	10	UJ	10	U	24.6	J	25.8	J	20	U	20	U	43.6	J	10	U
Benzene	4.13	5	0.2	U	0.2	U	**6.4**	J	**6.7**	J	**9.6**		**8.9**		0.46	J	0.88	J
Chloroform	1.93	80	0.22	U	0.22	U	3.1	J	3.4	J	0.44	U	0.44	U	0.22	UJ	0.22	U
Cymene	n/a	n/a	0.21	U	0.21	U	30.7	J	32.5	J	15.8		15.2		0.79	J	0.21	U
Ethylbenzene	14.8	700	0.2	U	0.2	U	168	J	140	J	122		130		0.2	UJ	0.2	U
Isopropylbenzene	679	n/a	0.2	U	0.2	U	48.7	J	53.2	J	31.8		31.1		2	J	5.8	
m,p-Xylene	n/a	n/a	0.32	U	0.32	U	147	J	182	J	23.8		21		0.32	UJ	0.32	U

Table 4-7
Analytical Detections from Groundwater Sampling at SD-27 (November 2010 - January 2011)
Holloman AFB, New Mexico

		Well Name:	SD27-MW01		SD27-MW01		SD27-MW02		SD27-MW02		SD27-MW02		SD27-MW02		SD27-MW03		SD27-MW03	
		Collection Date:	11/11/2010		01/25/2011		11/10/2010		11/10/2010		01/25/2011		01/25/2011		11/10/2010		01/25/2011	
		Sample ID:	SD27-TTMW-01		MW27-01-012511		SD27-TTMW-02		SD27-TTMW-02-FD		MW27-02-012511		MW27-DUP01-012511		SD27-TTMW-03		MW27-03-012511	
		QC Type:	N		N		N		FD		N		FD		N		N	
Analyte	**NMWQCC [1]**	**EPA MCL[2]**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**
Volatile Organic Compounds (µg/L)																		
Naphthalene	1.43	n/a	1	U	1	U	5.4	J	6.6	J	2.3	J	2.6	J	1	UJ	1	U
n-Propylbenzene	n/a	n/a	0.2	U	0.2	U	57	J	64.2	J	36.4		35.2		1.1	J	2.8	
o-Xylene	1430	n/a	0.2	U	0.2	U	74.5	J	90.4	J	7.3		6.6		0.2	UJ	0.2	U
Sec-Butylbenzene	n/a	n/a	0.22	U	0.22	U	20	J	21	J	11.8		11		2.1	J	2.5	
Tert-butyl benzene	n/a	n/a	0.27	U	0.27	U	0.54	UJ	0.54	UJ	0.86	J	0.98	J	0.39	J	0.44	J
Toluene	2280	1000	0.2	U	0.2	U	4.5	J	5.8	J	0.4	U	0.4	U	0.2	UJ	0.2	U

Notes:

[1] **NMWQCC** - New Mexico Water Quality Control Commission. These values are Tap Water Screening Values (ug/L) from Table A-1: NMED Soil Screening Levels,Technical Background Document for Development of Soil Screening Levels, Revision 5.0, July 2009.

[2] **EPA MCL** - United States Environmental Protection Agency Maximum Contaminant Level. From January 2011 Edition of the Drinking Water Standards and Health Advisories.

[3] Groundwater with TDS concentrations above 10,000 mg/L is not considered a potential domestic or agricultural water supply (NMAC, 20.6.2.3101).

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC standards and EPA MCLs

EPA - United States Environmental Protection Agency
FD - field duplicate
mg/L - milligrams per liter
µg/L - micrograms per liter
n/a - not available
Q - analytical result qualifier
Value - reported analytical concentration
U - Not detected.
J - Detected. Quantitation estimated.
UJ - Not detected. Quantitation estimated.
R - Rejected.

Table 4-7
Analytical Detections from Groundwater Sampling at SD-27 (November 2010 - January 2011)
Holloman AFB, New Mexico

		Well Name:	SD27-MW04		SD27-MW04		SD27-MW05		SD27-MW05	
		Collection Date:	11/10/2010		01/25/2011		11/11/2010		01/25/2011	
		Sample ID:	SD27-TTMW-04		MW27-04-012511		SD27-TTMW-05		MW27-05-012511	
		QC Type:	N		N		N		N	
Analyte	**NMWQCC [1]**	**EPA MCL[2]**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**
General Chemistry Parameters (mg/L)										
Solids, total dissolved [3]	n/a	n/a	29600		28300		15300		14000	
Total Petroleum Hydrocarbons (µg/L)										
Petroleum Hydrocarbons C10-C28	n/a	n/a	446		149	J	1320		1160	
TPH-GRO (C6-C10)	n/a	n/a	427		128		6100		4380	
Dissolved Metals (µg/L)										
Arsenic	0.448	10	6.9	J	2	U	6.4	J	2	U
Barium	7300	2000	22.4	J	20.5	J	48.6	J	27.5	J
Chromium	110	100	4	U	5	U	4	U	5	U
Lead	n/a	15	4	U	5	U	4	U	5	U
Mercury	0.562	2	0.05	U	0.05	U	0.05	U	0.05	U
Selenium	183	50	8	U	10	U	8	U	10	U
Total Metals (µg/L)										
Arsenic	0.448	10	8	U	7.8	J	10	U	9.3	J
Barium	7300	2000	24.9	J	21.4	J	69.4	J	30.6	J
Chromium	110	100	4	U	5	U	5	U	6.4	J
Lead	n/a	15	5	U	5	U	5	U	5	U
Mercury	0.562	2	0.05	U	0.05	U	0.05	U	0.055	J
Selenium	183	50	8	U	10	U	10	U	10	U
Radiochemistry (pCi/L)										
Alpha, gross	n/a	15	54.73192	R			24.59208	R		
Beta, gross	n/a	50	-21.54833	R			119.2035	R		
Semivolatile Organic Compounds (µg/L)										
1-Methylnaphthalene	n/a	n/a	11		2.2	J	24.7		14.1	
2,4-Dimethylphenol	730	n/a	1	U	1.1	U	4.5	J	7.2	
2-Methylnaphthalene	n/a	n/a	1.6	J	0.55	U	26.7		13.9	
4-Methylphenol	n/a	n/a	0.51	U	0.52	U	5.5	J	5.6	
Di-n-butyl phthalate	3650	n/a	0.83	U	0.84	U	3.5	U	0.84	J
M,P-Cresol	n/a	n/a	1	U	1.1	U	4.4	U	7.1	
Naphthalene	1.43	n/a	0.76	U	0.78	U	60		27	
Phenol	11000	n/a	0.48	U	0.49	U	2	U	18.1	
Volatile Organic Compounds (µg/L)										
1,2,4-Trimethylbenzene	n/a	n/a	4.2	J	2.8		223	J	255	
1,3,5-Trimethylbenzene (Mesitylene)	n/a	n/a	1.1	J	0.97	J	53.5	J	91.6	
2-Butylbenzene	n/a	n/a	0.26	UJ	0.26	U	2.6	UJ	2.6	U
Acetone	21800	n/a	10	UJ	10	U	100	UJ	100	U
Benzene	4.13	5	0.34	J	0.2	U	**371**	J	**776**	
Chloroform	1.93	80	0.22	UJ	0.22	U	2.2	UJ	2.2	U
Cymene	n/a	n/a	0.6	J	0.3	J	6.4	J	8.4	J
Ethylbenzene	14.8	700	2.7	J	1.5		504	J	41	
Isopropylbenzene	679	n/a	15.1	J	4.1		51.8	J	9.1	J
m,p-Xylene	n/a	n/a	0.32	UJ	0.32	U	145	J	221	

Table 4-7
Analytical Detections from Groundwater Sampling at SD-27 (November 2010 - January 2011)
Holloman AFB, New Mexico

		Well Name:	SD27-MW04		SD27-MW04		SD27-MW05		SD27-MW05	
		Collection Date:	11/10/2010		01/25/2011		11/11/2010		01/25/2011	
		Sample ID:	SD27-TTMW-04		MW27-04-012511		SD27-TTMW-05		MW27-05-012511	
		QC Type:	N		N		N		N	
Analyte	**NMWQCC [1]**	**EPA MCL[2]**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**
Volatile Organic Compounds (µg/L)										
Naphthalene	1.43	n/a	1	UJ	1	U	57.4	J	48.5	J
n-Propylbenzene	n/a	n/a	11.5	J	2.3		50.1	J	4.3	J
o-Xylene	1430	n/a	0.27	J	0.2	U	332	J	376	
Sec-Butylbenzene	n/a	n/a	6.8	J	2.5		7.8	J	3	J
Tert-butyl benzene	n/a	n/a	0.27	UJ	0.28	J	2.7	UJ	2.7	U
Toluene	2280	1000	0.2	UJ	0.2	U	279	J	104	

Notes:

[1] **NMWQCC** - New Mexico Water Quality Control Commission. These values are Tap Water Screening Values (ug/L) from Table A-1: NMED Soil Screening Levels,Technical Background Document for Development of Soil Screening Levels, Revision 5.0, July 2009.

[2] **EPA MCL** - United States Environmental Protection Agency Maximum Contaminant Level. From January 2011 Edition of the Drinking Water Standards and Health Advisories.

[3] Groundwater with TDS concentrations above 10,000 mg/L is not considered a potential domestic or agricultural water supply (NMAC, 20.6.2.3101).

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC standards and EPA MCLs

EPA - United States Environmental Protection Agency
FD - field duplicate
mg/L - milligrams per liter
µg/L - micrograms per liter
n/a - not available
Q - analytical result qualifier
Value - reported analytical concentration
U - Not detected.
J - Detected. Quantitation estimated.
UJ - Not detected. Quantitation estimated.
R - Rejected.

Table 4-8
Analytical Results for Groundwater Sampling at SD-27
Holloman AFB, NM

		Well Name:	SD27-MW01				SD27-MW02								SD27-MW03			
		Collection Date:	11/11/2010		01/25/2011		11/10/2010		11/10/2010		01/25/2011		01/25/2011		11/10/2010		01/25/2011	
		Sample ID:	SD27-TTMW-01		MW27-01-012511		SD27-TTMW-02		SD27-TTMW-02-FD		MW27-02-012511		MW27-DUP01-012511		SD27-TTMW-03		MW27-03-012511	
		QC Type:	N		N		N		FD		N		FD		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
General Chemistry Parameters (mg/L)																		
Solids, total dissolved [3]	n/a	n/a	21700		16500	J	16300		16700		11100		13300		28200		25800	
Total Petroleum Hydrocarbons (µg/L)																		
Petroleum Hydrocarbons C10-C28	n/a	n/a	129	J	95	U	1380		1160		609		584		247		226	J
TPH-GRO (C6-C10)	n/a	n/a	50	U	50	U	3310		3550		1150		1250		217		82.1	J
Dissolved Metals (µg/L)																		
Arsenic	0.448	10	8	U	2	U	**7.7**	J	**5.4**	J	2	U	2	U	**2.5**	J	2	U
Barium	7300	2000	48.9	J	27.1	J	29.2	J	25.6	J	24.1	J	23.6	J	55.9	J	35.7	J
Cadmium	18.3	5	4	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chromium	110	100	4	U	5	U	4	U	4	U	5	U	5	U	4	U	5	U
Lead	n/a	15	4	U	5	U	4	U	4	U	5	U	5	U	4	U	5	U
Mercury	0.562	2	0.05	U	0.05	U	0.056	J	0.051	J	0.05	U	0.05	U	0.05	U	0.05	U
Selenium	183	50	8	U	10	U	9.4	J	8	U	10	U	10	U	8	U	10	U
Silver	183	n/a	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Total Metals (µg/L)																		
Arsenic	0.448	10	**16.8**	J	**6.5**	J	8	U	8	U	**2.3**	J	2	U	8	U	**3.3**	J
Barium	7300	2000	290	J	25.2	J	46.9	J	37.5	J	23.9	J	24.2	J	67.9	J	35.8	J
Cadmium	18.3	5	5	U	1	U	4	U	4	U	1	U	1	U	4	U	1	U
Chromium	110	100	23.2	J	5	U	7.6	J	4.2	J	5	U	5	U	4	U	5	U
Lead	n/a	15	11.9	J	5	U	4	U	4	U	5	U	5	U	5	U	5	U
Mercury	0.562	2	0.05	U	0.05	U	0.086	J	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
Selenium	183	50	10	U	10	U	8	U	8	U	10	U	10	U	8	U	10	U
Silver	183	n/a	1	U	1	U	1	U	1	U	1	U	1	U	4	U	1	U
Radionuclides (pCi/L)																		
Alpha, gross	n/a	15	129.4636	R	--		0	R	17.71832	R	--		--		-10.17456	R	--	
Beta, gross	n/a	50	117.5525	R	--		35.14753	R	24.58147	R	--		--		50.10005	R	--	
Semivolatile Organic Compounds (µg/L)																		
1,2,4-Trichlorobenzene	8.16	70	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
1,2-Dichlorobenzene	370	600	0.95	U	0.98	U	3.8	U	3.8	U	0.96	U	0.96	U	0.95	U	0.98	U
1,2-Diphenylhydrazine	0.84	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
1,3-Dichlorobenzene	n/a	n/a	0.95	U	0.98	U	3.8	U	3.8	U	0.96	U	0.96	U	0.95	U	0.98	U
1,4-Dichlorobenzene	4.27	75	0.95	U	0.98	U	3.8	U	3.8	U	0.96	U	0.96	U	0.95	U	0.98	U
1-Methylnaphthalene	n/a	n/a	0.48	U	0.49	U	41		32.4		12.5		14.4		2	J	1.7	J
2,4,5-Trichlorophenol	3650	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
2,4,6-Trichlorophenol	36.5	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
2,4-Dichlorophenol	110	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
2,4-Dimethylphenol	730	n/a	1	U	1.1	U	4.2	U	4.2	U	1.1	U	1.1	U	1	U	1.1	U
2,4-Dinitrophenol	73	n/a	9.5	U	9.8	U	38	U	38	U	9.6	U	9.6	U	9.5	U	9.8	U
2,4-Dinitrotoluene	2.17	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
2,6-Dinitrotoluene	36.5	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
2-Chloronaphthalene	2920	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
2-Chlorophenol	183	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
2-Methylnaphthalene	n/a	n/a	0.54	U	0.56	U	11.3	J	9.8	J	0.69	J	0.74	J	0.54	U	0.56	U
2-Nitroaniline	n/a	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U

Table 4-8
Analytical Results for Groundwater Sampling at SD-27
Holloman AFB, NM

		Well Name:	SD27-MW01				SD27-MW02								SD27-MW03			
		Collection Date:	11/11/2010		01/25/2011		11/10/2010		11/10/2010		01/25/2011		01/25/2011		11/10/2010		01/25/2011	
		Sample ID:	SD27-TTMW-01		MW27-01-012511		SD27-TTMW-02		SD27-TTMW-02-FD		MW27-02-012511		MW27-DUP01-012511		SD27-TTMW-03		MW27-03-012511	
		QC Type:	N		N		N		FD		N		FD		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
2-Nitrophenol	n/a	n/a	0.51	U	0.53	U	2.1	U	2.1	U	0.52	U	0.52	U	0.51	U	0.53	U
3,3'-Dichlorobenzidine	1.49	n/a	0.95	U	0.98	U	3.8	U	3.8	U	0.96	U	0.96	U	0.95	U	0.98	U
3-Nitroaniline	n/a	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
4,6-Dinitro-2-methylphenol	3.65	n/a	1.9	U	2	U	7.6	U	7.6	U	1.9	U	1.9	U	1.9	U	2	U
4-Bromophenyl phenyl ether	n/a	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
4-Chloro-3-methylphenol	n/a	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
4-Chloroaniline	n/a	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
4-Chlorophenyl phenyl ether	n/a	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
4-Methylphenol	n/a	n/a	0.51	U	0.53	U	2.1	U	2.1	U	0.52	U	0.52	U	0.51	U	0.53	U
4-Nitroaniline	n/a	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
4-Nitrophenol	n/a	n/a	4.8	U	4.9	U	19	U	19	U	4.8	U	4.8	U	4.8	U	4.9	U
Acenaphthene	2190	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
Acenaphthylene	n/a	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
Aniline	n/a	n/a	0.5	U	0.51	U	2	U	2	U	0.5	U	0.5	U	0.5	U	0.51	U
Anthracene	11000	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
Benzidine	0.00292	n/a	4.5	U	4.6	U	18	U	18	U	4.5	U	4.5	U	4.5	U	4.6	U
Benzo(a)anthracene	0.921	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
Benzo(a)pyrene	0.0921	0.2	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
Benzo(b)fluoranthene	0.921	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
Benzo(ghi)perylene	n/a	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
Benzo(k)fluoranthene	9.21	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
Benzoic acid	n/a	n/a	9.5	U	9.8	U	38	U	38	U	9.6	U	9.6	U	9.5	U	9.8	U
Benzyl alcohol	n/a	n/a	0.95	U	0.98	U	3.8	U	3.8	U	0.96	U	0.96	U	0.95	U	0.98	U
Bis(2-chloroethoxy)methane	n/a	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
Bis(2-chloroethyl)ether	0.119	n/a	0.51	U	0.53	U	2.1	U	2.1	U	0.52	U	0.52	U	0.51	U	0.53	U
Bis(2-chloroisopropyl)ether	9.6	n/a	0.51	U	0.53	U	2.1	U	2.1	U	0.52	U	0.52	U	0.51	U	0.53	U
Bis(2-ethylhexyl)phthalate	48	6	1	U	1.1	U	4.2	U	4.2	U	1.1	U	1.1	U	1	U	1.1	U
Butyl benzyl phthalate	n/a	n/a	1	U	1.1	U	4.2	U	4.2	U	1.1	U	1.1	U	1	U	1.1	U
Carbazole	n/a	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
Chrysene	92.1	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
Dibenz(a,h)anthracene	0.0921	n/a	0.5	U	0.51	U	2	U	2	U	0.5	U	0.5	U	0.5	U	0.51	U
Dibenzofuran	n/a	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
Diethyl phthalate	29200	n/a	1	U	1.1	U	4.2	U	4.2	U	1.1	U	1.1	U	1	U	1.1	U
Dimethyl phthalate	365000	n/a	0.94	U	0.97	U	3.8	U	3.8	U	0.95	U	0.95	U	0.94	U	0.97	U
Di-n-butyl phthalate	3650	n/a	1.9	J	0.85	U	3.3	U	3.3	U	0.84	U	0.84	U	0.83	U	0.85	U
Di-n-octyl phthalate	n/a	n/a	1	U	1.1	U	4.2	U	4.2	U	1.1	U	1.1	U	1	U	1.1	U
Fluoranthene	1460	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
Fluorene	1460	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
Hexachlorobenzene	0.42	1	0.53	U	0.55	U	2.1	U	2.1	U	0.54	U	0.54	U	0.53	U	0.55	U
Hexachlorobutadiene	8.62	n/a	0.95	U	0.98	U	3.8	U	3.8	U	0.96	U	0.96	U	0.95	U	0.98	U
Hexachlorocyclopentadiene	219	50	1.8	U	1.9	U	7.2	U	7.2	U	1.8	U	1.8	U	1.8	U	1.9	U
Hexachloroethane	36.5	n/a	0.95	U	0.98	U	3.8	U	3.8	U	0.96	U	0.96	U	0.95	U	0.98	U
Indeno(1,2,3-cd)pyrene	0.921	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
Isophorone	707	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U

Table 4-8
Analytical Results for Groundwater Sampling at SD-27
Holloman AFB, NM

		Well Name:	SD27-MW01				SD27-MW02								SD27-MW03			
		Collection Date:	11/11/2010		01/25/2011		11/10/2010		11/10/2010		01/25/2011		01/25/2011		11/10/2010		01/25/2011	
		Sample ID:	SD27-TTMW-01		MW27-01-012511		SD27-TTMW-02		SD27-TTMW-02-FD		MW27-02-012511		MW27-DUP01-012511		SD27-TTMW-03		MW27-03-012511	
		QC Type:	N		N		N		FD		N		FD		N		N	
Analyte	**NMWQCC[(1)]**	**MCL[(2)]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
M,P-Cresol	n/a	n/a	1	U	1.1	U	4.2	U	4.2	U	1.1	U	1.1	U	1	U	1.1	U
Naphthalene	1.43	n/a	0.76	U	0.78	U	**7.7**	J	**6.2**	J	0.9	J	0.95	J	0.76	U	0.78	U
Nitrobenzene	14.9	n/a	0.56	U	0.58	U	2.2	U	2.2	U	0.57	U	0.57	U	0.56	U	0.58	U
N-Nitrosodimethylamine	0.0132	n/a	2.3	U	2.4	U	9.1	U	9.1	U	2.3	U	2.3	U	2.3	U	2.4	U
N-Nitroso-di-n-propylamine	n/a	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
N-Nitrosodiphenylamine	137	n/a	0.95	U	0.98	U	3.8	U	3.8	U	0.96	U	0.96	U	0.95	U	0.98	U
Pentachlorophenol	5.6	1	5.1	U	5.3	U	21	U	21	U	5.2	U	5.2	U	5.1	U	5.3	U
Phenanthrene	1100	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
Phenol	11000	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
Pyrene	1100	n/a	0.48	U	0.49	U	1.9	U	1.9	U	0.48	U	0.48	U	0.48	U	0.49	U
Pyridine	n/a	n/a	1.5	U	1.6	U	6.1	U	6.1	U	1.5	U	1.5	U	1.5	U	1.6	U
Volatile Organic Compounds (µg/L)																		
1,1,1,2-Tetrachloroethane	5.24	n/a	0.2	U	0.2	U	0.4	UJ	0.4	UJ	0.4	U	0.4	U	0.2	UJ	0.2	U
1,1,1-Trichloroethane	9130	200	0.2	U	0.2	U	0.4	UJ	0.4	UJ	0.4	U	0.4	U	0.2	UJ	0.2	U
1,1,2,2-Tetrachloroethane	0.671	n/a	0.23	U	0.23	U	0.46	UJ	0.46	UJ	0.46	U	0.46	U	0.23	UJ	0.23	U
1,1,2-Trichloro-1,2,2-trifluoroethane	59200	n/a	0.47	U	0.47	U	0.94	UJ	0.94	UJ	0.94	U	0.94	U	0.47	UJ	0.47	U
1,1,2-Trichloroethane	2.42	5	0.22	U	0.22	U	0.44	UJ	0.44	UJ	0.44	U	0.44	U	0.22	UJ	0.22	U
1,1-Dichloroethane	24.2	n/a	0.25	U	0.25	U	0.5	UJ	0.5	UJ	0.5	U	0.5	U	0.25	UJ	0.25	U
1,1-Dichloroethene	340	7	0.23	U	0.23	U	0.46	UJ	0.46	UJ	0.46	U	0.46	U	0.23	UJ	0.23	U
1,1-Dichloropropene	n/a	n/a	0.28	U	0.28	U	0.56	UJ	0.56	UJ	0.56	U	0.56	U	0.28	UJ	0.28	U
1,2,3-Trichlorobenzene	n/a	n/a	0.5	U	0.5	U	1	UJ	1	UJ	1	U	1	U	0.5	UJ	0.5	U
1,2,3-Trichloropropane	0.096	n/a	0.3	U	0.3	U	0.6	UJ	0.6	UJ	0.6	U	0.6	U	0.3	UJ	0.3	U
1,2,4-Trichlorobenzene	8.16	70	0.5	U	0.5	U	1	UJ	1	UJ	1	U	1	U	0.5	UJ	0.5	U
1,2,4-Trimethylbenzene	n/a	n/a	0.27	U	0.27	U	168	J	190	J	101		97		2	J	0.27	U
1,2-Dibromo-3-chloropropane	0.00803	0.2	0.5	U	0.5	U	1	UJ	1	UJ	1	U	1	U	0.5	UJ	0.5	U
1,2-Dibromoethane (Ethylene Dibromide)	0.0653	0.05	0.37	U	0.37	U	0.74	UJ	0.74	UJ	0.74	U	0.74	U	0.37	UJ	0.37	U
1,2-Dichlorobenzene	370	600	0.25	U	0.25	U	0.5	UJ	0.5	UJ	0.5	U	0.5	U	0.25	UJ	0.25	U
1,2-Dichloroethane	1.49	5	0.2	U	0.2	U	0.4	UJ	0.4	UJ	0.4	U	0.4	U	0.2	UJ	0.2	U
1,2-Dichloropropane	3.86	5	0.25	U	0.25	U	0.5	UJ	0.5	UJ	0.5	U	0.5	U	0.25	UJ	0.25	U
1,3,5-Trimethylbenzene (Mesitylene)	n/a	n/a	0.21	U	0.21	U	50.6	J	56.7	J	41		40.2		3.5	J	2.1	
1,3-Dichlorobenzene	n/a	n/a	0.2	U	0.2	U	0.4	UJ	0.4	UJ	0.4	U	0.4	U	0.2	UJ	0.2	U
1,3-Dichloropropane	n/a	n/a	0.2	U	0.2	U	0.4	UJ	0.4	UJ	0.4	U	0.4	U	0.2	UJ	0.2	U
1,4-Dichlorobenzene	4.27	75	0.23	U	0.23	U	0.46	UJ	0.46	UJ	0.46	U	0.46	U	0.23	UJ	0.23	U
1-Chlorohexane	n/a	n/a	0.25	U	0.25	U	0.5	UJ	0.5	UJ	0.5	U	0.5	U	0.25	UJ	0.25	U
2,2-Dichloropropane	n/a	n/a	0.44	U	0.44	U	0.88	UJ	0.88	UJ	0.88	U	0.88	U	0.44	UJ	0.44	U
2-Butanone	7060	n/a	2	U	2	U	4	UJ	4	UJ	4	U	4	U	2	UJ	2	U
2-Butylbenzene	n/a	n/a	0.26	UJ	0.26	U	3.9	J	4.2	J	2.4		2.1		0.26	UJ	0.26	U
2-Chloroethyl vinyl ether	n/a	n/a	1.2	UJ	1.2	U	2.4	UJ	2.4	UJ	2.4	U	2.4	U	1.2	UJ	1.2	U
2-Chlorotoluene	730	n/a	0.22	U	0.22	U	0.44	UJ	0.44	UJ	0.44	U	0.44	U	0.22	UJ	0.22	U
2-Hexanone	n/a	n/a	4	U	4	U	8	UJ	8	UJ	8	U	8	U	4	UJ	4	U
4-Chlorotoluene	n/a	n/a	0.2	U	0.2	U	0.4	UJ	0.4	UJ	0.4	U	0.4	U	0.2	UJ	0.2	U
4-Methyl-2-pentanone	1990	n/a	2	U	2	U	4	UJ	4	UJ	4	U	4	U	2	UJ	2	U
Acetone	21800	n/a	10	UJ	10	U	24.6	J	25.8	J	20	U	20	U	43.6	J	10	U
Acetonitrile	n/a	n/a	5	U	5	U	10	UJ	10	UJ	10	U	10	U	5	UJ	5	U

Table 4-8
Analytical Results for Groundwater Sampling at SD-27
Holloman AFB, NM

		Well Name:	SD27-MW01				SD27-MW02								SD27-MW03			
		Collection Date:	11/11/2010		01/25/2011		11/10/2010		11/10/2010		01/25/2011		01/25/2011		11/10/2010		01/25/2011	
		Sample ID:	SD27-TTMW-01		MW27-01-012511		SD27-TTMW-02		SD27-TTMW-02-FD		MW27-02-012511		MW27-DUP01-012511		SD27-TTMW-03		MW27-03-012511	
		QC Type:	N		N		N		FD		N		FD		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Acrolein	0.0416	n/a	5	U	5	U	10	UJ	10	UJ	10	U	10	U	5	UJ	5	U
Acrylonitrile	0.454	n/a	3	U	3	U	6	UJ	6	UJ	6	U	6	U	3	UJ	3	U
Allyl chloride (3-Chloropopene)	n/a	n/a	0.3	U	0.3	U	0.6	UJ	0.6	UJ	0.6	U	0.6	U	0.3	UJ	0.3	U
Benzene	4.13	5	0.2	U	0.2	U	**6.4**	J	**6.7**	J	**9.6**		**8.9**		0.46	J	0.88	J
Benzyl Chloride	n/a	n/a	0.5	U	0.5	U	1	UJ	1	UJ	1	U	1	U	0.5	UJ	0.5	U
Bromobenzene	n/a	n/a	0.25	U	0.25	U	0.5	UJ	0.5	UJ	0.5	U	0.5	U	0.25	UJ	0.25	U
Bromochloromethane	n/a	n/a	0.22	U	0.22	U	0.44	UJ	0.44	UJ	0.44	U	0.44	U	0.22	UJ	0.22	U
Bromodichloromethane	1.17	80	0.2	U	0.2	U	0.4	UJ	0.4	UJ	0.4	U	0.4	U	0.2	UJ	0.2	U
Bromoform	85.1	80	0.2	U	0.2	U	0.4	UJ	0.4	UJ	0.4	U	0.4	U	0.2	UJ	0.2	U
Bromomethane	8.66	n/a	0.5	U	0.5	U	1	UJ	1	UJ	1	U	1	U	0.5	UJ	0.5	U
Carbon disulfide	1040	n/a	0.5	U	0.5	U	1	UJ	1	UJ	1	U	1	U	0.5	UJ	0.5	U
Carbon tetrachloride	1.99	5	0.25	U	0.25	U	0.5	UJ	0.5	UJ	0.5	U	0.5	U	0.25	UJ	0.25	U
Chlorobenzene	91.3	100	0.2	U	0.2	U	0.4	UJ	0.4	UJ	0.4	U	0.4	U	0.2	UJ	0.2	U
Chloroethane	20900	n/a	0.5	U	0.5	U	1	UJ	1	UJ	1	U	1	U	0.5	UJ	0.5	U
Chloroform	1.93	80	0.22	U	0.22	U	**3.1**	J	**3.4**	J	0.44	U	0.44	U	0.22	UJ	0.22	U
Chloromethane	17.8	n/a	0.5	U	0.5	U	1	UJ	1	UJ	1	U	1	U	0.5	UJ	0.5	U
Cis-1,2-dichloroethene	365	70	0.26	U	0.26	U	0.52	UJ	0.52	UJ	0.52	U	0.52	U	0.26	UJ	0.26	U
Cis-1,3-dichloropropene	n/a	n/a	0.2	U	0.2	U	0.4	UJ	0.4	UJ	0.4	U	0.4	U	0.2	UJ	0.2	U
cis-1,4-Dichloro-2-butene	n/a	n/a	1	U	1	U	2	UJ	2	UJ	2	U	2	U	1	UJ	1	U
Cymene	n/a	n/a	0.21	U	0.21	U	30.7	J	32.5	J	15.8		15.2		0.79	J	0.21	U
Dibromochloromethane	1.47	80	0.2	U	0.2	U	0.4	UJ	0.4	UJ	0.4	U	0.4	U	0.2	UJ	0.2	U
Dibromomethane	365	n/a	0.25	U	0.25	U	0.5	UJ	0.5	UJ	0.5	U	0.5	U	0.25	UJ	0.25	U
Dichlorodifluoromethane	395	n/a	0.5	U	0.5	U	1	UJ	1	UJ	1	U	1	U	0.5	UJ	0.5	U
Ether, tert-butyl methyl	125	n/a	0.34	U	0.34	U	0.68	UJ	0.68	UJ	0.68	U	0.68	U	0.34	UJ	0.34	U
Ethyl Methacrylate	3290	n/a	1	U	1	U	2	UJ	2	UJ	2	U	2	U	1	UJ	1	U
Ethylbenzene	14.8	700	0.2	U	0.2	U	**168**	J	**140**	J	**122**		**130**		0.2	UJ	0.2	U
Hexachlorobutadiene	8.62	n/a	0.8	U	0.8	U	1.6	UJ	1.6	UJ	1.6	U	1.6	U	0.8	UJ	0.8	U
Hexane	876	n/a	0.59	U	0.59	U	1.2	UJ	1.2	UJ	1.2	U	1.2	U	0.59	UJ	0.59	U
Iodomethane	n/a	n/a	0.2	U	0.2	U	0.4	UJ	0.4	UJ	0.4	U	0.4	U	0.2	UJ	0.2	U
Isopropylbenzene	679	n/a	0.2	U	0.2	U	48.7	J	53.2	J	31.8		31.1		2	J	5.8	
m,p-Xylene	n/a	n/a	0.32	U	0.32	U	147	J	182	J	23.8		21		0.32	UJ	0.32	U
Methacrylonitrile	1.04	n/a	5	U	5	U	10	UJ	10	UJ	10	U	10	U	5	UJ	5	U
Methyl methacrylate	1420	n/a	1	U	1	U	2	UJ	2	UJ	2	U	2	U	1	UJ	1	U
Methylene chloride	48	5	2	U	2	U	4	UJ	4	UJ	4	U	4	U	2	UJ	2	U
Naphthalene	1.43	n/a	1	U	1	U	**5.4**	J	**6.6**	J	**2.3**	J	**2.6**	J	1	UJ	1	U
n-Propylbenzene	n/a	n/a	0.2	U	0.2	U	57	J	64.2	J	36.4		35.2		1.1	J	2.8	
o-Xylene	1430	n/a	0.2	U	0.2	U	74.5	J	90.4	J	7.3		6.6		0.2	UJ	0.2	U
Pentachloroethane	n/a	n/a	2	U	2	U	4	UJ	4	UJ	4	U	4	U	2	UJ	2	U
Propane Nitrile (Propionitrile)	n/a	n/a	5	U	5	U	10	UJ	10	UJ	10	U	10	U	5	UJ	5	U
Sec-Butylbenzene	n/a	n/a	0.22	U	0.22	U	20	J	21	J	11.8		11		2.1	J	2.5	
Styrene	1620	100	0.2	U	0.2	U	0.4	UJ	0.4	UJ	0.4	U	0.4	U	0.2	UJ	0.2	U
Tert-butyl benzene	n/a	n/a	0.27	U	0.27	U	0.54	UJ	0.54	UJ	0.86	J	0.98	J	0.39	J	0.44	J
Tetrachloroethene	1.08	5	0.25	U	0.25	U	0.5	UJ	0.5	UJ	0.5	U	0.5	U	0.25	UJ	0.25	U
Toluene	2280	1000	0.2	U	0.2	U	4.5	J	5.8	J	0.4	U	0.4	U	0.2	UJ	0.2	U

Table 4-8
Analytical Results for Groundwater Sampling at SD-27
Holloman AFB, NM

		Well Name:	SD27-MW01				SD27-MW02								SD27-MW03			
		Collection Date:	11/11/2010		01/25/2011		11/10/2010		11/10/2010		01/25/2011		01/25/2011		11/10/2010		01/25/2011	
		Sample ID:	SD27-TTMW-01		MW27-01-012511		SD27-TTMW-02		SD27-TTMW-02-FD		MW27-02-012511		MW27-DUP01-012511		SD27-TTMW-03		MW27-03-012511	
		QC Type:	N		N		N		FD		N		FD		N		N	
Analyte	**NMWQCC[(1)]**	**MCL[(2)]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Trans-1,2-dichloroethene	107	100	0.35	U	0.35	U	0.7	UJ	0.7	UJ	0.7	U	0.7	U	0.35	UJ	0.35	U
Trans-1,3-dichloropropene	n/a	n/a	0.2	U	0.2	U	0.4	UJ	0.4	UJ	0.4	U	0.4	U	0.2	UJ	0.2	U
trans-1,4-Dichloro-2-butene	n/a	n/a	2	U	2	U	4	UJ	4	UJ	4	U	4	U	2	UJ	2	U
Trichloroethene	16.5	5	0.26	U	0.26	U	0.52	UJ	0.52	UJ	0.52	U	0.52	U	0.26	UJ	0.26	U
Trichlorofluoromethane	1290	n/a	0.5	UJ	0.5	U	1	UJ	1	UJ	1	U	1	U	0.5	UJ	0.5	U
Vinyl acetate	412	n/a	2	U	2	U	4	UJ	4	UJ	4	U	4	U	2	UJ	2	U
Vinyl chloride	0.861	2	0.22	U	0.22	U	0.44	UJ	0.44	UJ	0.44	U	0.44	U	0.22	UJ	0.22	U

Notes:

[(1)] **NMWQCC** - New Mexico Water Quality Control Commission. These

[(2)] **EPA MCL** - United States Environmental Protection Agency Maximum

[(3)] Groundwater with TDS concentrations above 10,000 mg/L is not considered

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC

EPA - United States Environmental Protection Agency

FD - field duplicate

mg/L - milligrams per liter

µg/L - micrograms per liter

n/a - not available

Q - analytical result qualifier

Value - reported analytical concentration

U - Not detected.

J - Detected. Quantitation estimated.

UJ - Not detected. Quantitation estimated.

R - Rejected.

Table 4-8
Analytical Results for Groundwater Sampling at SD-27
Holloman AFB, NM

		Well Name:	SD27-MW04				SD27-MW05			
		Collection Date:	11/10/2010		01/25/2011		11/11/2010		01/25/2011	
		Sample ID:	SD27-TTMW-04		MW27-04-012511		SD27-TTMW-05		MW27-05-012511	
		QC Type:	N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
General Chemistry Parameters (mg/L)										
Solids, total dissolved [3]	n/a	n/a	29600		28300		15300		14000	
Total Petroleum Hydrocarbons (µg/L)										
Petroleum Hydrocarbons C10-C28	n/a	n/a	446		149	J	1320		1160	
TPH-GRO (C6-C10)	n/a	n/a	427		128		6100		4380	
Dissolved Metals (µg/L)										
Arsenic	0.448	10	**6.9**	J	2	U	**6.4**	J	2	U
Barium	7300	2000	22.4	J	20.5	J	48.6	J	27.5	J
Cadmium	18.3	5	1	U	1	U	1	U	1	U
Chromium	110	100	4	U	5	U	4	U	5	U
Lead	n/a	15	4	U	5	U	4	U	5	U
Mercury	0.562	2	0.05	U	0.05	U	0.05	U	0.05	U
Selenium	183	50	8	U	10	U	8	U	10	U
Silver	183	n/a	1	U	1	U	1	U	1	U
Total Metals (µg/L)										
Arsenic	0.448	10	8	U	**7.8**	J	10	U	**9.3**	J
Barium	7300	2000	24.9	J	21.4	J	69.4	J	30.6	J
Cadmium	18.3	5	4	U	1	U	5	U	1	U
Chromium	110	100	4	U	5	U	5	U	6.4	J
Lead	n/a	15	5	U	5	U	5	U	5	U
Mercury	0.562	2	0.05	U	0.05	U	0.05	U	0.055	J
Selenium	183	50	8	U	10	U	10	U	10	U
Silver	183	n/a	4	U	1	U	1	U	1	U
Radionuclides (pCi/L)										
Alpha, gross	n/a	15	54.73192	R	--		24.59208	R	--	
Beta, gross	n/a	50	-21.54833	R	--		119.2035	R	--	
Semivolatile Organic Compounds (µg/L)										
1,2,4-Trichlorobenzene	8.16	70	0.48	U	0.49	U	2	U	0.48	U
1,2-Dichlorobenzene	370	600	0.95	U	0.97	U	4	U	0.95	U
1,2-Diphenylhydrazine	0.84	n/a	0.48	U	0.49	U	2	U	0.48	U
1,3-Dichlorobenzene	n/a	n/a	0.95	U	0.97	U	4	U	0.95	U
1,4-Dichlorobenzene	4.27	75	0.95	U	0.97	U	4	U	0.95	U
1-Methylnaphthalene	n/a	n/a	11		2.2	J	24.7		14.1	
2,4,5-Trichlorophenol	3650	n/a	0.48	U	0.49	U	2	U	0.48	U
2,4,6-Trichlorophenol	36.5	n/a	0.48	U	0.49	U	2	U	0.48	U
2,4-Dichlorophenol	110	n/a	0.48	U	0.49	U	2	U	0.48	U
2,4-Dimethylphenol	730	n/a	1	U	1.1	U	4.5	J	7.2	
2,4-Dinitrophenol	73	n/a	9.5	U	9.7	U	40	U	9.5	U
2,4-Dinitrotoluene	2.17	n/a	0.48	U	0.49	U	2	U	0.48	U
2,6-Dinitrotoluene	36.5	n/a	0.48	U	0.49	U	2	U	0.48	U
2-Chloronaphthalene	2920	n/a	0.48	U	0.49	U	2	U	0.48	U
2-Chlorophenol	183	n/a	0.48	U	0.49	U	2	U	0.48	U
2-Methylnaphthalene	n/a	n/a	1.6	J	0.55	U	26.7		13.9	
2-Nitroaniline	n/a	n/a	0.48	U	0.49	U	2	U	0.48	U

Table 4-8
Analytical Results for Groundwater Sampling at SD-27
Holloman AFB, NM

		Well Name:	SD27-MW04				SD27-MW05			
		Collection Date:	11/10/2010		01/25/2011		11/11/2010		01/25/2011	
		Sample ID:	SD27-TTMW-04		MW27-04-012511		SD27-TTMW-05		MW27-05-012511	
		QC Type:	N		N		N		N	
Analyte	**NMWQCC[(1)]**	**MCL[(2)]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
2-Nitrophenol	n/a	n/a	0.51	U	0.52	U	2.2	U	0.51	U
3,3'-Dichlorobenzidine	1.49	n/a	0.95	U	0.97	U	4	U	0.95	U
3-Nitroaniline	n/a	n/a	0.48	U	0.49	U	2	U	0.48	U
4,6-Dinitro-2-methylphenol	3.65	n/a	1.9	U	1.9	U	8	U	1.9	U
4-Bromophenyl phenyl ether	n/a	n/a	0.48	U	0.49	U	2	U	0.48	U
4-Chloro-3-methylphenol	n/a	n/a	0.48	U	0.49	U	2	U	0.48	U
4-Chloroaniline	n/a	n/a	0.48	U	0.49	U	2	U	0.48	U
4-Chlorophenyl phenyl ether	n/a	n/a	0.48	U	0.49	U	2	U	0.48	U
4-Methylphenol	n/a	n/a	0.51	U	0.52	U	5.5	J	5.6	
4-Nitroaniline	n/a	n/a	0.48	U	0.49	U	2	U	0.48	U
4-Nitrophenol	n/a	n/a	4.8	U	4.9	U	20	U	4.8	U
Acenaphthene	2190	n/a	0.48	U	0.49	U	2	U	0.48	U
Acenaphthylene	n/a	n/a	0.48	U	0.49	U	2	U	0.48	U
Aniline	n/a	n/a	0.5	U	0.5	U	2.1	U	0.5	U
Anthracene	11000	n/a	0.48	U	0.49	U	2	U	0.48	U
Benzidine	0.00292	n/a	4.5	U	4.6	U	19	U	4.5	U
Benzo(a)anthracene	0.921	n/a	0.48	U	0.49	U	2	U	0.48	U
Benzo(a)pyrene	0.0921	0.2	0.48	U	0.49	U	2	U	0.48	U
Benzo(b)fluoranthene	0.921	n/a	0.48	U	0.49	U	2	U	0.48	U
Benzo(ghi)perylene	n/a	n/a	0.48	U	0.49	U	2	U	0.48	U
Benzo(k)fluoranthene	9.21	n/a	0.48	U	0.49	U	2	U	0.48	U
Benzoic acid	n/a	n/a	9.5	U	9.7	U	40	U	9.5	U
Benzyl alcohol	n/a	n/a	0.95	U	0.97	U	4	U	0.95	U
Bis(2-chloroethoxy)methane	n/a	n/a	0.48	U	0.49	U	2	U	0.48	U
Bis(2-chloroethyl)ether	0.119	n/a	0.51	U	0.52	U	2.2	U	0.51	U
Bis(2-chloroisopropyl)ether	9.6	n/a	0.51	U	0.52	U	2.2	U	0.51	U
Bis(2-ethylhexyl)phthalate	48	6	1	U	1.1	U	4.4	U	1	U
Butyl benzyl phthalate	n/a	n/a	1	U	1.1	U	4.4	U	1	U
Carbazole	n/a	n/a	0.48	U	0.49	U	2	U	0.48	U
Chrysene	92.1	n/a	0.48	U	0.49	U	2	U	0.48	U
Dibenz(a,h)anthracene	0.0921	n/a	0.5	U	0.5	U	2.1	U	0.5	U
Dibenzofuran	n/a	n/a	0.48	U	0.49	U	2	U	0.48	U
Diethyl phthalate	29200	n/a	1	U	1.1	U	4.4	U	1	U
Dimethyl phthalate	365000	n/a	0.94	U	0.96	U	4	U	0.94	U
Di-n-butyl phthalate	3650	n/a	0.83	U	0.84	U	3.5	U	0.84	J
Di-n-octyl phthalate	n/a	n/a	1	U	1.1	U	4.4	U	1	U
Fluoranthene	1460	n/a	0.48	U	0.49	U	2	U	0.48	U
Fluorene	1460	n/a	0.48	U	0.49	U	2	U	0.48	U
Hexachlorobenzene	0.42	1	0.53	U	0.54	U	2.2	U	0.53	U
Hexachlorobutadiene	8.62	n/a	0.95	U	0.97	U	4	U	0.95	U
Hexachlorocyclopentadiene	219	50	1.8	U	1.8	U	7.6	U	1.8	U
Hexachloroethane	36.5	n/a	0.95	U	0.97	U	4	U	0.95	U
Indeno(1,2,3-cd)pyrene	0.921	n/a	0.48	U	0.49	U	2	U	0.48	U
Isophorone	707	n/a	0.48	U	0.49	U	2	U	0.48	U

Table 4-8
Analytical Results for Groundwater Sampling at SD-27
Holloman AFB, NM

		Well Name:	SD27-MW04				SD27-MW05			
		Collection Date:	11/10/2010		01/25/2011		11/11/2010		01/25/2011	
		Sample ID:	SD27-TTMW-04		MW27-04-012511		SD27-TTMW-05		MW27-05-012511	
		QC Type:	N		N		N		N	
Analyte	**NMWQCC[(1)]**	**MCL[(2)]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
M,P-Cresol	n/a	n/a	1	U	1.1	U	4.4	U	7.1	
Naphthalene	1.43	n/a	0.76	U	0.78	U	**60**		**27**	
Nitrobenzene	14.9	n/a	0.56	U	0.57	U	2.4	U	0.56	U
N-Nitrosodimethylamine	0.0132	n/a	2.3	U	2.3	U	9.6	U	2.3	U
N-Nitroso-di-n-propylamine	n/a	n/a	0.48	U	0.49	U	2	U	0.48	U
N-Nitrosodiphenylamine	137	n/a	0.95	U	0.97	U	4	U	0.95	U
Pentachlorophenol	5.6	1	5.1	U	5.2	U	22	U	5.1	U
Phenanthrene	1100	n/a	0.48	U	0.49	U	2	U	0.48	U
Phenol	11000	n/a	0.48	U	0.49	U	2	U	18.1	
Pyrene	1100	n/a	0.48	U	0.49	U	2	U	0.48	U
Pyridine	n/a	n/a	1.5	U	1.6	U	6.4	U	1.5	U
Volatile Organic Compounds (µg/L)										
1,1,1,2-Tetrachloroethane	5.24	n/a	0.2	UJ	0.2	U	2	UJ	2	U
1,1,1-Trichloroethane	9130	200	0.2	UJ	0.2	U	2	UJ	2	U
1,1,2,2-Tetrachloroethane	0.671	n/a	0.23	UJ	0.23	U	2.3	UJ	2.3	U
1,1,2-Trichloro-1,2,2-trifluoroethane	59200	n/a	0.47	UJ	0.47	U	4.7	UJ	4.7	U
1,1,2-Trichloroethane	2.42	5	0.22	UJ	0.22	U	2.2	UJ	2.2	U
1,1-Dichloroethane	24.2	n/a	0.25	UJ	0.25	U	2.5	UJ	2.5	U
1,1-Dichloroethene	340	7	0.23	UJ	0.23	U	2.3	UJ	2.3	U
1,1-Dichloropropene	n/a	n/a	0.28	UJ	0.28	U	2.8	UJ	2.8	U
1,2,3-Trichlorobenzene	n/a	n/a	0.5	UJ	0.5	U	5	UJ	5	U
1,2,3-Trichloropropane	0.096	n/a	0.3	UJ	0.3	U	3	UJ	3	U
1,2,4-Trichlorobenzene	8.16	70	0.5	UJ	0.5	U	5	UJ	5	U
1,2,4-Trimethylbenzene	n/a	n/a	4.2	J	2.8		223	J	255	
1,2-Dibromo-3-chloropropane	0.00803	0.2	0.5	UJ	0.5	U	5	UJ	5	U
1,2-Dibromoethane (Ethylene Dibromide)	0.0653	0.05	0.37	UJ	0.37	U	3.7	UJ	3.7	U
1,2-Dichlorobenzene	370	600	0.25	UJ	0.25	U	2.5	UJ	2.5	U
1,2-Dichloroethane	1.49	5	0.2	UJ	0.2	U	2	UJ	2	U
1,2-Dichloropropane	3.86	5	0.25	UJ	0.25	U	2.5	UJ	2.5	U
1,3,5-Trimethylbenzene (Mesitylene)	n/a	n/a	1.1	J	0.97	J	53.5	J	91.6	
1,3-Dichlorobenzene	n/a	n/a	0.2	UJ	0.2	U	2	UJ	2	U
1,3-Dichloropropane	n/a	n/a	0.2	UJ	0.2	U	2	UJ	2	U
1,4-Dichlorobenzene	4.27	75	0.23	UJ	0.23	U	2.3	UJ	2.3	U
1-Chlorohexane	n/a	n/a	0.25	UJ	0.25	U	2.5	UJ	2.5	U
2,2-Dichloropropane	n/a	n/a	0.44	UJ	0.44	U	4.4	UJ	4.4	U
2-Butanone	7060	n/a	2	UJ	2	U	20	UJ	20	U
2-Butylbenzene	n/a	n/a	0.26	UJ	0.26	U	2.6	UJ	2.6	U
2-Chloroethyl vinyl ether	n/a	n/a	1.2	UJ	1.2	U	12	UJ	12	U
2-Chlorotoluene	730	n/a	0.22	UJ	0.22	U	2.2	UJ	2.2	U
2-Hexanone	n/a	n/a	4	UJ	4	U	40	UJ	40	U
4-Chlorotoluene	n/a	n/a	0.2	UJ	0.2	U	2	UJ	2	U
4-Methyl-2-pentanone	1990	n/a	2	UJ	2	U	20	UJ	20	U
Acetone	21800	n/a	10	UJ	10	U	100	UJ	100	U
Acetonitrile	n/a	n/a	5	UJ	5	U	50	UJ	50	U

Table 4-8
Analytical Results for Groundwater Sampling at SD-27
Holloman AFB, NM

		Well Name:	SD27-MW04				SD27-MW05			
		Collection Date:	11/10/2010		01/25/2011		11/11/2010		01/25/2011	
		Sample ID:	SD27-TTMW-04		MW27-04-012511		SD27-TTMW-05		MW27-05-012511	
		QC Type:	N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Acrolein	0.0416	n/a	5	UJ	5	U	50	UJ	50	U
Acrylonitrile	0.454	n/a	3	UJ	3	U	30	UJ	30	U
Allyl chloride (3-Chloropopene)	n/a	n/a	0.3	UJ	0.3	U	3	UJ	3	U
Benzene	4.13	5	0.34	J	0.2	U	**371**	J	**776**	
Benzyl Chloride	n/a	n/a	0.5	UJ	0.5	U	5	UJ	5	U
Bromobenzene	n/a	n/a	0.25	UJ	0.25	U	2.5	UJ	2.5	U
Bromochloromethane	n/a	n/a	0.22	UJ	0.22	U	2.2	UJ	2.2	U
Bromodichloromethane	1.17	80	0.2	UJ	0.2	U	2	UJ	2	U
Bromoform	85.1	80	0.2	UJ	0.2	U	2	UJ	2	U
Bromomethane	8.66	n/a	0.5	UJ	0.5	U	5	UJ	5	U
Carbon disulfide	1040	n/a	0.5	UJ	0.5	U	5	UJ	5	U
Carbon tetrachloride	1.99	5	0.25	UJ	0.25	U	2.5	UJ	2.5	U
Chlorobenzene	91.3	100	0.2	UJ	0.2	U	2	UJ	2	U
Chloroethane	20900	n/a	0.5	UJ	0.5	U	5	UJ	5	U
Chloroform	1.93	80	0.22	UJ	0.22	U	2.2	UJ	2.2	U
Chloromethane	17.8	n/a	0.5	UJ	0.5	U	5	UJ	5	U
Cis-1,2-dichloroethene	365	70	0.26	UJ	0.26	U	2.6	UJ	2.6	U
Cis-1,3-dichloropropene	n/a	n/a	0.2	UJ	0.2	U	2	UJ	2	U
cis-1,4-Dichloro-2-butene	n/a	n/a	1	UJ	1	U	10	UJ	10	U
Cymene	n/a	n/a	0.6	J	0.3	J	6.4	J	8.4	J
Dibromochloromethane	1.47	80	0.2	UJ	0.2	U	2	UJ	2	U
Dibromomethane	365	n/a	0.25	UJ	0.25	U	2.5	UJ	2.5	U
Dichlorodifluoromethane	395	n/a	0.5	UJ	0.5	U	5	UJ	5	U
Ether, tert-butyl methyl	125	n/a	0.34	UJ	0.34	U	3.4	UJ	3.4	U
Ethyl Methacrylate	3290	n/a	1	UJ	1	U	10	UJ	10	U
Ethylbenzene	14.8	700	2.7	J	1.5		**504**	J	**41**	
Hexachlorobutadiene	8.62	n/a	0.8	UJ	0.8	U	8	UJ	8	U
Hexane	876	n/a	0.59	UJ	0.59	U	5.9	UJ	5.9	U
Iodomethane	n/a	n/a	0.2	UJ	0.2	U	2	UJ	2	U
Isopropylbenzene	679	n/a	15.1	J	4.1		51.8	J	9.1	J
m,p-Xylene	n/a	n/a	0.32	UJ	0.32	U	145	J	221	
Methacrylonitrile	1.04	n/a	5	UJ	5	U	50	UJ	50	U
Methyl methacrylate	1420	n/a	1	UJ	1	U	10	UJ	10	U
Methylene chloride	48	5	2	UJ	2	U	20	UJ	20	U
Naphthalene	1.43	n/a	1	UJ	1	U	**57.4**	J	**48.5**	J
n-Propylbenzene	n/a	n/a	11.5	J	2.3		50.1	J	4.3	J
o-Xylene	1430	n/a	0.27	J	0.2	U	332	J	376	
Pentachloroethane	n/a	n/a	2	UJ	2	U	20	UJ	20	U
Propane Nitrile (Propionitrile)	n/a	n/a	5	UJ	5	U	50	UJ	50	U
Sec-Butylbenzene	n/a	n/a	6.8	J	2.5		7.8	J	3	J
Styrene	1620	100	0.2	UJ	0.2	U	2	UJ	2	U
Tert-butyl benzene	n/a	n/a	0.27	UJ	0.28	J	2.7	UJ	2.7	U
Tetrachloroethene	1.08	5	0.25	UJ	0.25	U	2.5	UJ	2.5	U
Toluene	2280	1000	0.2	UJ	0.2	U	279	J	104	

Table 4-8
Analytical Results for Groundwater Sampling at SD-27
Holloman AFB, NM

		Well Name:	SD27-MW04				SD27-MW05			
		Collection Date:	11/10/2010		01/25/2011		11/11/2010		01/25/2011	
		Sample ID:	SD27-TTMW-04		MW27-04-012511		SD27-TTMW-05		MW27-05-012511	
		QC Type:	N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Trans-1,2-dichloroethene	107	100	0.35	UJ	0.35	U	3.5	UJ	3.5	U
Trans-1,3-dichloropropene	n/a	n/a	0.2	UJ	0.2	U	2	UJ	2	U
trans-1,4-Dichloro-2-butene	n/a	n/a	2	UJ	2	U	20	UJ	20	U
Trichloroethene	16.5	5	0.26	UJ	0.26	U	2.6	UJ	2.6	U
Trichlorofluoromethane	1290	n/a	0.5	UJ	0.5	U	5	UJ	5	U
Vinyl acetate	412	n/a	2	UJ	2	U	20	UJ	20	U
Vinyl chloride	0.861	2	0.22	UJ	0.22	U	2.2	UJ	2.2	U

Notes:

[1] **NMWQCC** - New Mexico Water Quality Control Commission. These

[2] **EPA MCL** - United States Environmental Protection Agency Maximum

[3] Groundwater with TDS concentrations above 10,000 mg/L is not considered

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC

EPA - United States Environmental Protection Agency

FD - field duplicate

mg/L - milligrams per liter

µg/L - micrograms per liter

n/a - not available

Q - analytical result qualifier

Value - reported analytical concentration

U - Not detected.

J - Detected. Quantitation estimated.

UJ - Not detected. Quantitation estimated.

R - Rejected.

Table 4-9
Groundwater Level Measurements for SS-39
Holloman AFB, New Mexico

Well	Water Level Data										Water Level Data						
	Jul-06		Jan-07		Jul-07		Jan-08		Jul-08		Jan-09		Jul-09		Jan-10		Ju
	Depth to Water (ft BTOC)	Groundwater Elevation (ft amsl)	Depth to Water (ft BTOC)	Groundwater Elevation (ft amsl)	Depth to Water (ft BTOC)	Groundwater Elevation (ft amsl)	Depth to Water (ft BTOC)	Groundwater Elevation (ft amsl)	Depth to Water (ft BTOC)	Groundwater Elevation (ft amsl)	Depth to Water (ft BTOC)	Groundwater Elevation (ft amsl)	Depth to Water (ft BTOC)	Groundwater Elevation (ft amsl)	Depth to Water (ft BTOC)	Groundwater Elevation (ft amsl)	Depth to Water (ft BTOC)
MW39-01	NC	NC	23.78	4038.11	23.83	4038.06	24.01	4037.88	24.57	4037.32	24.37	4037.52	24.7	4037.19	24.65	4037.24	24.86
MW39-02	18.36	4034.7	17.09	4035.97	17.38	4035.68	17.85	4035.21	18.37	4034.69	18.07	4034.99	NC	NC	18.13	4034.93	18.76
MW39-03	NC	NC	6.82	4035.89	6.75	4035.61	NC	NC	7.92	4034.79	7.64	4035.07	7.45	4035.26	7.66	4035.05	8.4
MW39-04	NC	NC	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW39-05	5.6	4032.93	4.55	4033.98	4.68	4033.85	4.78	4033.75	5.16	4033.37	4.91	4033.62	5.03	4033.5	5	4033.53	5.57
MW39-06	7.16	4033.72	5.94	4034.94	6.32	4034.56	6.51	4034.37	6.70	4034.18	6.65	4034.23	6.56	4034.32	6.71	4034.17	7.34
MW39-06D	6.89	4033.34	5.76	4034.47	6.15	4034.08	6.45	4033.78	6.52	4033.71	6.54	4033.69	6.47	4033.76	6.62	4033.61	7.12
MW39-07	6.7	4033.43	5.16	4034.97	5.41	4034.72	5.77	4034.36	5.90	4034.23	5.85	4034.28	5.85	4034.28	5.85	4034.28	6.6
MW39-08	4.83	4029.22	5.28	4028.77	4.89	4029.16	3.99	NC	4.72	NC	2.21	4033.26	3.93	4033.27	1.8	4033.15	3.71
MW39-09	4.09	4023.00	4.75	4029.34	4.20	4029.89	2.30	NC	1.47	NC	2.31	4032.98	1.87	4033.22	3.77	4032.97	3.17
MW39-10	1.62	4032.58	1.41	4032.79	5.32	4028.88	5.63	NC	4.95	NC	2.94	4033.26	5.23	4033.18	2.61	4032.39	4.98
MW39-11	5.47	4028.64	5.32	4028.79	4.54	4029.57	5.31	NC	5.79	NC	5.35	4032.81	3.82	4032.09	3.35	4032.82	4.3
MW39-12	5.8	4027.95	5.38	4028.37	3.32	4030.43	5.38	NC	NC	NC	1.90	4032.45	NC	NC	2.52	4032.6	3.32
MW39-13*	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW39-14*	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW39-15*	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW39-16*	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Notes:
***** Monitoring wells were installed in November 2010.
amsl - above mean sea level
BTOC - below top of casing
Dry - well measured dry
ft - feet
n/a - not applicable, monitoring wells were not installed until November 2010.
NC - not collected

Table 4-9
Groundwater Level Measurements for SS-39
Holloman AFB, New Mexico

Well	ul-10	Jan-11	
	Groundwater Elevation (ft amsl)	Depth to Water (ft BTOC)	Groundwater Elevation (ft amsl)
MW39-01	4013.91	24.93	4013.84
MW39-02	4019.41	18.57	4019.6
MW39-03	4029.7	8.09	4030.01
MW39-04	Dry	Dry	Dry
MW39-05	4032.96	5.56	4032.97
MW39-06	4033.54	7.09	4033.79
MW39-06D	4033.11	6.93	4033.3
MW39-07	4033.53	6.39	4033.74
MW39-08	4030.69	4.19	4030.93
MW39-09	4030.76	3.37	4030.74
MW39-10	4030.87	4.25	4031.04
MW39-11	4030.48	4.13	4030.52
MW39-12	4030.36	4.75	4030.02
MW39-13*	n/a	5.48	4031.53
MW39-14*	n/a	14.29	4031.56
MW39-15*	n/a	14.04	4031.56
MW39-16*	n/a	9.66	4031.31

Notes:
***** Monitoring wells were installed in November 2010.
amsl - above mean sea level
BTOC - below top of casing
Dry - well measured dry
ft - feet
n/a - not applicable, monitoring wells were not installed until November 2010.
NC - not collected

Table 4-10
Groundwater Quality Parameters for SS-39
Holloman AFB, New Mexico

Well	pH											Specific Conductance											Temperature (ºC)		
	Jul-06	Jan-07	Jul-07	Jan-08	July-08	Jan-09	Jul-09	Oct-09	Jan-10	Jul-10	Jan-11	Jul-06	Jan-07	Jul-07	Jan-08	July-08	Jan-09	Jul-09	Oct-09	Jan-10	Jul-10	Jan-11	Jul-06	Jan-07	Jul-07
MW39-02	7.00	7.48	7.15	7.27	6.96	6.66	6.54	NM	7.01	6.30	6.63	18.98	16.32	1.74	23.04	NM	20.80	9.50	NM	27.40	99.9*	17.80	27.93	18.01	22.50
MW39-03	NM	NM	NM	NM	NM	NM	NM	NM	NM	6.33	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	30.90	NM	NM	NM	NM
MW39-05	7.09	7.14	7.13	7.11	6.93	6.71	6.94	NM	7.01	7.20	7.93	81.36	59.95	6.88	86.84	NM	85.90	--	NM	--	86.7	98.10	24.01	14.75	24.20
MW39-06	7.01	7.23	7.06	7.01	6.82	6.70	6.93	NM	7.12	7.00	7.37	41.57	31.03	4.15	45.01	NM	41.90	19.60	NM	62.20	39.40	63.70	23.16	13.78	27.90
MW39-06D	7.09	6.95	7.60	6.80	6.71	6.61	6.68	NM	6.48	6.17	7.52	114.70	86.99	99.9*	147.40	NM	100.00	52.30	NM	--	99.9*	99.9*	26.34	17.59	22.60
MW39-07	7.00	7.06	7.05	7.13	6.94	6.75	6.89	NM	6.96	6.64	7.92	62.27	50.95	5.00	67.72	NM	62.80	27.40	NM	84.50	99.9*	71.70	24.74	13.12	25.00
MW39-08	7.13	7.45	8.04	7.56	7.43	4.01	7.74	NM	7.51	7.63	7.71	102.30	64.71	99.9*	126.10	NM	100.00	--	NM	--	99.9*	99.9*	32.00	9.28	29.60
MW39-09	7.49	7.27	8.10	7.70	7.24	7.40	6.73	NM	7.28	7.00	7.52	94.21	81.34	99.9*	128.20	NM	100.00	0.00	NM	--	99.9*	99.9*	29.24	10.98	29.50
MW39-10	7.43	7.47	7.44	7.67	7.21	7.73	7.28	NM	6.94	7.61	8.03	102.40	34.23	99.9*	123.50	NM	100.00	--	NM	--	99.9*	99.9*	30.23	7.93	29.10
MW39-11	7.05	7.23	7.40	7.32	7.14	5.95	7.21	NM	7.34	7.65	7.53	122.80	84.90	99.9*	132.50	NM	100.00	65.40	NM	--	99.9*	99.9*	28.43	10.91	34.10
MW39-12	6.98	7.28	7.61	7.75	7.38	5.93	NM	7.32	7.60	7.09	7.64	127.80	89.32	99.9*	180.30	NM	100.00	NM	--	--	99.9*	99.9*	28.72	11.22	33.00
MW39-13[(2)]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	7.07	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	22.50	n/a	n/a	n/a
MW39-14[(2)]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	7.84	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	24.80	n/a	n/a	n/a
MW39-15[(2)]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	7.39	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	26.80	n/a	n/a	n/a
MW39-16[(2)]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	6.97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	29.40	n/a	n/a	n/a

Notes:
[(1)] - result in percent saturation
[(2)] Monitoring well installed November 2010.
ºC - degrees Celsius
mg/L - milligrams per liter
mV - millivolt
n/a - not applicable.
NM - not measured
NTU - nephelometric turbidity unit
ppt - parts per thousand
S/m - siemens per meter
% - percent
***** - reading exceeded instrument maximum values
-- meter malfunctioned, did not measure parameter.

Table 4-10
Groundwater Quality Parameters for SS-39
Holloman AFB, New Mexico

Well	Temperature (ºC)								Turbidity (NTU)										
	Jan-08	July-08	Jan-09	Jul-09	Oct-09	Jan-10	Jul-10	Jan-11	Jul-06	Jan-07	Jul-07	Jan-08	July-08	Jan-09	Jul-09	Oct-09	Jan-10	Jul-10	Jan-11
MW39-02	13.00	19.68	18.50	21.34	NM	17.29	21.14	19.63	3.40	56.30	0.00	32.60	106.50	0.00	29.40	NM	0.00	0.00	61.70
MW39-03	NM	NM	NM	NM	NM	NM	22.24	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	0.00	NM
MW39-05	14.81	23.34	17.90	24.11	NM	15.06	24.01	17.74	2.06	190.00	0.00	8.70	367.80	10.00	46.70	NM	5.00	0.00	0.10
MW39-06	14.63	21.77	14.70	22.17	NM	16.56	21.96	15.88	2.71	265.00	0.00	2.90	222.90	13.00	35.40	NM	79.30	0.00	0.70
MW39-06D	14.01	18.68	16.90	21.51	NM	18.91	21.09	18.44	9.81	18.00	2.40	5.54	611.00	0.00	15.60	NM	0.70	0.00	38.80
MW39-07	15.70	21.20	16.50	23.14	NM	13.35	24.71	17.34	24.00	950.00	0.40	30.00	330.00	10.00	119.00	NM	10.50	14.40	5.10
MW39-08	15.57	28.59	14.50	30.51	NM	14.06	28.35	14.83	19.70	700.00	3.60	14.50	784.20	2.00	27.10	NM	4.60	2.90	34.20
MW39-09	12.37	22.65	15.10	29.29	NM	15.15	28.43	16.32	32.10	NM	54.00	10.10	797.90	0.00	105.00	NM	68.70	454.00	0.00
MW39-10	10.92	27.31	15.70	29.81	NM	16.14	29.57	13.66	2.67	150.00	7.50	11.90	771.30	0.00	57.10	NM	0.00	23.40	122.00
MW39-11	12.90	26.65	16.30	28.91	NM	15.23	29.43	15.73	45.00	90.00	36.00	630.00	738.80	1.00	18.50	NM	57.80	30.00	143.00
MW39-12	11.62	25.45	16.20	NM	26.36	12.20	27.47	17.38	40.00	NM	8.70	680.00	783.40	0.00	NM	8.00	70.50	89.70	23.20
MW39-13[(2)]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	16.61	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	44.10
MW39-14[(2)]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	19.71	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	393.00
MW39-15[(2)]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	11.91	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2.50
MW39-16[(2)]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	19.43	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	138.00

Notes:
[(1)] - result in percent saturation
[(2)] Monitoring well installed November 2010.
ºC - degrees Celsius
mg/L - milligrams per liter
mV - millivolt
n/a - not applicable.
NM - not measured
NTU - nephelometric turbidity unit
ppt - parts per thousand
S/m - siemens per meter
% - percent
***** - reading exceeded instrument maximum values
-- meter malfunctioned, did not measure parameter.

Table 4-10
Groundwater Quality Parameters for SS-39
Holloman AFB, New Mexico

Well	Oxidation Reduction Potential (mV)											Dissolved Oxygen (mg/L)											Salinity				
	Jul-06	Jan-07	Jul-07	Jan-08	July-08	Jan-09	Jul-09	Oct-09	Jan-10	Jul-10	Jan-11	Jul-06	Jan-07	Jul-07	Jan-08	July-08	Jan-09	Jul-09	Oct-09	Jan-10	Jul-10	Jan-11	Jul-06	Jan-07 (ppt)	Jul-07 (%)	Jan-08 (ppt)	July-08 (%)
MW39-02	87.70	-17.80	87.00	182.50	188.30	18.18	116.00	NM	138.00	130.00	192.00	5.78	4.23	1.71	415.58[1]	41.80	8.54	3.90	NM	4.29	5.02	4.81	NM	18625.00	1.00	18.17	NM
MW39-03	NM	NM	NM	NM	NM	NM	NM	NM	NM	112.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	2.21	NM	NM	NM	NM	NM	NM
MW39-05	92.30	144.50	135.00	160.90	148.50	5.52	212.00	NM	130.00	145.00	167.00	0.99	1.48	0.03	0.30	23.20	6.55	0.44	NM	2.33	0.20	0.10	NM	74.61	4.0*	78.70	NM
MW39-06	42.90	-14.40	-6.00	138.80	144.00	6.78	101.00	NM	124.00	121.00	87.00	1.05	2.98	0.00	0.31	23.30	7.45	2.78	NM	2.42	0.32	0.00	NM	39621.00	2.70	37.41	NM
MW39-06D	84.10	158.00	111.00	208.40	184.70	6.72	118.00	NM	116.00	197.00	130.00	2.78	1.07	0.00	0.97	19.40	5.27	2.12	NM	3.48	3.05	0.52	NM	101.80	4.0*	157.03	NM
MW39-07	46.10	147.50	-14.00	152.20	147.70	6.22	107.00	NM	139.00	212.00	174.00	1.22	1.45	0.00	0.55	26.50	7.63	6.08	NM	1.55	2.12	0.00	NM	65.80	3.30	57.68	NM
MW39-08	49.10	133.40	115.00	102.80	158.30	4.35	205.00	NM	46.00	112.00	149.00	0.45	2.93	1.04	2.76	60.30	10.53	0.83	NM	2.83	5.91	1.86	NM	93.16	4.0*	120.60	NM
MW39-09	42.10	117.90	102.00	112.10	158.70	NM	337.00	NM	139.00	138.00	79.00	1.42	3.76	2.47	312.14[1]	56.20	11.02	8.04	NM	5.21	3.82	2.01	NM	107.00	4.0*	137.33	NM
MW39-10	50.70	98.80	-32.00	188.60	156.30	8.86	252.00	NM	120.00	54.00	128.00	0.72	13.38	0.53	2.43	36.10	11.92	0.21	NM	3.96	2.49	0.46	NM	69.83	4.0*	136.70	NM
MW39-11	26.10	155.10	-21.00	250.90	158.30	7.19	84.00	NM	106.00	81.00	48.00	0.78	1.74	0.69	292.8[1]	43.80	12.79	3.62	NM	4.24	3.44	1.08	NM	116.10	4.0*	151.50	NM
MW39-12	53.20	164.30	-41.00	186.90	122.80	3.37	NM	176.00	116.00	139.00	169.00	1.08	1.76	0.18	117.8[1]	42.20	11.01	NM	0.00	4.70	2.74	1.50	NM	122.40	4.0*	141.51	NM
MW39-13[2]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	111.00	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.00	n/a	n/a	n/a	n/a	n/a
MW39-14[2]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	95.00	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	8.11	n/a	n/a	n/a	n/a	n/a
MW39-15[2]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	115.00	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5.08	n/a	n/a	n/a	n/a	n/a
MW39-16[2]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	100.00	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	3.93	n/a	n/a	n/a	n/a	n/a

Notes:
[1] - result in percent saturation
[2] Monitoring well installed November 2010.
ºC - degrees Celsius
mg/L - milligrams per liter
mV - millivolt
n/a - not applicable.
NM - not measured
NTU - nephelometric turbidity unit
ppt - parts per thousand
S/m - siemens per meter
% - percent
***** - reading exceeded instrument maximum values
-- meter malfunctioned, did not measure parameter.

Table 4-10
Groundwater Quality Parameters for SS-39
Holloman AFB, New Mexico

Well	Salinity					
	Jan-09 (%)	Jul-09 (%)	Oct-09 (%)	Jan-10 (%)	Jul-10 (%)	Jan-11 (%)
MW39-02	1.25	0.53	NM	1.70	4.0*	1.1
MW39-03	NM	NM	NM	NM	1.9	NM
MW39-05	4.0*	4.00	NM	--	4.0*	4.0*
MW39-06	2.68	1.17	NM	--	2.5	4.0*
MW39-06D	4.0*	3.44	NM	4.0*	4.0*	4.0*
MW39-07	4.0*	1.70	NM	4.0*	4.0*	4.0*
MW39-08	4.0*	4.00	NM	4.0*	4.0*	4.0*
MW39-09	4.0*	0.00	NM	--	4.0*	4.0*
MW39-10	4.0*	4.00	NM	4.0*	4.0*	4.0*
MW39-11	4.0*	4.00	NM	--	4.0*	4.0*
MW39-12	4.0*	NM	0.00	--	4.0*	4.0*
MW39-13(2)	n/a	n/a	n/a	n/a	n/a	4.0*
MW39-14(2)	n/a	n/a	n/a	n/a	n/a	1.52
MW39-15(2)	n/a	n/a	n/a	n/a	n/a	1.60
MW39-16(2)	n/a	n/a	n/a	n/a	n/a	1.80

Notes:
(1) - result in percent saturation
(2) Monitoring well installed November 2010.
°C - degrees Celsius
mg/L - milligrams per liter
mV - millivolt
n/a - not applicable.
NM - not measured
NTU - nephelometric turbidity unit
ppt - parts per thousand
S/m - siemens per meter
% - percent
***** - reading exceeded instrument maximum values
-- meter malfunctioned, did not measure parameter.

Table 4-11
Analytical Detections from Groundwater Sampling at SS-39 (July 2010 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-02		MW39-02		MW39-03		MW39-05		MW39-05		MW39-06		MW39-06		MW39-06D		MW39-06D	
		Collection Date:	07/08/2010		01/28/2011		07/08/2010		07/08/2010		01/28/2011		07/08/2010		01/26/2011		07/08/2010		07/08/2010	
		Sample ID:	MW39-02-070810		MW39-02-012811		MW39-03-070810		MW39-05-070810		MW39-05-012811		MW39-06-070810		MW39-06-012611		MW39-DUP01-070810		MW39-06D-070810	
		QC Type:	N		N		N		N		N		N		N		FD		N	
Analyte	**NMWQCC [1]**	**EPA MCL[2]**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**
General Chemistry Parameters (mg/L)																				
Solids, total dissolved [3]	n/a	n/a	14800		12500		10900		60000		69800		26400		26500		85000		78700	
Total Petroleum Hydrocarbons (µg/L)																				
TPH-GRO (C6-C10)	n/a	n/a	--		--		--		--		--		--		--		--		--	
Dissolved Metals (µg/L)																				
Arsenic	0.448	10	8	U	5.1	J	**10.1**	J	40	U	10	U	10	U	5.5	J	80	U	80	U
Barium	7300	2000	20	U	16.7	J	11.3	J	100	U	22.2	J	25	U	16.5	J	200	U	200	U
Cadmium	18.3	5	4	U	1	U	2	U	20	U	5	U	5	U	1	U	40	U	40	U
Chromium	110	100	4	U	2.4	J	2	U	20	U	5	U	5	U	5	U	40	U	40	U
Lead	n/a	15	4.3	J	1	U	4.2	J	20	U	10	U	6.9	J	5	U	40	U	40	U
Mercury	0.562	2	0.071	U	0.05	U	0.071	U	0.071	U	0.05	U	0.071	U	0.05	U	0.071	U	0.071	U
Selenium	183	50	21.3	J	16	J	10.2	J	40	U	**55.5**		38.8	J	10	U	**116**	J	80	U
Silver	183	n/a	4	U	1	U	2	U	20	U	5	U	5	U	1	U	40	U	40	U
Total Metals (µg/L)																				
Arsenic	0.448	10	8	U	4.7	J	7.4	J	40	U	10	U	**11.4**	J	3.4	J	80	U	80	U
Barium	7300	2000	20	U	17.3	J	12.3	J	100	U	15.9	J	25	U	16	J	200	U	200	U
Cadmium	18.3	5	4	U	1	U	2	U	20	U	5	U	5	U	1	U	40	U	40	U
Chromium	110	100	4	U	2.3	J	2	U	20	U	5	U	5	U	5	U	40	U	40	U
Lead	n/a	15	4	U	1	U	2.8	J	20	U	10	U	5	U	5	U	40	U	40	U
Mercury	0.562	2	0.071	U	0.05	U	0.071	U	0.071	U	0.05	U	0.071	U	0.05	U	0.071	U	0.071	U
Selenium	183	50	22.7	J	12.1	J	7.8	J	**78.7**	J	**54.6**		30.7	J	10	U	**97.8**	J	80	U
Silver	183	n/a	4	U	1	U	2	U	20	U	5	U	5	U	1	U	40	U	40	U
Perchlorate (µg/L)																				
Perchlorate	26	n/a	15		19		31		19		24		21		21		28		28	
Volatile Organic Compounds (µg/L)																				
1,1,2-Trichloroethane	2.42	5	0.29	U	0.22	U	0.29	U	0.29	U	0.22	U	0.29	U	0.44	UJ	1.5	U	1.5	U
1,1-Dichloroethene	340	7	0.29	U	0.23	U	0.29	U	0.29	U	0.23	U	1.1		1.1	J	1.6	J	1.5	U
2-Butanone	7060	n/a	2	U	2	U	2	U	2	U	2	U	2	U	4	UJ	10	U	10	U
2-Hexanone	n/a	n/a	5	U	4	U	5	U	5	U	4	U	5	U	8	UJ	25	U	25	U
4-Methyl-2-pentanone	1990	n/a	2	U	2	U	2	U	2	U	2	U	2	U	4	UJ	10	U	10	U
Acetone	21800	n/a	10	UJ	10	U	10	U	10	UJ	10	U	10	UJ	20	UJ	50	U	50	U
Benzene	4.13	5	0.21	U	0.2	U	0.21	U	0.21	U	0.2	U	0.21	U	0.4	UJ	1.1	U	1.1	U
Carbon tetrachloride	1.99	5	2.9		1.3		0.34	U	0.34	U	0.25	U	1.6		1.9	J	1.7	U	1.7	U
Chloroform	1.93	80	1.8		1.2		0.67	J	0.25	U	0.22	U	2.1		2.3	J	1.3	U	1.3	U

Table 4-11
Analytical Detections from Groundwater Sampling at SS-39 (July 2010 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-02		MW39-02		MW39-03		MW39-05		MW39-05		MW39-06		MW39-06		MW39-06D		MW39-06D	
		Collection Date:	07/08/2010		01/28/2011		07/08/2010		07/08/2010		01/28/2011		07/08/2010		01/26/2011		07/08/2010		07/08/2010	
		Sample ID:	MW39-02-070810		MW39-02-012811		MW39-03-070810		MW39-05-070810		MW39-05-012811		MW39-06-070810		MW39-06-012611		MW39-DUP01-070810		MW39-06D-070810	
		QC Type:	N		N		N		N		N		N		N		FD		N	
Analyte	**NMWQCC [1]**	**EPA MCL[2]**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**
Volatile Organic Compounds (µg/L)																				
Chloromethane	17.8	n/a	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	1	UJ	2.5	U	2.5	U
Cis-1,2-dichloroethene	365	70	0.32	U	0.26	U	0.32	U	0.32	U	0.26	U	0.32	U	0.52	UJ	1.6	U	1.6	U
Cymene	n/a	n/a	0.21	U	0.21	U	0.21	U	0.21	U	0.21	U	0.21	U	0.42	UJ	1.1	U	1.1	U
Tetrachloroethene	1.08	5	0.44	U	0.25	U	0.44	U	0.44	U	0.25	U	0.44	U	0.5	UJ	2.2	U	2.2	U
Trichloroethene	16.5	5	**15.3**		**12.4**		1.3		**15.6**		**18.4**		**98.6**		**119**	J	**330**		**301**	

Notes:

[1] **NMWQCC** - New Mexico Water Quality Control Commission. These values are Tap Water Screening Values (ug/L) from Table A-1: NMED Soil Screening Levels,Technical Background Document for Development of Soil Screening Levels, Revision 5.0, July 2009.

[2] **EPA MCL** - United States Environmental Protection Agency Maximum Contaminant Level. From January 2011 Edition of the Drinking Water Standards and Health Advisories.

[3] Groundwater with TDS concentrations above 10,000 mg/L is not considered a potential domestic or agricultural water supply (NMAC, 20.6.2.3101).

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC standards and EPA MCLs

EPA - United States Environmental Protection Agency

FD - field duplicate

mg/L - milligrams per liter

µg/L - micrograms per liter

-- not analyzed

n/a - not available

Q - analytical result qualifier

Value - reported analytical concentration

U - Not detected.

J - Detected. Quantitation estimated.

UJ - Not detected. Quantitation estimated.

Table 4-11
Analytical Detections from Groundwater Sampling at SS-39 (July 2010 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-06D		MW39-06D		MW39-07		MW39-07		MW39-08		MW39-08		MW39-09		MW39-09		MW39-10	
		Collection Date:	01/26/2011		01/26/2011		07/07/2010		01/28/2011		07/07/2010		01/27/2011		07/07/2010		01/27/2011		07/07/2010	
		Sample ID:	MW39-DUP01-012611		MW39-06D-012611		MW39-07-070710		MW39-07-012811		MW39-08-070710		MW39-08-012711		MW39-09-070710		MW39-09-012711		MW39-10-070710	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC [1]**	**EPA MCL[2]**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**
General Chemistry Parameters (mg/L)																				
Solids, total dissolved [3]	n/a	n/a	91600		94500		40300		47300		107000		99500		109000		109000		39800	
Total Petroleum Hydrocarbons (µg/L)																				
TPH-GRO (C6-C10)	n/a	n/a	--		--		--		--		--		--		--		--		--	
Dissolved Metals (µg/L)																				
Arsenic	0.448	10	20	U	**21.3**	J	20	U	10	U	80	U	20	U	80	U	20	U	40	U
Barium	7300	2000	23.7	J	23.9	J	50	U	17.1	J	200	U	46.2	J	200	U	34.6	J	100	U
Cadmium	18.3	5	10	U	10	U	10	U	5	U	40	U	10	U	40	U	10	U	20	U
Chromium	110	100	10	U	10	U	10	U	5	U	40	U	10	U	40	U	10	U	20	U
Lead	n/a	15	10	U	10	U	10	U	10	U	40	U	10	U	40	U	10	U	20	U
Mercury	0.562	2	0.05	U	0.05	U	0.071	U	0.05	U	0.071	U	0.05	U	0.071	U	0.05	U	0.071	U
Selenium	183	50	20	U	20	U	34.8	J	10	U	**96.1**	J	20	U	**91.4**	J	20	U	**50.7**	J
Silver	183	n/a	10	U	10	U	10	U	5	U	40	U	10	U	40	U	10	U	20	U
Total Metals (µg/L)																				
Arsenic	0.448	10	20	U	20	U	20	U	10	U	80	U	20	U	80	U	**32.5**	J	40	U
Barium	7300	2000	25.1	J	25.2	J	50	U	18.2	J	200	U	67.8	J	200	U	602		369	J
Cadmium	18.3	5	10	U	10	U	10	U	5	U	40	U	10	U	40	U	10	U	20	U
Chromium	110	100	10	U	10	U	10	U	5	U	40	U	10	U	40	U	83.2	J	100	J
Lead	n/a	15	10	U	10	U	10	U	5	U	40	U	10	U	40	U	**64.4**		20	U
Mercury	0.562	2	0.05	U	0.05	U	0.071	U	0.05	U	0.071	U	0.05	U	0.071	U	0.05	U	0.071	U
Selenium	183	50	20	U	20	U	42.1	J	12	J	80	U	20	U	80	U	20	U	40	U
Silver	183	n/a	10	U	10	U	10	U	5	U	40	U	10	U	40	U	10	U	20	U
Perchlorate (µg/L)																				
Perchlorate	26	n/a	30		29		59		63		61		63		160		140		110	
Volatile Organic Compounds (µg/L)																				
1,1,2-Trichloroethane	2.42	5	1.1	U	1.1	U	0.29	U	0.22	U	0.29	U	0.22	U	0.29	U	0.22	U	0.29	U
1,1-Dichloroethene	340	7	1.8	J	1.6	J	0.29	U	0.23	U	0.29	U	0.23	U	0.29	U	0.23	U	0.29	U
2-Butanone	7060	n/a	10	U	10	U	2	U	2	U	2	U	2	U	3	J	2.4	J	2	U
2-Hexanone	n/a	n/a	20	U	20	U	5	U	4	U	20.6		5.6	J	55.7		4	U	5	U
4-Methyl-2-pentanone	1990	n/a	10	U	10	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Acetone	21800	n/a	50	U	50	U	10	U	10	U	10	UJ	10	U	18.1	J	15.3	J	10	UJ
Benzene	4.13	5	1	U	1	U	0.21	U	0.2	U	0.21	U	0.2	U	0.21	U	0.21	J	0.21	U
Carbon tetrachloride	1.99	5	1.3	U	1.3	U	0.34	U	0.25	UJ	0.34	U	0.25	U	0.34	U	0.25	U	0.34	U
Chloroform	1.93	80	1.1	U	1.1	U	0.25	U	0.22	U	0.25	U	0.22	U	0.25	U	0.22	U	0.25	U

Table 4-11
Analytical Detections from Groundwater Sampling at SS-39 (July 2010 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-06D		MW39-06D		MW39-07		MW39-07		MW39-08		MW39-08		MW39-09		MW39-09		MW39-10	
		Collection Date:	01/26/2011		01/26/2011		07/07/2010		01/28/2011		07/07/2010		01/27/2011		07/07/2010		01/27/2011		07/07/2010	
		Sample ID:	MW39-DUP01-012611		MW39-06D-012611		MW39-07-070710		MW39-07-012811		MW39-08-070710		MW39-08-012711		MW39-09-070710		MW39-09-012711		MW39-10-070710	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC [1]**	**EPA MCL[2]**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**
Volatile Organic Compounds (µg/L)																				
Chloromethane	17.8	n/a	2.5	U	2.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.58	J	0.68	J	0.5	U
Cis-1,2-dichloroethene	365	70	1.3	U	1.3	U	0.32	U	0.26	U	0.52	J	0.3	J	0.32	U	0.26	U	0.32	U
Cymene	n/a	n/a	1.1	U	1.1	U	0.21	U	0.21	U	0.21	U	0.21	U	0.43	J	0.21	U	0.21	U
Tetrachloroethene	1.08	5	1.3	U	1.3	U	0.44	U	0.25	U	0.44	U	0.25	U	0.44	U	0.25	U	0.44	U
Trichloroethene	16.5	5	**353**		**349**		0.77	J	0.91	J	**18.8**		**14.2**		0.24	U	0.26	U	0.24	U

Notes:

[1] **NMWQCC -** New Mexico Water Quality Control Commission. These values are Tap Water Screening Values (ug/L) from Table A-1: NMED Soil Screening Levels,Technical Background Document for Development of Soil Screening Levels, Revision 5.0, July 2009.

[2] **EPA MCL -** United States Environmental Protection Agency Maximum Contaminant Level. From January 2011 Edition of the Drinking Water Standards and Health Advisories.

[3] Groundwater with TDS concentrations above 10,000 mg/L is not considered a potential domestic or agricultural water supply (NMAC, 20.6.2.3101).

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC standards and EPA MCLs

EPA - United States Environmental Protection Agency

FD - field duplicate

mg/L - milligrams per liter

µg/L - micrograms per liter

-- not analyzed

n/a - not available

Q - analytical result qualifier

Value - reported analytical concentration

U - Not detected.

J - Detected. Quantitation estimated.

UJ - Not detected. Quantitation estimated.

Table 4-11
Analytical Detections from Groundwater Sampling at SS-39 (July 2010 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-10		MW39-11		MW39-11		MW39-12		MW39-12		MW39-13	
		Collection Date:	01/27/2011		07/07/2010		01/27/2011		07/07/2010		01/27/2011		01/28/2011	
		Sample ID:	MW39-10-012711		MW39-11-070710		MW39-11-012711		MW39-12-070710		MW39-12-012711		MW39-13-012811	
		QC Type:	N		N		N		N		N		N	
Analyte	**NMWQCC [1]**	**EPA MCL[2]**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**
General Chemistry Parameters (mg/L)														
Solids, total dissolved [3]	n/a	n/a	108000		116000		120000		106000		133000		12700	
Total Petroleum Hydrocarbons (µg/L)														
TPH-GRO (C6-C10)	n/a	n/a	--		--		--		--		--		86.4	J
Dissolved Metals (µg/L)														
Arsenic	0.448	10	10	U	80	U	10	U	80	U	20	U	7.8	J
Barium	7300	2000	32.7	J	200	U	40.3	J	200	U	51.4	J	11.3	J
Cadmium	18.3	5	5	U	40	U	**7.3**	J	40	U	10	U	1	U
Chromium	110	100	5	U	40	U	5	U	40	U	7.4	J	2	U
Lead	n/a	15	20	U	40	U	20	U	40	U	**26.4**	J	1	U
Mercury	0.562	2	0.05	U	0.071	U	0.05	U	0.071	U	0.05	U	0.05	U
Selenium	183	50	35.5	J	**128**	J	**85.1**		**98.1**	J	**97.6**	J	13.5	J
Silver	183	n/a	5	U	40	U	5	U	40	U	5	U	1	U
Total Metals (µg/L)														
Arsenic	0.448	10	10	U	80	U	20	U	80	U	10	U	6	J
Barium	7300	2000	41.2	J	200	U	55.9	J	200	U	59.1	J	17.7	J
Cadmium	18.3	5	5	U	40	U	10	U	40	U	5	U	1	U
Chromium	110	100	5	U	40	U	33.5	J	40	U	97.4		2	U
Lead	n/a	15	**25.4**	J	40	U	20	U	40	U	20	U	1	U
Mercury	0.562	2	0.05	U	0.071	U	0.05	U	0.071	U	0.05	U	0.056	J
Selenium	183	50	10	U	80	U	**126**		**90.2**	J	**62.9**		20	
Silver	183	n/a	5	U	40	U	5	U	40	U	5	J	1	U
Perchlorate (µg/L)														
Perchlorate	26	n/a	100		78		79		66		61		28	
Volatile Organic Compounds (µg/L)														
1,1,2-Trichloroethane	2.42	5	0.22	U	0.29	U	0.22	U	0.29	U	0.22	U	0.47	J
1,1-Dichloroethene	340	7	0.23	U	0.29	U	0.27	J	0.29	U	0.23	U	**8**	
2-Butanone	7060	n/a	14		2.8	J	2	U	2	U	3.3	J	4	U
2-Hexanone	n/a	n/a	27.9		16.8		4.5	J	8.6	J	6.1	J	8	U
4-Methyl-2-pentanone	1990	n/a	8.2		3.2	J	2	U	2	U	2	U	4	U
Acetone	21800	n/a	125		20.2	J	10.6	J	10	UJ	19.3	J	20	U
Benzene	4.13	5	0.2	U	0.21	U	0.2	U	0.21	U	0.2	U	0.4	U
Carbon tetrachloride	1.99	5	0.25	U	0.34	U	0.25	U	0.34	U	0.25	U	0.5	U
Chloroform	1.93	80	0.22	U	0.25	U	0.22	U	0.25	U	0.22	U	3.1	

Table 4-11
Analytical Detections from Groundwater Sampling at SS-39 (July 2010 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-10		MW39-11		MW39-11		MW39-12		MW39-12		MW39-13	
		Collection Date:	01/27/2011		07/07/2010		01/27/2011		07/07/2010		01/27/2011		01/28/2011	
		Sample ID:	MW39-10-012711		MW39-11-070710		MW39-11-012711		MW39-12-070710		MW39-12-012711		MW39-13-012811	
		QC Type:	N		N		N		N		N		N	
Analyte	**NMWQCC [1]**	**EPA MCL[2]**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**
Volatile Organic Compounds (µg/L)														
Chloromethane	17.8	n/a	1.2	J	0.5	U	0.5	U	0.56	J	1.1	J	1	U
Cis-1,2-dichloroethene	365	70	0.26	U	0.32	U	0.27	J	0.32	U	0.26	U	0.52	U
Cymene	n/a	n/a	0.21	U	0.74	J	0.21	U	0.21	U	0.21	U	0.42	U
Tetrachloroethene	1.08	5	0.25	U	0.44	U	0.25	U	0.44	U	0.25	U	1.6	J
Trichloroethene	16.5	5	0.26	U	**11.6**		**42.1**		1.6		0.6	J	**132**	

Notes:

[1] **NMWQCC** - New Mexico Water Quality Control Commission. These values are Tap Water Screening Values (ug/L) from Table A-1: NMED Soil Screening Levels,Technical Background Document for Development of Soil Screening Levels, Revision 5.0, July 2009.

[2] **EPA MCL** - United States Environmental Protection Agency Maximum Contaminant Level. From January 2011 Edition of the Drinking Water Standards and Health Advisories.

[3] Groundwater with TDS concentrations above 10,000 mg/L is not considered a potential domestic or agricultural water supply (NMAC, 20.6.2.3101).

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC standards and EPA MCLs

EPA - United States Environmental Protection Agency
FD - field duplicate
mg/L - milligrams per liter
µg/L - micrograms per liter
-- not analyzed
n/a - not available
Q - analytical result qualifier
Value - reported analytical concentration
U - Not detected.
J - Detected. Quantitation estimated.
UJ - Not detected. Quantitation estimated.

Table 4-11
Analytical Detections from Groundwater Sampling at SS-39 (July 2010 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-14		MW39-14		MW39-15		MW39-16	
		Collection Date:	01/27/2011		01/27/2011		01/28/2011		01/28/2011	
		Sample ID:	MW39-DUP02-012711		MW39-14-012711		MW39-15-012811		MW39-16-012811	
		QC Type:	FD		N		N		N	
Analyte	**NMWQCC [1]**	**EPA MCL[2]**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**
General Chemistry Parameters (mg/L)										
Solids, total dissolved [3]	n/a	n/a	15800		15800		13100		13600	
Total Petroleum Hydrocarbons (µg/L)										
TPH-GRO (C6-C10)	n/a	n/a	50	U	50	U	50	U	50	U
Dissolved Metals (µg/L)										
Arsenic	0.448	10	3.6	J	3.2	J	4.2	J	6	J
Barium	7300	2000	15.9	J	16.5	J	12	J	18.6	J
Cadmium	18.3	5	1	U	1	U	1	U	1	U
Chromium	110	100	5	U	5	U	2	U	2	U
Lead	n/a	15	5	U	5	U	5	U	5	U
Mercury	0.562	2	0.05	U	0.05	U	0.05	U	0.05	U
Selenium	183	50	10	U	10	U	21		22	
Silver	183	n/a	1	U	1	U	1	U	1	U
Total Metals (µg/L)										
Arsenic	0.448	10	3.6	J	3.6	J	5.3	J	6.4	J
Barium	7300	2000	19	J	20.4	J	14	J	22.7	J
Cadmium	18.3	5	1	U	1	U	1	U	1	U
Chromium	110	100	5	U	5	U	2	U	2	U
Lead	n/a	15	5	U	5	U	1	U	2	U
Mercury	0.562	2	0.05	U	0.05	U	0.05	U	0.05	U
Selenium	183	50	10	U	10	U	18.2	J	27.3	
Silver	183	n/a	1	U	1	U	1	U	1	U
Perchlorate (µg/L)										
Perchlorate	26	n/a	11		11		7.3		13	
Volatile Organic Compounds (µg/L)										
1,1,2-Trichloroethane	2.42	5	0.22	U	0.22	U	0.22	U	0.22	U
1,1-Dichloroethene	340	7	0.23	U	0.23	U	0.23	U	0.57	J
2-Butanone	7060	n/a	2	U	2	U	2	U	2	U
2-Hexanone	n/a	n/a	4	U	4	U	4	U	4	U
4-Methyl-2-pentanone	1990	n/a	2	U	2	U	2	U	2	U
Acetone	21800	n/a	10	UJ	10	UJ	10	U	10	U
Benzene	4.13	5	0.2	U	0.2	U	0.2	U	0.2	U
Carbon tetrachloride	1.99	5	3.3		2.9		0.33	J	0.78	J
Chloroform	1.93	80	1.6		1.5		0.33	J	0.72	J

Table 4-11
Analytical Detections from Groundwater Sampling at SS-39 (July 2010 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-14		MW39-14		MW39-15		MW39-16	
		Collection Date:	01/27/2011		01/27/2011		01/28/2011		01/28/2011	
		Sample ID:	MW39-DUP02-012711		MW39-14-012711		MW39-15-012811		MW39-16-012811	
		QC Type:	FD		N		N		N	
Analyte	**NMWQCC [1]**	**EPA MCL[2]**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**	**Value**	**Q**
Volatile Organic Compounds (µg/L)										
Chloromethane	17.8	n/a	0.5	U	0.5	U	0.5	U	0.5	U
Cis-1,2-dichloroethene	365	70	0.26	U	0.26	U	0.26	U	0.26	U
Cymene	n/a	n/a	0.21	U	0.21	U	0.21	U	0.21	U
Tetrachloroethene	1.08	5	0.25	U	0.25	U	0.25	U	0.25	U
Trichloroethene	16.5	5	**10.7**		**9.3**		**8.3**		**30.7**	

Notes:

[1] **NMWQCC** - New Mexico Water Quality Control Commission. These values are Tap Water Screening Values (ug/L) from Table A-1: NMED Soil Screening Levels,Technical Background Document for Development of Soil Screening Levels, Revision 5.0, July 2009.

[2] **EPA MCL** - United States Environmental Protection Agency Maximum Contaminant Level. From January 2011 Edition of the Drinking Water Standards and Health Advisories.

[3] Groundwater with TDS concentrations above 10,000 mg/L is not considered a potential domestic or agricultural water supply (NMAC, 20.6.2.3101).

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC standards and EPA MCLs

EPA - United States Environmental Protection Agency
FD - field duplicate
mg/L - milligrams per liter
µg/L - micrograms per liter
-- not analyzed
n/a - not available
Q - analytical result qualifier
Value - reported analytical concentration
U - Not detected.
J - Detected. Quantitation estimated.
UJ - Not detected. Quantitation estimated.

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-02																	
		Collection Date:	7/15/2006		1/17/2007		7/19/2007		1/17/2008		07/10/2008		01/08/2009		07/08/2009		01/07/2010		07/08/2010	
		Sample ID:	HGL		HGL		HGL		HGL		MW-39-02-071008		MW-39-02-010809		MW39-02-070809		MW39-02-010710		MW39-02-070810	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
General Chemistry Parameters (mg/L)																				
Solids, total dissolved [3]	n/a	n/a	16300		15700		19000		15000		16900		15800		12200		11300		14800	
Total Petroleum Hydrocarbons (µg/L)																				
Petroleum Hydrocarbons C10-C28	n/a	n/a	--		--		--		--		--		--		--		--		--	
TPH-GRO (C6-C10)	n/a	n/a	--		--		--		--		--		--		--		--		--	
Dissolved Metals (µg/L)																				
Arsenic	0.448	10	3.6	U	5	U	100	U	50	U	7.2	U	11	U	23.2		22	UJ	8	U
Barium	7300	2000	7	J	14	J	110	UJ	55	U	14.8	J	16.8	J	20	U	21.3		20	U
Cadmium	18.3	5	0.5	U	1	UJ	22	U	11	U	2	U	2	U	4	U	4	U	4	U
Chromium	110	100	3.5	U	7	J	100	U	50	U	3.2	U	4	U	8	U	8	U	4	U
Lead	n/a	15	n/a*		n/a*		n/a*		n/a*		4	U	6	J	8	U	8	U	4.3	J
Mercury	0.562	2	n/a*		n/a*		n/a*		n/a*		0.14	U	0.15	U	0.15	UJ	0.15	U	0.071	U
Selenium	183	50	14		10	UJ	150	U	75	U	27.3		24.7		37.1		43.8		21.3	J
Silver	183	n/a	0.1	U	2	UJ	50	U	25	U	2.4	U	2.8	U	6.6		5.6	U	4	U
Total Metals (µg/L)																				
Arsenic	0.448	10	--		5	U	100	U	50	U	12.6	J	14.9	J	22	U	22	UJ	8	U
Barium	7300	2000	--		14		110	U	55	U	18.1	J	18.1	J	20	U	20	U	20	U
Cadmium	18.3	5	--		1	U	22	U	11	U	2	U	2	U	4	U	4	U	4	U
Chromium	110	100	--		14		100	U	50	U	3.2	U	4	U	8	U	8	U	4	U
Lead	n/a	15	--		5	U	66	U	33	U	4	U	7	U	8	U	8	U	4	U
Mercury	0.562	2	n/a*		n/a*		n/a*		n/a*		0.14	U	0.15	U	0.15	UJ	0.15	U	0.071	U
Selenium	183	50	--		10	U	150	U	75	U	28.9		29.7		38.5		39.9		22.7	J
Silver	183	n/a	--		2	U	50	U	25	U	2.4	U	2.8	U	5.6	U	5.6	U	4	U
Perchlorate (µg/L)																				
Perchlorate	26	n/a	12		75	U	10		11		12		21		15		11		15	
Unsymmetrical Dimethylhydrazine (UDMH) (µg/L)																				
1,1-Dimethylhydrazine	n/a	n/a	n/a*		n/a*		n/a*		n/a*		--		23	U	--		--		--	
Volatile Organic Compounds (µg/L)																				
1,1,1,2-Tetrachloroethane	5.24	n/a	n/a*		n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
1,1,1-Trichloroethane	9130	200	n/a*		n/a*		n/a*		n/a*		0.33	U	0.35	J	0.33	U	0.5	J	0.22	U
1,1,2,2-Tetrachloroethane	0.671	n/a	n/a*		n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.29	U
1,1,2-Trichloro-1,2,2-trifluoroethane	59200	n/a	n/a*		n/a*		n/a*		n/a*		0.34	U	0.34	U	0.34	U	0.34	U	0.43	U
1,1,2-Trichloroethane	2.42	5	n/a*		n/a*		n/a*		n/a*		0.26	U	0.26	U	0.26	U	0.26	U	0.29	U
1,1-Dichloroethane	24.2	n/a	0.0299	U	1	U	1	U	1	U	0.24	U	0.24	U	0.24	U	0.24	U	0.22	U
1,1-Dichloroethene	340	7	0.0736	U	0.54	J	1	U	1	U	0.54	U	0.54	U	0.54	U	0.54	U	0.29	U
1,1-Dichloropropene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.23	U	0.23	U	0.23	U	0.23	U	0.25	U
1,2,3-Trichlorobenzene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.096	n/a	n/a*		n/a*		n/a*		n/a*		0.34	U	0.34	U	0.34	U	0.34	U	0.37	U
1,2,4-Trichlorobenzene	8.16	70	n/a*		n/a*		n/a*		n/a*		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trimethylbenzene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.22	U	0.22	U	0.22	U	0.22	U	0.22	U
1,2-Dibromo-3-chloropropane	0.00803	0.2	n/a*		n/a*		n/a*		n/a*		0.32	U	0.32	U	0.32	U	0.32	U	0.59	UJ
1,2-Dibromoethane (Ethylene Dibromide)	0.0653	0.05	n/a*		n/a*		n/a*		n/a*		0.28	U	0.28	U	0.28	U	0.28	U	0.23	U
1,2-Dichlorobenzene	370	600	n/a*		n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.26	U
1,2-Dichloroethane	1.49	5	n/a*		n/a*		n/a*		n/a*		0.34	U	0.34	U	0.34	U	0.34	U	0.33	U

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-02																	
		Collection Date:	7/15/2006		1/17/2007		7/19/2007		1/17/2008		07/10/2008		01/08/2009		07/08/2009		01/07/2010		07/08/2010	
		Sample ID:	HGL		HGL		HGL		HGL		MW-39-02-071008		MW-39-02-010809		MW39-02-070809		MW39-02-010710		MW39-02-070810	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
1,2-Dichloropropane	3.86	5	n/a*		n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.27	U
1,3,5-Trimethylbenzene (Mesitylene)	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
1,3-Dichlorobenzene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.23	U	0.23	U	0.23	U	0.23	U	0.29	U
1,3-Dichloropropane	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.26	U	0.26	U	0.26	U	0.26	U	0.28	U
1,4-Dichlorobenzene	4.27	75	n/a*		n/a*		n/a*		n/a*		0.22	U	0.22	U	0.22	U	0.22	U	0.22	U
1-Chlorohexane	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.27	U	0.27	U	0.27	U	0.27	U	0.29	U
2,2-Dichloropropane	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.28	U	0.28	U	0.28	U	0.28	U	0.37	U
2-Butanone	7060	n/a	0.394	U	5	U	5	U	5	U	2	U	2	U	2	U	2	U	2	U
2-Butylbenzene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.28	U	0.28	U	0.28	U	0.28	U	0.24	U
2-Chloroethyl vinyl ether	n/a	n/a	n/a*		n/a*		n/a*		n/a*		1	UJ	1	UJ	1	U	1	U	1.1	UJ
2-Chlorotoluene	730	n/a	n/a*		n/a*		n/a*		n/a*		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
2-Hexanone	n/a	n/a	n/a*		n/a*		n/a*		n/a*		5	U	5	U	5	U	5	U	5	U
2-Propylbenzene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		--		--		--		--		--	
4-Bromofluorobenzene	n/a	n/a	--		48		--		--		--		--		--		--		--	
4-Chlorotoluene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.23	U
4-Methyl-2-pentanone	1990	n/a	n/a*		n/a*		n/a*		n/a*		2	U	2	U	2	U	2	U	2	U
Acetone	21800	n/a	0.854	U	10	UJ	5	UJ	5	U	10	U	10	U	10	U	10	U	10	UJ
Acetonitrile	n/a	n/a	n/a*		n/a*		n/a*		n/a*		5	U	5	U	5	U	5	U	5	UJ
Acrolein	0.0416	n/a	n/a*		n/a*		n/a*		n/a*		5	U	5	U	5	U	5	U	10	U
Acrylonitrile	0.454	n/a	n/a*		n/a*		n/a*		n/a*		2	UJ	2	U	2	U	2	U	3	UJ
Allyl chloride (3-Chloropopene)	n/a	n/a	n/a*		n/a*		n/a*		n/a*		2	U	2	U	2	U	2	U	2	U
Aniline	n/a	n/a	n/a*		n/a*		n/a*		n/a*		--		0.99	U	--		--		--	
Benzene	4.13	5	0.0495	U	1	U	1	U	1	U	0.4	U	0.4	U	0.4	U	0.4	U	0.21	U
Benzyl Chloride	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.36	U	0.36	U	0.36	U	0.36	U	0.4	U
Bromobenzene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.26	U	0.26	U	0.26	U	0.26	U	0.21	U
Bromochloromethane	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.23	U	0.23	U	0.23	U	0.23	U	0.23	U
Bromodichloromethane	1.17	80	0.0651	U	1	U	1	U	1	U	0.2	U	0.2	U	0.2	U	0.2	U	0.28	U
Bromoform	85.1	80	0.0859	U	1	U	1	U	1	U	0.33	U	0.33	U	0.33	U	0.33	U	0.24	U
Bromomethane	8.66	n/a	n/a*		n/a*		n/a*		n/a*		0.78	U	0.78	U	0.78	U	0.78	U	0.78	U
Carbon disulfide	1040	n/a	n/a*		n/a*		n/a*		n/a*		0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Carbon tetrachloride	1.99	5	**3.13**		**3.08**		**2.2**		**2.2**		**4**		**3.8**		**3**		1.5		**2.9**	
Chlorobenzene	91.3	100	0.0217	U	1	U	1	U	1	U	0.22	U	0.22	U	0.22	U	0.22	U	0.2	U
Chloroethane	20900	n/a	n/a*		n/a*		n/a*		n/a*		0.48	U	0.48	U	0.48	U	0.48	U	0.51	U
Chloroform	1.93	80	1.38		1.44		1.5		1.1		1.6		**2.2**		1.7		1.8		1.8	
Chloromethane	17.8	n/a	0.23	U	1	U	1	U	1	U	0.61	U	0.61	U	0.61	U	0.61	U	0.5	U
cis-1,2-dichloroethene	365	70	0.101	U	1	U	1	U	1	U	0.2	U	0.2	U	0.2	U	0.2	U	0.32	U
cis-1,3-dichloropropene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.2	U
cis-1,4-Dichloro-2-Butene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		1	U	1	U	1	U	1	U	2	UJ
Cymene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.32	U	0.32	U	0.32	U	0.32	U	0.21	U
Dibromochloromethane	1.47	80	n/a*		n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.33	U
Dibromofluoromethane	n/a	n/a	--		52.4		--		--		--		--		--		--		--	
Dibromomethane	365	n/a	n/a*		n/a*		n/a*		n/a*		0.3	U	0.3	U	0.3	U	0.3	U	0.27	U
Dichlorodifluoromethane	395	n/a	n/a*		n/a*		n/a*		n/a*		1	U	1	U	1	U	1	U	0.67	UJ
Ether, tert-butyl methyl	125	n/a	n/a*		n/a*		n/a*		n/a*		0.26	U	0.26	U	0.26	U	0.26	U	0.25	U

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-02																	
		Collection Date:	7/15/2006		1/17/2007		7/19/2007		1/17/2008		07/10/2008		01/08/2009		07/08/2009		01/07/2010		07/08/2010	
		Sample ID:	HGL		HGL		HGL		HGL		MW-39-02-071008		MW-39-02-010809		MW39-02-070809		MW39-02-010710		MW39-02-070810	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Ethyl methacrylate	3290	n/a	n/a*		n/a*		n/a*		n/a*		1	U	1	U	1	U	1	U	1	U
Ethylbenzene	14.8	700	n/a*		n/a*		n/a*		n/a*		0.43	U	0.43	U	0.43	U	0.43	U	0.2	U
Hexachlorobutadiene	8.62	n/a	n/a*		n/a*		n/a*		n/a*		0.69	U	0.69	U	0.69	U	0.69	U	0.4	U
Hexane	876	n/a	n/a*		n/a*		n/a*		n/a*		0.5	U	0.5	U	0.5	U	0.5	U	0.66	U
Iodomethane	n/a	n/a	n/a*		n/a*		n/a*		n/a*		1	U	1	U	1	U	1	U	0.31	U
Isopropylbenzene	679	n/a	n/a*		n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
m,p-Xylene	n/a	n/a	0.04	J	1	U	2	U	2	U	0.78	U	0.78	U	0.78	U	0.78	U	0.34	U
Methacrylonitrile	1.04	n/a	n/a*		n/a*		n/a*		n/a*		5	U	5	U	5	U	5	U	5	UJ
Methyl methacrylate	1420	n/a	n/a*		n/a*		n/a*		n/a*		1	U	1	U	1	U	1	U	1	U
Methylene chloride	48	5	0.689	U	5	U	1.3	U	1.3	U	1	U	1	U	1	U	1	U	2	UJ
Naphthalene	1.43	n/a	n/a*		n/a*		n/a*		n/a*		1	U	1	U	1	U	1	U	1	U
n-Propylbenzene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.25	U	0.25	U	0.25	U	0.25	U	0.2	U
O-Xylene	1430	n/a	n/a*		n/a*		n/a*		n/a*		0.37	U	0.37	U	0.37	U	0.37	U	0.2	U
Pentachloroethane	n/a	n/a	n/a*		n/a*		n/a*		n/a*		2	U	2	U	2	U	2	U	2	U
Propane Nitrile (Propionitrile)	n/a	n/a	n/a*		n/a*		n/a*		n/a*		10	U	10	U	10	U	10	U	5	UJ
Sec-Butylbenzene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.25	U	0.25	U	0.25	U	0.25	U	0.23	U
Styrene	1620	100	n/a*		n/a*		n/a*		n/a*		0.36	U	0.36	U	0.36	U	0.36	U	0.2	U
Tert-butyl benzene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.32	U	0.32	U	0.32	U	0.32	U	0.24	U
Tetrachloroethene	1.08	5	n/a*		n/a*		n/a*		n/a*		0.22	U	0.32	J	0.22	U	0.35	J	0.44	U
Toluene	2280	1000	--		47.2		--		--		0.35	U	0.35	U	0.35	U	0.35	U	0.2	U
Trans-1,2-dichloroethene	107	100	n/a*		n/a*		n/a*		n/a*		0.45	U	0.45	U	0.45	U	0.45	U	0.34	U
Trans-1,3-dichloropropene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.22	UJ
Trans-1,4-Dichloro-2-Butene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		2	U	2	U	2	U	2	U	2	UJ
Trichloroethene	16.5	5	13.3		**19.8**		**29**		**17**		13.3		28.9		17.7		25.1		15.3	
Trichlorofluoromethane	1290	n/a	n/a*		n/a*		n/a*		n/a*		0.5	U	0.5	U	0.5	U	0.5	U	0.4	U
Vinyl acetate	412	n/a	n/a*		n/a*		n/a*		n/a*		3.6	U	3.6	U	3.6	U	3.6	U	2.4	U
Vinyl chloride	0.861	2	n/a*		n/a*		n/a*		n/a*		0.3	U	0.3	U	0.3	U	0.3	U	0.28	U

Notes:

[1] **NMWQCC** - New Mexico Water Quality Control Commission. These

[2] **EPA MCL** - United States Environmental Protection Agency Maximum

[3] Groundwater with TDS concentrations above 10,000 mg/L is not considered

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC

EPA - United States Environmental Protection Agency

FD - field duplicate

mg/L - milligrams per liter

µg/L - micrograms per liter

-- not analyzed

n/a* - HGL only presented data summary tablesin previous reports; therefore, data results for these fields are not available.

n/a - not available

Q - analytical result qualifier

Value - reported analytical concentration

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-02																	
		Collection Date:	7/15/2006		1/17/2007		7/19/2007		1/17/2008		07/10/2008		01/08/2009		07/08/2009		01/07/2010		07/08/2010	
		Sample ID:	HGL		HGL		HGL		HGL		MW-39-02-071008		MW-39-02-010809		MW39-02-070809		MW39-02-010710		MW39-02-070810	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**

U - Not detected.

J - Detected. Quantitation estimated.

UJ - Not detected. Quantitation estimated.

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-02		MW39-03		MW39-05													
		Collection Date:	01/28/2011		07/08/2010		7/13/2006		1/18/2007		7/19/2007		1/17/2008		07/10/2008		01/08/2009		07/08/2009	
		Sample ID:	MW39-02-012811		MW39-03-070810		HGL		HGL		HGL		HGL		MW-39-05-071008		MW-39-05-010809		MW39-05-070809	
		QC Type:	N		N		Regular		Regular		Regular		Regular		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
General Chemistry Parameters (mg/L)																				
Solids, total dissolved [3]	n/a	n/a	12500		10900		69400		83900		77000		64000		57900		75400		85500	
Total Petroleum Hydrocarbons (µg/L)																				
Petroleum Hydrocarbons C10-C28	n/a	n/a	--		--		--		--		--		--		--		--		--	
TPH-GRO (C6-C10)	n/a	n/a	--		--		--		--		--		--		--		--		--	
Dissolved Metals (µg/L)																				
Arsenic	0.448	10	**5.1**	J	10.1	J	2.5	U	5	U	200	U	50	U	72	U	54	U	110	U
Barium	7300	2000	16.7	J	11.3	J	37		15	J	220	UJ	23	J	100	U	50	U	100	U
Cadmium	18.3	5	1	U	2	U	2		1	UJ	44	U	11	U	20	U	10	U	20	U
Chromium	110	100	2.4	J	2	U	0.2	U	5	UJ	200	U	50	U	32	U	20	U	40	U
Lead	n/a	15	1	U	4.2	J	n/a*		n/a*		n/a*		n/a*		40	U	20	U	40	U
Mercury	0.562	2	0.05	U	0.071	U	n/a*		n/a*		n/a*		n/a*		0.14	U	0.15	U	0.15	UJ
Selenium	183	50	16	J	10.2	J	45		10	UJ	300	U	35	J	93.4	J	74.2	J	87.5	
Silver	183	n/a	1	U	2	U	11		2	UJ	21	J	25	U	24	U	14	U	28	U
Total Metals (µg/L)																				
Arsenic	0.448	10	**4.7**	J	**7.4**	J	--		5	U	200	U	50	U	72	U	54	U	110	U
Barium	7300	2000	17.3	J	12.3	J	--		19		220	U	30	J	248	J	50	U	100	U
Cadmium	18.3	5	1	U	2	U	--		1	U	44	U	11	U	20	U	10	U	20	U
Chromium	110	100	2.3	J	2	U	--		5	U	200	U	50	U	32	U	20	U	40	U
Lead	n/a	15	1	U	2.8	J	--		5	U	130	U	33	U	40	U	20	U	40	U
Mercury	0.562	2	0.05	U	0.071	U	n/a*		n/a*		n/a*		n/a*		0.14	U	0.15	U	0.15	UJ
Selenium	183	50	12.1	J	7.8	J	--		10	U	300	U	38	J	62	U	87.5	J	109	
Silver	183	n/a	1	U	2	U	--		2	U	32	J	25	U	24	U	14	U	28	U
Perchlorate (µg/L)																				
Perchlorate	26	n/a	19		**31**		**29**		600	U	**31**		24		23		**27**		24	
Unsymmetrical Dimethylhydrazine (UDMH) (µg/L)																				
1,1-Dimethylhydrazine	n/a	n/a	--		--		n/a*		n/a*		n/a*		n/a*		--		23	U	--	
Volatile Organic Compounds (µg/L)																				
1,1,1,2-Tetrachloroethane	5.24	n/a	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U
1,1,1-Trichloroethane	9130	200	0.2	U	0.22	U	n/a*		n/a*		n/a*		n/a*		0.33	U	0.33	U	0.33	U
1,1,2,2-Tetrachloroethane	0.671	n/a	0.23	U	0.29	U	n/a*		n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U
1,1,2-Trichloro-1,2,2-trifluoroethane	59200	n/a	0.47	U	0.43	U	n/a*		n/a*		n/a*		n/a*		0.34	U	0.34	U	0.34	U
1,1,2-Trichloroethane	2.42	5	0.22	U	0.29	U	n/a*		n/a*		n/a*		n/a*		0.26	U	0.26	U	0.26	U
1,1-Dichloroethane	24.2	n/a	0.25	U	0.22	U	0.0299	U	1	U	1	U	1	U	0.24	U	0.24	U	0.24	U
1,1-Dichloroethene	340	7	0.23	U	0.29	U	0.0736	U	1	U	1	U	1	U	0.54	U	0.54	U	0.54	U
1,1-Dichloropropene	n/a	n/a	0.28	U	0.25	U	n/a*		n/a*		n/a*		n/a*		0.23	U	0.23	U	0.23	U
1,2,3-Trichlorobenzene	n/a	n/a	0.5	U	0.5	U	n/a*		n/a*		n/a*		n/a*		0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.096	n/a	0.3	U	0.37	U	n/a*		n/a*		n/a*		n/a*		0.34	U	0.34	U	0.34	U
1,2,4-Trichlorobenzene	8.16	70	0.5	U	0.5	U	n/a*		n/a*		n/a*		n/a*		0.5	U	0.5	U	0.5	U
1,2,4-Trimethylbenzene	n/a	n/a	0.27	U	0.22	U	n/a*		n/a*		n/a*		n/a*		0.22	U	0.22	U	0.22	U
1,2-Dibromo-3-chloropropane	0.00803	0.2	0.5	U	0.59	U	n/a*		n/a*		n/a*		n/a*		0.32	U	0.32	U	0.32	U
1,2-Dibromoethane (Ethylene Dibromide)	0.0653	0.05	0.37	U	0.23	U	n/a*		n/a*		n/a*		n/a*		0.28	U	0.28	U	0.28	U
1,2-Dichlorobenzene	370	600	0.25	U	0.26	U	n/a*		n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U
1,2-Dichloroethane	1.49	5	0.2	U	0.33	U	n/a*		n/a*		n/a*		n/a*		0.34	U	0.34	U	0.34	U

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-02		MW39-03		MW39-05													
		Collection Date:	01/28/2011		07/08/2010		7/13/2006		1/18/2007		7/19/2007		1/17/2008		07/10/2008		01/08/2009		07/08/2009	
		Sample ID:	MW39-02-012811		MW39-03-070810		HGL		HGL		HGL		HGL		MW-39-05-071008		MW-39-05-010809		MW39-05-070809	
		QC Type:	N		N		Regular		Regular		Regular		Regular		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
1,2-Dichloropropane	3.86	5	0.25	U	0.27	U	n/a*		n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U
1,3,5-Trimethylbenzene (Mesitylene)	n/a	n/a	0.21	U	0.21	U	n/a*		n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U
1,3-Dichlorobenzene	n/a	n/a	0.2	U	0.29	U	n/a*		n/a*		n/a*		n/a*		0.23	U	0.23	U	0.23	U
1,3-Dichloropropane	n/a	n/a	0.2	U	0.28	U	n/a*		n/a*		n/a*		n/a*		0.26	U	0.26	U	0.26	U
1,4-Dichlorobenzene	4.27	75	0.23	U	0.22	U	n/a*		n/a*		n/a*		n/a*		0.22	U	0.22	U	0.22	U
1-Chlorohexane	n/a	n/a	0.25	U	0.29	U	n/a*		n/a*		n/a*		n/a*		0.27	U	0.27	U	0.27	U
2,2-Dichloropropane	n/a	n/a	0.44	U	0.37	U	n/a*		n/a*		n/a*		n/a*		0.28	U	0.28	U	0.28	U
2-Butanone	7060	n/a	2	U	2	U	0.394	U	5	U	5	U	5	U	2	U	2	U	2	U
2-Butylbenzene	n/a	n/a	0.26	U	0.24	U	n/a*		n/a*		n/a*		n/a*		0.28	U	0.28	U	0.28	U
2-Chloroethyl vinyl ether	n/a	n/a	1.2	U	1.1	UJ	n/a*		n/a*		n/a*		n/a*		1	UJ	1	UJ	1	U
2-Chlorotoluene	730	n/a	0.22	U	0.25	U	n/a*		n/a*		n/a*		n/a*		0.25	U	0.25	U	0.25	U
2-Hexanone	n/a	n/a	4	U	5	U	n/a*		n/a*		n/a*		n/a*		5	U	5	U	5	U
2-Propylbenzene	n/a	n/a	--		--		n/a*		n/a*		n/a*		n/a*		--		--		--	
4-Bromofluorobenzene	n/a	n/a	--		--		--		44.8		--		--		--		--		--	
4-Chlorotoluene	n/a	n/a	0.2	U	0.23	U	n/a*		n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U
4-Methyl-2-pentanone	1990	n/a	2	U	2	U	n/a*		n/a*		n/a*		n/a*		2	U	2	U	2	U
Acetone	21800	n/a	10	U	10	U	0.854	U	10	UJ	5	UJ	5	U	10	U	10	U	10	U
Acetonitrile	n/a	n/a	5	U	5	U	n/a*		n/a*		n/a*		n/a*		5	U	5	U	5	U
Acrolein	0.0416	n/a	5	U	10	UJ	n/a*		n/a*		n/a*		n/a*		5	U	5	U	5	U
Acrylonitrile	0.454	n/a	3	U	3	U	n/a*		n/a*		n/a*		n/a*		2	UJ	2	U	2	U
Allyl chloride (3-Chloropopene)	n/a	n/a	0.3	U	2	U	n/a*		n/a*		n/a*		n/a*		2	U	2	U	2	U
Aniline	n/a	n/a	--		--		n/a*		n/a*		n/a*		n/a*		--		0.98	U	--	
Benzene	4.13	5	0.2	U	0.21	U	0.07	J	1	U	1	U	1	U	0.4	U	0.4	U	0.4	U
Benzyl Chloride	n/a	n/a	0.5	U	0.4	U	n/a*		n/a*		n/a*		n/a*		0.36	U	0.36	U	0.36	U
Bromobenzene	n/a	n/a	0.25	U	0.21	U	n/a*		n/a*		n/a*		n/a*		0.26	U	0.26	U	0.26	U
Bromochloromethane	n/a	n/a	0.22	U	0.23	U	n/a*		n/a*		n/a*		n/a*		0.23	U	0.23	U	0.23	U
Bromodichloromethane	1.17	80	0.2	U	0.28	U	0.0651	U	1	U	1	U	1	U	0.2	U	0.2	U	0.2	U
Bromoform	85.1	80	0.2	U	0.24	U	0.0859	U	1	U	1	U	1	U	0.33	U	0.33	U	0.33	U
Bromomethane	8.66	n/a	0.5	U	0.78	U	n/a*		n/a*		n/a*		n/a*		0.78	U	0.78	U	0.78	U
Carbon disulfide	1040	n/a	0.5	U	0.4	U	n/a*		n/a*		n/a*		n/a*		0.4	U	0.4	U	0.4	U
Carbon tetrachloride	1.99	5	1.3		0.34	U	0.121	U	1	U	1	U	1	U	0.22	U	0.22	U	0.22	U
Chlorobenzene	91.3	100	0.2	U	0.2	U	0.03	J	1	U	1	U	1	U	0.22	U	0.22	U	0.22	U
Chloroethane	20900	n/a	0.5	U	0.51	U	n/a*		n/a*		n/a*		n/a*		0.48	U	0.48	U	0.48	U
Chloroform	1.93	80	1.2		0.67	J	0.0475	U	1	U	1	U	1	U	0.28	U	0.28	U	0.28	U
Chloromethane	17.8	n/a	0.5	U	0.5	U	0.23	U	1	U	1	U	1	U	0.61	U	0.61	U	0.61	U
cis-1,2-dichloroethene	365	70	0.26	U	0.32	U	0.101	U	1	U	1	U	1	U	0.2	U	0.2	U	0.2	U
cis-1,3-dichloropropene	n/a	n/a	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U
cis-1,4-Dichloro-2-Butene	n/a	n/a	1	UJ	2	UJ	n/a*		n/a*		n/a*		n/a*		1	U	1	U	1	U
Cymene	n/a	n/a	0.21	U	0.21	U	n/a*		n/a*		n/a*		n/a*		0.32	U	0.32	U	0.32	U
Dibromochloromethane	1.47	80	0.2	U	0.33	U	n/a*		n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U
Dibromofluoromethane	n/a	n/a	--		--		--		53.5		--		--		--		--		--	
Dibromomethane	365	n/a	0.25	U	0.27	U	n/a*		n/a*		n/a*		n/a*		0.3	U	0.3	U	0.3	U
Dichlorodifluoromethane	395	n/a	0.5	U	0.67	UJ	n/a*		n/a*		n/a*		n/a*		1	U	1	U	1	U
Ether, tert-butyl methyl	125	n/a	0.34	U	0.25	U	n/a*		n/a*		n/a*		n/a*		0.26	U	0.26	U	0.26	U

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-02		MW39-03		MW39-05													
		Collection Date:	01/28/2011		07/08/2010		7/13/2006		1/18/2007		7/19/2007		1/17/2008		07/10/2008		01/08/2009		07/08/2009	
		Sample ID:	MW39-02-012811		MW39-03-070810		HGL		HGL		HGL		HGL		MW-39-05-071008		MW-39-05-010809		MW39-05-070809	
		QC Type:	N		N		Regular		Regular		Regular		Regular		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Ethyl methacrylate	3290	n/a	1	U	1	U	n/a*		n/a*		n/a*		n/a*		1	U	1	U	1	U
Ethylbenzene	14.8	700	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*		0.43	U	0.43	U	0.43	U
Hexachlorobutadiene	8.62	n/a	0.8	U	0.4	U	n/a*		n/a*		n/a*		n/a*		0.69	U	0.69	U	0.69	U
Hexane	876	n/a	0.59	U	0.66	U	n/a*		n/a*		n/a*		n/a*		0.5	U	0.5	U	0.5	U
Iodomethane	n/a	n/a	0.2	U	0.31	U	n/a*		n/a*		n/a*		n/a*		1	U	1	U	1	U
Isopropylbenzene	679	n/a	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U
m,p-Xylene	n/a	n/a	0.32	U	0.34	U	1	U	1	U	2	U	2	U	0.78	U	0.78	U	0.78	U
Methacrylonitrile	1.04	n/a	5	U	5	U	n/a*		n/a*		n/a*		n/a*		5	U	5	U	5	U
Methyl methacrylate	1420	n/a	1	U	1	UJ	n/a*		n/a*		n/a*		n/a*		1	U	1	U	1	U
Methylene chloride	48	5	2	U	2	U	0.689	U	5	U	1.3	U	1.3	U	1	U	1	U	1	U
Naphthalene	1.43	n/a	1	U	1	U	n/a*		n/a*		n/a*		n/a*		1	U	1	U	1	U
n-Propylbenzene	n/a	n/a	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*		0.25	U	0.25	U	0.25	U
O-Xylene	1430	n/a	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*		0.37	U	0.37	U	0.37	U
Pentachloroethane	n/a	n/a	2	U	2	U	n/a*		n/a*		n/a*		n/a*		2	U	2	U	2	U
Propane Nitrile (Propionitrile)	n/a	n/a	5	U	5	U	n/a*		n/a*		n/a*		n/a*		10	U	10	U	10	U
Sec-Butylbenzene	n/a	n/a	0.22	U	0.23	U	n/a*		n/a*		n/a*		n/a*		0.25	U	0.25	U	0.25	U
Styrene	1620	100	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*		0.36	U	0.36	U	0.36	U
Tert-butyl benzene	n/a	n/a	0.27	U	0.24	U	n/a*		n/a*		n/a*		n/a*		0.32	U	0.32	U	0.32	U
Tetrachloroethene	1.08	5	0.25	U	0.44	U	n/a*		n/a*		n/a*		n/a*		0.22	U	0.22	U	0.22	U
Toluene	2280	1000	0.2	U	0.2	U	--		46.5		--		--		0.35	U	0.35	U	0.35	U
Trans-1,2-dichloroethene	107	100	0.35	U	0.34	U	n/a*		n/a*		n/a*		n/a*		0.45	U	0.45	U	0.45	U
Trans-1,3-dichloropropene	n/a	n/a	0.2	U	0.22	U	n/a*		n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U
Trans-1,4-Dichloro-2-Butene	n/a	n/a	2	UJ	2	UJ	n/a*		n/a*		n/a*		n/a*		2	U	2	U	2	U
Trichloroethene	16.5	5	12.4		1.3		**25**		**20.4**		**26**		**17**		9.5		19.1		14	
Trichlorofluoromethane	1290	n/a	0.5	U	0.4	U	n/a*		n/a*		n/a*		n/a*		0.5	U	0.5	U	0.5	U
Vinyl acetate	412	n/a	2	U	2.4	U	n/a*		n/a*		n/a*		n/a*		3.6	U	3.6	U	3.6	U
Vinyl chloride	0.861	2	0.22	U	0.28	U	n/a*		n/a*		n/a*		n/a*		0.3	U	0.3	U	0.3	U

Notes:

[1] **NMWQCC** - New Mexico Water Quality Control Commission. These

[2] **EPA MCL** - United States Environmental Protection Agency Maximum

[3] Groundwater with TDS concentrations above 10,000 mg/L is not considered

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC

EPA - United States Environmental Protection Agency

FD - field duplicate

mg/L - milligrams per liter

µg/L - micrograms per liter

-- not analyzed

n/a* - HGL only presented data summary tablesin previous reports; therefore, data results for these fields are not available.

n/a - not available

Q - analytical result qualifier

Value - reported analytical concentration

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-02		MW39-03		MW39-05													
		Collection Date:	01/28/2011		07/08/2010		7/13/2006		1/18/2007		7/19/2007		1/17/2008		07/10/2008		01/08/2009		07/08/2009	
		Sample ID:	MW39-02-012811		MW39-03-070810		HGL		HGL		HGL		HGL		MW-39-05-071008		MW-39-05-010809		MW39-05-070809	
		QC Type:	N		N		Regular		Regular		Regular		Regular		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**

U - Not detected.

J - Detected. Quantitation estimated.

UJ - Not detected. Quantitation estimated.

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-05						MW39-06											
		Collection Date:	01/07/2010		07/08/2010		01/28/2011		7/13/2006		1/17/2007		1/17/2007		7/17/2007		7/17/2007		1/15/2008	
		Sample ID:	MW39-05-010710		MW39-05-070810		MW39-05-012811		HGL		HGL		HGL		HGL		HGL		HGL	
		QC Type:	N		N		N		N		N		FD		N		FD		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
General Chemistry Parameters (mg/L)																				
Solids, total dissolved [3]	n/a	n/a	85000		60000		69800		32500		35500		--		33000	J	2300000	J	30000	
Total Petroleum Hydrocarbons (µg/L)																				
Petroleum Hydrocarbons C10-C28	n/a	n/a	--		--		--		--		--		--		--		--		--	
TPH-GRO (C6-C10)	n/a	n/a	--		--		--		--		--		--		--		--		--	
Dissolved Metals (µg/L)																				
Arsenic	0.448	10	110	UJ	40	U	10	U	2.5	U	5	U	5	U	**31**	J	100	U	50	U
Barium	7300	2000	100	U	100	U	22.2	J	12		12	J	12	J	110	U	110	U	55	U
Cadmium	18.3	5	20	U	20	U	5	U	0.5	U	1	UJ	1	UJ	22	U	22	U	11	U
Chromium	110	100	40	U	20	U	5	U	0.2	U	5	UJ	5	UJ	100	U	100	U	50	U
Lead	n/a	15	40	U	20	U	10	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Mercury	0.562	2	0.15	U	0.071	U	0.05	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Selenium	183	50	79.1		40	U	55.5		2.3	U	10	UJ	10	UJ	150	U	57	J	32	J
Silver	183	n/a	28	U	20	U	5	U	0.2	U	2	UJ	2	UJ	50	U	14	J	25	U
Total Metals (µg/L)																				
Arsenic	0.448	10	110	UJ	40	U	10	U	--		5	U	5	U	50	U	**43**	J	50	U
Barium	7300	2000	100	U	100	U	15.9	J	--		37		26	J	22	J	110	U	55	U
Cadmium	18.3	5	20	U	20	U	5	U	--		1	U	1	U	11	U	22	U	11	U
Chromium	110	100	40	U	20	U	5	U	--		5	U	5	U	50	U	100	U	50	U
Lead	n/a	15	40	U	20	U	10	U	--		5	U	5	U	33	UJ	66	UJ	33	U
Mercury	0.562	2	0.15	U	0.071	U	0.05	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Selenium	183	50	84		78.7	J	54.6		--		10	U	10	U	28	J	52	U	32	U
Silver	183	n/a	28	U	20	U	5	U	--		2	U	2	U	25	U	50	U	25	U
Perchlorate (µg/L)																				
Perchlorate	26	n/a	17		19		24		**37**		300	U	300	U	**36**		**38**		**27**	
Unsymmetrical Dimethylhydrazine (UDMH) (µg/L)																				
1,1-Dimethylhydrazine	n/a	n/a	--		--		--		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Volatile Organic Compounds (µg/L)																				
1,1,1,2-Tetrachloroethane	5.24	n/a	0.2	U	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
1,1,1-Trichloroethane	9130	200	0.33	U	0.22	U	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
1,1,2,2-Tetrachloroethane	0.671	n/a	0.21	U	0.29	U	0.23	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
1,1,2-Trichloro-1,2,2-trifluoroethane	59200	n/a	0.34	U	0.43	U	0.47	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
1,1,2-Trichloroethane	2.42	5	0.26	U	0.29	U	0.22	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
1,1-Dichloroethane	24.2	n/a	0.24	U	0.22	U	0.25	U	0.03	J	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	340	7	0.54	U	0.29	U	0.23	U	2.02		1.83		1.88		1.9		1.5		1.2	
1,1-Dichloropropene	n/a	n/a	0.23	U	0.25	U	0.28	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
1,2,3-Trichlorobenzene	n/a	n/a	0.5	U	0.5	U	0.5	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
1,2,3-Trichloropropane	0.096	n/a	0.34	U	0.37	U	0.3	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
1,2,4-Trichlorobenzene	8.16	70	0.5	U	0.5	U	0.5	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
1,2,4-Trimethylbenzene	n/a	n/a	0.22	U	0.22	U	0.27	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
1,2-Dibromo-3-chloropropane	0.00803	0.2	0.32	U	0.59	UJ	0.5	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
1,2-Dibromoethane (Ethylene Dibromide)	0.0653	0.05	0.28	U	0.23	U	0.37	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
1,2-Dichlorobenzene	370	600	0.2	U	0.26	U	0.25	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
1,2-Dichloroethane	1.49	5	0.34	U	0.33	U	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-05						MW39-06											
		Collection Date:	01/07/2010		07/08/2010		01/28/2011		7/13/2006		1/17/2007		1/17/2007		7/17/2007		7/17/2007		1/15/2008	
		Sample ID:	MW39-05-010710		MW39-05-070810		MW39-05-012811		HGL		HGL		HGL		HGL		HGL		HGL	
		QC Type:	N		N		N		N		N		FD		N		FD		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
1,2-Dichloropropane	3.86	5	0.21	U	0.27	U	0.25	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
1,3,5-Trimethylbenzene (Mesitylene)	n/a	n/a	0.2	U	0.21	U	0.21	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
1,3-Dichlorobenzene	n/a	n/a	0.23	U	0.29	U	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
1,3-Dichloropropane	n/a	n/a	0.26	U	0.28	U	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
1,4-Dichlorobenzene	4.27	75	0.22	U	0.22	U	0.23	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
1-Chlorohexane	n/a	n/a	0.27	U	0.29	U	0.25	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
2,2-Dichloropropane	n/a	n/a	0.28	U	0.37	U	0.44	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
2-Butanone	7060	n/a	2	U	2	U	2	U	0.394	U	5	U	5	U	5	U	5	U	5	U
2-Butylbenzene	n/a	n/a	0.28	U	0.24	U	0.26	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
2-Chloroethyl vinyl ether	n/a	n/a	1	U	1.1	UJ	1.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
2-Chlorotoluene	730	n/a	0.25	U	0.25	U	0.22	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
2-Hexanone	n/a	n/a	5	U	5	U	4	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
2-Propylbenzene	n/a	n/a	--		--		--		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
4-Bromofluorobenzene	n/a	n/a	--		--		--		--		47.2		47.3		--		--		--	
4-Chlorotoluene	n/a	n/a	0.21	U	0.23	U	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
4-Methyl-2-pentanone	1990	n/a	2	U	2	U	2	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Acetone	21800	n/a	10	U	10	UJ	10	U	0.854	U	10	UJ	10	UJ	5	UJ	5	UJ	5	U
Acetonitrile	n/a	n/a	5	U	5	UJ	5	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Acrolein	0.0416	n/a	5	U	10	U	5	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Acrylonitrile	0.454	n/a	2	U	3	UJ	3	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Allyl chloride (3-Chloropopene)	n/a	n/a	2	U	2	U	0.3	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Aniline	n/a	n/a	--		--		--		n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Benzene	4.13	5	0.4	U	0.21	U	0.2	U	0.09	J	1	U	1	U	1	U	1	U	1	U
Benzyl Chloride	n/a	n/a	0.36	U	0.4	U	0.5	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Bromobenzene	n/a	n/a	0.26	U	0.21	U	0.25	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Bromochloromethane	n/a	n/a	0.23	U	0.23	U	0.22	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Bromodichloromethane	1.17	80	0.2	U	0.28	U	0.2	U	0.14	J	1	U	1	U	1	U	1	U	1	U
Bromoform	85.1	80	0.33	U	0.24	U	0.2	U	0.0859	U	1	U	1	U	1	U	1	U	1	U
Bromomethane	8.66	n/a	0.78	U	0.78	U	0.5	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Carbon disulfide	1040	n/a	0.4	U	0.4	U	0.5	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Carbon tetrachloride	1.99	5	0.22	U	0.34	U	0.25	U	1.51		1.93		1.88		**2.3**		1	U	**2.4**	
Chlorobenzene	91.3	100	0.22	U	0.2	U	0.2	U	0.0217	U	1	U	1	U	1	U	1	U	1	U
Chloroethane	20900	n/a	0.48	U	0.51	U	0.5	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Chloroform	1.93	80	0.28	U	0.25	U	0.22	U	**2.85**		**2.52**		**2.52**	J	**2.2**		1	U	**2.2**	
Chloromethane	17.8	n/a	0.61	U	0.5	U	0.5	U	0.37	J	1	U	1	U	1	U	1	U	1	U
cis-1,2-dichloroethene	365	70	0.2	U	0.32	U	0.26	U	0.12	J	1	U	1	U	1	U	1	U	1	U
cis-1,3-dichloropropene	n/a	n/a	0.21	U	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
cis-1,4-Dichloro-2-Butene	n/a	n/a	1	U	2	UJ	1	UJ	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Cymene	n/a	n/a	0.32	U	0.21	U	0.21	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Dibromochloromethane	1.47	80	0.2	U	0.33	U	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Dibromofluoromethane	n/a	n/a	--		--		--		--		51.9		51.6		--		--		--	
Dibromomethane	365	n/a	0.3	U	0.27	U	0.25	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Dichlorodifluoromethane	395	n/a	1	U	0.67	UJ	0.5	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Ether, tert-butyl methyl	125	n/a	0.26	U	0.25	U	0.34	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-05						MW39-06											
		Collection Date:	01/07/2010		07/08/2010		01/28/2011		7/13/2006		1/17/2007		1/17/2007		7/17/2007		7/17/2007		1/15/2008	
		Sample ID:	MW39-05-010710		MW39-05-070810		MW39-05-012811		HGL		HGL		HGL		HGL		HGL		HGL	
		QC Type:	N		N		N		N		N		FD		N		FD		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Ethyl methacrylate	3290	n/a	1	U	1	U	1	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Ethylbenzene	14.8	700	0.43	U	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Hexachlorobutadiene	8.62	n/a	0.69	U	0.4	U	0.8	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Hexane	876	n/a	0.5	U	0.66	U	0.59	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Iodomethane	n/a	n/a	1	U	0.31	U	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Isopropylbenzene	679	n/a	0.2	U	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
m,p-Xylene	n/a	n/a	0.78	U	0.34	U	0.32	U	1	U	1	U	1	U	2	U	2	U	2	U
Methacrylonitrile	1.04	n/a	5	U	5	UJ	5	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Methyl methacrylate	1420	n/a	1	U	1	U	1	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Methylene chloride	48	5	1	U	2	UJ	2	U	0.689	U	5	U	5	U	1.3	U	1.3	U	1.3	U
Naphthalene	1.43	n/a	1	U	1	U	1	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
n-Propylbenzene	n/a	n/a	0.25	U	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
O-Xylene	1430	n/a	0.37	U	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Pentachloroethane	n/a	n/a	2	U	2	U	2	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Propane Nitrile (Propionitrile)	n/a	n/a	10	U	5	UJ	5	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Sec-Butylbenzene	n/a	n/a	0.25	U	0.23	U	0.22	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Styrene	1620	100	0.36	U	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Tert-butyl benzene	n/a	n/a	0.32	U	0.24	U	0.27	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Tetrachloroethene	1.08	5	0.22	U	0.44	U	0.25	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Toluene	2280	1000	0.35	U	0.2	U	0.2	U	--		46.9		46.8		--		--		--	
Trans-1,2-dichloroethene	107	100	0.45	U	0.34	U	0.35	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Trans-1,3-dichloropropene	n/a	n/a	0.21	U	0.22	UJ	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Trans-1,4-Dichloro-2-Butene	n/a	n/a	2	U	2	UJ	2	UJ	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Trichloroethene	16.5	5	25.9		15.6		18.4		**366**	J	**219**		**219**	J	**220**		**440**		**120**	
Trichlorofluoromethane	1290	n/a	0.5	U	0.4	U	0.5	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Vinyl acetate	412	n/a	3.6	U	2.4	U	2	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	
Vinyl chloride	0.861	2	0.3	U	0.28	U	0.22	U	n/a*		n/a*		n/a*		n/a*		n/a*		n/a*	

Notes:

[1] **NMWQCC** - New Mexico Water Quality Control Commission. These

[2] **EPA MCL** - United States Environmental Protection Agency Maximum

[3] Groundwater with TDS concentrations above 10,000 mg/L is not considered

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC

EPA - United States Environmental Protection Agency

FD - field duplicate

mg/L - milligrams per liter

µg/L - micrograms per liter

-- not analyzed

n/a* - HGL only presented data summary tablesin previous reports; therefore, data results for these fields are not available.

n/a - not available

Q - analytical result qualifier

Value - reported analytical concentration

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-05						MW39-06											
		Collection Date:	01/07/2010		07/08/2010		01/28/2011		7/13/2006		1/17/2007		1/17/2007		7/17/2007		7/17/2007		1/15/2008	
		Sample ID:	MW39-05-010710		MW39-05-070810		MW39-05-012811		HGL		HGL		HGL		HGL		HGL		HGL	
		QC Type:	N		N		N		N		N		FD		N		FD		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**

U - Not detected.

J - Detected. Quantitation estimated.

UJ - Not detected. Quantitation estimated.

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-06												MW39-06D					
		Collection Date:	07/10/2008		01/08/2009		07/07/2009		01/06/2010		07/08/2010		01/26/2011		7/13/2006		1/18/2007		7/17/2007	
		Sample ID:	MW-39-06-071008		MW-39-06-010809		MW39-06-070709		MW39-06-010610		MW39-06-070810		MW39-06-012611		HGL		HGL		HGL	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
General Chemistry Parameters (mg/L)																				
Solids, total dissolved [3]	n/a	n/a	30800		32200		33200		28000		26400		26500		119000		110000		98000	J
Total Petroleum Hydrocarbons (µg/L)																				
Petroleum Hydrocarbons C10-C28	n/a	n/a	--		--		--		--		--		--		--		--		--	
TPH-GRO (C6-C10)	n/a	n/a	--		--		--		--		--		--		--		--		--	
Dissolved Metals (µg/L)																				
Arsenic	0.448	10	18	U	27	U	27	U	27	UJ	10	U	**5.5**	J	2.5	U	5	U	100	U
Barium	7300	2000	25	U	25	U	25	U	25	U	25	U	16.5	J	51		17	J	110	U
Cadmium	18.3	5	5	U	5	U	5	U	5	U	5	U	1	U	3	J	1	UJ	22	U
Chromium	110	100	8	U	10	U	10	U	10	U	5	U	5	U	0.2	U	5	UJ	100	U
Lead	n/a	15	10	U	10	U	10	U	10	U	6.9	J	5	U	n/a*		n/a*		n/a*	
Mercury	0.562	2	0.14	U	0.25	J	0.15	UJ	0.15	U	0.071	U	0.05	U	n/a*		n/a*		n/a*	
Selenium	183	50	43.4	J	40.5	J	38.3		40.9		38.8	J	10	U	55		10	UJ	79	J
Silver	183	n/a	6	U	7	U	7	U	7	U	5	U	1	U	12		2	UJ	50	U
Total Metals (µg/L)																				
Arsenic	0.448	10	18	U	27	U	27	U	27	UJ	11.4	J	**3.4**	J	--		**17**		**65**	J
Barium	7300	2000	168	J	25	U	25	U	25	U	25	U	16	J	--		17	J	110	U
Cadmium	18.3	5	5	U	5	U	5	U	5	U	5	U	1	U	--		1	U	12	J
Chromium	110	100	15.6	J	10	U	10	U	10	U	5	U	5	U	--		5	U	100	U
Lead	n/a	15	22.4	J	10	U	10	U	10	U	5	U	5	U	--		5	U	66	UJ
Mercury	0.562	2	0.14	U	0.15	U	0.15	UJ	0.15	U	0.071	U	0.05	U	n/a*		n/a*		n/a*	
Selenium	183	50	54.9		28.9	J	32.6		57.7		30.7	J	10	U	--		10	U	82	J
Silver	183	n/a	6	U	7	U	7	U	7	U	5	U	1	U	--		2	U	14	J
Perchlorate (µg/L)																				
Perchlorate	26	n/a	29		**38**		**28**		25		21		21		**35**		600	U	**34**	
Unsymmetrical Dimethylhydrazine (UDMH) (µg/L)																				
1,1-Dimethylhydrazine	n/a	n/a	--		23	U	--		--		--		--		n/a*		n/a*		n/a*	
Volatile Organic Compounds (µg/L)																				
1,1,1,2-Tetrachloroethane	5.24	n/a	0.2	U	0.4	U	0.2	U	1	U	0.2	U	0.4	UJ	n/a*		n/a*		n/a*	
1,1,1-Trichloroethane	9130	200	0.33	U	0.66	U	0.33	U	1.7	U	0.22	U	0.4	UJ	n/a*		n/a*		n/a*	
1,1,2,2-Tetrachloroethane	0.671	n/a	0.21	U	0.42	U	0.21	U	1.1	U	0.29	U	0.46	UJ	n/a*		n/a*		n/a*	
1,1,2-Trichloro-1,2,2-trifluoroethane	59200	n/a	0.34	U	0.68	U	0.34	U	1.7	U	0.43	U	0.94	UJ	n/a*		n/a*		n/a*	
1,1,2-Trichloroethane	2.42	5	0.26	U	0.52	U	0.26	U	1.3	U	0.29	U	0.44	UJ	n/a*		n/a*		n/a*	
1,1-Dichloroethane	24.2	n/a	0.24	U	0.48	U	0.24	U	1.2	U	0.22	U	0.5	UJ	0.0299	U	1	U	1	U
1,1-Dichloroethene	340	7	1		1.8	J	1.2		2.7	U	1.1		1.1	J	0.24	J	1.42		1.5	
1,1-Dichloropropene	n/a	n/a	0.23	U	0.46	U	0.23	U	1.2	U	0.25	U	0.56	UJ	n/a*		n/a*		n/a*	
1,2,3-Trichlorobenzene	n/a	n/a	0.5	U	1	U	0.5	U	2.5	U	0.5	U	1	UJ	n/a*		n/a*		n/a*	
1,2,3-Trichloropropane	0.096	n/a	0.34	U	0.68	U	0.34	U	1.7	U	0.37	U	0.6	UJ	n/a*		n/a*		n/a*	
1,2,4-Trichlorobenzene	8.16	70	0.5	U	1	U	0.5	U	2.5	U	0.5	U	1	UJ	n/a*		n/a*		n/a*	
1,2,4-Trimethylbenzene	n/a	n/a	0.22	U	0.44	U	0.22	U	1.1	U	0.22	U	0.54	UJ	n/a*		n/a*		n/a*	
1,2-Dibromo-3-chloropropane	0.00803	0.2	0.32	U	0.64	U	0.32	U	1.6	U	0.59	UJ	1	UJ	n/a*		n/a*		n/a*	
1,2-Dibromoethane (Ethylene Dibromide)	0.0653	0.05	0.28	U	0.56	U	0.28	U	1.4	U	0.23	U	0.74	UJ	n/a*		n/a*		n/a*	
1,2-Dichlorobenzene	370	600	0.2	U	0.4	U	0.2	U	1	U	0.26	U	0.5	UJ	n/a*		n/a*		n/a*	
1,2-Dichloroethane	1.49	5	0.34	U	0.68	U	0.34	U	1.7	U	0.33	U	0.4	UJ	n/a*		n/a*		n/a*	

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-06												MW39-06D					
		Collection Date:	07/10/2008		01/08/2009		07/07/2009		01/06/2010		07/08/2010		01/26/2011		7/13/2006		1/18/2007		7/17/2007	
		Sample ID:	MW-39-06-071008		MW-39-06-010809		MW39-06-070709		MW39-06-010610		MW39-06-070810		MW39-06-012611		HGL		HGL		HGL	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
1,2-Dichloropropane	3.86	5	0.21	U	0.42	U	0.21	U	1.1	U	0.27	U	0.5	UJ	n/a*		n/a*		n/a*	
1,3,5-Trimethylbenzene (Mesitylene)	n/a	n/a	0.2	U	0.4	U	0.2	U	1	U	0.21	U	0.42	UJ	n/a*		n/a*		n/a*	
1,3-Dichlorobenzene	n/a	n/a	0.23	U	0.46	U	0.23	U	1.2	U	0.29	U	0.4	UJ	n/a*		n/a*		n/a*	
1,3-Dichloropropane	n/a	n/a	0.26	U	0.52	U	0.26	U	1.3	U	0.28	U	0.4	UJ	n/a*		n/a*		n/a*	
1,4-Dichlorobenzene	4.27	75	0.22	U	0.44	U	0.22	U	1.1	U	0.22	U	0.46	UJ	n/a*		n/a*		n/a*	
1-Chlorohexane	n/a	n/a	0.27	U	0.54	U	0.27	U	1.4	U	0.29	U	0.5	UJ	n/a*		n/a*		n/a*	
2,2-Dichloropropane	n/a	n/a	0.28	U	0.56	U	0.28	U	1.4	U	0.37	U	0.88	UJ	n/a*		n/a*		n/a*	
2-Butanone	7060	n/a	2	U	4	U	2	U	10	U	2	U	4	UJ	0.394	U	5	U	5	U
2-Butylbenzene	n/a	n/a	0.28	U	0.56	U	0.28	U	1.4	U	0.24	U	0.52	UJ	n/a*		n/a*		n/a*	
2-Chloroethyl vinyl ether	n/a	n/a	1	UJ	2	UJ	1	U	5	U	1.1	UJ	2.4	UJ	n/a*		n/a*		n/a*	
2-Chlorotoluene	730	n/a	0.25	U	0.5	U	0.25	U	1.3	U	0.25	U	0.44	UJ	n/a*		n/a*		n/a*	
2-Hexanone	n/a	n/a	5	U	10	U	5	U	25	U	5	U	8	UJ	n/a*		n/a*		n/a*	
2-Propylbenzene	n/a	n/a	--		--		--		--		--		--		n/a*		n/a*		n/a*	
4-Bromofluorobenzene	n/a	n/a	--		--		--		--		--		--		--		43.4		--	
4-Chlorotoluene	n/a	n/a	0.21	U	0.42	U	0.21	U	1.1	U	0.23	U	0.4	UJ	n/a*		n/a*		n/a*	
4-Methyl-2-pentanone	1990	n/a	2	U	4	U	2	U	10	U	2	U	4	UJ	n/a*		n/a*		n/a*	
Acetone	21800	n/a	10	U	20	U	10	UJ	50	U	10	UJ	20	UJ	1.88	J	10	UJ	5	UJ
Acetonitrile	n/a	n/a	5	U	10	U	5	U	25	U	5	UJ	10	UJ	n/a*		n/a*		n/a*	
Acrolein	0.0416	n/a	5	U	10	U	5	U	25	U	10	U	10	UJ	n/a*		n/a*		n/a*	
Acrylonitrile	0.454	n/a	2	UJ	4	U	2	U	10	U	3	UJ	6	UJ	n/a*		n/a*		n/a*	
Allyl chloride (3-Chloropopene)	n/a	n/a	2	U	4	U	2	U	10	U	2	U	0.6	UJ	n/a*		n/a*		n/a*	
Aniline	n/a	n/a	--		0.99	U	--		--		--		--		n/a*		n/a*		n/a*	
Benzene	4.13	5	0.4	U	0.8	U	0.4	U	2	U	0.21	U	0.4	UJ	0.09	J	1	U	1	U
Benzyl Chloride	n/a	n/a	0.36	U	0.72	U	0.36	U	1.8	U	0.4	U	1	UJ	n/a*		n/a*		n/a*	
Bromobenzene	n/a	n/a	0.26	U	0.52	U	0.26	U	1.3	U	0.21	U	0.5	UJ	n/a*		n/a*		n/a*	
Bromochloromethane	n/a	n/a	0.23	U	0.46	U	0.23	U	1.2	U	0.23	U	0.44	UJ	n/a*		n/a*		n/a*	
Bromodichloromethane	1.17	80	0.2	U	0.4	U	0.2	U	1	U	0.28	U	0.4	UJ	0.0651	U	1	U	1	U
Bromoform	85.1	80	0.33	U	0.66	U	0.33	U	1.7	U	0.24	U	0.4	UJ	0.0859	U	1	U	1	U
Bromomethane	8.66	n/a	0.78	U	1.6	U	0.78	U	3.9	U	0.78	U	1	UJ	n/a*		n/a*		n/a*	
Carbon disulfide	1040	n/a	0.4	U	0.8	U	0.4	U	2	U	0.4	U	1	UJ	n/a*		n/a*		n/a*	
Carbon tetrachloride	1.99	5	2.3		**2.2**		**2.2**		**2.1**	J	1.6		1.9	J	0.121	U	1	U	1	U
Chlorobenzene	91.3	100	0.22	U	0.44	U	0.22	U	1.1	U	0.2	U	0.4	UJ	0.04	J	1	U	1	U
Chloroethane	20900	n/a	0.48	U	0.96	U	0.48	U	2.4	U	0.51	U	1	UJ	n/a*		n/a*		n/a*	
Chloroform	1.93	80	2.4		**2.4**		**2.3**		**2**	J	**2.1**		**2.3**	J	0.27	J	0.65	J	1	U
Chloromethane	17.8	n/a	0.61	U	1.2	U	0.61	U	3.1	U	0.5	U	1	UJ	0.23	U	0.51	J	1	U
cis-1,2-dichloroethene	365	70	0.2	U	0.4	U	0.2	U	1	U	0.32	U	0.52	UJ	0.101	U	1	U	1	U
cis-1,3-dichloropropene	n/a	n/a	0.21	U	0.42	U	0.21	U	1.1	U	0.2	U	0.4	UJ	n/a*		n/a*		n/a*	
cis-1,4-Dichloro-2-Butene	n/a	n/a	1	U	2	U	1	U	5	U	2	UJ	2	UJ	n/a*		n/a*		n/a*	
Cymene	n/a	n/a	0.32	U	0.64	U	0.32	U	1.6	U	0.21	U	0.42	UJ	n/a*		n/a*		n/a*	
Dibromochloromethane	1.47	80	0.2	U	0.4	U	0.2	U	1	U	0.33	U	0.4	UJ	n/a*		n/a*		n/a*	
Dibromofluoromethane	n/a	n/a	--		--		--		--		--		--		--		51.7		--	
Dibromomethane	365	n/a	0.3	U	0.6	U	0.3	U	1.5	U	0.27	U	0.5	UJ	n/a*		n/a*		n/a*	
Dichlorodifluoromethane	395	n/a	1	U	2	U	1	U	5	U	0.67	UJ	1	UJ	n/a*		n/a*		n/a*	
Ether, tert-butyl methyl	125	n/a	0.26	U	0.52	U	0.26	U	1.3	U	0.25	U	0.68	UJ	n/a*		n/a*		n/a*	

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-06												MW39-06D					
		Collection Date:	07/10/2008		01/08/2009		07/07/2009		01/06/2010		07/08/2010		01/26/2011		7/13/2006		1/18/2007		7/17/2007	
		Sample ID:	MW-39-06-071008		MW-39-06-010809		MW39-06-070709		MW39-06-010610		MW39-06-070810		MW39-06-012611		HGL		HGL		HGL	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Ethyl methacrylate	3290	n/a	1	U	2	U	1	U	5	U	1	U	2	UJ	n/a*		n/a*		n/a*	
Ethylbenzene	14.8	700	0.43	U	0.86	U	0.43	U	2.2	U	0.2	U	0.4	UJ	n/a*		n/a*		n/a*	
Hexachlorobutadiene	8.62	n/a	0.69	U	1.4	U	0.69	U	3.5	U	0.4	U	1.6	UJ	n/a*		n/a*		n/a*	
Hexane	876	n/a	0.5	U	1	U	0.5	U	2.5	U	0.66	U	1.2	UJ	n/a*		n/a*		n/a*	
Iodomethane	n/a	n/a	1	U	2	U	1	U	5	U	0.31	U	0.4	UJ	n/a*		n/a*		n/a*	
Isopropylbenzene	679	n/a	0.2	U	0.4	U	0.2	U	1	U	0.2	U	0.4	UJ	n/a*		n/a*		n/a*	
m,p-Xylene	n/a	n/a	0.78	U	1.6	U	0.78	U	3.9	U	0.34	U	0.64	UJ	1	U	1	U	2	U
Methacrylonitrile	1.04	n/a	5	U	10	U	5	U	25	U	5	UJ	10	UJ	n/a*		n/a*		n/a*	
Methyl methacrylate	1420	n/a	1	U	2	U	1	U	5	U	1	U	2	UJ	n/a*		n/a*		n/a*	
Methylene chloride	48	5	1	U	7.7	J	1	U	25	U	2	UJ	4	UJ	0.689	U	5	U	1.3	U
Naphthalene	1.43	n/a	1	U	2	U	1	U	5	U	1	U	2	UJ	n/a*		n/a*		n/a*	
n-Propylbenzene	n/a	n/a	0.25	U	0.5	U	0.25	U	1.3	U	0.2	U	0.4	UJ	n/a*		n/a*		n/a*	
O-Xylene	1430	n/a	0.37	U	0.74	U	0.37	U	1.9	U	0.2	U	0.4	UJ	n/a*		n/a*		n/a*	
Pentachloroethane	n/a	n/a	2	U	4	U	2	U	10	U	2	U	4	UJ	n/a*		n/a*		n/a*	
Propane Nitrile (Propionitrile)	n/a	n/a	10	U	20	U	10	U	50	U	5	UJ	10	UJ	n/a*		n/a*		n/a*	
Sec-Butylbenzene	n/a	n/a	0.25	U	0.5	U	0.25	U	1.3	U	0.23	U	0.44	UJ	n/a*		n/a*		n/a*	
Styrene	1620	100	0.36	U	0.72	U	0.36	U	1.8	U	0.2	U	0.4	UJ	n/a*		n/a*		n/a*	
Tert-butyl benzene	n/a	n/a	0.32	U	0.64	U	0.32	U	1.6	U	0.24	U	0.54	UJ	n/a*		n/a*		n/a*	
Tetrachloroethene	1.08	5	0.38	J	0.44	U	0.33	J	1.1	U	0.44	U	0.5	UJ	n/a*		n/a*		n/a*	
Toluene	2280	1000	0.35	U	0.7	U	0.35	U	1.8	U	0.2	U	0.4	UJ	--		45.4		--	
Trans-1,2-dichloroethene	107	100	0.45	U	0.9	U	0.45	U	2.3	U	0.34	U	0.7	UJ	n/a*		n/a*		n/a*	
Trans-1,3-dichloropropene	n/a	n/a	0.21	U	0.42	U	0.21	U	1.1	U	0.22	UJ	0.4	UJ	n/a*		n/a*		n/a*	
Trans-1,4-Dichloro-2-Butene	n/a	n/a	2	U	4	U	2	U	10	U	2	UJ	4	UJ	n/a*		n/a*		n/a*	
Trichloroethene	16.5	5	94.4		158		108		208		98.6		119	J	**113**		**464**	J	**470**	
Trichlorofluoromethane	1290	n/a	0.5	U	1	U	0.5	U	2.5	U	0.4	U	1	UJ	n/a*		n/a*		n/a*	
Vinyl acetate	412	n/a	3.6	U	7.2	U	3.6	U	18	U	2.4	U	4	UJ	n/a*		n/a*		n/a*	
Vinyl chloride	0.861	2	0.3	U	0.6	U	0.3	U	1.5	U	0.28	U	0.44	UJ	n/a*		n/a*		n/a*	

Notes:

[1] **NMWQCC** - New Mexico Water Quality Control Commission. These

[2] **EPA MCL** - United States Environmental Protection Agency Maximum

[3] Groundwater with TDS concentrations above 10,000 mg/L is not considered

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC

EPA - United States Environmental Protection Agency

FD - field duplicate

mg/L - milligrams per liter

µg/L - micrograms per liter

-- not analyzed

n/a* - HGL only presented data summary tablesin previous reports; therefore, data results for these fields are not available.

n/a - not available

Q - analytical result qualifier

Value - reported analytical concentration

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-06												MW39-06D					
		Collection Date:	07/10/2008		01/08/2009		07/07/2009		01/06/2010		07/08/2010		01/26/2011		7/13/2006		1/18/2007		7/17/2007	
		Sample ID:	MW-39-06-071008		MW-39-06-010809		MW39-06-070709		MW39-06-010610		MW39-06-070810		MW39-06-012611		HGL		HGL		HGL	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**

U - Not detected.

J - Detected. Quantitation estimated.

UJ - Not detected. Quantitation estimated.

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-06D															
		Collection Date:	1/15/2008		1/15/2008		07/10/2008		07/10/2008		01/08/2009		01/08/2009		07/07/2009		07/07/2009	
		Sample ID:	HGL		HGL		MW-39-DUP01-071008		MW-39-06D-071008		MW-39-DUP01-010809		MW-39-06D-010809		MW39-06D-070709		MW39-06D-070709 DUP	
		QC Type:	N		FD		FD		N		FD		N		N		FD	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
General Chemistry Parameters (mg/L)																		
Solids, total dissolved [3]	n/a	n/a	120000		110000		109000		111000		99200		97600		98600		78900	
Total Petroleum Hydrocarbons (µg/L)																		
Petroleum Hydrocarbons C10-C28	n/a	n/a	--		--		--		--		--		--		--		--	
TPH-GRO (C6-C10)	n/a	n/a	--		--		--		--		--		--		--		--	
Dissolved Metals (µg/L)																		
Arsenic	0.448	10	50	U	**18**	J	110	U	72	U	110	U	110	U	110	U	110	U
Barium	7300	2000	30	J	30	J	100	U	100	U	100	U	100	U	100	U	100	U
Cadmium	18.3	5	11	U	11	U	20	U	20	U	20	U	20	U	20	U	20	U
Chromium	110	100	50	U	50	U	40	U	32	U	40	U	40	U	40	U	40	U
Lead	n/a	15	n/a*		n/a*		40	U	40	U	40	U	40	U	40	U	40	U
Mercury	0.562	2	n/a*		n/a*		0.15	U	0.14	U	0.2	J	0.15	U	0.15	UJ	0.15	UJ
Selenium	183	50	65	J	62	J	68	U	120	J	68	U	102	J	111		68	U
Silver	183	n/a	25	U	25	U	28	U	24	U	28	U	28	U	28	U	28	U
Total Metals (µg/L)																		
Arsenic	0.448	10	50	U	**14**	J	72	U	72	U	110	U	110	U	110	U	110	U
Barium	7300	2000	31	J	31	J	100	U	100	U	100	U	100	U	100	U	100	U
Cadmium	18.3	5	11	U	11	U	20	U	20	U	20	U	20	U	20	U	20	U
Chromium	110	100	50	U	50	U	32	U	32	U	40	U	40	U	40	U	40	U
Lead	n/a	15	33	U	33	U	40	U	40	U	40	U	40	U	40	U	40	U
Mercury	0.562	2	n/a*		n/a*		0.14	U	0.14	U	0.15	U	0.15	U	0.15	UJ	0.15	UJ
Selenium	183	50	67	J	68	J	62	U	62	U	104	J	91.5	J	92.2		86.4	
Silver	183	n/a	25	U	25	U	24	U	24	U	28	U	28	U	28	U	28	U
Perchlorate (µg/L)																		
Perchlorate	26	n/a	**32**		**27**		**32**		**31**		**31**		**33**		**28**		26	
Unsymmetrical Dimethylhydrazine (UDMH) (µg/L)																		
1,1-Dimethylhydrazine	n/a	n/a	n/a*		n/a*		--		--		23	U	23	U	--		--	
Volatile Organic Compounds (µg/L)																		
1,1,1,2-Tetrachloroethane	5.24	n/a	n/a*		n/a*		1	U	1	U	1	U	2	U	1	U	1	U
1,1,1-Trichloroethane	9130	200	n/a*		n/a*		1.7	U	1.7	U	1.7	U	3.3	U	1.7	U	1.7	U
1,1,2,2-Tetrachloroethane	0.671	n/a	n/a*		n/a*		1.1	U	1.1	U	1.1	U	2.1	U	1.1	U	1.1	U
1,1,2-Trichloro-1,2,2-trifluoroethane	59200	n/a	n/a*		n/a*		1.7	U	1.7	U	1.7	U	3.4	U	1.7	U	1.7	U
1,1,2-Trichloroethane	2.42	5	n/a*		n/a*		1.3	U	1.3	U	1.3	U	2.6	U	1.3	U	1.3	U
1,1-Dichloroethane	24.2	n/a	1	U	1	U	1.2	U	1.2	U	1.2	U	2.4	U	1.2	U	1.2	U
1,1-Dichloroethene	340	7	1	U	1	U	2.7	U	2.7	U	2.7	U	5.4	U	2.7	U	2.7	U
1,1-Dichloropropene	n/a	n/a	n/a*		n/a*		1.2	U	1.2	U	1.2	U	2.3	U	1.2	U	1.2	U
1,2,3-Trichlorobenzene	n/a	n/a	n/a*		n/a*		2.5	U	2.5	U	2.5	U	5	U	2.5	U	2.5	U
1,2,3-Trichloropropane	0.096	n/a	n/a*		n/a*		1.7	U	1.7	U	1.7	U	3.4	U	1.7	U	1.7	U
1,2,4-Trichlorobenzene	8.16	70	n/a*		n/a*		2.5	U	2.5	U	2.5	U	5	U	2.5	U	2.5	U
1,2,4-Trimethylbenzene	n/a	n/a	n/a*		n/a*		1.1	U	1.1	U	1.1	U	2.2	U	1.1	U	1.1	U
1,2-Dibromo-3-chloropropane	0.00803	0.2	n/a*		n/a*		1.6	U	1.6	U	1.6	U	3.2	U	1.6	U	1.6	U
1,2-Dibromoethane (Ethylene Dibromide)	0.0653	0.05	n/a*		n/a*		1.4	U	1.4	U	1.4	U	2.8	U	1.4	U	1.4	U
1,2-Dichlorobenzene	370	600	n/a*		n/a*		1	U	1	U	1	U	2	U	1	U	1	U
1,2-Dichloroethane	1.49	5	n/a*		n/a*		1.7	U	1.7	U	1.7	U	3.4	U	1.7	U	1.7	U

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-06D															
		Collection Date:	1/15/2008		1/15/2008		07/10/2008		07/10/2008		01/08/2009		01/08/2009		07/07/2009		07/07/2009	
		Sample ID:	HGL		HGL		MW-39-DUP01-071008		MW-39-06D-071008		MW-39-DUP01-010809		MW-39-06D-010809		MW39-06D-070709		MW39-06D-070709 DUP	
		QC Type:	N		FD		FD		N		FD		N		N		FD	
Analyte	**NMWQCC[(1)]**	**MCL[(2)]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
1,2-Dichloropropane	3.86	5	n/a*		n/a*		1.1	U	1.1	U	1.1	U	2.1	U	1.1	U	1.1	U
1,3,5-Trimethylbenzene (Mesitylene)	n/a	n/a	n/a*		n/a*		1	U	1	U	1	U	2	U	1	U	1	U
1,3-Dichlorobenzene	n/a	n/a	n/a*		n/a*		1.2	U	1.2	U	1.2	U	2.3	U	1.2	U	1.2	U
1,3-Dichloropropane	n/a	n/a	n/a*		n/a*		1.3	U	1.3	U	1.3	U	2.6	U	1.3	U	1.3	U
1,4-Dichlorobenzene	4.27	75	n/a*		n/a*		1.1	U	1.1	U	1.1	U	2.2	U	1.1	U	1.1	U
1-Chlorohexane	n/a	n/a	n/a*		n/a*		1.4	U	1.4	U	1.4	U	2.7	U	1.4	U	1.4	U
2,2-Dichloropropane	n/a	n/a	n/a*		n/a*		1.4	U	1.4	U	1.4	U	2.8	U	1.4	U	1.4	U
2-Butanone	7060	n/a	5	U	5	U	10	U	10	U	10	U	20	U	10	U	10	U
2-Butylbenzene	n/a	n/a	n/a*		n/a*		1.4	U	1.4	U	1.4	U	2.8	U	1.4	U	1.4	U
2-Chloroethyl vinyl ether	n/a	n/a	n/a*		n/a*		5	UJ	5	UJ	5	UJ	10	UJ	5	U	5	U
2-Chlorotoluene	730	n/a	n/a*		n/a*		1.3	U	1.3	U	1.3	U	2.5	U	1.3	U	1.3	U
2-Hexanone	n/a	n/a	n/a*		n/a*		25	U	25	U	25	U	50	U	25	U	25	U
2-Propylbenzene	n/a	n/a	n/a*		n/a*		--		--		--		--		--		--	
4-Bromofluorobenzene	n/a	n/a	--		--		--		--		--		--		--		--	
4-Chlorotoluene	n/a	n/a	n/a*		n/a*		1.1	U	1.1	U	1.1	U	2.1	U	1.1	U	1.1	U
4-Methyl-2-pentanone	1990	n/a	n/a*		n/a*		10	U	10	U	10	U	20	U	10	U	10	U
Acetone	21800	n/a	5	U	5	U	50	U	50	U	50	U	100	U	50	UJ	50	UJ
Acetonitrile	n/a	n/a	n/a*		n/a*		25	U	25	U	25	U	50	U	25	U	25	U
Acrolein	0.0416	n/a	n/a*		n/a*		25	U	25	U	25	U	50	U	25	U	25	U
Acrylonitrile	0.454	n/a	n/a*		n/a*		10	UJ	10	UJ	10	U	20	U	10	U	10	U
Allyl chloride (3-Chloropopene)	n/a	n/a	n/a*		n/a*		10	U	10	U	10	U	20	U	10	U	10	U
Aniline	n/a	n/a	n/a*		n/a*		--		--		1	U	0.99	U	--		--	
Benzene	4.13	5	1	U	1	U	2	U	2	U	2	U	4	U	2	U	2	U
Benzyl Chloride	n/a	n/a	n/a*		n/a*		1.8	U	1.8	U	1.8	U	3.6	U	1.8	U	1.8	U
Bromobenzene	n/a	n/a	n/a*		n/a*		1.3	U	1.3	U	1.3	U	2.6	U	1.3	U	1.3	U
Bromochloromethane	n/a	n/a	n/a*		n/a*		1.2	U	1.2	U	1.2	U	2.3	U	1.2	U	1.2	U
Bromodichloromethane	1.17	80	1	U	1	U	1	U	1	U	1	U	2	U	1	U	1	U
Bromoform	85.1	80	1	U	1	U	1.7	U	1.7	U	1.7	U	3.3	U	1.7	U	1.7	U
Bromomethane	8.66	n/a	n/a*		n/a*		3.9	U	3.9	U	3.9	U	7.8	U	3.9	U	3.9	U
Carbon disulfide	1040	n/a	n/a*		n/a*		2	U	2	U	2	U	4	U	2	U	2	U
Carbon tetrachloride	1.99	5	1	U	1	U	1.1	U	1.1	U	1.1	U	2.2	U	1.1	U	1.1	U
Chlorobenzene	91.3	100	1	U	1	U	1.1	U	1.1	U	1.1	U	2.2	U	1.1	U	1.1	U
Chloroethane	20900	n/a	n/a*		n/a*		2.4	U	2.4	U	2.4	U	4.8	U	2.4	U	2.4	U
Chloroform	1.93	80	1	U	1	U	1.4	U	1.4	U	1.4	U	2.8	U	1.4	U	1.4	U
Chloromethane	17.8	n/a	1	U	1	U	3.1	U	3.1	U	3.1	U	6.1	U	3.1	U	3.1	U
cis-1,2-dichloroethene	365	70	1	U	1	U	1	U	1	U	1	U	2	U	1	U	1	U
cis-1,3-dichloropropene	n/a	n/a	n/a*		n/a*		1.1	U	1.1	U	1.1	U	2.1	U	1.1	U	1.1	U
cis-1,4-Dichloro-2-Butene	n/a	n/a	n/a*		n/a*		5	U	5	U	5	U	10	U	5	U	5	U
Cymene	n/a	n/a	n/a*		n/a*		1.6	U	1.6	U	1.6	U	3.2	U	1.6	U	1.6	U
Dibromochloromethane	1.47	80	n/a*		n/a*		1	U	1	U	1	U	2	U	1	U	1	U
Dibromofluoromethane	n/a	n/a	--		--		--		--		--		--		--		--	
Dibromomethane	365	n/a	n/a*		n/a*		1.5	U	1.5	U	1.5	U	3	U	1.5	U	1.5	U
Dichlorodifluoromethane	395	n/a	n/a*		n/a*		5	U	5	U	5	U	10	U	5	U	5	U
Ether, tert-butyl methyl	125	n/a	n/a*		n/a*		1.3	U	1.3	U	1.3	U	2.6	U	1.3	U	1.3	U

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-06D															
		Collection Date:	1/15/2008		1/15/2008		07/10/2008		07/10/2008		01/08/2009		01/08/2009		07/07/2009		07/07/2009	
		Sample ID:	HGL		HGL		MW-39-DUP01-071008		MW-39-06D-071008		MW-39-DUP01-010809		MW-39-06D-010809		MW39-06D-070709		MW39-06D-070709 DUP	
		QC Type:	N		FD		FD		N		FD		N		N		FD	
Analyte	**NMWQCC[(1)]**	**MCL[(2)]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Ethyl methacrylate	3290	n/a	n/a*		n/a*		5	U	5	U	5	U	10	U	5	U	5	U
Ethylbenzene	14.8	700	n/a*		n/a*		2.2	U	2.2	U	2.2	U	4.3	U	2.2	U	2.2	U
Hexachlorobutadiene	8.62	n/a	n/a*		n/a*		3.5	U	3.5	U	3.5	U	6.9	U	3.5	U	3.5	U
Hexane	876	n/a	n/a*		n/a*		2.5	U	2.5	U	2.5	U	5	U	2.5	U	2.5	U
Iodomethane	n/a	n/a	n/a*		n/a*		5	U	5	U	5	U	10	U	5	U	5	U
Isopropylbenzene	679	n/a	n/a*		n/a*		1	U	1	U	1	U	2	U	1	U	1	U
m,p-Xylene	n/a	n/a	2	U	2	U	3.9	U	3.9	U	3.9	U	7.8	U	3.9	U	3.9	U
Methacrylonitrile	1.04	n/a	n/a*		n/a*		25	U	25	U	25	U	50	U	25	U	25	U
Methyl methacrylate	1420	n/a	n/a*		n/a*		5	U	5	U	5	U	10	U	5	U	5	U
Methylene chloride	48	5	1.3	U	1.3	U	5	U	5	U	13.5	J	27.5	J	6.2	J	5.5	J
Naphthalene	1.43	n/a	n/a*		n/a*		5	U	5	U	5	U	10	U	5	U	5	U
n-Propylbenzene	n/a	n/a	n/a*		n/a*		1.3	U	1.3	U	1.3	U	2.5	U	1.3	U	1.3	U
O-Xylene	1430	n/a	n/a*		n/a*		1.9	U	1.9	U	1.9	U	3.7	U	1.9	U	1.9	U
Pentachloroethane	n/a	n/a	n/a*		n/a*		10	U	10	U	10	U	20	U	10	U	10	U
Propane Nitrile (Propionitrile)	n/a	n/a	n/a*		n/a*		50	U	50	U	50	U	100	U	50	U	50	U
Sec-Butylbenzene	n/a	n/a	n/a*		n/a*		1.3	U	1.3	U	1.3	U	2.5	U	1.3	U	1.3	U
Styrene	1620	100	n/a*		n/a*		1.8	U	1.8	U	1.8	U	3.6	U	1.8	U	1.8	U
Tert-butyl benzene	n/a	n/a	n/a*		n/a*		1.6	U	1.6	U	1.6	U	3.2	U	1.6	U	1.6	U
Tetrachloroethene	1.08	5	n/a*		n/a*		1.1	U	1.1	U	1.1	U	2.2	U	1.1	U	1.1	U
Toluene	2280	1000	--		--		1.8	U	1.8	U	1.8	U	3.5	U	1.8	U	1.8	U
Trans-1,2-dichloroethene	107	100	n/a*		n/a*		2.3	U	2.3	U	2.3	U	4.5	U	2.3	U	2.3	U
Trans-1,3-dichloropropene	n/a	n/a	n/a*		n/a*		1.1	U	1.1	U	1.1	U	2.1	U	1.1	U	1.1	U
Trans-1,4-Dichloro-2-Butene	n/a	n/a	n/a*		n/a*		10	U	10	U	10	U	20	U	10	U	10	U
Trichloroethene	16.5	5	**75**	J	**92**	J	332		355		477		464		336		342	
Trichlorofluoromethane	1290	n/a	n/a*		n/a*		2.5	U	2.5	U	2.5	U	5	U	2.5	U	2.5	U
Vinyl acetate	412	n/a	n/a*		n/a*		18	U	18	U	18	U	36	U	18	U	18	U
Vinyl chloride	0.861	2	n/a*		n/a*		1.5	U	1.5	U	1.5	U	3	U	1.5	U	1.5	U

Notes:

[(1)] **NMWQCC** - New Mexico Water Quality Control Commission. These

[(2)] **EPA MCL** - United States Environmental Protection Agency Maximum

[(3)] Groundwater with TDS concentrations above 10,000 mg/L is not considered

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC

EPA - United States Environmental Protection Agency

FD - field duplicate

mg/L - milligrams per liter

µg/L - micrograms per liter

-- not analyzed

n/a* - HGL only presented data summary tablesin previous reports; therefore, data results for these fields are not available.

n/a - not available

Q - analytical result qualifier

Value - reported analytical concentration

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-06D															
		Collection Date:	1/15/2008		1/15/2008		07/10/2008		07/10/2008		01/08/2009		01/08/2009		07/07/2009		07/07/2009	
		Sample ID:	HGL		HGL		MW-39-DUP01-071008		MW-39-06D-071008		MW-39-DUP01-010809		MW-39-06D-010809		MW39-06D-070709		MW39-06D-070709 DUP	
		QC Type:	N		FD		FD		N		FD		N		N		FD	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**

U - Not detected.

J - Detected. Quantitation estimated.

UJ - Not detected. Quantitation estimated.

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-06D												MW39-07			
		Collection Date:	01/06/2010		01/06/2010		07/08/2010		07/08/2010		01/26/2011		01/26/2011		7/12/2006		7/14/2006	
		Sample ID:	MW39-DUP01-010610		MW39-06D-010610		MW39-DUP01-070810		MW39-06D-070810		MW39-DUP01-012611		MW39-06D-012611		HGL		HGL	
		QC Type:	FD		N		FD		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
General Chemistry Parameters (mg/L)																		
Solids, total dissolved [3]	n/a	n/a	99000		102000		85000		78700		91600		94500		57300		--	
Total Petroleum Hydrocarbons (µg/L)																		
Petroleum Hydrocarbons C10-C28	n/a	n/a	--		--		--		--		--		--		--		--	
TPH-GRO (C6-C10)	n/a	n/a	--		--		--		--		--		--		--		--	
Dissolved Metals (µg/L)																		
Arsenic	0.448	10	110	UJ	110	UJ	80	U	80	U	20	U	21.3	J	--		**20**	
Barium	7300	2000	100	U	100	U	200	U	200	U	23.7	J	23.9	J	--		1.4	U
Cadmium	18.3	5	20	U	20	U	40	U	40	U	10	U	10	U	--		0.5	U
Chromium	110	100	40	U	40	U	40	U	40	U	10	U	10	U	--		0.2	U
Lead	n/a	15	40	U	40	U	40	U	40	U	10	U	10	U	n/a*		n/a*	
Mercury	0.562	2	0.15	U	0.15	U	0.071	U	0.071	U	0.05	U	0.05	U	n/a*		n/a*	
Selenium	183	50	102		68	U	116	J	80	U	20	U	20	U	--		21	
Silver	183	n/a	28	U	28	U	40	U	40	U	10	U	10	U	--		7	
Total Metals (µg/L)																		
Arsenic	0.448	10	110	UJ	110	UJ	80	U	80	U	20	U	20	U	5	U	--	
Barium	7300	2000	100	U	100	U	200	U	200	U	25.1	J	25.2	J	19		--	
Cadmium	18.3	5	20	U	20	U	40	U	40	U	10	U	10	U	0.4	UJ	--	
Chromium	110	100	40	U	40	U	40	U	40	U	10	U	10	U	1.4	U	--	
Lead	n/a	15	40	U	40	U	40	U	40	U	10	U	10	U	1.6	UJ	--	
Mercury	0.562	2	0.15	U	0.15	U	0.071	U	0.071	U	0.05	U	0.05	U	n/a*		n/a*	
Selenium	183	50	73.2		103		97.8	J	80	U	20	U	20	U	1.6	U	--	
Silver	183	n/a	28	U	28	U	40	U	40	U	10	U	10	U	0.2	U	--	
Perchlorate (µg/L)																		
Perchlorate	26	n/a	**27**		**28**		**28**		**28**		**30**		**29**		**100**		--	
Unsymmetrical Dimethylhydrazine (UDMH) (µg/L)																		
1,1-Dimethylhydrazine	n/a	n/a	--		--		--		--		--		--		n/a*		n/a*	
Volatile Organic Compounds (µg/L)																		
1,1,1,2-Tetrachloroethane	5.24	n/a	0.2	U	0.2	U	1	U	1	U	1	U	1	U	n/a*		n/a*	
1,1,1-Trichloroethane	9130	200	0.33	U	0.33	U	1.1	U	1.1	U	1	U	1	U	n/a*		n/a*	
1,1,2,2-Tetrachloroethane	0.671	n/a	0.21	U	0.21	U	1.5	U	1.5	U	1.2	U	1.2	U	n/a*		n/a*	
1,1,2-Trichloro-1,2,2-trifluoroethane	59200	n/a	0.34	U	0.34	U	2.2	U	2.2	U	2.4	U	2.4	U	n/a*		n/a*	
1,1,2-Trichloroethane	2.42	5	0.26	U	0.26	U	1.5	U	1.5	U	1.1	U	1.1	U	n/a*		n/a*	
1,1-Dichloroethane	24.2	n/a	0.24	U	0.24	U	1.1	U	1.1	U	1.3	U	1.3	U	0.0299	U	--	
1,1-Dichloroethene	340	7	2.1		2.4		1.6	J	1.5	U	1.8	J	1.6	J	0.0736	U	--	
1,1-Dichloropropene	n/a	n/a	0.23	U	0.23	U	1.3	U	1.3	U	1.4	U	1.4	U	n/a*		n/a*	
1,2,3-Trichlorobenzene	n/a	n/a	0.5	U	0.5	U	2.5	U	2.5	U	2.5	U	2.5	UJ	n/a*		n/a*	
1,2,3-Trichloropropane	0.096	n/a	0.34	U	0.34	U	1.9	U	1.9	U	1.5	U	1.5	U	n/a*		n/a*	
1,2,4-Trichlorobenzene	8.16	70	0.5	U	0.5	U	2.5	U	2.5	U	2.5	U	2.5	UJ	n/a*		n/a*	
1,2,4-Trimethylbenzene	n/a	n/a	0.22	U	0.22	U	1.1	U	1.1	U	1.4	U	1.4	U	n/a*		n/a*	
1,2-Dibromo-3-chloropropane	0.00803	0.2	0.32	U	0.32	U	3	U	3	U	2.5	U	2.5	U	n/a*		n/a*	
1,2-Dibromoethane (Ethylene Dibromide)	0.0653	0.05	0.28	U	0.28	U	1.2	U	1.2	U	1.9	U	1.9	U	n/a*		n/a*	
1,2-Dichlorobenzene	370	600	0.2	U	0.2	U	1.3	U	1.3	U	1.3	U	1.3	U	n/a*		n/a*	
1,2-Dichloroethane	1.49	5	0.34	U	0.34	U	1.7	U	1.7	U	1	U	1	U	n/a*		n/a*	

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-06D												MW39-07			
		Collection Date:	01/06/2010		01/06/2010		07/08/2010		07/08/2010		01/26/2011		01/26/2011		7/12/2006		7/14/2006	
		Sample ID:	MW39-DUP01-010610		MW39-06D-010610		MW39-DUP01-070810		MW39-06D-070810		MW39-DUP01-012611		MW39-06D-012611		HGL		HGL	
		QC Type:	FD		N		FD		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
1,2-Dichloropropane	3.86	5	0.21	U	0.21	U	1.4	U	1.4	U	1.3	U	1.3	U	n/a*		n/a*	
1,3,5-Trimethylbenzene (Mesitylene)	n/a	n/a	0.2	U	0.2	U	1.1	U	1.1	U	1.1	U	1.1	U	n/a*		n/a*	
1,3-Dichlorobenzene	n/a	n/a	0.23	U	0.23	U	1.5	U	1.5	U	1	U	1	U	n/a*		n/a*	
1,3-Dichloropropane	n/a	n/a	0.26	U	0.26	U	1.4	U	1.4	U	1	U	1	U	n/a*		n/a*	
1,4-Dichlorobenzene	4.27	75	0.22	U	0.22	U	1.1	U	1.1	U	1.2	U	1.2	U	n/a*		n/a*	
1-Chlorohexane	n/a	n/a	0.27	U	0.27	U	1.5	U	1.5	U	1.3	U	1.3	U	n/a*		n/a*	
2,2-Dichloropropane	n/a	n/a	0.28	U	0.28	U	1.9	U	1.9	U	2.2	U	2.2	U	n/a*		n/a*	
2-Butanone	7060	n/a	2	U	2	U	10	U	10	U	10	U	10	U	0.394	U	--	
2-Butylbenzene	n/a	n/a	0.28	U	0.28	U	1.2	U	1.2	U	1.3	U	1.3	U	n/a*		n/a*	
2-Chloroethyl vinyl ether	n/a	n/a	1	U	1	U	5.5	UJ	5.5	UJ	6	U	6	U	n/a*		n/a*	
2-Chlorotoluene	730	n/a	0.25	U	0.25	U	1.3	U	1.3	U	1.1	U	1.1	U	n/a*		n/a*	
2-Hexanone	n/a	n/a	5	U	5	U	25	U	25	U	20	U	20	U	n/a*		n/a*	
2-Propylbenzene	n/a	n/a	--		--		--		--		--		--		n/a*		n/a*	
4-Bromofluorobenzene	n/a	n/a	--		--		--		--		--		--		--		--	
4-Chlorotoluene	n/a	n/a	0.21	U	0.21	U	1.2	U	1.2	U	1	U	1	U	n/a*		n/a*	
4-Methyl-2-pentanone	1990	n/a	2	U	2	U	10	U	10	U	10	U	10	U	n/a*		n/a*	
Acetone	21800	n/a	10	U	10	U	50	U	50	U	50	U	50	U	0.854	U	--	
Acetonitrile	n/a	n/a	5	U	5	U	25	U	25	U	25	U	25	U	n/a*		n/a*	
Acrolein	0.0416	n/a	5	U	5	U	50	UJ	50	UJ	25	U	25	U	n/a*		n/a*	
Acrylonitrile	0.454	n/a	2	U	2	U	15	U	15	U	15	U	15	U	n/a*		n/a*	
Allyl chloride (3-Chloropopene)	n/a	n/a	2	U	2	U	10	U	10	U	1.5	U	1.5	U	n/a*		n/a*	
Aniline	n/a	n/a	--		--		--		--		--		--		n/a*		n/a*	
Benzene	4.13	5	0.4	U	0.4	U	1.1	U	1.1	U	1	U	1	U	0.0495	U	--	
Benzyl Chloride	n/a	n/a	0.36	U	0.36	U	2	U	2	U	2.5	U	2.5	U	n/a*		n/a*	
Bromobenzene	n/a	n/a	0.26	U	0.26	U	1.1	U	1.1	U	1.3	U	1.3	U	n/a*		n/a*	
Bromochloromethane	n/a	n/a	0.23	U	0.23	U	1.2	U	1.2	U	1.1	U	1.1	U	n/a*		n/a*	
Bromodichloromethane	1.17	80	0.2	U	0.2	U	1.4	U	1.4	U	1	U	1	U	0.0651	U	--	
Bromoform	85.1	80	0.33	U	0.33	U	1.2	U	1.2	U	1	U	1	U	0.0859	U	--	
Bromomethane	8.66	n/a	0.78	U	0.78	U	3.9	U	3.9	U	2.5	U	2.5	U	n/a*		n/a*	
Carbon disulfide	1040	n/a	0.4	U	0.4	U	2	U	2	U	2.5	U	2.5	U	n/a*		n/a*	
Carbon tetrachloride	1.99	5	0.22	U	0.22	U	1.7	U	1.7	U	1.3	U	1.3	U	0.121	U	--	
Chlorobenzene	91.3	100	0.22	U	0.22	U	1	U	1	U	1	U	1	U	1	U	--	
Chloroethane	20900	n/a	0.48	U	0.48	U	2.6	U	2.6	U	2.5	U	2.5	U	n/a*		n/a*	
Chloroform	1.93	80	0.78	J	0.82	J	1.3	U	1.3	U	1.1	U	1.1	U	0.11	J	--	
Chloromethane	17.8	n/a	0.61	U	0.61	U	2.5	U	2.5	U	2.5	U	2.5	U	0.23	U	--	
cis-1,2-dichloroethene	365	70	0.2	U	0.2	U	1.6	U	1.6	U	1.3	U	1.3	U	0.101	U	--	
cis-1,3-dichloropropene	n/a	n/a	0.21	U	0.21	U	1	U	1	U	1	U	1	U	n/a*		n/a*	
cis-1,4-Dichloro-2-Butene	n/a	n/a	1	U	1	U	10	UJ	10	UJ	5	U	5	U	n/a*		n/a*	
Cymene	n/a	n/a	0.32	U	0.32	U	1.1	U	1.1	U	1.1	U	1.1	U	n/a*		n/a*	
Dibromochloromethane	1.47	80	0.2	U	0.2	U	1.7	U	1.7	U	1	U	1	U	n/a*		n/a*	
Dibromofluoromethane	n/a	n/a	--		--		--		--		--		--		--		--	
Dibromomethane	365	n/a	0.3	U	0.3	U	1.4	U	1.4	U	1.3	U	1.3	U	n/a*		n/a*	
Dichlorodifluoromethane	395	n/a	1	U	1	U	3.4	UJ	3.4	UJ	2.5	U	2.5	U	n/a*		n/a*	
Ether, tert-butyl methyl	125	n/a	0.26	U	0.26	U	1.3	U	1.3	U	1.7	U	1.7	U	n/a*		n/a*	

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-06D												MW39-07			
		Collection Date:	01/06/2010		01/06/2010		07/08/2010		07/08/2010		01/26/2011		01/26/2011		7/12/2006		7/14/2006	
		Sample ID:	MW39-DUP01-010610		MW39-06D-010610		MW39-DUP01-070810		MW39-06D-070810		MW39-DUP01-012611		MW39-06D-012611		HGL		HGL	
		QC Type:	FD		N		FD		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Ethyl methacrylate	3290	n/a	1	U	1	U	5	U	5	U	5	U	5	U	n/a*		n/a*	
Ethylbenzene	14.8	700	0.43	U	0.43	U	1	U	1	U	1	U	1	U	n/a*		n/a*	
Hexachlorobutadiene	8.62	n/a	0.69	U	0.69	U	2	U	2	U	4	U	4	U	n/a*		n/a*	
Hexane	876	n/a	0.5	U	0.5	U	3.3	U	3.3	U	3	U	3	U	n/a*		n/a*	
Iodomethane	n/a	n/a	1	U	1	U	1.6	U	1.6	U	1	U	1	U	n/a*		n/a*	
Isopropylbenzene	679	n/a	0.2	U	0.2	U	1	U	1	U	1	U	1	U	n/a*		n/a*	
m,p-Xylene	n/a	n/a	0.78	U	0.78	U	1.7	U	1.7	U	1.6	U	1.6	U	1	U	--	
Methacrylonitrile	1.04	n/a	5	U	5	U	25	U	25	U	25	U	25	U	n/a*		n/a*	
Methyl methacrylate	1420	n/a	1	U	1	U	5	UJ	5	UJ	5	U	5	U	n/a*		n/a*	
Methylene chloride	48	5	1	U	1	U	10	U	10	U	10	U	10	U	0.689	U	--	
Naphthalene	1.43	n/a	1	U	1	U	5	U	5	U	5	U	5	UJ	n/a*		n/a*	
n-Propylbenzene	n/a	n/a	0.25	U	0.25	U	1	U	1	U	1	U	1	U	n/a*		n/a*	
O-Xylene	1430	n/a	0.37	U	0.37	U	1	U	1	U	1	U	1	U	n/a*		n/a*	
Pentachloroethane	n/a	n/a	2	U	2	U	10	U	10	U	10	U	10	U	n/a*		n/a*	
Propane Nitrile (Propionitrile)	n/a	n/a	10	U	10	U	25	U	25	U	25	U	25	U	n/a*		n/a*	
Sec-Butylbenzene	n/a	n/a	0.25	U	0.25	U	1.2	U	1.2	U	1.1	U	1.1	U	n/a*		n/a*	
Styrene	1620	100	0.36	U	0.36	U	1	U	1	U	1	U	1	U	n/a*		n/a*	
Tert-butyl benzene	n/a	n/a	0.32	U	0.32	U	1.2	U	1.2	U	1.4	U	1.4	U	n/a*		n/a*	
Tetrachloroethene	1.08	5	0.22	U	0.22	U	2.2	U	2.2	U	1.3	U	1.3	U	n/a*		n/a*	
Toluene	2280	1000	0.35	U	0.35	U	1	U	1	U	1	U	1	U	--		--	
Trans-1,2-dichloroethene	107	100	0.45	U	0.45	U	1.7	U	1.7	U	1.8	U	1.8	U	n/a*		n/a*	
Trans-1,3-dichloropropene	n/a	n/a	0.21	U	0.21	U	1.1	U	1.1	U	1	U	1	U	n/a*		n/a*	
Trans-1,4-Dichloro-2-Butene	n/a	n/a	2	U	2	U	10	UJ	10	UJ	10	U	10	U	n/a*		n/a*	
Trichloroethene	16.5	5	319		328		330		301		353		349		0.37	J	--	
Trichlorofluoromethane	1290	n/a	0.5	U	0.5	U	2	U	2	U	2.5	U	2.5	U	n/a*		n/a*	
Vinyl acetate	412	n/a	3.6	U	3.6	U	12	U	12	U	10	U	10	U	n/a*		n/a*	
Vinyl chloride	0.861	2	0.3	U	0.3	U	1.4	U	1.4	U	1.1	U	1.1	U	n/a*		n/a*	

Notes:

[1] **NMWQCC** - New Mexico Water Quality Control Commission. These

[2] **EPA MCL** - United States Environmental Protection Agency Maximum

[3] Groundwater with TDS concentrations above 10,000 mg/L is not considered

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC

EPA - United States Environmental Protection Agency

FD - field duplicate

mg/L - milligrams per liter

µg/L - micrograms per liter

-- not analyzed

n/a* - HGL only presented data summary tablesin previous reports; therefore, data results for these fields are not available.

n/a - not available

Q - analytical result qualifier

Value - reported analytical concentration

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-06D												MW39-07			
		Collection Date:	01/06/2010		01/06/2010		07/08/2010		07/08/2010		01/26/2011		01/26/2011		7/12/2006		7/14/2006	
		Sample ID:	MW39-DUP01-010610		MW39-06D-010610		MW39-DUP01-070810		MW39-06D-070810		MW39-DUP01-012611		MW39-06D-012611		HGL		HGL	
		QC Type:	FD		N		FD		N		N		N		N		N	
Analyte	**NMWQCC[(1)]**	**MCL[(2)]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**

U - Not detected.

J - Detected. Quantitation estimated.

UJ - Not detected. Quantitation estimated.

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-07																	
		Collection Date:	1/18/2007		7/19/2007		1/17/2008		07/10/2008		01/08/2009		07/08/2009		01/07/2010		07/07/2010		01/28/2011	
		Sample ID:	HGL		HGL		HGL		MW-39-07-071008		MW-39-07-010809		MW39-07-070809		MW39-07-010710		MW39-07-070710		MW39-07-012811	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
General Chemistry Parameters (mg/L)																				
Solids, total dissolved [3]	n/a	n/a	66200		60000		45000		53500		56400		23000		41900		40300		47300	
Total Petroleum Hydrocarbons (µg/L)																				
Petroleum Hydrocarbons C10-C28	n/a	n/a	--		--		--		--		--		--		--		--		--	
TPH-GRO (C6-C10)	n/a	n/a	--		--		--		--		--		--		--		--		--	
Dissolved Metals (µg/L)																				
Arsenic	0.448	10	5	U	200	U	**15**	J	36	U	54	U	54	U	54	UJ	20	U	10	U
Barium	7300	2000	9	J	220	UJ	55	U	50	U	50	U	50	U	50	U	50	U	17.1	J
Cadmium	18.3	5	1	UJ	44	U	11	U	10	U	10	U	10	U	10	U	10	U	5	U
Chromium	110	100	5	UJ	200	U	50	U	16	U	20	U	20	U	20	U	10	U	5	U
Lead	n/a	15	n/a*		n/a*		n/a*		20	U	20	U	20	U	20	U	10	U	10	U
Mercury	0.562	2	n/a*		n/a*		n/a*		0.14	U	0.15	U	0.15	UJ	0.15	U	0.071	U	0.05	U
Selenium	183	50	10	UJ	300	U	75	U	31	U	34	U	36.4	J	34	U	34.8	J	10	U
Silver	183	n/a	2	UJ	100	U	25	U	12	U	14	U	14	U	14	U	10	U	5	U
Total Metals (µg/L)																				
Arsenic	0.448	10	5	U	200	U	**21**	J	36	U	59.1	J	54	U	54	UJ	20	U	10	U
Barium	7300	2000	44		220	U	55	U	389	J	50	U	50	U	50	U	50	U	18.2	J
Cadmium	18.3	5	1	U	44	U	11	U	10	U	10	U	10	U	10	U	10	U	5	U
Chromium	110	100	5	U	200	U	50	U	26.5	J	20	U	20	U	20	U	10	U	5	U
Lead	n/a	15	5	U	130	U	33	U	38.4	J	20	U	20	U	20	U	10	U	5	U
Mercury	0.562	2	n/a*		n/a*		n/a*		0.14	U	0.15	U	0.15	UJ	0.15	U	0.071	U	0.05	U
Selenium	183	50	10	U	97	J	75	U	31	U	34	U	60		34	U	42.1	J	12	J
Silver	183	n/a	2	U	100	U	25	U	12	U	14	U	14	U	14	U	10	U	5	U
Perchlorate (µg/L)																				
Perchlorate	26	n/a	300	U	**91**		**74**		**66**		**63**		**59**		**51**		**59**		**63**	
Unsymmetrical Dimethylhydrazine (UDMH) (µg/L)																				
1,1-Dimethylhydrazine	n/a	n/a	n/a*		n/a*		n/a*		--		23	U	--		--		--		--	
Volatile Organic Compounds (µg/L)																				
1,1,1,2-Tetrachloroethane	5.24	n/a	n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
1,1,1-Trichloroethane	9130	200	n/a*		n/a*		n/a*		0.33	U	0.33	U	0.33	U	0.33	U	0.22	U	0.2	U
1,1,2,2-Tetrachloroethane	0.671	n/a	n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.29	U	0.23	U
1,1,2-Trichloro-1,2,2-trifluoroethane	59200	n/a	n/a*		n/a*		n/a*		0.34	U	0.34	U	0.34	U	0.34	U	0.43	U	0.47	U
1,1,2-Trichloroethane	2.42	5	n/a*		n/a*		n/a*		0.26	U	0.26	U	0.26	U	0.26	U	0.29	U	0.22	U
1,1-Dichloroethane	24.2	n/a	1	U	1	U	1	U	0.24	U	0.24	U	0.24	U	0.24	U	0.22	U	0.25	U
1,1-Dichloroethene	340	7	1	U	1	U	1	U	0.54	U	0.54	U	0.54	U	0.54	U	0.29	U	0.23	U
1,1-Dichloropropene	n/a	n/a	n/a*		n/a*		n/a*		0.23	U	0.23	U	0.23	U	0.23	U	0.25	U	0.28	U
1,2,3-Trichlorobenzene	n/a	n/a	n/a*		n/a*		n/a*		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.096	n/a	n/a*		n/a*		n/a*		0.34	U	0.34	U	0.34	U	0.34	U	0.37	U	0.3	U
1,2,4-Trichlorobenzene	8.16	70	n/a*		n/a*		n/a*		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trimethylbenzene	n/a	n/a	n/a*		n/a*		n/a*		0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.27	U
1,2-Dibromo-3-chloropropane	0.00803	0.2	n/a*		n/a*		n/a*		0.32	U	0.32	U	0.32	U	0.32	U	0.59	U	0.5	U
1,2-Dibromoethane (Ethylene Dibromide)	0.0653	0.05	n/a*		n/a*		n/a*		0.28	U	0.28	U	0.28	U	0.28	U	0.23	U	0.37	U
1,2-Dichlorobenzene	370	600	n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.26	U	0.25	U
1,2-Dichloroethane	1.49	5	n/a*		n/a*		n/a*		0.34	U	0.34	U	0.34	U	0.34	U	0.33	U	0.2	U

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-07																	
		Collection Date:	1/18/2007		7/19/2007		1/17/2008		07/10/2008		01/08/2009		07/08/2009		01/07/2010		07/07/2010		01/28/2011	
		Sample ID:	HGL		HGL		HGL		MW-39-07-071008		MW-39-07-010809		MW39-07-070809		MW39-07-010710		MW39-07-070710		MW39-07-012811	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[(1)]**	**MCL[(2)]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
1,2-Dichloropropane	3.86	5	n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.27	U	0.25	U
1,3,5-Trimethylbenzene (Mesitylene)	n/a	n/a	n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.21	U	0.21	U
1,3-Dichlorobenzene	n/a	n/a	n/a*		n/a*		n/a*		0.23	U	0.23	U	0.23	U	0.23	U	0.29	U	0.2	U
1,3-Dichloropropane	n/a	n/a	n/a*		n/a*		n/a*		0.26	U	0.26	U	0.26	U	0.26	U	0.28	U	0.2	U
1,4-Dichlorobenzene	4.27	75	n/a*		n/a*		n/a*		0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.23	U
1-Chlorohexane	n/a	n/a	n/a*		n/a*		n/a*		0.27	U	0.27	U	0.27	U	0.27	U	0.29	U	0.25	U
2,2-Dichloropropane	n/a	n/a	n/a*		n/a*		n/a*		0.28	U	0.28	U	0.28	U	0.28	U	0.37	U	0.44	U
2-Butanone	7060	n/a	5	U	5	U	5	U	2	U	2	U	2	U	2	U	2	U	2	U
2-Butylbenzene	n/a	n/a	n/a*		n/a*		n/a*		0.28	U	0.28	U	0.28	U	0.28	U	0.24	U	0.26	U
2-Chloroethyl vinyl ether	n/a	n/a	n/a*		n/a*		n/a*		1	UJ	1	UJ	1	UJ	1	UJ	1.1	UJ	1.2	UJ
2-Chlorotoluene	730	n/a	n/a*		n/a*		n/a*		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.22	U
2-Hexanone	n/a	n/a	n/a*		n/a*		n/a*		5	U	5	U	5	U	5	U	5	U	4	U
2-Propylbenzene	n/a	n/a	n/a*		n/a*		n/a*		--		--		--		--		--		--	
4-Bromofluorobenzene	n/a	n/a	45.5		--		--		--		--		--		--		--		--	
4-Chlorotoluene	n/a	n/a	n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.23	U	0.2	U
4-Methyl-2-pentanone	1990	n/a	n/a*		n/a*		n/a*		2	U	2	U	2	U	2	U	2	U	2	U
Acetone	21800	n/a	10	UJ	5	UJ	5	U	10	U	10	U	10	U	10	U	10	U	10	U
Acetonitrile	n/a	n/a	n/a*		n/a*		n/a*		5	U	5	U	5	U	5	U	5	U	5	U
Acrolein	0.0416	n/a	n/a*		n/a*		n/a*		5	U	5	U	5	U	5	U	10	UJ	5	U
Acrylonitrile	0.454	n/a	n/a*		n/a*		n/a*		2	UJ	2	U	2	U	2	U	3	U	3	U
Allyl chloride (3-Chloropopene)	n/a	n/a	n/a*		n/a*		n/a*		2	U	2	U	2	U	2	U	2	U	0.3	UJ
Aniline	n/a	n/a	n/a*		n/a*		n/a*		--		0.98	U	--		--		--		--	
Benzene	4.13	5	1	U	1	U	1	U	0.4	U	0.4	U	0.4	U	0.4	U	0.21	U	0.2	U
Benzyl Chloride	n/a	n/a	n/a*		n/a*		n/a*		0.36	U	0.36	U	0.36	U	0.36	U	0.4	U	0.5	U
Bromobenzene	n/a	n/a	n/a*		n/a*		n/a*		0.26	U	0.26	U	0.26	U	0.26	U	0.21	U	0.25	U
Bromochloromethane	n/a	n/a	n/a*		n/a*		n/a*		0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.22	U
Bromodichloromethane	1.17	80	1	U	1	U	1	U	0.2	U	0.2	U	0.2	U	0.2	U	0.28	U	0.2	UJ
Bromoform	85.1	80	1	U	1	U	1	U	0.33	U	0.33	U	0.33	U	0.33	U	0.24	U	0.2	UJ
Bromomethane	8.66	n/a	n/a*		n/a*		n/a*		0.78	U	0.78	U	0.78	U	0.78	U	0.78	U	0.5	U
Carbon disulfide	1040	n/a	n/a*		n/a*		n/a*		0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.5	UJ
Carbon tetrachloride	1.99	5	1	U	1	U	1	U	0.22	U	0.22	U	0.22	U	0.22	U	0.34	U	0.25	UJ
Chlorobenzene	91.3	100	1	U	1	U	1	U	0.22	U	0.22	U	0.22	U	0.22	U	0.2	U	0.2	U
Chloroethane	20900	n/a	n/a*		n/a*		n/a*		0.48	U	0.48	U	0.48	U	0.48	U	0.51	U	0.5	U
Chloroform	1.93	80	1	U	1	U	1	U	0.28	U	0.28	U	0.28	U	0.28	U	0.25	U	0.22	U
Chloromethane	17.8	n/a	1	U	1	U	1	U	0.61	U	0.61	U	0.61	U	0.61	U	0.5	U	0.5	U
cis-1,2-dichloroethene	365	70	1	U	1	U	1	U	0.2	U	0.2	U	0.2	U	0.2	U	0.32	U	0.26	U
cis-1,3-dichloropropene	n/a	n/a	n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	UJ
cis-1,4-Dichloro-2-Butene	n/a	n/a	n/a*		n/a*		n/a*		1	U	1	U	1	U	1	U	2	UJ	1	UJ
Cymene	n/a	n/a	n/a*		n/a*		n/a*		0.32	U	0.32	U	0.32	U	0.32	U	0.21	U	0.21	U
Dibromochloromethane	1.47	80	n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.33	U	0.2	UJ
Dibromofluoromethane	n/a	n/a	51.7		--		--		--		--		--		--		--		--	
Dibromomethane	365	n/a	n/a*		n/a*		n/a*		0.3	U	0.3	U	0.3	U	0.3	U	0.27	U	0.25	U
Dichlorodifluoromethane	395	n/a	n/a*		n/a*		n/a*		1	U	1	U	1	U	1	U	0.67	UJ	0.5	U
Ether, tert-butyl methyl	125	n/a	n/a*		n/a*		n/a*		0.26	U	0.26	U	0.26	U	0.26	U	0.25	U	0.34	U

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-07																	
		Collection Date:	1/18/2007		7/19/2007		1/17/2008		07/10/2008		01/08/2009		07/08/2009		01/07/2010		07/07/2010		01/28/2011	
		Sample ID:	HGL		HGL		HGL		MW-39-07-071008		MW-39-07-010809		MW39-07-070809		MW39-07-010710		MW39-07-070710		MW39-07-012811	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Ethyl methacrylate	3290	n/a	n/a*		n/a*		n/a*		1	U	1	U	1	U	1	U	1	U	1	U
Ethylbenzene	14.8	700	n/a*		n/a*		n/a*		0.43	U	0.43	U	0.43	U	0.43	U	0.2	U	0.2	U
Hexachlorobutadiene	8.62	n/a	n/a*		n/a*		n/a*		0.69	U	0.69	U	0.69	U	0.69	U	0.4	U	0.8	U
Hexane	876	n/a	n/a*		n/a*		n/a*		0.5	U	0.5	U	0.5	U	0.5	U	0.66	U	0.59	U
Iodomethane	n/a	n/a	n/a*		n/a*		n/a*		1	U	1	U	1	U	1	U	0.31	U	0.2	U
Isopropylbenzene	679	n/a	n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
m,p-Xylene	n/a	n/a	1	U	2	U	2	U	0.78	U	0.78	U	0.78	U	0.78	U	0.34	U	0.32	U
Methacrylonitrile	1.04	n/a	n/a*		n/a*		n/a*		5	U	5	U	5	U	5	U	5	U	5	U
Methyl methacrylate	1420	n/a	n/a*		n/a*		n/a*		1	U	1	U	1	U	1	U	1	UJ	1	U
Methylene chloride	48	5	5	U	1.3	U	1.3	U	1	U	1	U	1	U	1	U	2	U	2	U
Naphthalene	1.43	n/a	n/a*		n/a*		n/a*		1	U	1	U	1	U	1	U	1	U	1	U
n-Propylbenzene	n/a	n/a	n/a*		n/a*		n/a*		0.25	U	0.25	U	0.25	U	0.25	U	0.2	U	0.2	U
O-Xylene	1430	n/a	n/a*		n/a*		n/a*		0.37	U	0.37	U	0.37	U	0.37	U	0.2	U	0.2	U
Pentachloroethane	n/a	n/a	n/a*		n/a*		n/a*		2	U	2	U	2	U	2	U	2	U	2	UJ
Propane Nitrile (Propionitrile)	n/a	n/a	n/a*		n/a*		n/a*		10	U	10	U	10	U	10	U	5	U	5	U
Sec-Butylbenzene	n/a	n/a	n/a*		n/a*		n/a*		0.25	U	0.25	U	0.25	U	0.25	U	0.23	U	0.22	U
Styrene	1620	100	n/a*		n/a*		n/a*		0.36	U	0.36	U	0.36	U	0.36	U	0.2	U	0.2	U
Tert-butyl benzene	n/a	n/a	n/a*		n/a*		n/a*		0.32	U	0.32	U	0.32	U	0.32	U	0.24	U	0.27	U
Tetrachloroethene	1.08	5	n/a*		n/a*		n/a*		0.22	U	0.22	U	0.22	U	0.22	U	0.44	U	0.25	U
Toluene	2280	1000	45.9		--		--		0.35	U	0.35	U	0.35	U	0.35	U	0.2	U	0.2	U
Trans-1,2-dichloroethene	107	100	n/a*		n/a*		n/a*		0.45	U	0.45	U	0.45	U	0.45	U	0.34	U	0.35	U
Trans-1,3-dichloropropene	n/a	n/a	n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.22	U	0.2	UJ
Trans-1,4-Dichloro-2-Butene	n/a	n/a	n/a*		n/a*		n/a*		2	U	2	U	2	U	2	U	2	UJ	2	UJ
Trichloroethene	16.5	5	1.55		1	U	1	U	0.76	J	2		1.4		0.93	J	0.77	J	0.91	J
Trichlorofluoromethane	1290	n/a	n/a*		n/a*		n/a*		0.5	U	0.5	U	0.5	U	0.5	U	0.4	U	0.5	U
Vinyl acetate	412	n/a	n/a*		n/a*		n/a*		3.6	U	3.6	U	3.6	U	3.6	U	2.4	U	2	U
Vinyl chloride	0.861	2	n/a*		n/a*		n/a*		0.3	U	0.3	U	0.3	U	0.3	U	0.28	U	0.22	U

Notes:

[1] **NMWQCC** - New Mexico Water Quality Control Commission. These

[2] **EPA MCL** - United States Environmental Protection Agency Maximum

[3] Groundwater with TDS concentrations above 10,000 mg/L is not considered

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC

EPA - United States Environmental Protection Agency

FD - field duplicate

mg/L - milligrams per liter

µg/L - micrograms per liter

-- not analyzed

n/a* - HGL only presented data summary tablesin previous reports; therefore, data results for these fields are not available.

n/a - not available

Q - analytical result qualifier

Value - reported analytical concentration

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-07																	
		Collection Date:	1/18/2007		7/19/2007		1/17/2008		07/10/2008		01/08/2009		07/08/2009		01/07/2010		07/07/2010		01/28/2011	
		Sample ID:	HGL		HGL		HGL		MW-39-07-071008		MW-39-07-010809		MW39-07-070809		MW39-07-010710		MW39-07-070710		MW39-07-012811	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**

U - Not detected.

J - Detected. Quantitation estimated.

UJ - Not detected. Quantitation estimated.

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-08																	
		Collection Date:	7/14/2006		1/18/2007		7/18/2007		1/16/2008		07/10/2008		01/08/2009		07/07/2009		01/06/2010		07/07/2010	
		Sample ID:	HGL		HGL		HGL		HGL		MW-39-08-071008		MW-39-08-010809		MW39-08-070709		MW39-08-010610		MW39-08-070710	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
General Chemistry Parameters (mg/L)																				
Solids, total dissolved [3]	n/a	n/a	102000		105000		110000		97000		88800		109000		88800		103000		107000	
Total Petroleum Hydrocarbons (µg/L)																				
Petroleum Hydrocarbons C10-C28	n/a	n/a	--		--		--		--		--		--		--		--		--	
TPH-GRO (C6-C10)	n/a	n/a	--		--		--		--		--		--		--		--		--	
Dissolved Metals (µg/L)																				
Arsenic	0.448	10	**36**		5	U	200	U	50	U	72	U	110	U	110	U	110	UJ	80	U
Barium	7300	2000	24		11	J	220	UJ	25	J	100	U	100	U	100	U	100	U	200	U
Cadmium	18.3	5	5	J	1	UJ	44	U	11	U	20	U	20	U	20	U	20	U	40	U
Chromium	110	100	1	J	5	UJ	200	U	50	U	32	U	40	U	40	U	40	U	40	U
Lead	n/a	15	n/a*		n/a*		n/a*		n/a*		40	U	40	U	40	U	40	U	40	U
Mercury	0.562	2	n/a*		n/a*		n/a*		n/a*		0.14	U	0.15	U	0.15	UJ	0.15	U	0.071	U
Selenium	183	50	53		10	UJ	300	U	65	J	62	U	68	U	68	U	76.1		96.1	J
Silver	183	n/a	9		2	UJ	100	U	25	U	24	U	28	U	28	U	28	U	40	U
Total Metals (µg/L)																				
Arsenic	0.448	10	--		5	U	200	U	50	U	72	U	110	U	110	U	110	UJ	80	U
Barium	7300	2000	--		60		220	U	25	J	100	U	100	U	100	U	100	U	200	U
Cadmium	18.3	5	--		1	U	44	U	11	U	20	U	20	U	20	U	20	U	40	U
Chromium	110	100	--		5	U	200	U	50	U	32	U	40	U	40	U	40	U	40	U
Lead	n/a	15	--		5	U	130	U	33	U	40	U	40	U	41.2		40	U	40	U
Mercury	0.562	2	n/a*		n/a*		n/a*		n/a*		0.14	U	0.15	U	0.15	UJ	0.15	U	0.071	U
Selenium	183	50	--		10	U	300	U	65	J	140	J	68	U	68	U	80.9		80	U
Silver	183	n/a	--		2	U	100	U	25	U	24	U	28	U	28	U	28	U	40	U
Perchlorate (µg/L)																				
Perchlorate	26	n/a	**59**		600	U	**99**		**84**		83		81		74		65		61	
Unsymmetrical Dimethylhydrazine (UDMH) (µg/L)																				
1,1-Dimethylhydrazine	n/a	n/a	n/a*		n/a*		n/a*		n/a*		--		23	U	--		--		--	
Volatile Organic Compounds (µg/L)																				
1,1,1,2-Tetrachloroethane	5.24	n/a	n/a*		n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
1,1,1-Trichloroethane	9130	200	n/a*		n/a*		n/a*		n/a*		0.33	U	0.33	U	0.33	U	0.33	U	0.22	U
1,1,2,2-Tetrachloroethane	0.671	n/a	n/a*		n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.29	U
1,1,2-Trichloro-1,2,2-trifluoroethane	59200	n/a	n/a*		n/a*		n/a*		n/a*		0.34	U	0.34	U	0.34	U	0.34	U	0.43	U
1,1,2-Trichloroethane	2.42	5	n/a*		n/a*		n/a*		n/a*		0.26	U	0.26	U	0.26	U	0.26	U	0.29	U
1,1-Dichloroethane	24.2	n/a	0.0299	U	1	U	1	U	1	U	0.24	U	0.24	U	0.24	U	0.24	U	0.22	U
1,1-Dichloroethene	340	7	0.0736	U	1	U	1	U	1	U	0.54	U	0.54	U	0.54	U	0.54	U	0.29	U
1,1-Dichloropropene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.23	U	0.23	U	0.23	U	0.23	U	0.25	U
1,2,3-Trichlorobenzene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.096	n/a	n/a*		n/a*		n/a*		n/a*		0.34	U	0.34	U	0.34	U	0.34	U	0.37	U
1,2,4-Trichlorobenzene	8.16	70	n/a*		n/a*		n/a*		n/a*		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trimethylbenzene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.22	U	0.22	U	0.22	U	0.22	U	0.22	U
1,2-Dibromo-3-chloropropane	0.00803	0.2	n/a*		n/a*		n/a*		n/a*		0.32	U	0.32	U	0.32	U	0.32	U	0.59	UJ
1,2-Dibromoethane (Ethylene Dibromide)	0.0653	0.05	n/a*		n/a*		n/a*		n/a*		0.28	U	0.28	U	0.28	U	0.28	U	0.23	U
1,2-Dichlorobenzene	370	600	n/a*		n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.26	U
1,2-Dichloroethane	1.49	5	n/a*		n/a*		n/a*		n/a*		0.34	U	0.34	U	0.34	U	0.34	U	0.33	U

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-08																	
		Collection Date:	7/14/2006		1/18/2007		7/18/2007		1/16/2008		07/10/2008		01/08/2009		07/07/2009		01/06/2010		07/07/2010	
		Sample ID:	HGL		HGL		HGL		HGL		MW-39-08-071008		MW-39-08-010809		MW39-08-070709		MW39-08-010610		MW39-08-070710	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
1,2-Dichloropropane	3.86	5	n/a*		n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.27	U
1,3,5-Trimethylbenzene (Mesitylene)	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
1,3-Dichlorobenzene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.23	U	0.23	U	0.23	U	0.23	U	0.29	U
1,3-Dichloropropane	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.26	U	0.26	U	0.26	U	0.26	U	0.28	U
1,4-Dichlorobenzene	4.27	75	n/a*		n/a*		n/a*		n/a*		0.22	U	0.22	U	0.22	U	0.22	U	0.22	U
1-Chlorohexane	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.27	U	0.27	U	0.27	U	0.27	U	0.29	U
2,2-Dichloropropane	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.28	U	0.28	U	0.28	U	0.28	U	0.37	U
2-Butanone	7060	n/a	0.394	U	5	U	5	U	5	UJ	2	U	3.6	J	2	U	2.7	J	2	U
2-Butylbenzene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.28	U	0.28	U	0.28	U	0.28	U	0.24	U
2-Chloroethyl vinyl ether	n/a	n/a	n/a*		n/a*		n/a*		n/a*		1	UJ	1	UJ	1	U	1	U	1.1	UJ
2-Chlorotoluene	730	n/a	n/a*		n/a*		n/a*		n/a*		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
2-Hexanone	n/a	n/a	n/a*		n/a*		n/a*		n/a*		5	U	5	U	5	U	50.6		20.6	
2-Propylbenzene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		--		--		--		--		--	
4-Bromofluorobenzene	n/a	n/a	--		43.8		--		--		--		--		--		--		--	
4-Chlorotoluene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.23	U
4-Methyl-2-pentanone	1990	n/a	n/a*		n/a*		n/a*		n/a*		2	U	2	U	2	U	2	U	2	U
Acetone	21800	n/a	0.854	U	10	UJ	5	UJ	5	U	10	U	24.7	J	10	U	12.9	J	10	UJ
Acetonitrile	n/a	n/a	n/a*		n/a*		n/a*		n/a*		5	U	5	U	5	U	5	U	5	UJ
Acrolein	0.0416	n/a	n/a*		n/a*		n/a*		n/a*		5	U	5	U	5	U	5	U	10	U
Acrylonitrile	0.454	n/a	n/a*		n/a*		n/a*		n/a*		2	UJ	2	U	2	U	2	U	3	UJ
Allyl chloride (3-Chloropopene)	n/a	n/a	n/a*		n/a*		n/a*		n/a*		2	U	2	U	2	U	2	U	2	U
Aniline	n/a	n/a	n/a*		n/a*		n/a*		n/a*		--		0.98	U	--		--		--	
Benzene	4.13	5	1	U	1	U	1	U	1	U	0.4	U	0.4	U	0.4	U	0.4	U	0.21	U
Benzyl Chloride	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.36	U	0.36	U	0.36	U	0.36	U	0.4	U
Bromobenzene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.26	U	0.26	U	0.26	U	0.26	U	0.21	U
Bromochloromethane	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.23	U	0.23	U	0.23	U	0.23	U	0.23	U
Bromodichloromethane	1.17	80	0.0651	U	1	U	1	U	1	U	0.2	U	0.2	U	0.2	U	0.2	U	0.28	U
Bromoform	85.1	80	0.0859	U	1	U	1	U	1	U	0.33	U	0.33	U	0.33	U	0.33	U	0.24	U
Bromomethane	8.66	n/a	n/a*		n/a*		n/a*		n/a*		0.78	U	0.78	U	0.78	U	0.78	U	0.78	U
Carbon disulfide	1040	n/a	n/a*		n/a*		n/a*		n/a*		0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Carbon tetrachloride	1.99	5	0.121	U	1	U	1	U	1	UJ	0.22	U	0.22	U	0.22	U	0.22	U	0.34	U
Chlorobenzene	91.3	100	1	U	1	U	1	U	1	U	0.22	U	0.22	U	0.22	U	0.22	U	0.2	U
Chloroethane	20900	n/a	n/a*		n/a*		n/a*		n/a*		0.48	U	0.48	U	0.48	U	0.48	U	0.51	U
Chloroform	1.93	80	0.23	J	1	U	1	U	1	U	0.28	U	0.28	U	0.28	U	0.28	U	0.25	U
Chloromethane	17.8	n/a	0.23	U	1	U	1	U	1	U	0.61	U	0.61	U	0.67	J	0.61	U	0.5	U
cis-1,2-dichloroethene	365	70	0.101	U	1	U	1	U	1	U	0.2	U	0.2	U	0.71	J	0.46	J	0.52	J
cis-1,3-dichloropropene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.2	U
cis-1,4-Dichloro-2-Butene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		1	U	1	U	1	U	1	U	2	UJ
Cymene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.32	U	0.32	U	0.32	U	0.32	U	0.21	U
Dibromochloromethane	1.47	80	n/a*		n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.33	U
Dibromofluoromethane	n/a	n/a	--		52.8		--		--		--		--		--		--		--	
Dibromomethane	365	n/a	n/a*		n/a*		n/a*		n/a*		0.3	U	0.3	U	0.3	U	0.3	U	0.27	U
Dichlorodifluoromethane	395	n/a	n/a*		n/a*		n/a*		n/a*		1	U	1	U	1	U	1	U	0.67	UJ
Ether, tert-butyl methyl	125	n/a	n/a*		n/a*		n/a*		n/a*		0.26	U	0.26	U	0.26	U	0.26	U	0.25	U

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-08																	
		Collection Date:	7/14/2006		1/18/2007		7/18/2007		1/16/2008		07/10/2008		01/08/2009		07/07/2009		01/06/2010		07/07/2010	
		Sample ID:	HGL		HGL		HGL		HGL		MW-39-08-071008		MW-39-08-010809		MW39-08-070709		MW39-08-010610		MW39-08-070710	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Ethyl methacrylate	3290	n/a	n/a*		n/a*		n/a*		n/a*		1	U	1	U	1	U	1	U	1	U
Ethylbenzene	14.8	700	n/a*		n/a*		n/a*		n/a*		0.43	U	0.43	U	0.43	U	0.43	U	0.2	U
Hexachlorobutadiene	8.62	n/a	n/a*		n/a*		n/a*		n/a*		0.69	U	0.69	U	0.69	U	0.69	U	0.4	U
Hexane	876	n/a	n/a*		n/a*		n/a*		n/a*		0.5	U	0.5	U	0.5	U	0.5	U	0.66	U
Iodomethane	n/a	n/a	n/a*		n/a*		n/a*		n/a*		1	U	1	U	1	U	1	U	0.31	U
Isopropylbenzene	679	n/a	n/a*		n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
m,p-Xylene	n/a	n/a	1	U	1	U	2	U	2	U	0.78	U	0.78	U	0.78	U	0.78	U	0.34	U
Methacrylonitrile	1.04	n/a	n/a*		n/a*		n/a*		n/a*		5	U	5	U	5	U	5	U	5	UJ
Methyl methacrylate	1420	n/a	n/a*		n/a*		n/a*		n/a*		1	U	1	U	1	U	1	U	1	U
Methylene chloride	48	5	0.689	U	5	U	1.3	U	1.3	U	1	U	1	U	1	U	1	U	2	UJ
Naphthalene	1.43	n/a	n/a*		n/a*		n/a*		n/a*		1	U	2.3	J	1	U	1	U	1	U
n-Propylbenzene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.25	U	0.25	U	0.25	U	0.25	U	0.2	U
O-Xylene	1430	n/a	n/a*		n/a*		n/a*		n/a*		0.37	U	0.37	U	0.37	U	0.37	U	0.2	U
Pentachloroethane	n/a	n/a	n/a*		n/a*		n/a*		n/a*		2	U	2	U	2	U	2	U	2	U
Propane Nitrile (Propionitrile)	n/a	n/a	n/a*		n/a*		n/a*		n/a*		10	U	10	U	10	U	10	U	5	UJ
Sec-Butylbenzene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.25	U	0.25	U	0.25	U	0.25	U	0.23	U
Styrene	1620	100	n/a*		n/a*		n/a*		n/a*		0.36	U	0.36	U	0.36	U	0.36	U	0.2	U
Tert-butyl benzene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.32	U	0.32	U	0.32	U	0.32	U	0.24	U
Tetrachloroethene	1.08	5	n/a*		n/a*		n/a*		n/a*		0.22	U	0.22	U	0.22	U	0.22	U	0.44	U
Toluene	2280	1000	--		45.6		--		--		0.35	U	0.35	U	0.35	U	0.35	U	0.2	U
Trans-1,2-dichloroethene	107	100	n/a*		n/a*		n/a*		n/a*		0.45	U	0.45	U	0.45	U	0.45	U	0.34	U
Trans-1,3-dichloropropene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.22	UJ
Trans-1,4-Dichloro-2-Butene	n/a	n/a	n/a*		n/a*		n/a*		n/a*		2	U	2	U	2	U	2	U	2	UJ
Trichloroethene	16.5	5	**49.6**		**38.9**		**30**		**26**		20.4		17.3		10.3		26		18.8	
Trichlorofluoromethane	1290	n/a	n/a*		n/a*		n/a*		n/a*		0.5	U	0.5	U	0.5	U	0.5	U	0.4	U
Vinyl acetate	412	n/a	n/a*		n/a*		n/a*		n/a*		3.6	U	3.6	U	3.6	U	3.6	U	2.4	U
Vinyl chloride	0.861	2	n/a*		n/a*		n/a*		n/a*		0.3	U	0.3	U	0.3	U	0.3	U	0.28	U

Notes:

[1] **NMWQCC** - New Mexico Water Quality Control Commission. These

[2] **EPA MCL** - United States Environmental Protection Agency Maximum

[3] Groundwater with TDS concentrations above 10,000 mg/L is not considered

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC

EPA - United States Environmental Protection Agency

FD - field duplicate

mg/L - milligrams per liter

µg/L - micrograms per liter

-- not analyzed

n/a* - HGL only presented data summary tablesin previous reports; therefore, data results for these fields are not available.

n/a - not available

Q - analytical result qualifier

Value - reported analytical concentration

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-08																	
		Collection Date:	7/14/2006		1/18/2007		7/18/2007		1/16/2008		07/10/2008		01/08/2009		07/07/2009		01/06/2010		07/07/2010	
		Sample ID:	HGL		HGL		HGL		HGL		MW-39-08-071008		MW-39-08-010809		MW39-08-070709		MW39-08-010610		MW39-08-070710	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[(1)]**	**MCL[(2)]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**

U - Not detected.

J - Detected. Quantitation estimated.

UJ - Not detected. Quantitation estimated.

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-08		MW39-09															
		Collection Date:	01/27/2011		7/14/2006		1/18/2007		7/18/2007		1/16/2008		07/09/2008		01/07/2009		07/07/2009		01/06/2010	
		Sample ID:	MW39-08-012711		HGL		HGL		HGL		HGL		MW-39-09-070908		MW39-09-010709		MW39-09-070709		MW39-09-010610	
		QC Type:	N		FD		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
General Chemistry Parameters (mg/L)																				
Solids, total dissolved [3]	n/a	n/a	99500		110000		131000		140000		110000		132000		128000		122000		107000	
Total Petroleum Hydrocarbons (µg/L)																				
Petroleum Hydrocarbons C10-C28	n/a	n/a	--		--		--		--		--		--		--		--		--	
TPH-GRO (C6-C10)	n/a	n/a	--		--		--		--		--		--		--		--		--	
Dissolved Metals (µg/L)																				
Arsenic	0.448	10	20	U	**25**		5	U	200	U	50	U	72	U	110	U	110	U	110	UJ
Barium	7300	2000	46.2	J	25		6	J	220	UJ	55	U	100	U	100	U	100	U	100	U
Cadmium	18.3	5	10	U	2		1	UJ	44	U	11	U	20	U	20	U	20	U	20	U
Chromium	110	100	10	U	0.2	U	5	UJ	200	U	50	U	32	U	40	U	40	U	40	U
Lead	n/a	15	10	U	n/a*		n/a*		n/a*		n/a*		40	U	40	U	40	U	40	U
Mercury	0.562	2	0.05	U	n/a*		n/a*		n/a*		n/a*		0.14	U	0.15	U	0.15	UJ	0.15	U
Selenium	183	50	20	U	29		10	UJ	300	U	55	J	89.7	J	68	U	68	U	68	U
Silver	183	n/a	10	U	7		2	UJ	100	U	25	U	24	U	28	U	28	U	28	U
Total Metals (µg/L)																				
Arsenic	0.448	10	20	U	--		5	U	200	U	50	U	72	U	110	U	110	U	110	UJ
Barium	7300	2000	67.8	J	--		277		220	U	19	J	122	J	100	U	100	U	152	
Cadmium	18.3	5	10	U	--		1	U	44	U	11	U	20	U	20	U	20	U	20	U
Chromium	110	100	10	U	--		5	U	200	U	50	U	32	U	40	U	40	U	40	U
Lead	n/a	15	10	U	--		38		130	U	33	U	40	U	40	U	40	U	40	U
Mercury	0.562	2	0.05	U	n/a*		n/a*		n/a*		n/a*		0.14	U	0.15	U	0.15	UJ	0.15	U
Selenium	183	50	20	U	--		10	U	300	U	55	J	92.9	J	68	U	91.3		85.5	
Silver	183	n/a	10	U	--		2	U	100	U	25	U	24	U	28	U	28	U	28	U
Perchlorate (µg/L)																				
Perchlorate	26	n/a	63		**130**		600	U	**160**		**180**		**150**		**150**		**190**		**150**	
Unsymmetrical Dimethylhydrazine (UDMH) (µg/L)																				
1,1-Dimethylhydrazine	n/a	n/a	--		n/a*		n/a*		n/a*		n/a*		--		23	U	--		--	
Volatile Organic Compounds (µg/L)																				
1,1,1,2-Tetrachloroethane	5.24	n/a	0.2	U	n/a*		n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U	0.2	U
1,1,1-Trichloroethane	9130	200	0.2	U	n/a*		n/a*		n/a*		n/a*		0.33	U	0.33	U	0.33	U	0.33	U
1,1,2,2-Tetrachloroethane	0.671	n/a	0.23	U	n/a*		n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U	0.21	U
1,1,2-Trichloro-1,2,2-trifluoroethane	59200	n/a	0.47	U	n/a*		n/a*		n/a*		n/a*		0.34	U	0.34	U	0.34	U	0.34	U
1,1,2-Trichloroethane	2.42	5	0.22	U	n/a*		n/a*		n/a*		n/a*		0.26	U	0.26	U	0.26	U	0.26	U
1,1-Dichloroethane	24.2	n/a	0.25	U	0.0299	U	1	UJ	1	U	1	U	0.24	U	0.24	U	0.24	U	0.24	U
1,1-Dichloroethene	340	7	0.23	U	0.0736	U	1	UJ	1	U	1	U	0.54	U	0.54	U	0.54	U	0.54	U
1,1-Dichloropropene	n/a	n/a	0.28	U	n/a*		n/a*		n/a*		n/a*		0.23	U	0.23	U	0.23	U	0.23	U
1,2,3-Trichlorobenzene	n/a	n/a	0.5	U	n/a*		n/a*		n/a*		n/a*		0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.096	n/a	0.3	U	n/a*		n/a*		n/a*		n/a*		0.34	U	0.34	U	0.34	U	0.34	U
1,2,4-Trichlorobenzene	8.16	70	0.5	U	n/a*		n/a*		n/a*		n/a*		0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trimethylbenzene	n/a	n/a	0.27	U	n/a*		n/a*		n/a*		n/a*		0.22	U	0.22	U	0.22	U	0.22	U
1,2-Dibromo-3-chloropropane	0.00803	0.2	0.5	U	n/a*		n/a*		n/a*		n/a*		0.32	U	0.32	U	0.32	U	0.32	U
1,2-Dibromoethane (Ethylene Dibromide)	0.0653	0.05	0.37	U	n/a*		n/a*		n/a*		n/a*		0.28	U	0.28	U	0.28	U	0.28	U
1,2-Dichlorobenzene	370	600	0.25	U	n/a*		n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U	0.2	U
1,2-Dichloroethane	1.49	5	0.2	U	n/a*		n/a*		n/a*		n/a*		0.34	U	0.34	U	0.34	U	0.34	U

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-08		MW39-09															
		Collection Date:	01/27/2011		7/14/2006		1/18/2007		7/18/2007		1/16/2008		07/09/2008		01/07/2009		07/07/2009		01/06/2010	
		Sample ID:	MW39-08-012711		HGL		HGL		HGL		HGL		MW-39-09-070908		MW39-09-010709		MW39-09-070709		MW39-09-010610	
		QC Type:	N		FD		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
1,2-Dichloropropane	3.86	5	0.25	U	n/a*		n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U	0.21	U
1,3,5-Trimethylbenzene (Mesitylene)	n/a	n/a	0.21	U	n/a*		n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U	0.2	U
1,3-Dichlorobenzene	n/a	n/a	0.2	U	n/a*		n/a*		n/a*		n/a*		0.23	U	0.23	U	0.23	U	0.23	U
1,3-Dichloropropane	n/a	n/a	0.2	U	n/a*		n/a*		n/a*		n/a*		0.26	U	0.26	U	0.26	U	0.26	U
1,4-Dichlorobenzene	4.27	75	0.23	U	n/a*		n/a*		n/a*		n/a*		0.22	U	0.22	U	0.22	U	0.22	U
1-Chlorohexane	n/a	n/a	0.25	U	n/a*		n/a*		n/a*		n/a*		0.27	U	0.27	U	0.27	U	0.27	U
2,2-Dichloropropane	n/a	n/a	0.44	U	n/a*		n/a*		n/a*		n/a*		0.28	U	0.28	U	0.28	U	0.28	U
2-Butanone	7060	n/a	2	U	0.394	U	5	UJ	5	U	5.4	J	2	U	2.8	J	2	U	3.7	J
2-Butylbenzene	n/a	n/a	0.26	U	n/a*		n/a*		n/a*		n/a*		0.28	U	0.28	U	0.28	U	0.28	U
2-Chloroethyl vinyl ether	n/a	n/a	1.2	U	n/a*		n/a*		n/a*		n/a*		1	UJ	1	UJ	1	U	1	U
2-Chlorotoluene	730	n/a	0.22	U	n/a*		n/a*		n/a*		n/a*		0.25	U	0.25	U	0.25	U	0.25	U
2-Hexanone	n/a	n/a	5.6	J	n/a*		n/a*		n/a*		n/a*		5	U	127	J	5	U	15	
2-Propylbenzene	n/a	n/a	--		n/a*		n/a*		n/a*		n/a*		--		--		--		--	
4-Bromofluorobenzene	n/a	n/a	--		--		42.8	J	--		--		--		--		--		--	
4-Chlorotoluene	n/a	n/a	0.2	U	n/a*		n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U	0.21	U
4-Methyl-2-pentanone	1990	n/a	2	U	n/a*		n/a*		n/a*		n/a*		2	U	2	U	2	U	2	U
Acetone	21800	n/a	10	U	10	U	10	UJ	5	UJ	5.3	J	10	U	15.5	J	10	U	16.7	J
Acetonitrile	n/a	n/a	5	U	n/a*		n/a*		n/a*		n/a*		5	U	5	U	5	U	5	U
Acrolein	0.0416	n/a	5	U	n/a*		n/a*		n/a*		n/a*		5	U	5	U	5	U	5	U
Acrylonitrile	0.454	n/a	3	U	n/a*		n/a*		n/a*		n/a*		2	UJ	2	U	2	U	2	U
Allyl chloride (3-Chloropopene)	n/a	n/a	0.3	U	n/a*		n/a*		n/a*		n/a*		2	U	2	U	2	U	2	U
Aniline	n/a	n/a	--		n/a*		n/a*		n/a*		n/a*		--		0.97	U	--		--	
Benzene	4.13	5	0.2	U	1	U	1	UJ	1	U	1	U	0.4	U	0.4	U	0.4	U	0.4	U
Benzyl Chloride	n/a	n/a	0.5	U	n/a*		n/a*		n/a*		n/a*		0.36	U	0.36	U	0.36	U	0.36	U
Bromobenzene	n/a	n/a	0.25	U	n/a*		n/a*		n/a*		n/a*		0.26	U	0.26	U	0.26	U	0.26	U
Bromochloromethane	n/a	n/a	0.22	U	n/a*		n/a*		n/a*		n/a*		0.23	U	0.23	U	0.23	U	0.23	U
Bromodichloromethane	1.17	80	0.2	U	0.0651	U	1	UJ	1	U	1	U	0.2	U	0.2	U	0.2	U	0.2	U
Bromoform	85.1	80	0.2	U	0.0859	U	1	UJ	1	U	1	U	0.33	U	0.33	U	0.33	U	0.33	U
Bromomethane	8.66	n/a	0.5	U	n/a*		n/a*		n/a*		n/a*		0.78	U	0.78	U	0.78	U	0.78	U
Carbon disulfide	1040	n/a	0.5	U	n/a*		n/a*		n/a*		n/a*		0.4	U	0.4	U	0.4	U	0.4	U
Carbon tetrachloride	1.99	5	0.25	U	0.121	U	1	UJ	1	U	1	UJ	0.22	U	0.22	U	0.22	U	0.22	U
Chlorobenzene	91.3	100	0.2	U	1	U	1	UJ	1	U	1	U	0.22	U	0.22	U	0.22	U	0.22	U
Chloroethane	20900	n/a	0.5	U	n/a*		n/a*		n/a*		n/a*		0.48	U	0.48	U	0.48	U	0.48	U
Chloroform	1.93	80	0.22	U	0.0475	U	1	UJ	1	U	1	U	0.28	U	0.28	U	0.28	U	0.28	U
Chloromethane	17.8	n/a	0.5	U	0.37	J	0.59	J	1	U	1	U	0.61	U	0.61	U	0.61	U	0.61	U
cis-1,2-dichloroethene	365	70	0.3	J	0.101	U	1	UJ	1	U	1	U	0.2	U	0.2	U	0.2	U	0.2	U
cis-1,3-dichloropropene	n/a	n/a	0.2	U	n/a*		n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U	0.21	U
cis-1,4-Dichloro-2-Butene	n/a	n/a	1	U	n/a*		n/a*		n/a*		n/a*		1	U	1	U	1	U	1	U
Cymene	n/a	n/a	0.21	U	n/a*		n/a*		n/a*		n/a*		0.32	U	0.32	U	0.32	U	0.32	U
Dibromochloromethane	1.47	80	0.2	U	n/a*		n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U	0.2	U
Dibromofluoromethane	n/a	n/a	--		--		52.1	J	--		--		--		--		--		--	
Dibromomethane	365	n/a	0.25	U	n/a*		n/a*		n/a*		n/a*		0.3	U	0.3	U	0.3	U	0.3	U
Dichlorodifluoromethane	395	n/a	0.5	U	n/a*		n/a*		n/a*		n/a*		1	U	1	U	1	U	1	U
Ether, tert-butyl methyl	125	n/a	0.34	U	n/a*		n/a*		n/a*		n/a*		0.26	U	0.26	U	0.26	U	0.26	U

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-08		MW39-09															
		Collection Date:	01/27/2011		7/14/2006		1/18/2007		7/18/2007		1/16/2008		07/09/2008		01/07/2009		07/07/2009		01/06/2010	
		Sample ID:	MW39-08-012711		HGL		HGL		HGL		HGL		MW-39-09-070908		MW39-09-010709		MW39-09-070709		MW39-09-010610	
		QC Type:	N		FD		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Ethyl methacrylate	3290	n/a	1	U	n/a*		n/a*		n/a*		n/a*		1	U	1	U	1	U	1	U
Ethylbenzene	14.8	700	0.2	U	n/a*		n/a*		n/a*		n/a*		0.43	U	0.43	U	0.43	U	0.43	U
Hexachlorobutadiene	8.62	n/a	0.8	U	n/a*		n/a*		n/a*		n/a*		0.69	U	0.69	U	0.69	U	0.69	U
Hexane	876	n/a	0.59	U	n/a*		n/a*		n/a*		n/a*		0.5	U	0.5	U	0.5	U	0.5	U
Iodomethane	n/a	n/a	0.2	U	n/a*		n/a*		n/a*		n/a*		1	U	1	U	1	U	1	U
Isopropylbenzene	679	n/a	0.2	U	n/a*		n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U	0.2	U
m,p-Xylene	n/a	n/a	0.32	U	1	U	1	UJ	2	U	2	U	0.78	U	0.78	U	0.78	U	0.78	U
Methacrylonitrile	1.04	n/a	5	U	n/a*		n/a*		n/a*		n/a*		5	U	5	U	5	U	5	U
Methyl methacrylate	1420	n/a	1	U	n/a*		n/a*		n/a*		n/a*		1	U	1	U	1	U	1	U
Methylene chloride	48	5	2	U	0.689	U	0.58	J	1.3	U	1.3	U	1	U	1	U	1	U	1	U
Naphthalene	1.43	n/a	1	U	n/a*		n/a*		n/a*		n/a*		1	U	**1.8**	J	1	U	1	U
n-Propylbenzene	n/a	n/a	0.2	U	n/a*		n/a*		n/a*		n/a*		0.25	U	0.25	U	0.25	U	0.25	U
O-Xylene	1430	n/a	0.2	U	n/a*		n/a*		n/a*		n/a*		0.37	U	0.37	U	0.37	U	0.37	U
Pentachloroethane	n/a	n/a	2	U	n/a*		n/a*		n/a*		n/a*		2	U	2	U	2	U	2	U
Propane Nitrile (Propionitrile)	n/a	n/a	5	U	n/a*		n/a*		n/a*		n/a*		10	U	10	U	10	U	10	U
Sec-Butylbenzene	n/a	n/a	0.22	U	n/a*		n/a*		n/a*		n/a*		0.25	U	0.25	U	0.25	U	0.25	U
Styrene	1620	100	0.2	U	n/a*		n/a*		n/a*		n/a*		0.36	U	0.36	U	0.36	U	0.36	U
Tert-butyl benzene	n/a	n/a	0.27	U	n/a*		n/a*		n/a*		n/a*		0.32	U	0.32	U	0.32	U	0.32	U
Tetrachloroethene	1.08	5	0.25	U	n/a*		n/a*		n/a*		n/a*		0.22	U	0.22	U	0.22	U	0.22	U
Toluene	2280	1000	0.2	U	--		44.7	J	--		--		0.35	U	0.35	U	0.35	U	0.35	U
Trans-1,2-dichloroethene	107	100	0.35	U	n/a*		n/a*		n/a*		n/a*		0.45	U	0.45	U	0.45	U	0.45	U
Trans-1,3-dichloropropene	n/a	n/a	0.2	U	n/a*		n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U	0.21	U
Trans-1,4-Dichloro-2-Butene	n/a	n/a	2	U	n/a*		n/a*		n/a*		n/a*		2	U	2	U	2	U	2	U
Trichloroethene	16.5	5	14.2		0.06	J	1	UJ	1	U	1	U	0.32	U	0.32	U	0.32	U	0.32	U
Trichlorofluoromethane	1290	n/a	0.5	U	n/a*		n/a*		n/a*		n/a*		0.5	U	0.5	U	0.5	U	0.5	U
Vinyl acetate	412	n/a	2	U	n/a*		n/a*		n/a*		n/a*		3.6	U	3.6	U	3.6	U	3.6	U
Vinyl chloride	0.861	2	0.22	U	n/a*		n/a*		n/a*		n/a*		0.3	U	0.3	U	0.3	U	0.3	U

Notes:

[1] **NMWQCC** - New Mexico Water Quality Control Commission. These

[2] **EPA MCL** - United States Environmental Protection Agency Maximum

[3] Groundwater with TDS concentrations above 10,000 mg/L is not considered

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC

EPA - United States Environmental Protection Agency

FD - field duplicate

mg/L - milligrams per liter

µg/L - micrograms per liter

-- not analyzed

n/a* - HGL only presented data summary tablesin previous reports; therefore, data results for these fields are not available.

n/a - not available

Q - analytical result qualifier

Value - reported analytical concentration

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-08		MW39-09															
		Collection Date:	01/27/2011		7/14/2006		1/18/2007		7/18/2007		1/16/2008		07/09/2008		01/07/2009		07/07/2009		01/06/2010	
		Sample ID:	MW39-08-012711		HGL		HGL		HGL		HGL		MW-39-09-070908		MW39-09-010709		MW39-09-070709		MW39-09-010610	
		QC Type:	N		FD		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**

U - Not detected.

J - Detected. Quantitation estimated.

UJ - Not detected. Quantitation estimated.

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-09				MW39-10													
		Collection Date:	07/07/2010		01/27/2011		7/14/2006		1/18/2007		7/18/2007		1/16/2008		07/09/2008		01/07/2009		07/07/2009	
		Sample ID:	MW39-09-070710		MW39-09-012711		HGL		HGL		HGL		HGL		MW-39-10-070908		MW39-10-010709		MW39-10-070709	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
General Chemistry Parameters (mg/L)																				
Solids, total dissolved [3]	n/a	n/a	109000		109000		106000		112000		130000		110000		129000		127000		110000	
Total Petroleum Hydrocarbons (µg/L)																				
Petroleum Hydrocarbons C10-C28	n/a	n/a	--		--		--		--		--		--		--		--		--	
TPH-GRO (C6-C10)	n/a	n/a	--		--		--		--		--		--		--		--		--	
Dissolved Metals (µg/L)																				
Arsenic	0.448	10	80	U	20	U	**22**		5	U	200	U	50	U	72	U	110	U	110	U
Barium	7300	2000	200	U	34.6	J	28		9	J	220	UJ	55	U	100	U	100	U	100	U
Cadmium	18.3	5	40	U	10	U	1		1	UJ	44	U	11	U	20	U	20	U	20	U
Chromium	110	100	40	U	10	U	0.2	U	5	UJ	200	U	50	U	32	U	40	U	40	U
Lead	n/a	15	40	U	10	U	n/a*		n/a*		n/a*		n/a*		40	U	40	U	40	U
Mercury	0.562	2	0.071	U	0.05	U	n/a*		n/a*		n/a*		n/a*		0.14	U	0.15	U	0.15	UJ
Selenium	183	50	91.4	J	20	U	2.3	U	10	UJ	300	U	33	J	62	U	90.4	J	68	U
Silver	183	n/a	40	U	10	U	6		2	UJ	100	U	25	J	24	U	28	U	28	U
Total Metals (µg/L)																				
Arsenic	0.448	10	80	U	32.5	J	--		5	U	200	U	50	U	72	U	110	U	110	U
Barium	7300	2000	200	U	602		--		11		220	U	26	J	115	J	162	J	100	U
Cadmium	18.3	5	40	U	10	U	--		1	U	44	U	11	U	20	U	20	U	20	U
Chromium	110	100	40	U	83.2	J	--		5	U	200	U	50	U	32	U	40	U	40	U
Lead	n/a	15	40	U	64.4		--		5	U	130	U	33	U	40	U	40	U	40	U
Mercury	0.562	2	0.071	U	0.05	U	n/a*		n/a*		n/a*		n/a*		0.14	U	0.15	U	0.15	UJ
Selenium	183	50	80	U	20	U	--		10	U	300	U	35	J	109	J	68	U	111	
Silver	183	n/a	40	U	10	U	--		2	U	100	U	25	U	24	U	28	U	28	U
Perchlorate (µg/L)																				
Perchlorate	26	n/a	**160**		**140**		**130**		600	U	**86**		**220**		**150**		**140**		**170**	
Unsymmetrical Dimethylhydrazine (UDMH) (µg/L)																				
1,1-Dimethylhydrazine	n/a	n/a	--		--		n/a*		n/a*		n/a*		n/a*		--		23	U	--	
Volatile Organic Compounds (µg/L)																				
1,1,1,2-Tetrachloroethane	5.24	n/a	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U
1,1,1-Trichloroethane	9130	200	0.22	U	0.2	U	n/a*		n/a*		n/a*		n/a*		0.33	U	0.33	U	0.33	U
1,1,2,2-Tetrachloroethane	0.671	n/a	0.29	U	0.23	U	n/a*		n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U
1,1,2-Trichloro-1,2,2-trifluoroethane	59200	n/a	0.43	U	0.47	U	n/a*		n/a*		n/a*		n/a*		0.34	U	0.34	U	0.34	U
1,1,2-Trichloroethane	2.42	5	0.29	U	0.22	U	n/a*		n/a*		n/a*		n/a*		0.26	U	0.26	U	0.26	U
1,1-Dichloroethane	24.2	n/a	0.22	U	0.25	U	0.0299	U	1	U	1	U	1	U	0.24	U	0.24	U	0.24	U
1,1-Dichloroethene	340	7	0.29	U	0.23	U	0.0736	U	1	U	1	U	1	U	0.54	U	0.54	U	0.54	U
1,1-Dichloropropene	n/a	n/a	0.25	U	0.28	U	n/a*		n/a*		n/a*		n/a*		0.23	U	0.23	U	0.23	U
1,2,3-Trichlorobenzene	n/a	n/a	0.5	U	0.5	U	n/a*		n/a*		n/a*		n/a*		0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.096	n/a	0.37	U	0.3	U	n/a*		n/a*		n/a*		n/a*		0.34	U	0.34	U	0.34	U
1,2,4-Trichlorobenzene	8.16	70	0.5	U	0.5	U	n/a*		n/a*		n/a*		n/a*		0.5	U	0.5	U	0.5	U
1,2,4-Trimethylbenzene	n/a	n/a	0.22	U	0.27	U	n/a*		n/a*		n/a*		n/a*		0.22	U	0.22	U	0.22	U
1,2-Dibromo-3-chloropropane	0.00803	0.2	0.59	UJ	0.5	U	n/a*		n/a*		n/a*		n/a*		0.32	U	0.32	U	0.32	U
1,2-Dibromoethane (Ethylene Dibromide)	0.0653	0.05	0.23	U	0.37	U	n/a*		n/a*		n/a*		n/a*		0.28	U	0.28	U	0.28	U
1,2-Dichlorobenzene	370	600	0.26	U	0.25	U	n/a*		n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U
1,2-Dichloroethane	1.49	5	0.33	U	0.2	U	n/a*		n/a*		n/a*		n/a*		0.34	U	0.34	U	0.34	U

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-09				MW39-10													
		Collection Date:	07/07/2010		01/27/2011		7/14/2006		1/18/2007		7/18/2007		1/16/2008		07/09/2008		01/07/2009		07/07/2009	
		Sample ID:	MW39-09-070710		MW39-09-012711		HGL		HGL		HGL		HGL		MW-39-10-070908		MW39-10-010709		MW39-10-070709	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
1,2-Dichloropropane	3.86	5	0.27	U	0.25	U	n/a*		n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U
1,3,5-Trimethylbenzene (Mesitylene)	n/a	n/a	0.21	U	0.21	U	n/a*		n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U
1,3-Dichlorobenzene	n/a	n/a	0.29	U	0.2	U	n/a*		n/a*		n/a*		n/a*		0.23	U	0.23	U	0.23	U
1,3-Dichloropropane	n/a	n/a	0.28	U	0.2	U	n/a*		n/a*		n/a*		n/a*		0.26	U	0.26	U	0.26	U
1,4-Dichlorobenzene	4.27	75	0.22	U	0.23	U	n/a*		n/a*		n/a*		n/a*		0.22	U	0.22	U	0.22	U
1-Chlorohexane	n/a	n/a	0.29	U	0.25	U	n/a*		n/a*		n/a*		n/a*		0.27	U	0.27	U	0.27	U
2,2-Dichloropropane	n/a	n/a	0.37	U	0.44	U	n/a*		n/a*		n/a*		n/a*		0.28	U	0.28	U	0.28	U
2-Butanone	7060	n/a	3	J	2.4	J	0.394	U	5	U	5	U	5	UJ	2	U	2	U	2	U
2-Butylbenzene	n/a	n/a	0.24	U	0.26	U	n/a*		n/a*		n/a*		n/a*		0.28	U	0.28	U	0.28	U
2-Chloroethyl vinyl ether	n/a	n/a	1.1	UJ	1.2	U	n/a*		n/a*		n/a*		n/a*		1	UJ	1	UJ	1	U
2-Chlorotoluene	730	n/a	0.25	U	0.22	U	n/a*		n/a*		n/a*		n/a*		0.25	U	0.25	U	0.25	U
2-Hexanone	n/a	n/a	55.7		4	U	n/a*		n/a*		n/a*		n/a*		5	U	10.8	J	5	U
2-Propylbenzene	n/a	n/a	--		--		n/a*		n/a*		n/a*		n/a*		--		--		--	
4-Bromofluorobenzene	n/a	n/a	--		--		--		43.4		--		--		--		--		--	
4-Chlorotoluene	n/a	n/a	0.23	U	0.2	U	n/a*		n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U
4-Methyl-2-pentanone	1990	n/a	2	U	2	U	n/a*		n/a*		n/a*		n/a*		2	U	2	U	2	U
Acetone	21800	n/a	18.1	J	15.3	J	10	U	10	UJ	5	UJ	5	U	10	U	10	U	10	U
Acetonitrile	n/a	n/a	5	UJ	5	U	n/a*		n/a*		n/a*		n/a*		5	U	5	U	5	U
Acrolein	0.0416	n/a	10	U	5	U	n/a*		n/a*		n/a*		n/a*		5	U	5	U	5	U
Acrylonitrile	0.454	n/a	3	UJ	3	U	n/a*		n/a*		n/a*		n/a*		2	UJ	2	U	2	U
Allyl chloride (3-Chloropopene)	n/a	n/a	2	U	0.3	U	n/a*		n/a*		n/a*		n/a*		2	U	2	U	2	U
Aniline	n/a	n/a	--		--		n/a*		n/a*		n/a*		n/a*		--		0.99	U	--	
Benzene	4.13	5	0.21	U	0.21	J	0.0495	U	1	U	1	U	1	U	0.4	U	0.4	U	0.4	U
Benzyl Chloride	n/a	n/a	0.4	U	0.5	U	n/a*		n/a*		n/a*		n/a*		0.36	U	0.36	U	0.36	U
Bromobenzene	n/a	n/a	0.21	U	0.25	U	n/a*		n/a*		n/a*		n/a*		0.26	U	0.26	U	0.26	U
Bromochloromethane	n/a	n/a	0.23	U	0.22	U	n/a*		n/a*		n/a*		n/a*		0.23	U	0.23	U	0.23	U
Bromodichloromethane	1.17	80	0.28	U	0.2	U	0.0651	U	1	U	1	U	1	U	0.2	U	0.2	U	0.2	U
Bromoform	85.1	80	0.24	U	0.2	U	0.0859	U	1	U	1	U	1	U	0.33	U	0.33	U	0.33	U
Bromomethane	8.66	n/a	0.78	U	0.5	U	n/a*		n/a*		n/a*		n/a*		0.78	U	0.78	U	0.78	U
Carbon disulfide	1040	n/a	0.4	U	0.5	U	n/a*		n/a*		n/a*		n/a*		0.4	U	0.4	U	0.4	U
Carbon tetrachloride	1.99	5	0.34	U	0.25	U	0.121	U	1	U	1	U	1	UJ	0.22	U	0.22	U	0.22	U
Chlorobenzene	91.3	100	0.2	U	0.2	U	1	U	1	U	1	U	1	U	0.22	U	0.22	U	0.22	U
Chloroethane	20900	n/a	0.51	U	0.5	U	n/a*		n/a*		n/a*		n/a*		0.48	U	0.48	U	0.48	U
Chloroform	1.93	80	0.25	U	0.22	U	0.0475	U	1	U	1	U	1	U	0.28	U	0.28	U	0.28	U
Chloromethane	17.8	n/a	0.58	J	0.68	J	0.34	J	1	U	1	U	1	U	0.61	U	0.69	J	0.61	U
cis-1,2-dichloroethene	365	70	0.32	U	0.26	U	0.101	U	1	U	1	U	1	U	0.2	U	0.2	U	0.2	U
cis-1,3-dichloropropene	n/a	n/a	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U
cis-1,4-Dichloro-2-Butene	n/a	n/a	2	UJ	1	U	n/a*		n/a*		n/a*		n/a*		1	U	1	U	1	U
Cymene	n/a	n/a	0.43	J	0.21	U	n/a*		n/a*		n/a*		n/a*		0.32	U	0.32	U	0.32	U
Dibromochloromethane	1.47	80	0.33	U	0.2	U	n/a*		n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U
Dibromofluoromethane	n/a	n/a	--		--		--		52.4		--		--		--		--		--	
Dibromomethane	365	n/a	0.27	U	0.25	U	n/a*		n/a*		n/a*		n/a*		0.3	U	0.3	U	0.3	U
Dichlorodifluoromethane	395	n/a	0.67	UJ	0.5	U	n/a*		n/a*		n/a*		n/a*		1	U	1	U	1	U
Ether, tert-butyl methyl	125	n/a	0.25	U	0.34	U	n/a*		n/a*		n/a*		n/a*		0.26	U	0.26	U	0.26	U

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-09				MW39-10													
		Collection Date:	07/07/2010		01/27/2011		7/14/2006		1/18/2007		7/18/2007		1/16/2008		07/09/2008		01/07/2009		07/07/2009	
		Sample ID:	MW39-09-070710		MW39-09-012711		HGL		HGL		HGL		HGL		MW-39-10-070908		MW39-10-010709		MW39-10-070709	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Ethyl methacrylate	3290	n/a	1	U	1	U	n/a*		n/a*		n/a*		n/a*		1	U	1	U	1	U
Ethylbenzene	14.8	700	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*		0.43	U	0.43	U	0.43	U
Hexachlorobutadiene	8.62	n/a	0.4	U	0.8	U	n/a*		n/a*		n/a*		n/a*		0.69	U	0.69	U	0.69	U
Hexane	876	n/a	0.66	U	0.59	U	n/a*		n/a*		n/a*		n/a*		0.5	U	0.5	U	0.5	U
Iodomethane	n/a	n/a	0.31	U	0.2	U	n/a*		n/a*		n/a*		n/a*		1	U	1	U	1	U
Isopropylbenzene	679	n/a	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*		0.2	U	0.2	U	0.2	U
m,p-Xylene	n/a	n/a	0.34	U	0.32	U	1	U	1	U	2	U	2	U	0.78	U	0.78	U	0.78	U
Methacrylonitrile	1.04	n/a	5	UJ	5	U	n/a*		n/a*		n/a*		n/a*		5	U	5	U	5	U
Methyl methacrylate	1420	n/a	1	U	1	U	n/a*		n/a*		n/a*		n/a*		1	U	1	U	1	U
Methylene chloride	48	5	2	UJ	2	U	0.689	U	5	U	1.3	U	1.3	U	1	U	1	U	1	U
Naphthalene	1.43	n/a	1	U	1	U	n/a*		n/a*		n/a*		n/a*		1	U	1	U	1	U
n-Propylbenzene	n/a	n/a	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*		0.25	U	0.25	U	0.25	U
O-Xylene	1430	n/a	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*		0.37	U	0.37	U	0.37	U
Pentachloroethane	n/a	n/a	2	U	2	U	n/a*		n/a*		n/a*		n/a*		2	U	2	U	2	U
Propane Nitrile (Propionitrile)	n/a	n/a	5	UJ	5	U	n/a*		n/a*		n/a*		n/a*		10	U	10	U	10	U
Sec-Butylbenzene	n/a	n/a	0.23	U	0.22	U	n/a*		n/a*		n/a*		n/a*		0.25	U	0.25	U	0.25	U
Styrene	1620	100	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*		0.36	U	0.36	U	0.36	U
Tert-butyl benzene	n/a	n/a	0.24	U	0.27	U	n/a*		n/a*		n/a*		n/a*		0.32	U	0.32	U	0.32	U
Tetrachloroethene	1.08	5	0.44	U	0.25	U	n/a*		n/a*		n/a*		n/a*		0.22	U	0.22	U	0.22	U
Toluene	2280	1000	0.2	U	0.2	U	--		45.4		--		--		0.35	U	0.35	U	0.35	U
Trans-1,2-dichloroethene	107	100	0.34	U	0.35	U	n/a*		n/a*		n/a*		n/a*		0.45	U	0.45	U	0.45	U
Trans-1,3-dichloropropene	n/a	n/a	0.22	UJ	0.2	U	n/a*		n/a*		n/a*		n/a*		0.21	U	0.21	U	0.21	U
Trans-1,4-Dichloro-2-Butene	n/a	n/a	2	UJ	2	U	n/a*		n/a*		n/a*		n/a*		2	U	2	U	2	U
Trichloroethene	16.5	5	0.24	U	0.26	U	0.0495	U	1	U	1	U	1	U	0.32	J	0.32	U	0.37	J
Trichlorofluoromethane	1290	n/a	0.4	U	0.5	U	n/a*		n/a*		n/a*		n/a*		0.5	U	0.5	U	0.5	U
Vinyl acetate	412	n/a	2.4	U	2	U	n/a*		n/a*		n/a*		n/a*		3.6	U	3.6	U	3.6	U
Vinyl chloride	0.861	2	0.28	U	0.22	U	n/a*		n/a*		n/a*		n/a*		0.3	U	0.3	U	0.3	U

Notes:

[1] **NMWQCC** - New Mexico Water Quality Control Commission. These

[2] **EPA MCL** - United States Environmental Protection Agency Maximum

[3] Groundwater with TDS concentrations above 10,000 mg/L is not considered

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC

EPA - United States Environmental Protection Agency

FD - field duplicate

mg/L - milligrams per liter

µg/L - micrograms per liter

-- not analyzed

n/a* - HGL only presented data summary tablesin previous reports; therefore, data results for these fields are not available.

n/a - not available

Q - analytical result qualifier

Value - reported analytical concentration

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-09				MW39-10													
		Collection Date:	07/07/2010		01/27/2011		7/14/2006		1/18/2007		7/18/2007		1/16/2008		07/09/2008		01/07/2009		07/07/2009	
		Sample ID:	MW39-09-070710		MW39-09-012711		HGL		HGL		HGL		HGL		MW-39-10-070908		MW39-10-010709		MW39-10-070709	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[(1)]**	**MCL[(2)]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**

U - Not detected.

J - Detected. Quantitation estimated.

UJ - Not detected. Quantitation estimated.

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-10						MW39-11											
		Collection Date:	01/06/2010		07/07/2010		01/27/2011		7/13/2006		7/14/2006		1/18/2007		7/18/2007		1/17/2008		07/10/2008	
		Sample ID:	MW39-10-010610		MW39-10-070710		MW39-10-012711		HGL		HGL		HGL		HGL		HGL		MW-39-11-071008	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
General Chemistry Parameters (mg/L)																				
Solids, total dissolved [3]	n/a	n/a	107000		39800		108000		124000		--		141000		150000		130000		137000	
Total Petroleum Hydrocarbons (µg/L)																				
Petroleum Hydrocarbons C10-C28	n/a	n/a	--		--		--		--		--		--		--		--		--	
TPH-GRO (C6-C10)	n/a	n/a	--		--		--		--		--		--		--		--		--	
Dissolved Metals (µg/L)																				
Arsenic	0.448	10	110	UJ	40	U	10	U	--		**39**		5	U	250	U	**17**	J	72	U
Barium	7300	2000	100	U	100	U	32.7	J	--		22		9	J	280	UJ	55	U	100	U
Cadmium	18.3	5	20	U	20	U	5	U	--		6		1	UJ	55	U	11	U	20	U
Chromium	110	100	40	U	20	U	5	U	--		2	J	5	UJ	250	U	50	U	32	U
Lead	n/a	15	40	U	20	U	20	U	n/a*		n/a*		n/a*		n/a*		n/a*		40	U
Mercury	0.562	2	0.15	U	0.071	U	0.05	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.14	U
Selenium	183	50	68	U	50.7	J	35.5	J	--		58		10	UJ	380	U	65	J	91.4	J
Silver	183	n/a	28	U	20	U	5	U	--		6		2	UJ	130	U	25	U	24	U
Total Metals (µg/L)																				
Arsenic	0.448	10	110	UJ	40	U	10	U	--		--		5	U	250	U	**20**	J	72	U
Barium	7300	2000	100	U	369	J	41.2	J	--		--		11		280	U	160		100	U
Cadmium	18.3	5	20	U	20	U	5	U	--		--		1	U	55	U	11	U	20	U
Chromium	110	100	40	U	100	J	5	U	--		--		5	U	250	U	46	J	32	U
Lead	n/a	15	40	U	20	U	25.4	J	--		--		5	U	170	U	33	U	40	U
Mercury	0.562	2	0.15	U	0.071	U	0.05	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.14	U
Selenium	183	50	68.6		40	U	10	U	--		--		46	U	380	U	79		62	U
Silver	183	n/a	28	U	20	U	5	U	--		--		2	U	130	U	25	U	24	U
Perchlorate (µg/L)																				
Perchlorate	26	n/a	**130**		**110**		**100**		**130**		--		750	U	**120**		**100**		**110**	
Unsymmetrical Dimethylhydrazine (UDMH) (µg/L)																				
1,1-Dimethylhydrazine	n/a	n/a	--		--		--		n/a*		n/a*		n/a*		n/a*		n/a*		--	
Volatile Organic Compounds (µg/L)																				
1,1,1,2-Tetrachloroethane	5.24	n/a	0.2	U	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.2	U
1,1,1-Trichloroethane	9130	200	0.33	U	0.22	U	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.33	U
1,1,2,2-Tetrachloroethane	0.671	n/a	0.21	U	0.29	U	0.23	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.21	U
1,1,2-Trichloro-1,2,2-trifluoroethane	59200	n/a	0.34	U	0.43	U	0.47	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.34	U
1,1,2-Trichloroethane	2.42	5	0.26	U	0.29	U	0.22	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.26	U
1,1-Dichloroethane	24.2	n/a	0.24	U	0.22	U	0.25	U	0.0299	U	--		1	U	1	U	1	U	0.24	U
1,1-Dichloroethene	340	7	0.54	U	0.29	U	0.23	U	0.0736	U	--		1	U	1	U	1	U	0.54	U
1,1-Dichloropropene	n/a	n/a	0.23	U	0.25	U	0.28	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.23	U
1,2,3-Trichlorobenzene	n/a	n/a	0.5	U	0.5	U	0.5	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.5	U
1,2,3-Trichloropropane	0.096	n/a	0.34	U	0.37	U	0.3	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.34	U
1,2,4-Trichlorobenzene	8.16	70	0.5	U	0.5	U	0.5	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.5	U
1,2,4-Trimethylbenzene	n/a	n/a	0.22	U	0.22	U	0.27	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.22	U
1,2-Dibromo-3-chloropropane	0.00803	0.2	0.32	U	0.59	UJ	0.5	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.32	U
1,2-Dibromoethane (Ethylene Dibromide)	0.0653	0.05	0.28	U	0.23	U	0.37	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.28	U
1,2-Dichlorobenzene	370	600	0.2	U	0.26	U	0.25	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.2	U
1,2-Dichloroethane	1.49	5	0.34	U	0.33	U	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.34	U

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-10						MW39-11											
		Collection Date:	01/06/2010		07/07/2010		01/27/2011		7/13/2006		7/14/2006		1/18/2007		7/18/2007		1/17/2008		07/10/2008	
		Sample ID:	MW39-10-010610		MW39-10-070710		MW39-10-012711		HGL		HGL		HGL		HGL		HGL		MW-39-11-071008	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
1,2-Dichloropropane	3.86	5	0.21	U	0.27	U	0.25	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.21	U
1,3,5-Trimethylbenzene (Mesitylene)	n/a	n/a	0.2	U	0.21	U	0.21	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.2	U
1,3-Dichlorobenzene	n/a	n/a	0.23	U	0.29	U	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.23	U
1,3-Dichloropropane	n/a	n/a	0.26	U	0.28	U	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.26	U
1,4-Dichlorobenzene	4.27	75	0.22	U	0.22	U	0.23	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.22	U
1-Chlorohexane	n/a	n/a	0.27	U	0.29	U	0.25	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.27	U
2,2-Dichloropropane	n/a	n/a	0.28	U	0.37	U	0.44	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.28	U
2-Butanone	7060	n/a	2.4	J	2	U	14		0.394	U	--		5	U	5	U	5	U	2	U
2-Butylbenzene	n/a	n/a	0.28	U	0.24	U	0.26	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.28	U
2-Chloroethyl vinyl ether	n/a	n/a	1	U	1.1	UJ	1.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		1	UJ
2-Chlorotoluene	730	n/a	0.25	U	0.25	U	0.22	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.25	U
2-Hexanone	n/a	n/a	7.8	J	5	U	27.9		n/a*		n/a*		n/a*		n/a*		n/a*		5	U
2-Propylbenzene	n/a	n/a	--		--		--		n/a*		n/a*		n/a*		n/a*		n/a*		--	
4-Bromofluorobenzene	n/a	n/a	--		--		--		--		--		42.9		--		--		--	
4-Chlorotoluene	n/a	n/a	0.21	U	0.23	U	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.21	U
4-Methyl-2-pentanone	1990	n/a	2	U	2	U	8.2		n/a*		n/a*		n/a*		n/a*		n/a*		2	U
Acetone	21800	n/a	14	J	10	UJ	125		3.12	J	--		10	UJ	5	UJ	5	U	10	U
Acetonitrile	n/a	n/a	5	U	5	UJ	5	U	n/a*		n/a*		n/a*		n/a*		n/a*		5	U
Acrolein	0.0416	n/a	5	U	10	U	5	U	n/a*		n/a*		n/a*		n/a*		n/a*		5	U
Acrylonitrile	0.454	n/a	2	U	3	UJ	3	U	n/a*		n/a*		n/a*		n/a*		n/a*		2	UJ
Allyl chloride (3-Chloropopene)	n/a	n/a	2	U	2	U	0.3	U	n/a*		n/a*		n/a*		n/a*		n/a*		2	U
Aniline	n/a	n/a	--		--		--		n/a*		n/a*		n/a*		n/a*		n/a*		--	
Benzene	4.13	5	0.4	U	0.21	U	0.2	U	0.06	J	--		1	U	1	U	1	U	0.4	U
Benzyl Chloride	n/a	n/a	0.36	U	0.4	U	0.5	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.36	U
Bromobenzene	n/a	n/a	0.26	U	0.21	U	0.25	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.26	U
Bromochloromethane	n/a	n/a	0.23	U	0.23	U	0.22	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.23	U
Bromodichloromethane	1.17	80	0.2	U	0.28	U	0.2	U	0.0651	U	--		1	U	1	U	1	U	0.2	U
Bromoform	85.1	80	0.33	U	0.24	U	0.2	U	0.0859	U	--		1	U	1	U	1	U	0.33	U
Bromomethane	8.66	n/a	1.8	J	0.78	U	0.5	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.78	U
Carbon disulfide	1040	n/a	0.4	U	0.4	U	0.5	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.4	U
Carbon tetrachloride	1.99	5	0.22	U	0.34	U	0.25	U	0.121	U	--		1	U	1	U	1	U	0.22	U
Chlorobenzene	91.3	100	0.22	U	0.2	U	0.2	U	0.03	J	--		1	U	1	U	1	U	0.22	U
Chloroethane	20900	n/a	0.48	U	0.51	U	0.5	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.48	U
Chloroform	1.93	80	0.28	U	0.25	U	0.22	U	0.0475	U	--		1	U	1	U	1	U	0.28	U
Chloromethane	17.8	n/a	1.6	J	0.5	U	1.2	J	0.36	J	--		0.43	J	1	U	1	U	0.61	U
cis-1,2-dichloroethene	365	70	0.2	U	0.32	U	0.26	U	0.25	J	--		1	U	1	U	1	U	0.2	U
cis-1,3-dichloropropene	n/a	n/a	0.21	U	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.21	U
cis-1,4-Dichloro-2-Butene	n/a	n/a	1	U	2	UJ	1	U	n/a*		n/a*		n/a*		n/a*		n/a*		1	U
Cymene	n/a	n/a	0.32	U	0.21	U	0.21	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.32	U
Dibromochloromethane	1.47	80	0.2	U	0.33	U	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.2	U
Dibromofluoromethane	n/a	n/a	--		--		--		--		--		52.2		--		--		--	
Dibromomethane	365	n/a	0.3	U	0.27	U	0.25	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.3	U
Dichlorodifluoromethane	395	n/a	1	U	0.67	UJ	0.5	U	n/a*		n/a*		n/a*		n/a*		n/a*		1	U
Ether, tert-butyl methyl	125	n/a	0.26	U	0.25	U	0.34	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.26	U

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-10						MW39-11											
		Collection Date:	01/06/2010		07/07/2010		01/27/2011		7/13/2006		7/14/2006		1/18/2007		7/18/2007		1/17/2008		07/10/2008	
		Sample ID:	MW39-10-010610		MW39-10-070710		MW39-10-012711		HGL		HGL		HGL		HGL		HGL		MW-39-11-071008	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Ethyl methacrylate	3290	n/a	1	U	1	U	1	U	n/a*		n/a*		n/a*		n/a*		n/a*		1	U
Ethylbenzene	14.8	700	0.43	U	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.43	U
Hexachlorobutadiene	8.62	n/a	0.69	U	0.4	U	0.8	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.69	U
Hexane	876	n/a	0.5	U	0.66	U	0.59	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.5	U
Iodomethane	n/a	n/a	1	U	0.31	U	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		1	U
Isopropylbenzene	679	n/a	0.2	U	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.2	U
m,p-Xylene	n/a	n/a	0.78	U	0.34	U	0.32	U	1	U	--		1	U	2	U	2	U	0.78	U
Methacrylonitrile	1.04	n/a	5	U	5	UJ	5	U	n/a*		n/a*		n/a*		n/a*		n/a*		5	U
Methyl methacrylate	1420	n/a	1	U	1	U	1	U	n/a*		n/a*		n/a*		n/a*		n/a*		1	U
Methylene chloride	48	5	1	U	2	UJ	2	U	0.689	U	--		5	U	1.3	U	1.3	U	1	U
Naphthalene	1.43	n/a	1	U	1	U	1	U	n/a*		n/a*		n/a*		n/a*		n/a*		1	U
n-Propylbenzene	n/a	n/a	0.25	U	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.25	U
O-Xylene	1430	n/a	0.37	U	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.37	U
Pentachloroethane	n/a	n/a	2	U	2	U	2	U	n/a*		n/a*		n/a*		n/a*		n/a*		2	U
Propane Nitrile (Propionitrile)	n/a	n/a	10	U	5	UJ	5	U	n/a*		n/a*		n/a*		n/a*		n/a*		10	U
Sec-Butylbenzene	n/a	n/a	0.25	U	0.23	U	0.22	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.25	U
Styrene	1620	100	0.36	U	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.36	U
Tert-butyl benzene	n/a	n/a	0.32	U	0.24	U	0.27	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.32	U
Tetrachloroethene	1.08	5	0.22	U	0.44	U	0.25	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.22	U
Toluene	2280	1000	0.35	U	0.2	U	0.2	U	--		--		45.3		--		--		0.35	U
Trans-1,2-dichloroethene	107	100	0.45	U	0.34	U	0.35	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.45	U
Trans-1,3-dichloropropene	n/a	n/a	0.21	U	0.22	UJ	0.2	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.21	U
Trans-1,4-Dichloro-2-Butene	n/a	n/a	2	U	2	UJ	2	U	n/a*		n/a*		n/a*		n/a*		n/a*		2	U
Trichloroethene	16.5	5	0.32	U	0.24	U	0.26	U	**44.1**		--		**31.3**		**25**		1	U	10.3	
Trichlorofluoromethane	1290	n/a	0.5	U	0.4	U	0.5	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.5	U
Vinyl acetate	412	n/a	3.6	U	2.4	U	2	U	n/a*		n/a*		n/a*		n/a*		n/a*		3.6	U
Vinyl chloride	0.861	2	0.3	U	0.28	U	0.22	U	n/a*		n/a*		n/a*		n/a*		n/a*		0.3	U

Notes:

[1] **NMWQCC** - New Mexico Water Quality Control Commission. These

[2] **EPA MCL** - United States Environmental Protection Agency Maximum

[3] Groundwater with TDS concentrations above 10,000 mg/L is not considered

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC

EPA - United States Environmental Protection Agency

FD - field duplicate

mg/L - milligrams per liter

µg/L - micrograms per liter

-- not analyzed

n/a* - HGL only presented data summary tablesin previous reports; therefore, data results for these fields are not available.

n/a - not available

Q - analytical result qualifier

Value - reported analytical concentration

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-10						MW39-11											
		Collection Date:	01/06/2010		07/07/2010		01/27/2011		7/13/2006		7/14/2006		1/18/2007		7/18/2007		1/17/2008		07/10/2008	
		Sample ID:	MW39-10-010610		MW39-10-070710		MW39-10-012711		HGL		HGL		HGL		HGL		HGL		MW-39-11-071008	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**

U - Not detected.

J - Detected. Quantitation estimated.

UJ - Not detected. Quantitation estimated.

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-11										MW39-12							
		Collection Date:	01/08/2009		07/07/2009		01/06/2010		07/07/2010		01/27/2011		7/13/2006		7/14/2006		1/18/2007		7/18/2007	
		Sample ID:	MW-39-11-010809		MW39-11-070709		MW39-11-010610		MW39-11-070710		MW39-11-012711		HGL		HGL		HGL		HGL	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
General Chemistry Parameters (mg/L)																				
Solids, total dissolved [3]	n/a	n/a	134000		134000		105000		116000		120000		136000		--		140000		150000	
Total Petroleum Hydrocarbons (µg/L)																				
Petroleum Hydrocarbons C10-C28	n/a	n/a	--		--		--		--		--		--		--		--		--	
TPH-GRO (C6-C10)	n/a	n/a	--		--		--		--		--		--		--		--		--	
Dissolved Metals (µg/L)																				
Arsenic	0.448	10	110	U	110	U	110	UJ	80	U	10	U	--		**37**		5	U	200	U
Barium	7300	2000	100	U	100	U	100	U	200	U	40.3	J	--		7	J	9	J	220	UJ
Cadmium	18.3	5	20	U	20	U	20	U	40	U	7.3	J	--		4		1	UJ	44	U
Chromium	110	100	40	U	40	U	40	U	40	U	5	U	--		2	J	5	UJ	200	U
Lead	n/a	15	40	U	40	U	40	U	40	U	20	U	n/a*		n/a*		n/a*		n/a*	
Mercury	0.562	2	0.15	U	0.15	UJ	0.15	U	0.071	U	0.05	U	n/a*		n/a*		n/a*		n/a*	
Selenium	183	50	78.2	J	125		82.3		128	J	85.1		--		60		10	UJ	300	U
Silver	183	n/a	28	U	28	U	28	U	40	U	5	U	--		7		2	UJ	100	U
Total Metals (µg/L)																				
Arsenic	0.448	10	110	U	110	U	110	UJ	80	U	20	U	--		--		5	U	250	U
Barium	7300	2000	100	U	100	U	100	U	200	U	55.9	J	--		--		143		280	U
Cadmium	18.3	5	20	U	20	U	20	U	40	U	10	U	--		--		1	U	55	U
Chromium	110	100	40	U	40	U	40	U	40	U	33.5	J	--		--		5	U	250	U
Lead	n/a	15	40	U	40	U	40	U	40	U	20	U	--		--		5	U	170	U
Mercury	0.562	2	0.15	U	0.15	UJ	0.15	U	0.071	U	0.05	U	n/a*		n/a*		n/a*		n/a*	
Selenium	183	50	92.2	J	104		108		80	U	126		--		--		10	U	380	U
Silver	183	n/a	28	U	28	U	28	U	40	U	5	U	--		--		2	U	130	U
Perchlorate (µg/L)																				
Perchlorate	26	n/a	**95**		**110**		**81**		**78**		**79**		**110**		--		750	U	**230**	
Unsymmetrical Dimethylhydrazine (UDMH) (µg/L)																				
1,1-Dimethylhydrazine	n/a	n/a	23	U	--		--		--		--		n/a*		n/a*		n/a*		n/a*	
Volatile Organic Compounds (µg/L)																				
1,1,1,2-Tetrachloroethane	5.24	n/a	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*	
1,1,1-Trichloroethane	9130	200	0.33	U	0.33	U	0.33	U	0.22	U	0.2	U	n/a*		n/a*		n/a*		n/a*	
1,1,2,2-Tetrachloroethane	0.671	n/a	0.21	U	0.21	U	0.21	U	0.29	U	0.23	U	n/a*		n/a*		n/a*		n/a*	
1,1,2-Trichloro-1,2,2-trifluoroethane	59200	n/a	0.34	U	0.34	U	0.34	U	0.43	U	0.47	U	n/a*		n/a*		n/a*		n/a*	
1,1,2-Trichloroethane	2.42	5	0.26	U	0.26	U	0.26	U	0.29	U	0.22	U	n/a*		n/a*		n/a*		n/a*	
1,1-Dichloroethane	24.2	n/a	0.24	U	0.24	U	0.24	U	0.22	U	0.25	U	0.0299	U	--		1	U	1	U
1,1-Dichloroethene	340	7	0.54	U	0.54	U	0.54	U	0.29	U	0.27	J	0.0736	U	--		1	U	1	U
1,1-Dichloropropene	n/a	n/a	0.23	U	0.23	U	0.23	U	0.25	U	0.28	U	n/a*		n/a*		n/a*		n/a*	
1,2,3-Trichlorobenzene	n/a	n/a	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	n/a*		n/a*		n/a*		n/a*	
1,2,3-Trichloropropane	0.096	n/a	0.34	U	0.34	U	0.34	U	0.37	U	0.3	U	n/a*		n/a*		n/a*		n/a*	
1,2,4-Trichlorobenzene	8.16	70	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	n/a*		n/a*		n/a*		n/a*	
1,2,4-Trimethylbenzene	n/a	n/a	0.22	U	0.22	U	0.22	U	0.22	U	0.27	U	n/a*		n/a*		n/a*		n/a*	
1,2-Dibromo-3-chloropropane	0.00803	0.2	0.32	U	0.32	U	0.32	U	0.59	UJ	0.5	U	n/a*		n/a*		n/a*		n/a*	
1,2-Dibromoethane (Ethylene Dibromide)	0.0653	0.05	0.28	U	0.28	U	0.28	U	0.23	U	0.37	U	n/a*		n/a*		n/a*		n/a*	
1,2-Dichlorobenzene	370	600	0.2	U	0.2	U	0.2	U	0.26	U	0.25	U	n/a*		n/a*		n/a*		n/a*	
1,2-Dichloroethane	1.49	5	0.34	U	0.34	U	0.34	U	0.33	U	0.2	U	n/a*		n/a*		n/a*		n/a*	

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-11										MW39-12							
		Collection Date:	01/08/2009		07/07/2009		01/06/2010		07/07/2010		01/27/2011		7/13/2006		7/14/2006		1/18/2007		7/18/2007	
		Sample ID:	MW-39-11-010809		MW39-11-070709		MW39-11-010610		MW39-11-070710		MW39-11-012711		HGL		HGL		HGL		HGL	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
1,2-Dichloropropane	3.86	5	0.21	U	0.21	U	0.21	U	0.27	U	0.25	U	n/a*		n/a*		n/a*		n/a*	
1,3,5-Trimethylbenzene (Mesitylene)	n/a	n/a	0.2	U	0.2	U	0.2	U	0.21	U	0.21	U	n/a*		n/a*		n/a*		n/a*	
1,3-Dichlorobenzene	n/a	n/a	0.23	U	0.23	U	0.23	U	0.29	U	0.2	U	n/a*		n/a*		n/a*		n/a*	
1,3-Dichloropropane	n/a	n/a	0.26	U	0.26	U	0.26	U	0.28	U	0.2	U	n/a*		n/a*		n/a*		n/a*	
1,4-Dichlorobenzene	4.27	75	0.22	U	0.22	U	0.22	U	0.22	U	0.23	U	n/a*		n/a*		n/a*		n/a*	
1-Chlorohexane	n/a	n/a	0.27	U	0.27	U	0.27	U	0.29	U	0.25	U	n/a*		n/a*		n/a*		n/a*	
2,2-Dichloropropane	n/a	n/a	0.28	U	0.28	U	0.28	U	0.37	U	0.44	U	n/a*		n/a*		n/a*		n/a*	
2-Butanone	7060	n/a	6		2	U	5		2.8	J	2	U	0.394	U	--		5	U	5	U
2-Butylbenzene	n/a	n/a	0.28	U	0.28	U	0.28	U	0.24	U	0.26	U	n/a*		n/a*		n/a*		n/a*	
2-Chloroethyl vinyl ether	n/a	n/a	1	UJ	1	U	1	U	1.1	UJ	1.2	U	n/a*		n/a*		n/a*		n/a*	
2-Chlorotoluene	730	n/a	0.25	U	0.25	U	0.25	U	0.25	U	0.22	U	n/a*		n/a*		n/a*		n/a*	
2-Hexanone	n/a	n/a	272	J	13.6		100		16.8		4.5	J	n/a*		n/a*		n/a*		n/a*	
2-Propylbenzene	n/a	n/a	--		--		--		--		--		n/a*		n/a*		n/a*		n/a*	
4-Bromofluorobenzene	n/a	n/a	--		--		--		--		--		--		--		42.3		--	
4-Chlorotoluene	n/a	n/a	0.21	U	0.21	U	0.21	U	0.23	U	0.2	U	n/a*		n/a*		n/a*		n/a*	
4-Methyl-2-pentanone	1990	n/a	4	J	2	U	2.2	J	3.2	J	2	U	n/a*		n/a*		n/a*		n/a*	
Acetone	21800	n/a	40.5		10	U	31.1	J	20.2	J	10.6	J	0.854	U	--		10	UJ	5	UJ
Acetonitrile	n/a	n/a	5	U	5	U	5	U	5	UJ	5	U	n/a*		n/a*		n/a*		n/a*	
Acrolein	0.0416	n/a	5	U	5	U	5	U	10	U	5	U	n/a*		n/a*		n/a*		n/a*	
Acrylonitrile	0.454	n/a	2	U	2	U	2	U	3	UJ	3	U	n/a*		n/a*		n/a*		n/a*	
Allyl chloride (3-Chloropopene)	n/a	n/a	2	U	2	U	2	U	2	U	0.3	U	n/a*		n/a*		n/a*		n/a*	
Aniline	n/a	n/a	0.99	U	--		--		--		--		n/a*		n/a*		n/a*		n/a*	
Benzene	4.13	5	0.4	U	0.4	U	0.4	U	0.21	U	0.2	U	0.0495	U	--		1	U	1	U
Benzyl Chloride	n/a	n/a	0.36	U	0.36	U	0.36	U	0.4	U	0.5	U	n/a*		n/a*		n/a*		n/a*	
Bromobenzene	n/a	n/a	0.26	U	0.26	U	0.26	U	0.21	U	0.25	U	n/a*		n/a*		n/a*		n/a*	
Bromochloromethane	n/a	n/a	0.23	U	0.23	U	0.23	U	0.23	U	0.22	U	n/a*		n/a*		n/a*		n/a*	
Bromodichloromethane	1.17	80	0.2	U	0.2	U	0.2	U	0.28	U	0.2	U	0.0651	U	--		1	U	1	U
Bromoform	85.1	80	0.33	U	0.33	U	0.33	U	0.24	U	0.2	U	0.0859	U	--		1	U	1	U
Bromomethane	8.66	n/a	0.78	U	0.78	U	0.78	U	0.78	U	0.5	U	n/a*		n/a*		n/a*		n/a*	
Carbon disulfide	1040	n/a	0.4	U	0.4	U	0.4	U	0.4	U	0.5	U	n/a*		n/a*		n/a*		n/a*	
Carbon tetrachloride	1.99	5	0.22	U	0.22	U	0.22	U	0.34	U	0.25	U	0.121	U	--		1	U	1	U
Chlorobenzene	91.3	100	0.22	U	0.22	U	0.22	U	0.2	U	0.2	U	0.0217	U	--		1	U	1	U
Chloroethane	20900	n/a	0.48	U	0.48	U	0.48	U	0.51	U	0.5	U	n/a*		n/a*		n/a*		n/a*	
Chloroform	1.93	80	0.28	U	0.28	U	0.28	U	0.25	U	0.22	U	0.0475	U	--		1	U	1	U
Chloromethane	17.8	n/a	0.61	U	0.61	U	0.61	U	0.5	U	0.5	U	0.28	J	--		0.42	J	1	U
cis-1,2-dichloroethene	365	70	0.2	U	0.21	J	0.2	U	0.32	U	0.27	J	0.101	U	--		1	U	1	U
cis-1,3-dichloropropene	n/a	n/a	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*	
cis-1,4-Dichloro-2-Butene	n/a	n/a	1	U	1	U	1	U	2	UJ	1	U	n/a*		n/a*		n/a*		n/a*	
Cymene	n/a	n/a	0.32	U	0.32	U	0.32	U	0.74	J	0.21	U	n/a*		n/a*		n/a*		n/a*	
Dibromochloromethane	1.47	80	0.2	U	0.2	U	0.2	U	0.33	U	0.2	U	n/a*		n/a*		n/a*		n/a*	
Dibromofluoromethane	n/a	n/a	--		--		--		--		--		--		--		53.8		--	
Dibromomethane	365	n/a	0.3	U	0.3	U	0.3	U	0.27	U	0.25	U	n/a*		n/a*		n/a*		n/a*	
Dichlorodifluoromethane	395	n/a	1	U	1	U	1	U	0.67	UJ	0.5	U	n/a*		n/a*		n/a*		n/a*	
Ether, tert-butyl methyl	125	n/a	0.26	U	0.26	U	0.26	U	0.25	U	0.34	U	n/a*		n/a*		n/a*		n/a*	

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-11										MW39-12							
		Collection Date:	01/08/2009		07/07/2009		01/06/2010		07/07/2010		01/27/2011		7/13/2006		7/14/2006		1/18/2007		7/18/2007	
		Sample ID:	MW-39-11-010809		MW39-11-070709		MW39-11-010610		MW39-11-070710		MW39-11-012711		HGL		HGL		HGL		HGL	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Ethyl methacrylate	3290	n/a	1	U	1	U	1	U	1	U	1	U	n/a*		n/a*		n/a*		n/a*	
Ethylbenzene	14.8	700	0.43	U	0.43	U	0.43	U	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*	
Hexachlorobutadiene	8.62	n/a	0.69	U	0.69	U	0.69	U	0.4	U	0.8	U	n/a*		n/a*		n/a*		n/a*	
Hexane	876	n/a	0.5	U	0.5	U	0.5	U	0.66	U	0.59	U	n/a*		n/a*		n/a*		n/a*	
Iodomethane	n/a	n/a	1	U	1	U	1	U	0.31	U	0.2	U	n/a*		n/a*		n/a*		n/a*	
Isopropylbenzene	679	n/a	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*	
m,p-Xylene	n/a	n/a	0.78	U	0.78	U	0.78	U	0.34	U	0.32	U	1	U	--		1	U	2	U
Methacrylonitrile	1.04	n/a	5	U	5	U	5	U	5	UJ	5	U	n/a*		n/a*		n/a*		n/a*	
Methyl methacrylate	1420	n/a	1	U	1	U	1	U	1	U	1	U	n/a*		n/a*		n/a*		n/a*	
Methylene chloride	48	5	1	U	1	U	1	U	2	UJ	2	U	0.689	U	--		5	U	1.3	U
Naphthalene	1.43	n/a	**2.7**	J	1	U	1	U	1	U	1	U	n/a*		n/a*		n/a*		n/a*	
n-Propylbenzene	n/a	n/a	0.25	U	0.25	U	0.25	U	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*	
O-Xylene	1430	n/a	0.37	U	0.37	U	0.37	U	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*	
Pentachloroethane	n/a	n/a	2	U	2	U	2	U	2	U	2	U	n/a*		n/a*		n/a*		n/a*	
Propane Nitrile (Propionitrile)	n/a	n/a	10	U	10	U	10	U	5	UJ	5	U	n/a*		n/a*		n/a*		n/a*	
Sec-Butylbenzene	n/a	n/a	0.25	U	0.25	U	0.25	U	0.23	U	0.22	U	n/a*		n/a*		n/a*		n/a*	
Styrene	1620	100	0.36	U	0.36	U	0.36	U	0.2	U	0.2	U	n/a*		n/a*		n/a*		n/a*	
Tert-butyl benzene	n/a	n/a	0.32	U	0.32	U	0.32	U	0.24	U	0.27	U	n/a*		n/a*		n/a*		n/a*	
Tetrachloroethene	1.08	5	0.22	U	0.22	U	0.22	U	0.44	U	0.25	U	n/a*		n/a*		n/a*		n/a*	
Toluene	2280	1000	0.35	U	0.35	U	0.35	U	0.2	U	0.2	U	--		--		45.4		--	
Trans-1,2-dichloroethene	107	100	0.45	U	0.45	U	0.45	U	0.34	U	0.35	U	n/a*		n/a*		n/a*		n/a*	
Trans-1,3-dichloropropene	n/a	n/a	0.21	U	0.21	U	0.21	U	0.22	UJ	0.2	U	n/a*		n/a*		n/a*		n/a*	
Trans-1,4-Dichloro-2-Butene	n/a	n/a	2	U	2	U	2	U	2	UJ	2	U	n/a*		n/a*		n/a*		n/a*	
Trichloroethene	16.5	5	11.4		47.3		39.5		11.6		42.1		2.6		--		2.01		1.6	
Trichlorofluoromethane	1290	n/a	0.5	U	0.5	U	0.5	U	0.4	U	0.5	U	n/a*		n/a*		n/a*		n/a*	
Vinyl acetate	412	n/a	3.6	U	3.6	U	3.6	U	2.4	U	2	U	n/a*		n/a*		n/a*		n/a*	
Vinyl chloride	0.861	2	0.3	U	0.3	U	0.3	U	0.28	U	0.22	U	n/a*		n/a*		n/a*		n/a*	

Notes:

[1] **NMWQCC** - New Mexico Water Quality Control Commission. These

[2] **EPA MCL** - United States Environmental Protection Agency Maximum

[3] Groundwater with TDS concentrations above 10,000 mg/L is not considered

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC

EPA - United States Environmental Protection Agency

FD - field duplicate

mg/L - milligrams per liter

µg/L - micrograms per liter

-- not analyzed

n/a* - HGL only presented data summary tablesin previous reports; therefore, data results for these fields are not available.

n/a - not available

Q - analytical result qualifier

Value - reported analytical concentration

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-11										MW39-12							
		Collection Date:	01/08/2009		07/07/2009		01/06/2010		07/07/2010		01/27/2011		7/13/2006		7/14/2006		1/18/2007		7/18/2007	
		Sample ID:	MW-39-11-010809		MW39-11-070709		MW39-11-010610		MW39-11-070710		MW39-11-012711		HGL		HGL		HGL		HGL	
		QC Type:	N		N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**

U - Not detected.

J - Detected. Quantitation estimated.

UJ - Not detected. Quantitation estimated.

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-12														MW39-13	
		Collection Date:	1/17/2008		07/10/2008		01/08/2009		10/06/2009		01/06/2010		07/07/2010		01/27/2011		01/28/2011	
		Sample ID:	HGL		MW-39-12-071008		MW-39-12-010809		MW39-12-100609		MW39-12-010610		MW39-12-070710		MW39-12-012711		MW39-13-012811	
		QC Type:	N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
General Chemistry Parameters (mg/L)																		
Solids, total dissolved [3]	n/a	n/a	120000		129000		143000		128000		98700		106000		133000		12700	
Total Petroleum Hydrocarbons (µg/L)																		
Petroleum Hydrocarbons C10-C28	n/a	n/a	--		--		--		--		--		--		--		96	U
TPH-GRO (C6-C10)	n/a	n/a	--		--		--		--		--		--		--		86.4	J
Dissolved Metals (µg/L)																		
Arsenic	0.448	10	**14**	J	72	U	110	U	15.5		110	UJ	80	U	20	U	**7.8**	J
Barium	7300	2000	23	J	100	U	100	U	49.4		100	U	200	U	51.4	J	11.3	J
Cadmium	18.3	5	11	U	30.5	J	20	U	2	U	20	U	40	U	10	U	1	U
Chromium	110	100	50	U	32	U	40	U	4	U	40	U	40	U	7.4	J	2	U
Lead	n/a	15	n/a*		40	U	40	U	40	U	40	U	40	U	26.4	J	1	U
Mercury	0.562	2	n/a*		0.14	U	0.15	U	0.15	U	0.15	U	0.071	U	0.05	U	0.05	U
Selenium	183	50	51	J	62	U	118	J	98.8		71		98.1	J	97.6	J	13.5	J
Silver	183	n/a	25	U	24	U	28	U	2.8	U	28	U	40	U	5	U	1	U
Total Metals (µg/L)																		
Arsenic	0.448	10	50	U	72	U	110	U	22.1		110	UJ	80	U	10	U	**6**	J
Barium	7300	2000	39	J	107	J	100	U	47		100	U	200	U	59.1	J	17.7	J
Cadmium	18.3	5	11	U	38.2	J	20	U	2	U	20	U	40	U	5	U	1	U
Chromium	110	100	50	U	32	U	40	U	4	U	40	U	40	U	97.4		2	U
Lead	n/a	15	14	J	40	U	40	U	40	U	40	U	40	U	20	U	1	U
Mercury	0.562	2	n/a*		0.14	U	0.15	U	0.15	U	0.15	U	0.071	U	0.05	U	0.056	J
Selenium	183	50	62	J	186	J	95.7	J	95.4		72.2		90.2	J	62.9		20	
Silver	183	n/a	25	U	24	U	28	U	2.8	U	28	U	40	U	5	J	1	U
Perchlorate (µg/L)																		
Perchlorate	26	n/a	**80**		**78**		**93**		**76**		**51**		**66**		**61**		**28**	
Unsymmetrical Dimethylhydrazine (UDMH) (µg/L)																		
1,1-Dimethylhydrazine	n/a	n/a	n/a*		--		23	U	--		--		--		--		--	
Volatile Organic Compounds (µg/L)																		
1,1,1,2-Tetrachloroethane	5.24	n/a	n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.4	U
1,1,1-Trichloroethane	9130	200	n/a*		0.33	U	0.33	U	0.33	U	0.33	U	0.22	U	0.2	U	0.4	U
1,1,2,2-Tetrachloroethane	0.671	n/a	n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.29	U	0.23	U	0.46	U
1,1,2-Trichloro-1,2,2-trifluoroethane	59200	n/a	n/a*		0.34	U	0.34	U	0.34	UJ	0.34	U	0.43	U	0.47	U	0.94	U
1,1,2-Trichloroethane	2.42	5	n/a*		0.26	U	0.26	U	0.26	U	0.26	U	0.29	U	0.22	U	0.47	J
1,1-Dichloroethane	24.2	n/a	1	U	0.24	U	0.24	U	0.24	U	0.24	U	0.22	U	0.25	U	0.5	U
1,1-Dichloroethene	340	7	1	U	0.54	U	0.54	U	0.54	U	0.54	U	0.29	U	0.23	U	8	
1,1-Dichloropropene	n/a	n/a	n/a*		0.23	U	0.23	U	0.23	U	0.23	U	0.25	U	0.28	U	0.56	U
1,2,3-Trichlorobenzene	n/a	n/a	n/a*		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U
1,2,3-Trichloropropane	0.096	n/a	n/a*		0.34	U	0.34	U	0.34	U	0.34	U	0.37	U	0.3	U	0.6	U
1,2,4-Trichlorobenzene	8.16	70	n/a*		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U
1,2,4-Trimethylbenzene	n/a	n/a	n/a*		0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.27	U	0.54	U
1,2-Dibromo-3-chloropropane	0.00803	0.2	n/a*		0.32	U	0.32	U	0.32	U	0.32	U	0.59	UJ	0.5	U	1	U
1,2-Dibromoethane (Ethylene Dibromide)	0.0653	0.05	n/a*		0.28	U	0.28	U	0.28	U	0.28	U	0.23	U	0.37	U	0.74	U
1,2-Dichlorobenzene	370	600	n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.26	U	0.25	U	0.5	U
1,2-Dichloroethane	1.49	5	n/a*		0.34	U	0.34	U	0.34	U	0.34	U	0.33	U	0.2	U	0.4	U

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-12														MW39-13	
		Collection Date:	1/17/2008		07/10/2008		01/08/2009		10/06/2009		01/06/2010		07/07/2010		01/27/2011		01/28/2011	
		Sample ID:	HGL		MW-39-12-071008		MW-39-12-010809		MW39-12-100609		MW39-12-010610		MW39-12-070710		MW39-12-012711		MW39-13-012811	
		QC Type:	N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
1,2-Dichloropropane	3.86	5	n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.27	U	0.25	U	0.5	U
1,3,5-Trimethylbenzene (Mesitylene)	n/a	n/a	n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.21	U	0.21	U	0.42	U
1,3-Dichlorobenzene	n/a	n/a	n/a*		0.23	U	0.23	U	0.23	U	0.23	U	0.29	U	0.2	U	0.4	U
1,3-Dichloropropane	n/a	n/a	n/a*		0.26	U	0.26	U	0.26	U	0.26	U	0.28	U	0.2	U	0.4	U
1,4-Dichlorobenzene	4.27	75	n/a*		0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.23	U	0.46	U
1-Chlorohexane	n/a	n/a	n/a*		0.27	U	0.27	U	0.27	U	0.27	U	0.29	U	0.25	U	0.5	U
2,2-Dichloropropane	n/a	n/a	n/a*		0.28	U	0.28	U	0.28	U	0.28	U	0.37	U	0.44	U	0.88	U
2-Butanone	7060	n/a	5	U	2	U	3	J	2	U	5.4		2	U	3.3	J	4	U
2-Butylbenzene	n/a	n/a	n/a*		0.28	U	0.28	U	0.28	U	0.28	U	0.24	U	0.26	U	0.52	U
2-Chloroethyl vinyl ether	n/a	n/a	n/a*		1	UJ	1	UJ	1	U	1	U	1.1	UJ	1.2	U	2.4	U
2-Chlorotoluene	730	n/a	n/a*		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.22	U	0.44	U
2-Hexanone	n/a	n/a	n/a*		5	U	81.3	J	5	U	33.4		8.6	J	6.1	J	8	U
2-Propylbenzene	n/a	n/a	n/a*		--		--		--		--		--		--		--	
4-Bromofluorobenzene	n/a	n/a	--		--		--		--		--		--		--		--	
4-Chlorotoluene	n/a	n/a	n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.23	U	0.2	U	0.4	U
4-Methyl-2-pentanone	1990	n/a	n/a*		2	U	2	U	2	U	2	U	2	U	2	U	4	U
Acetone	21800	n/a	5	U	10	U	15	J	10	U	26.1	J	10	UJ	19.3	J	20	U
Acetonitrile	n/a	n/a	n/a*		5	U	5	U	5	U	5	U	5	UJ	5	U	10	U
Acrolein	0.0416	n/a	n/a*		5	U	5	U	5	U	5	U	10	U	5	U	10	U
Acrylonitrile	0.454	n/a	n/a*		2	UJ	2	U	2	UJ	2	U	3	UJ	3	U	6	U
Allyl chloride (3-Chloropopene)	n/a	n/a	n/a*		2	U	2	U	2	U	2	U	2	U	0.3	U	0.6	U
Aniline	n/a	n/a	n/a*		--		0.98	U	--		--		--		--		--	
Benzene	4.13	5	1	U	0.4	U	0.4	U	0.4	U	0.4	U	0.21	U	0.2	U	0.4	U
Benzyl Chloride	n/a	n/a	n/a*		0.36	U	0.36	U	0.36	U	0.36	U	0.4	U	0.5	U	1	U
Bromobenzene	n/a	n/a	n/a*		0.26	U	0.26	U	0.26	U	0.26	U	0.21	U	0.25	U	0.5	U
Bromochloromethane	n/a	n/a	n/a*		0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.22	U	0.44	U
Bromodichloromethane	1.17	80	1	U	0.2	U	0.2	U	0.2	U	0.2	U	0.28	U	0.2	U	0.4	U
Bromoform	85.1	80	1	U	0.33	U	0.33	U	0.33	U	0.33	U	0.24	U	0.2	U	0.4	U
Bromomethane	8.66	n/a	n/a*		0.78	U	0.78	U	0.78	U	0.85	J	0.78	U	0.5	U	1	U
Carbon disulfide	1040	n/a	n/a*		0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.5	U	1	U
Carbon tetrachloride	1.99	5	1	U	0.22	U	0.22	U	0.22	U	0.22	U	0.34	U	0.25	U	0.5	U
Chlorobenzene	91.3	100	1	U	0.22	U	0.22	U	0.22	U	0.22	U	0.2	U	0.2	U	0.4	U
Chloroethane	20900	n/a	n/a*		0.48	U	0.48	U	0.48	U	0.48	U	0.51	U	0.5	U	1	U
Chloroform	1.93	80	1	U	0.28	U	0.28	U	0.28	U	0.28	U	0.25	U	0.22	U	**3.1**	
Chloromethane	17.8	n/a	1	U	0.61	U	0.61	U	0.61	U	1.1	J	0.56	J	1.1	J	1	U
cis-1,2-dichloroethene	365	70	1	U	0.2	U	0.2	U	0.2	U	0.2	U	0.32	U	0.26	U	0.52	U
cis-1,3-dichloropropene	n/a	n/a	n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U	0.4	U
cis-1,4-Dichloro-2-Butene	n/a	n/a	n/a*		1	U	1	U	1	U	1	U	2	UJ	1	U	2	U
Cymene	n/a	n/a	n/a*		0.32	U	0.32	U	0.32	U	0.32	U	0.21	U	0.21	U	0.42	U
Dibromochloromethane	1.47	80	n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.33	U	0.2	U	0.4	U
Dibromofluoromethane	n/a	n/a	--		--		--		--		--		--		--		--	
Dibromomethane	365	n/a	n/a*		0.3	U	0.3	U	0.3	U	0.3	U	0.27	U	0.25	U	0.5	U
Dichlorodifluoromethane	395	n/a	n/a*		1	U	1	U	1	U	1	U	0.67	UJ	0.5	U	1	U
Ether, tert-butyl methyl	125	n/a	n/a*		0.26	U	0.26	U	0.26	U	0.26	U	0.25	U	0.34	U	0.68	U

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-12														MW39-13	
		Collection Date:	1/17/2008		07/10/2008		01/08/2009		10/06/2009		01/06/2010		07/07/2010		01/27/2011		01/28/2011	
		Sample ID:	HGL		MW-39-12-071008		MW-39-12-010809		MW39-12-100609		MW39-12-010610		MW39-12-070710		MW39-12-012711		MW39-13-012811	
		QC Type:	N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Ethyl methacrylate	3290	n/a	n/a*		1	U	1	U	1	UJ	1	U	1	U	1	U	2	U
Ethylbenzene	14.8	700	n/a*		0.43	U	0.43	U	0.43	U	0.43	U	0.2	U	0.2	U	0.4	U
Hexachlorobutadiene	8.62	n/a	n/a*		0.69	U	0.69	U	0.69	U	0.69	U	0.4	U	0.8	U	1.6	U
Hexane	876	n/a	n/a*		0.5	U	0.5	U	0.5	U	0.5	U	0.66	U	0.59	U	1.2	U
Iodomethane	n/a	n/a	n/a*		1	U	1	U	1	U	1	U	0.31	U	0.2	U	0.4	U
Isopropylbenzene	679	n/a	n/a*		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.4	U
m,p-Xylene	n/a	n/a	2	U	0.78	U	0.78	U	0.78	U	0.78	U	0.34	U	0.32	U	0.64	U
Methacrylonitrile	1.04	n/a	n/a*		5	U	5	U	5	U	5	U	5	UJ	5	U	10	U
Methyl methacrylate	1420	n/a	n/a*		1	U	1	U	1	UJ	1	U	1	U	1	U	2	U
Methylene chloride	48	5	1.3	U	1	U	1	U	1	U	1	U	2	UJ	2	U	4	U
Naphthalene	1.43	n/a	n/a*		1	U	1	J	1	U	1	U	1	U	1	U	2	U
n-Propylbenzene	n/a	n/a	n/a*		0.25	U	0.25	U	0.25	U	0.25	U	0.2	U	0.2	U	0.4	U
O-Xylene	1430	n/a	n/a*		0.37	U	0.37	U	0.37	U	0.37	U	0.2	U	0.2	U	0.4	U
Pentachloroethane	n/a	n/a	n/a*		2	U	2	U	2	U	2	U	2	U	2	U	4	U
Propane Nitrile (Propionitrile)	n/a	n/a	n/a*		10	U	10	U	10	UJ	10	U	5	UJ	5	U	10	U
Sec-Butylbenzene	n/a	n/a	n/a*		0.25	U	0.25	U	0.25	U	0.25	U	0.23	U	0.22	U	0.44	U
Styrene	1620	100	n/a*		0.36	U	0.36	U	0.36	U	0.36	U	0.2	U	0.2	U	0.4	U
Tert-butyl benzene	n/a	n/a	n/a*		0.32	U	0.32	U	0.32	U	0.32	U	0.24	U	0.27	U	0.54	U
Tetrachloroethene	1.08	5	n/a*		0.22	U	0.22	U	0.22	U	0.22	U	0.44	U	0.25	U	**1.6**	J
Toluene	2280	1000	--		0.35	U	0.35	U	0.35	U	0.35	U	0.2	U	0.2	U	0.4	U
Trans-1,2-dichloroethene	107	100	n/a*		0.45	U	0.45	U	0.45	U	0.45	U	0.34	U	0.35	U	0.7	U
Trans-1,3-dichloropropene	n/a	n/a	n/a*		0.21	U	0.21	U	0.21	U	0.21	U	0.22	UJ	0.2	U	0.4	U
Trans-1,4-Dichloro-2-Butene	n/a	n/a	n/a*		2	U	2	U	2	U	2	U	2	UJ	2	U	4	U
Trichloroethene	16.5	5	12		1.1		1.9		1.3		0.96	J	1.6		0.6	J	132	
Trichlorofluoromethane	1290	n/a	n/a*		0.5	U	0.5	U	0.5	U	0.5	U	0.4	U	0.5	U	1	U
Vinyl acetate	412	n/a	n/a*		3.6	U	3.6	U	3.6	UJ	3.6	U	2.4	U	2	U	4	U
Vinyl chloride	0.861	2	n/a*		0.3	U	0.3	U	0.3	U	0.3	U	0.28	U	0.22	U	0.44	U

Notes:

[1] **NMWQCC** - New Mexico Water Quality Control Commission. These

[2] **EPA MCL** - United States Environmental Protection Agency Maximum

[3] Groundwater with TDS concentrations above 10,000 mg/L is not considered

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC

EPA - United States Environmental Protection Agency

FD - field duplicate

mg/L - milligrams per liter

µg/L - micrograms per liter

-- not analyzed

n/a* - HGL only presented data summary tablesin previous reports; therefore, data results for these fields are not available.

n/a - not available

Q - analytical result qualifier

Value - reported analytical concentration

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-12														MW39-13	
		Collection Date:	1/17/2008		07/10/2008		01/08/2009		10/06/2009		01/06/2010		07/07/2010		01/27/2011		01/28/2011	
		Sample ID:	HGL		MW-39-12-071008		MW-39-12-010809		MW39-12-100609		MW39-12-010610		MW39-12-070710		MW39-12-012711		MW39-13-012811	
		QC Type:	N		N		N		N		N		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**

U - Not detected.

J - Detected. Quantitation estimated.

UJ - Not detected. Quantitation estimated.

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-13		MW39-14-012711		MW39-15		MW39-16	
		Collection Date:	01/27/2011		01/27/2011		01/28/2011		01/28/2011	
		Sample ID:	MW39-DUP02-012711		MW39-14-012711		MW39-15-012811		MW39-16-012811	
		QC Type:	FD		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
General Chemistry Parameters (mg/L)										
Solids, total dissolved [3]	n/a	n/a	15800		15800		13100		13600	
Total Petroleum Hydrocarbons (µg/L)										
Petroleum Hydrocarbons C10-C28	n/a	n/a	95	U	95	U	96	U	96	U
TPH-GRO (C6-C10)	n/a	n/a	50	U	50	U	50	U	50	U
Dissolved Metals (µg/L)										
Arsenic	0.448	10	**3.6**	J	**3.2**	J	**4.2**	J	**6**	J
Barium	7300	2000	15.9	J	16.5	J	12	J	18.6	J
Cadmium	18.3	5	1	U	1	U	1	U	1	U
Chromium	110	100	5	U	5	U	2	U	2	U
Lead	n/a	15	5	U	5	U	5	U	5	U
Mercury	0.562	2	0.05	U	0.05	U	0.05	U	0.05	U
Selenium	183	50	10	U	10	U	21		22	
Silver	183	n/a	1	U	1	U	1	U	1	U
Total Metals (µg/L)										
Arsenic	0.448	10	**3.6**	J	**3.6**	J	**5.3**	J	**6.4**	J
Barium	7300	2000	19	J	20.4	J	14	J	22.7	J
Cadmium	18.3	5	1	U	1	U	1	U	1	U
Chromium	110	100	5	U	5	U	2	U	2	U
Lead	n/a	15	5	U	5	U	1	U	2	U
Mercury	0.562	2	0.05	U	0.05	U	0.05	U	0.05	U
Selenium	183	50	10	U	10	U	18.2	J	27.3	
Silver	183	n/a	1	U	1	U	1	U	1	U
Perchlorate (µg/L)										
Perchlorate	26	n/a	11		11		7.3		13	
Unsymmetrical Dimethylhydrazine (UDMH) (µg/L)										
1,1-Dimethylhydrazine	n/a	n/a	--		--		--		--	
Volatile Organic Compounds (µg/L)										
1,1,1,2-Tetrachloroethane	5.24	n/a	0.2	U	0.2	U	0.2	U	0.2	U
1,1,1-Trichloroethane	9130	200	0.2	U	0.2	U	0.2	U	0.2	U
1,1,2,2-Tetrachloroethane	0.671	n/a	0.23	U	0.23	U	0.23	U	0.23	U
1,1,2-Trichloro-1,2,2-trifluoroethane	59200	n/a	0.47	U	0.47	U	0.47	U	0.47	U
1,1,2-Trichloroethane	2.42	5	0.22	U	0.22	U	0.22	U	0.22	U
1,1-Dichloroethane	24.2	n/a	0.25	U	0.25	U	0.25	U	0.25	U
1,1-Dichloroethene	340	7	0.23	U	0.23	U	0.23	U	0.57	J
1,1-Dichloropropene	n/a	n/a	0.28	U	0.28	U	0.28	U	0.28	U
1,2,3-Trichlorobenzene	n/a	n/a	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.096	n/a	0.3	U	0.3	U	0.3	U	0.3	U
1,2,4-Trichlorobenzene	8.16	70	0.5	UJ	0.5	UJ	0.5	U	0.5	U
1,2,4-Trimethylbenzene	n/a	n/a	0.27	U	0.27	U	0.27	U	0.27	U
1,2-Dibromo-3-chloropropane	0.00803	0.2	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromoethane (Ethylene Dibromide)	0.0653	0.05	0.37	U	0.37	U	0.37	U	0.37	U
1,2-Dichlorobenzene	370	600	0.25	U	0.25	U	0.25	U	0.25	U
1,2-Dichloroethane	1.49	5	0.2	U	0.2	U	0.2	U	0.2	U

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-13		MW39-14-012711		MW39-15		MW39-16	
		Collection Date:	01/27/2011		01/27/2011		01/28/2011		01/28/2011	
		Sample ID:	MW39-DUP02-012711		MW39-14-012711		MW39-15-012811		MW39-16-012811	
		QC Type:	FD		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
1,2-Dichloropropane	3.86	5	0.25	U	0.25	U	0.25	U	0.25	U
1,3,5-Trimethylbenzene (Mesitylene)	n/a	n/a	0.21	U	0.21	U	0.21	U	0.21	U
1,3-Dichlorobenzene	n/a	n/a	0.2	U	0.2	U	0.2	U	0.2	U
1,3-Dichloropropane	n/a	n/a	0.2	U	0.2	U	0.2	U	0.2	U
1,4-Dichlorobenzene	4.27	75	0.23	U	0.23	U	0.23	U	0.23	U
1-Chlorohexane	n/a	n/a	0.25	U	0.25	U	0.25	U	0.25	U
2,2-Dichloropropane	n/a	n/a	0.44	U	0.44	U	0.44	U	0.44	U
2-Butanone	7060	n/a	2	U	2	U	2	U	2	U
2-Butylbenzene	n/a	n/a	0.26	U	0.26	U	0.26	U	0.26	U
2-Chloroethyl vinyl ether	n/a	n/a	1.2	UJ	1.2	UJ	1.2	U	1.2	U
2-Chlorotoluene	730	n/a	0.22	U	0.22	U	0.22	U	0.22	U
2-Hexanone	n/a	n/a	4	U	4	U	4	U	4	U
2-Propylbenzene	n/a	n/a	--		--		--		--	
4-Bromofluorobenzene	n/a	n/a	--		--		--		--	
4-Chlorotoluene	n/a	n/a	0.2	U	0.2	U	0.2	U	0.2	U
4-Methyl-2-pentanone	1990	n/a	2	U	2	U	2	U	2	U
Acetone	21800	n/a	10	UJ	10	UJ	10	U	10	U
Acetonitrile	n/a	n/a	5	U	5	U	5	U	5	U
Acrolein	0.0416	n/a	5	U	5	U	5	U	5	U
Acrylonitrile	0.454	n/a	3	U	3	U	3	U	3	U
Allyl chloride (3-Chloropopene)	n/a	n/a	0.3	UJ	0.3	UJ	0.3	U	0.3	U
Aniline	n/a	n/a	--		--		--		--	
Benzene	4.13	5	0.2	U	0.2	U	0.2	U	0.2	U
Benzyl Chloride	n/a	n/a	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	n/a	n/a	0.25	U	0.25	U	0.25	U	0.25	U
Bromochloromethane	n/a	n/a	0.22	U	0.22	U	0.22	U	0.22	U
Bromodichloromethane	1.17	80	0.2	U	0.2	U	0.2	U	0.2	U
Bromoform	85.1	80	0.2	U	0.2	U	0.2	U	0.2	U
Bromomethane	8.66	n/a	0.5	U	0.5	U	0.5	U	0.5	U
Carbon disulfide	1040	n/a	0.5	UJ	0.5	UJ	0.5	U	0.5	U
Carbon tetrachloride	1.99	5	**3.3**		**2.9**		0.33	J	0.78	J
Chlorobenzene	91.3	100	0.2	U	0.2	U	0.2	U	0.2	U
Chloroethane	20900	n/a	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	1.93	80	1.6		1.5		0.33	J	0.72	J
Chloromethane	17.8	n/a	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-dichloroethene	365	70	0.26	U	0.26	U	0.26	U	0.26	U
cis-1,3-dichloropropene	n/a	n/a	0.2	U	0.2	U	0.2	U	0.2	U
cis-1,4-Dichloro-2-Butene	n/a	n/a	1	UJ	1	UJ	1	UJ	1	UJ
Cymene	n/a	n/a	0.21	U	0.21	U	0.21	U	0.21	U
Dibromochloromethane	1.47	80	0.2	U	0.2	U	0.2	U	0.2	U
Dibromofluoromethane	n/a	n/a	--		--		--		--	
Dibromomethane	365	n/a	0.25	U	0.25	U	0.25	U	0.25	U
Dichlorodifluoromethane	395	n/a	0.5	U	0.5	U	0.5	U	0.5	U
Ether, tert-butyl methyl	125	n/a	0.34	U	0.34	U	0.34	U	0.34	U

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

		Well Name:	MW39-13		MW39-14-012711		MW39-15		MW39-16	
		Collection Date:	01/27/2011		01/27/2011		01/28/2011		01/28/2011	
		Sample ID:	MW39-DUP02-012711		MW39-14-012711		MW39-15-012811		MW39-16-012811	
		QC Type:	FD		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Ethyl methacrylate	3290	n/a	1	U	1	U	1	U	1	U
Ethylbenzene	14.8	700	0.2	U	0.2	U	0.2	U	0.2	U
Hexachlorobutadiene	8.62	n/a	0.8	U	0.8	U	0.8	U	0.8	U
Hexane	876	n/a	0.59	U	0.59	U	0.59	U	0.59	U
Iodomethane	n/a	n/a	0.2	U	0.2	U	0.2	U	0.2	U
Isopropylbenzene	679	n/a	0.2	U	0.2	U	0.2	U	0.2	U
m,p-Xylene	n/a	n/a	0.32	U	0.32	U	0.32	U	0.32	U
Methacrylonitrile	1.04	n/a	5	U	5	U	5	U	5	U
Methyl methacrylate	1420	n/a	1	U	1	U	1	U	1	U
Methylene chloride	48	5	2	U	2	U	2	U	2	U
Naphthalene	1.43	n/a	1	U	1	U	1	U	1	U
n-Propylbenzene	n/a	n/a	0.2	U	0.2	U	0.2	U	0.2	U
O-Xylene	1430	n/a	0.2	U	0.2	U	0.2	U	0.2	U
Pentachloroethane	n/a	n/a	2	U	2	U	2	U	2	U
Propane Nitrile (Propionitrile)	n/a	n/a	5	U	5	U	5	U	5	U
Sec-Butylbenzene	n/a	n/a	0.22	U	0.22	U	0.22	U	0.22	U
Styrene	1620	100	0.2	UJ	0.2	UJ	0.2	U	0.2	U
Tert-butyl benzene	n/a	n/a	0.27	U	0.27	U	0.27	U	0.27	U
Tetrachloroethene	1.08	5	0.25	U	0.25	U	0.25	U	0.25	U
Toluene	2280	1000	0.2	U	0.2	U	0.2	U	0.2	U
Trans-1,2-dichloroethene	107	100	0.35	U	0.35	U	0.35	U	0.35	U
Trans-1,3-dichloropropene	n/a	n/a	0.2	U	0.2	U	0.2	U	0.2	U
Trans-1,4-Dichloro-2-Butene	n/a	n/a	2	UJ	2	UJ	2	UJ	2	UJ
Trichloroethene	16.5	5	10.7		9.3		8.3		30.7	
Trichlorofluoromethane	1290	n/a	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl acetate	412	n/a	2	U	2	U	2	U	2	U
Vinyl chloride	0.861	2	0.22	U	0.22	U	0.22	U	0.22	U

Notes:

[1] **NMWQCC** - New Mexico Water Quality Control Commission. These

[2] **EPA MCL** - United States Environmental Protection Agency Maximum

[3] Groundwater with TDS concentrations above 10,000 mg/L is not considered

Bold fields represent exceedances of NMWQCC standards

Highlighted fields represent exceedances EPA MCLs

Highlighted and bold fields represent exceedances of both NMWQCC

EPA - United States Environmental Protection Agency

FD - field duplicate

mg/L - milligrams per liter

µg/L - micrograms per liter

-- not analyzed

n/a* - HGL only presented data summary tablesin previous reports; therefore, data results for these fields are not available.

n/a - not available

Q - analytical result qualifier

Value - reported analytical concentration

Table 4-12
Analytical Results from Groundwater Sampling at SS-39 (January 2006 - January 2011)
Holloman AFB, New Mexico

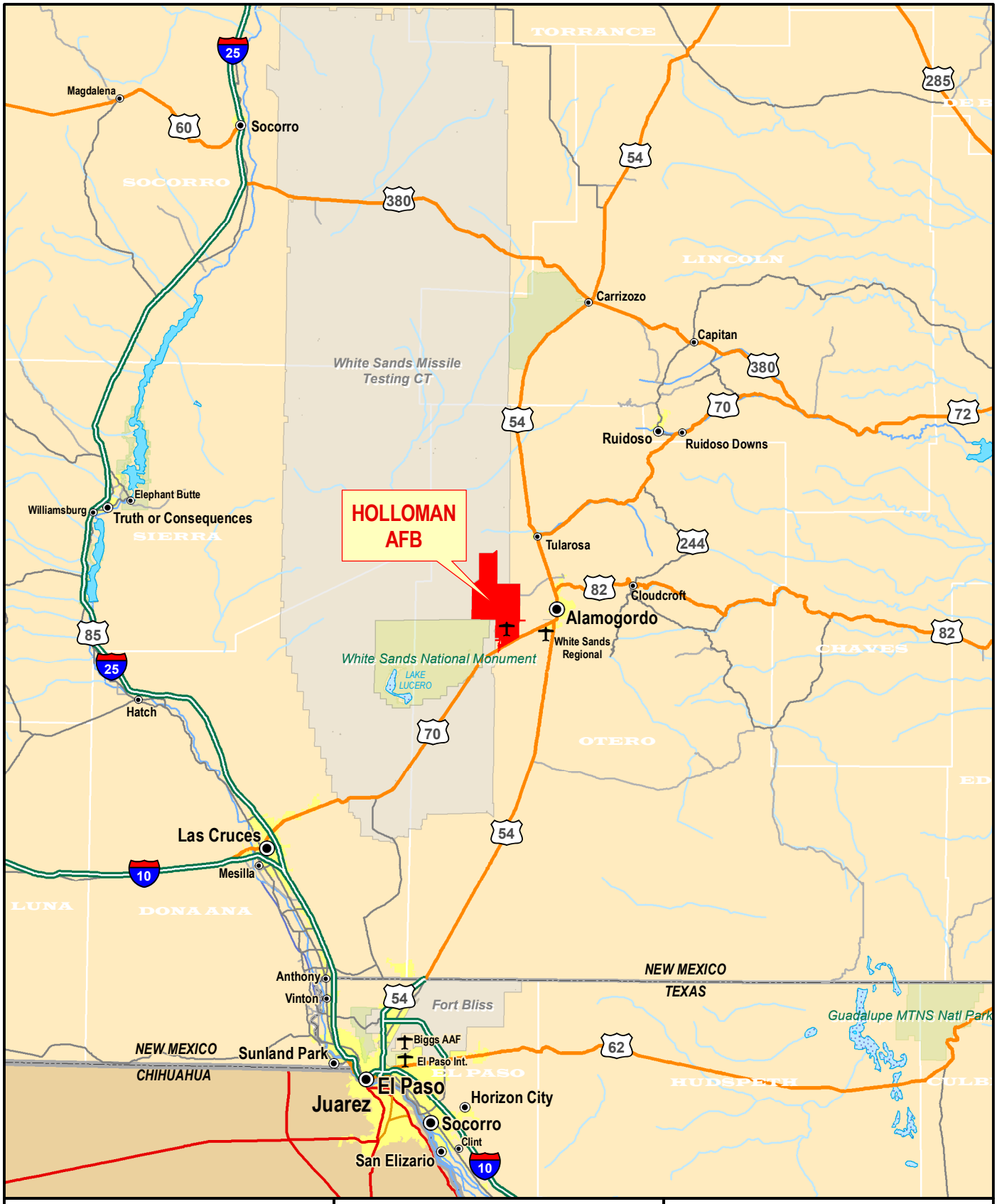
		Well Name:	MW39-13		MW39-14-012711		MW39-15		MW39-16	
		Collection Date:	01/27/2011		01/27/2011		01/28/2011		01/28/2011	
		Sample ID:	MW39-DUP02-012711		MW39-14-012711		MW39-15-012811		MW39-16-012811	
		QC Type:	FD		N		N		N	
Analyte	**NMWQCC[1]**	**MCL[2]**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**

U - Not detected.

J - Detected. Quantitation estimated.

UJ - Not detected. Quantitation estimated.

FIGURES



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Revised: 6/1/10 SRA
Map Source: Holloman AFB
State Plane Coordinate System, NAD83, NM Central, US Feet

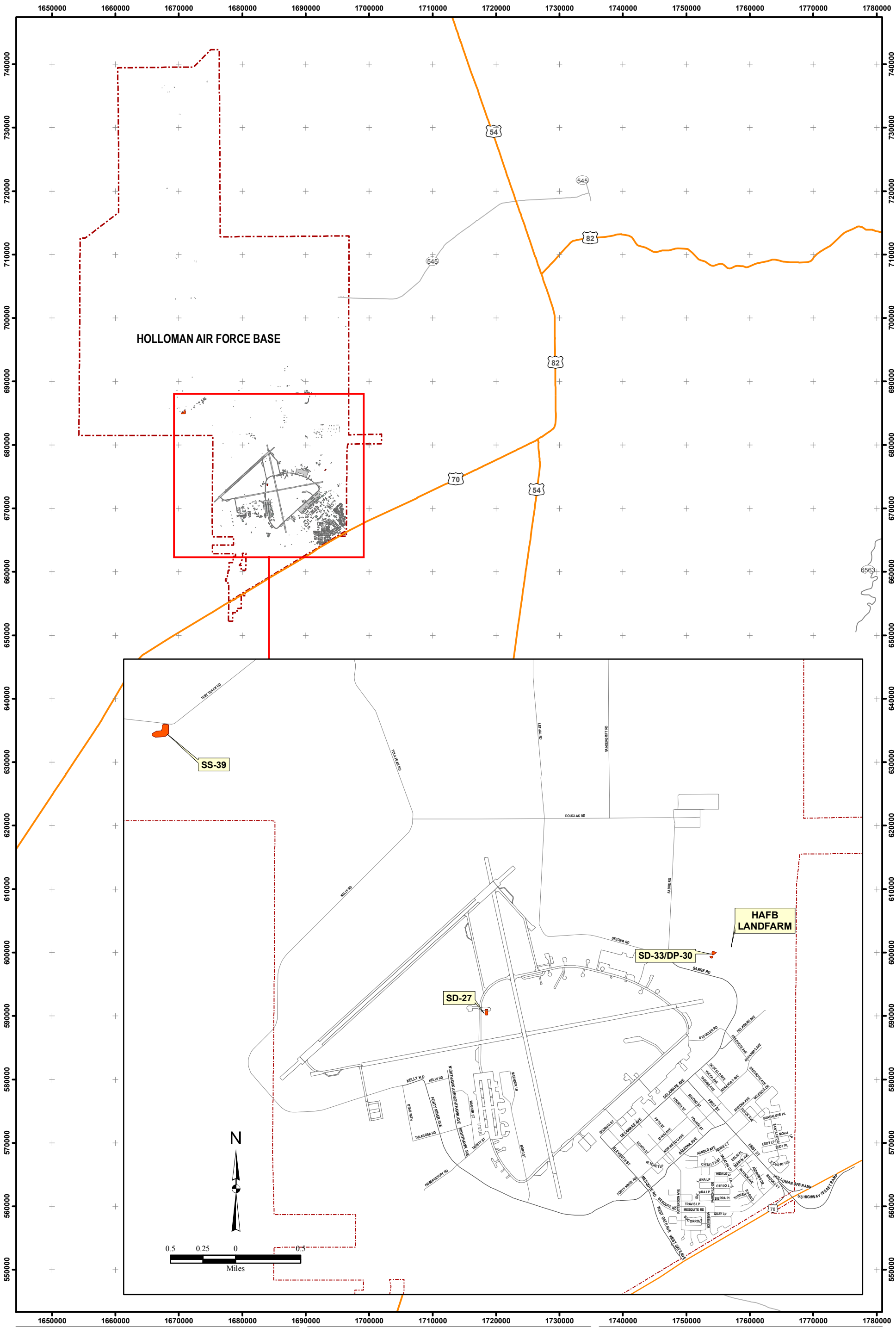
TETRA TECH

N

0 10 20 40
Miles

FIGURE 2-1

HOLLMAN AIR FORCE BASE INSTALLATION LOCATION ALAMOGORDO, NEW MEXICO



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Map Source: Holloman AFB
State Plane Coordinate System, NAD83, NM Central, US Feet

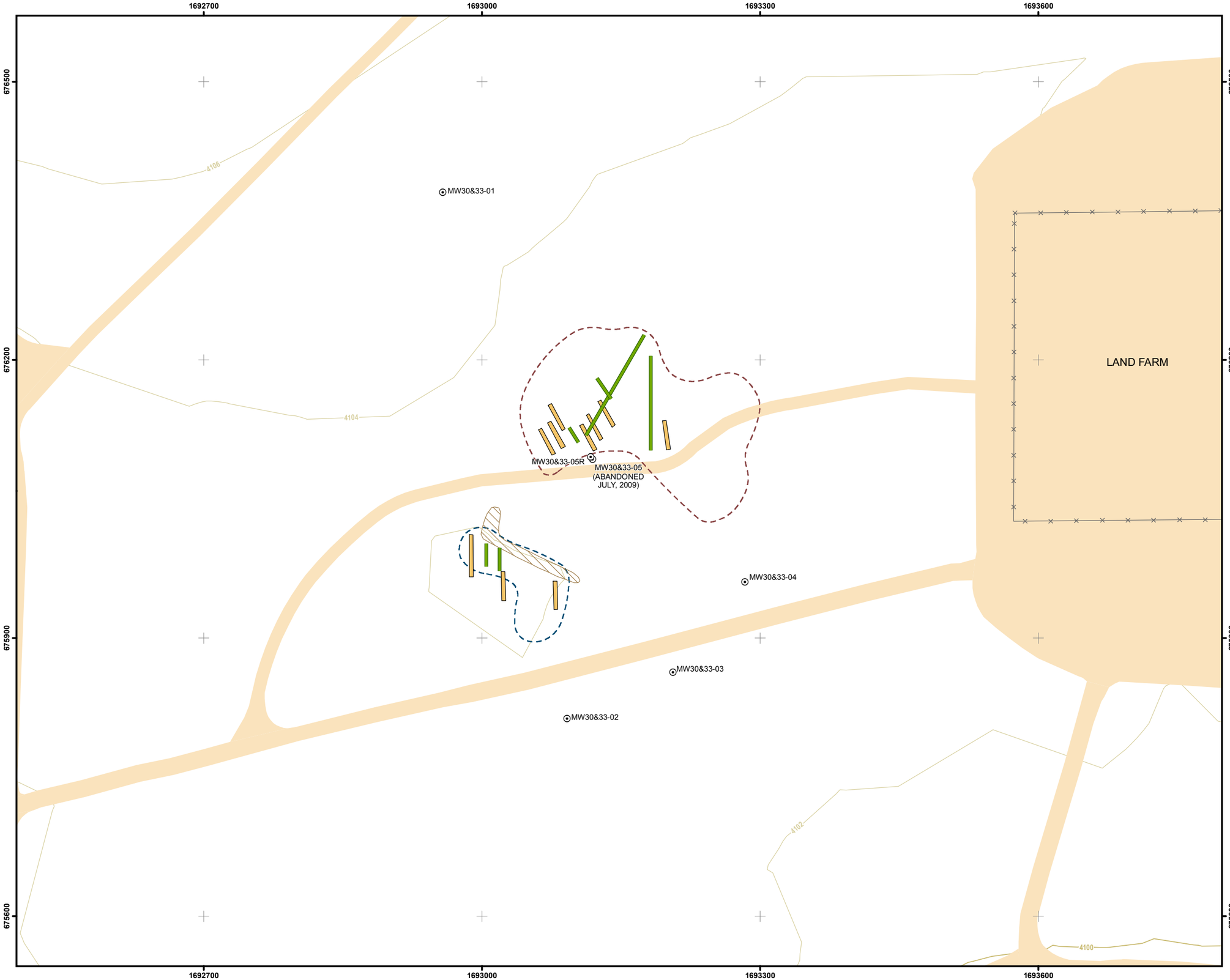
TETRA TECH

LEGEND

- HIGHWAY
- AIRFIELD
- BASE BOUNDARY
- REMEDIATION SITE

FIGURE 2-2

HOLLOMAN AIR FORCE BASE SITE LOCATION



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ALL COORDINATES ARE ON THE NEW MEXICO STATE PLANE, CENTRAL ZONE IN FEET BASED ON NAD83 ADJUSTMENT OF 1996. THE VERTICAL CONTROL REFERENCE DATUM IS NAVD88.

LEGEND

- MONITORING WELL
- INDEX CONTOUR (10')
- INTERVAL CONTOUR (2')
- RFI OBSERVED TRENCHES
- RI OBSERVED TRENCHES
- DP-30 SITE BOUNDARY
- SD-33 SITE BOUNDARY
- SOIL BERM
- LAND FARM FENCE
- ROAD/PARKING (UNPAVED)

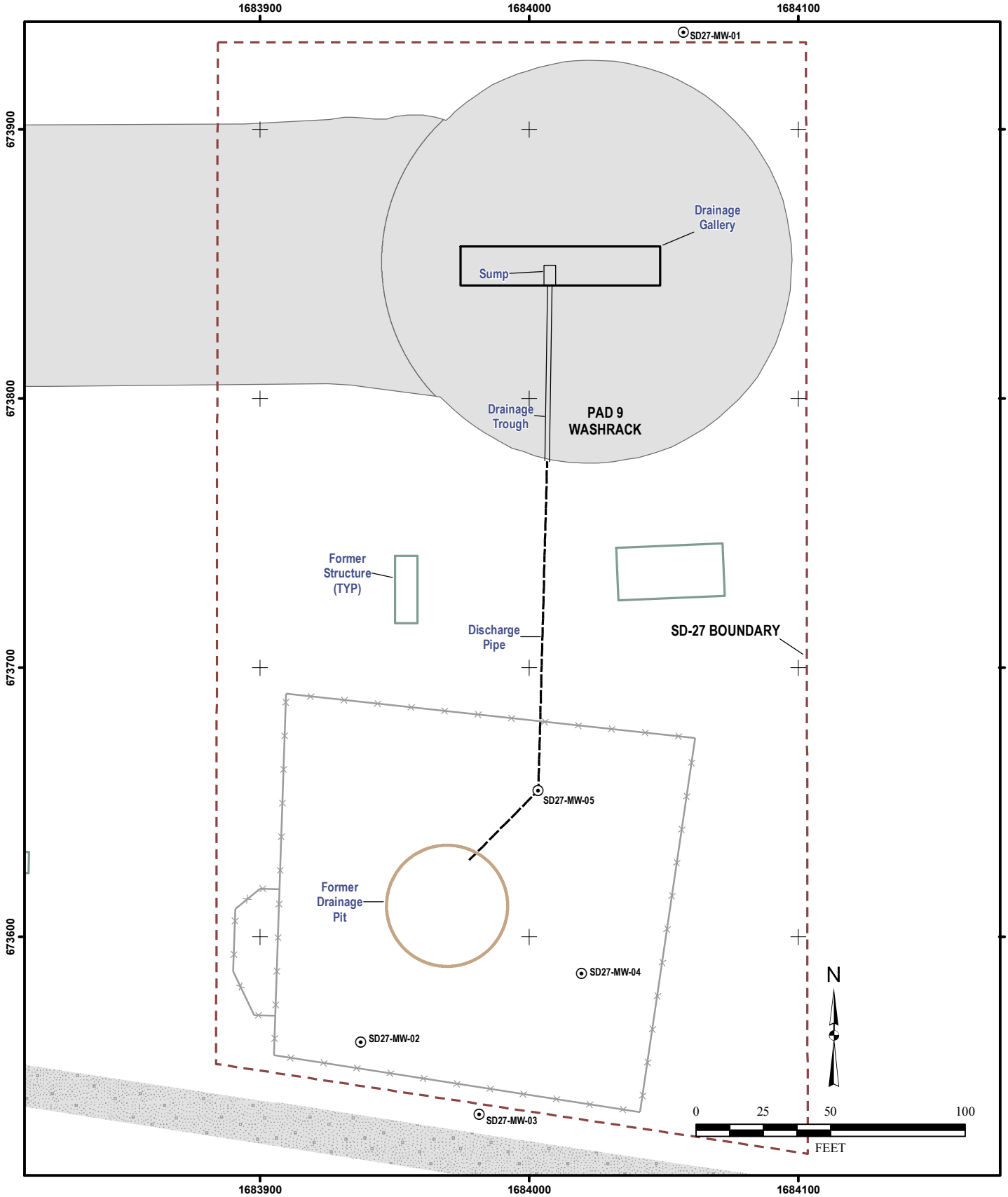
N

0 50 100 200
FEET

LONG TERM MONITORING REPORT
HOLLOMAN AIR FORCE BASE
ALAMOGORDO, NEW MEXICO

TETRA TECH

FIGURE 2-3
DP-30/SD-33 SITE LAYOUT



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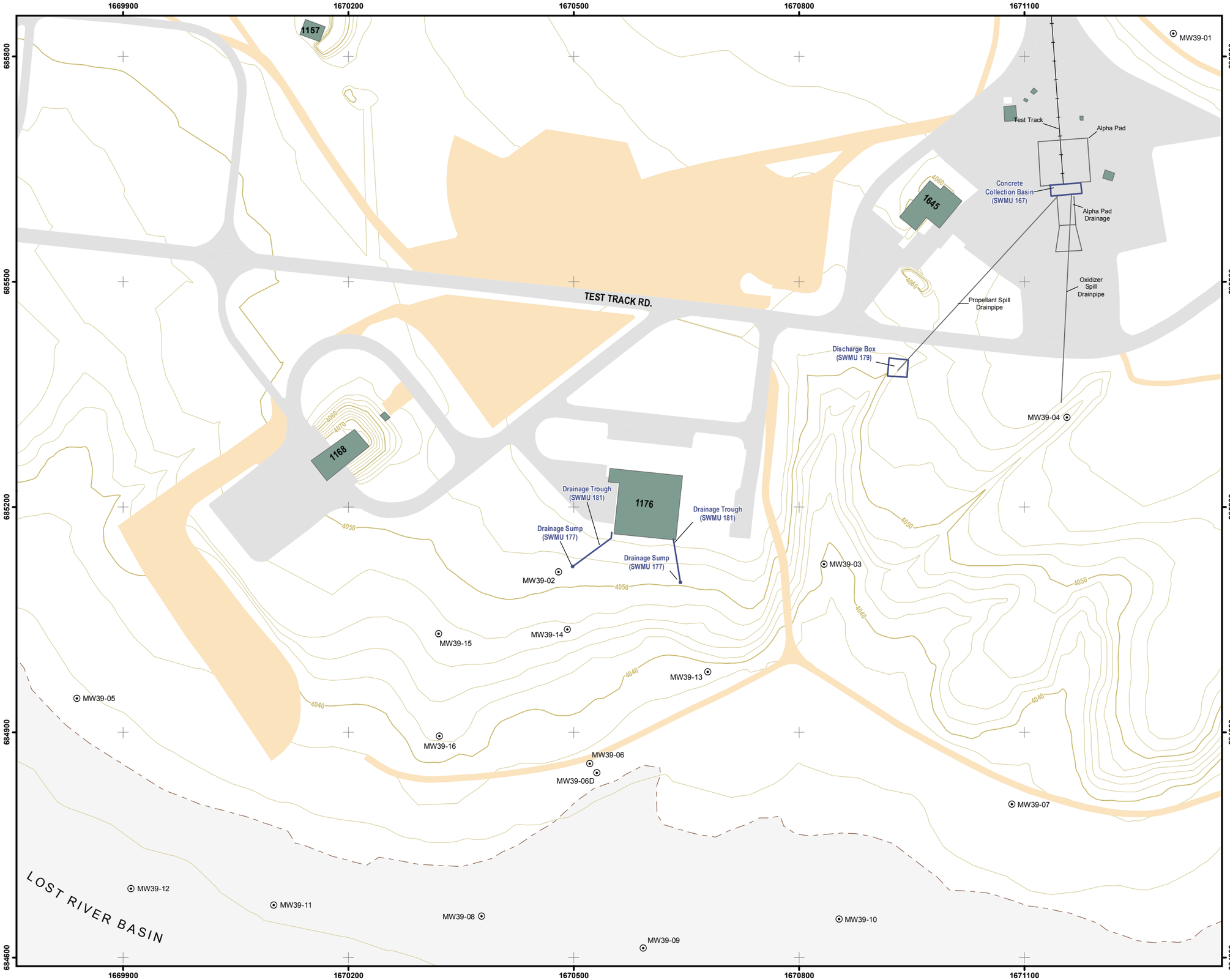
State Plane Coordinate System, NAD83, NM Central, US Feet

TETRA TECH

LEGEND

- MONITORING WELL
- CHAIN-LINK FENCE
- AIRFIELD SURFACE
- ROAD/PARKING (GRAVEL)

FIGURE 2-4
SD-27 SITE LAYOUT



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LEGEND

- MONITORING WELL
- INDEX CONTOUR (10')
- INTERVAL CONTOUR (2')
- 14 HOLLOMAN AFB BUILDING
- ROAD/PARKING (PAVED)
- ROAD/PARKING (UNPAVED)
- WETLAND AREA
- SWMU BOUNDARY

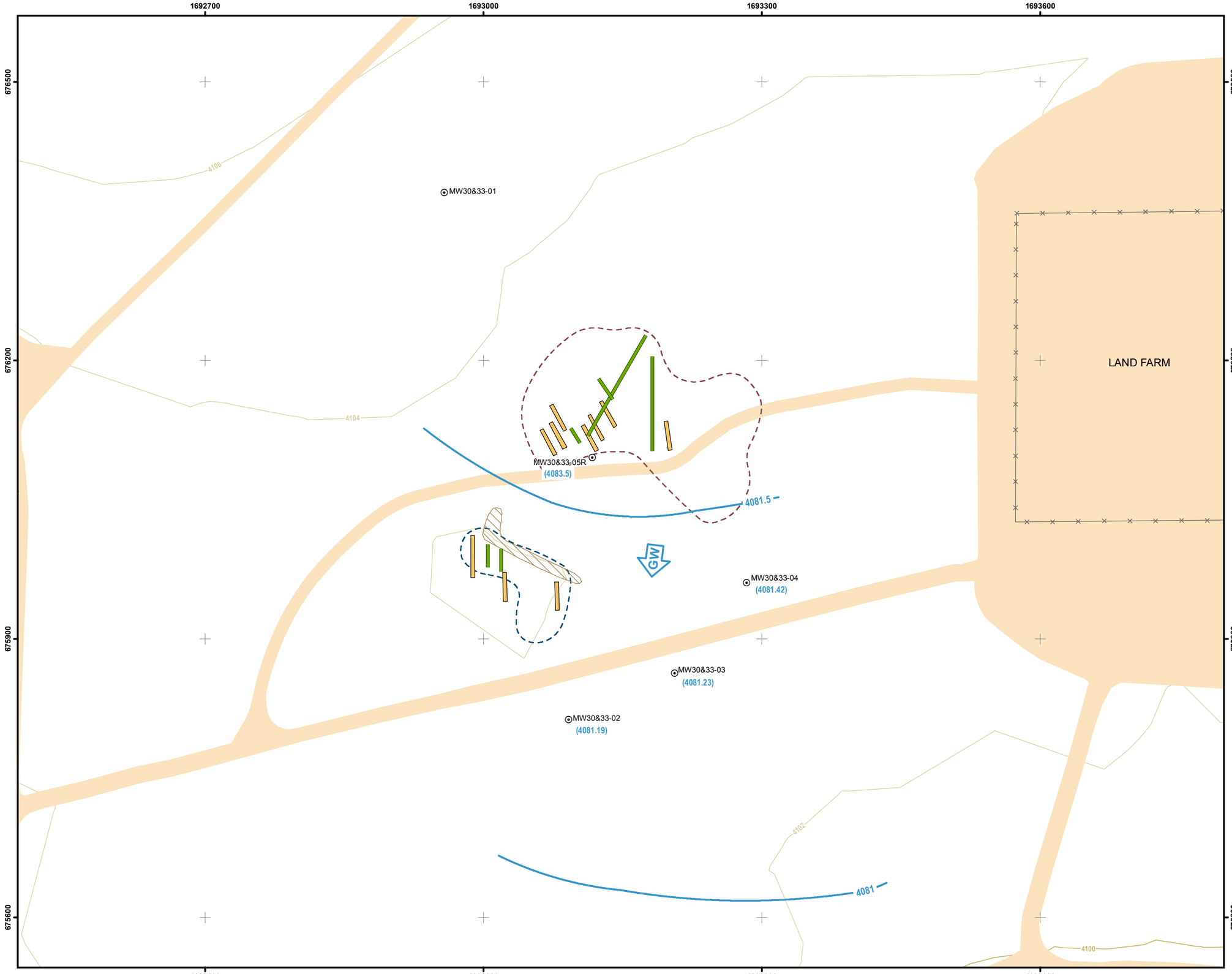
N

0 60 120 240
FEET

LONG TERM MONITORING REPORT
HOLLOMAN AIR FORCE BASE
ALAMOGORDO, NEW MEXICO

TETRA TECH

FIGURE 2-5
SS-39 SITE LAYOUT



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REVISED: 6/1/11 SRA
SOURCE: HGL

ALL COORDINATES ARE ON THE NEW MEXICO STATE PLANE, CENTRAL ZONE IN FEET BASED ON NAD83 ADJUSTMENT OF 1996. THE VERTICAL CONTROL REFERENCE DATUM IS NAVD88.

LEGEND

- MONITORING WELL
- GROUNDWATER CONTOUR
- INDEX CONTOUR (10')
- INTERVAL CONTOUR (2')
- RFI OBSERVED TRENCHES
- RI OBSERVED TRENCHES
- DP-30 SITE BOUNDARY
- SD-33 SITE BOUNDARY
- SOIL BERM
- LAND FARM FENCE
- ROAD/PARKING (UNPAVED)

NOTES

1. GROUNDWATER ELEVATIONS IN FEET ABOVE MEAN SEA LEVEL (FT AMSL).

N

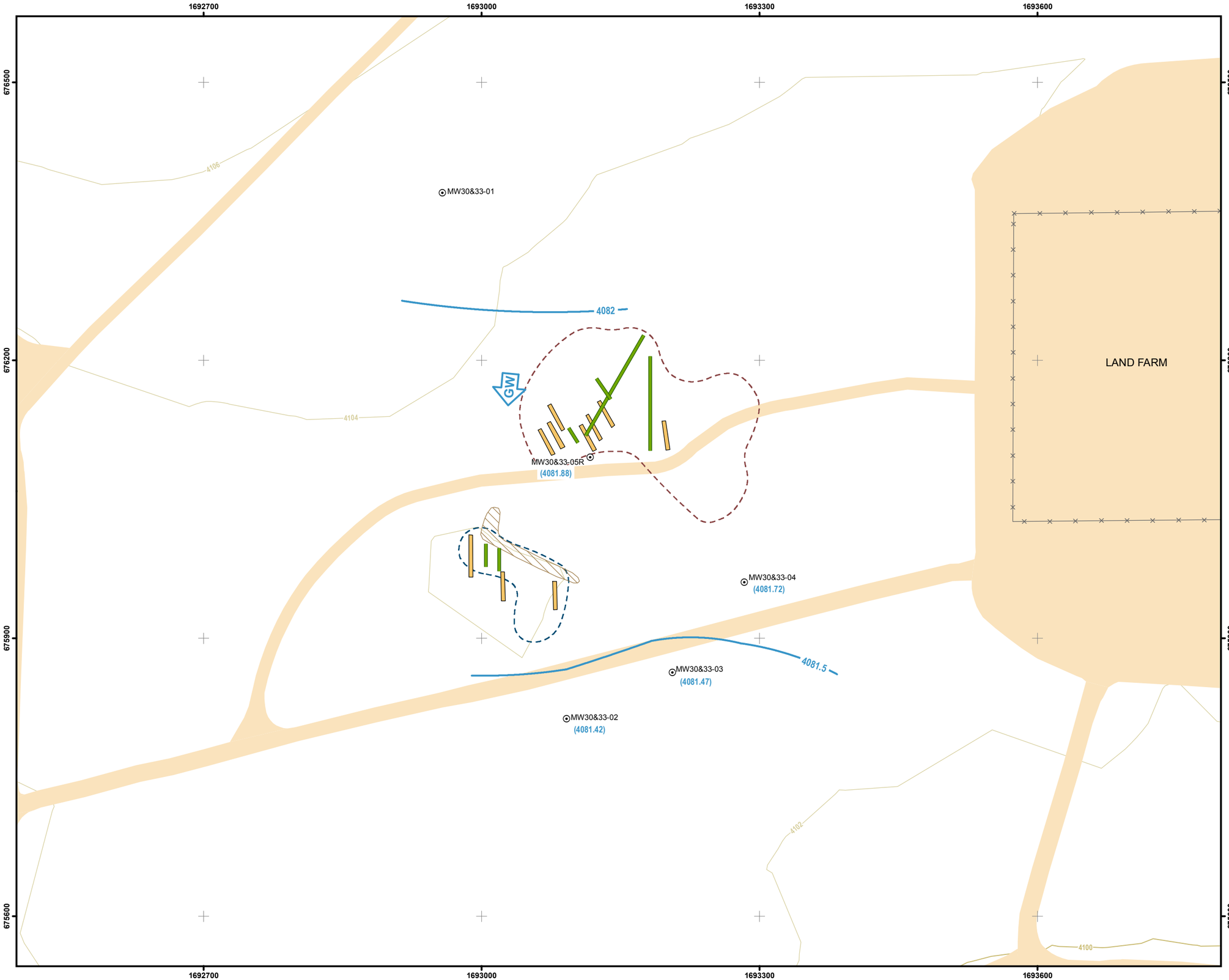
0 50 100 200
FEET

LONG-TERM MONITORING REPORT
HOLLOMAN AIR FORCE BASE
ALAMOGORDO, NEW MEXICO

TETRA TECH

FIGURE 4-1

GROUNDWATER POTENTIOMETRIC SURFACE AT DP-30/SD-33 (JULY, 2010)



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ALL COORDINATES ARE ON THE NEW MEXICO STATE PLANE, CENTRAL ZONE IN FEET BASED ON NAD83 ADJUSTMENT OF 1996. THE VERTICAL CONTROL REFERENCE DATUM IS NAVD88.

LEGEND

- MONITORING WELL
- GROUNDWATER CONTOUR
- INDEX CONTOUR (10')
- INTERVAL CONTOUR (2')
- RFI OBSERVED TRENCHES
- RI OBSERVED TRENCHES
- DP-30 SITE BOUNDARY
- SD-33 SITE BOUNDARY
- SOIL BERM
- LAND FARM FENCE
- ROAD/PARKING (UNPAVED)

NOTES

1. GROUNDWATER ELEVATIONS IN FEET ABOVE MEAN SEA LEVEL (FT AMSL).

N

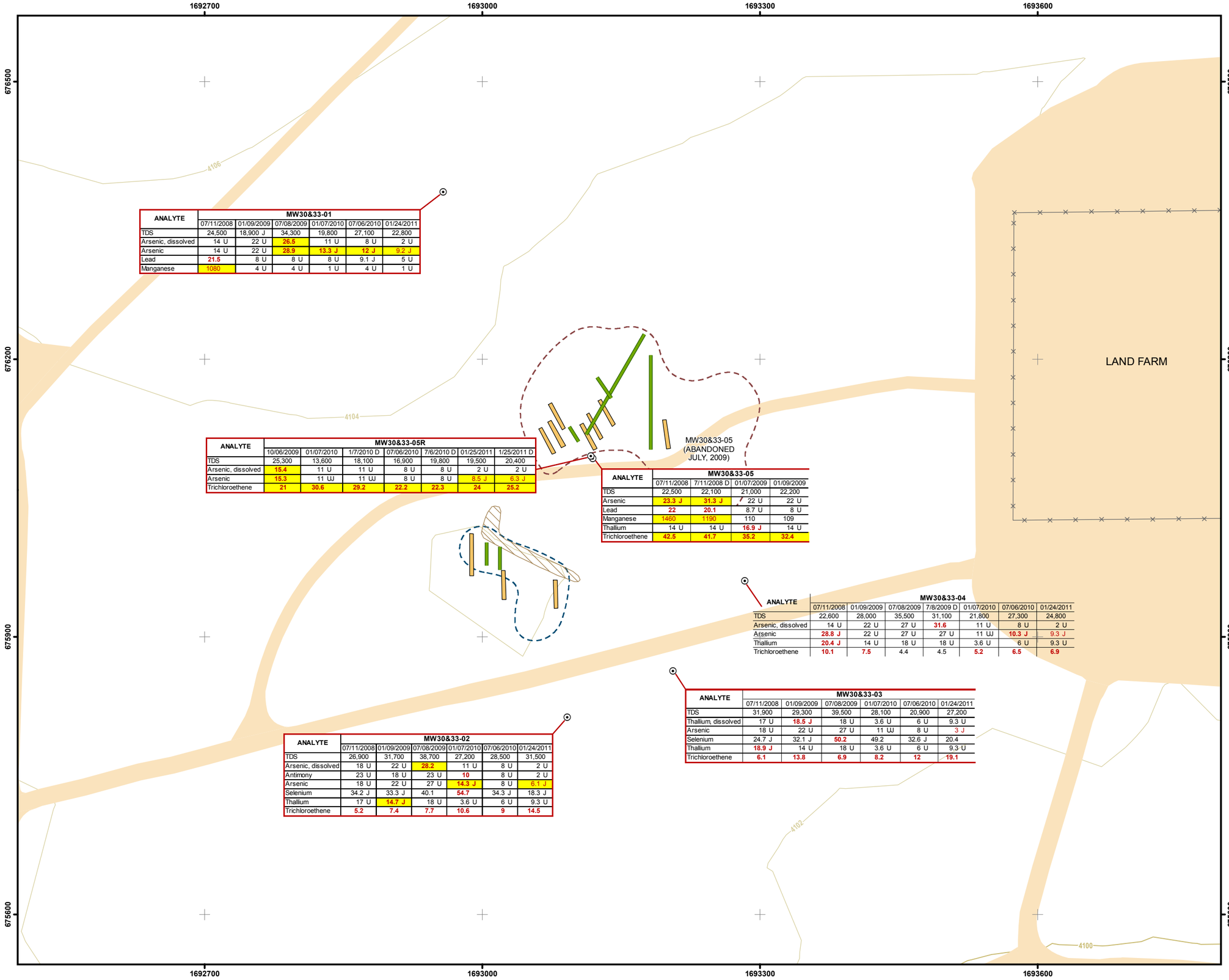
0 50 100 200
FEET

LONG-TERM MONITORING REPORT
HOLLOMAN AIR FORCE BASE
ALAMOGORDO, NEW MEXICO

TETRA TECH

FIGURE 4-2

GROUNDWATER POTENTIOMETRIC SURFACE AT DP-30/SD-33 (JANUARY, 2011)



ANALYTE	MW30&33-01					
	07/11/2008	01/09/2009	07/08/2009	01/07/2010	07/06/2010	01/24/2011
TDS	24,500	18,900 J	34,300	19,800	27,100	22,800
Arsenic, dissolved	14 U	22 U	**26.5**	11 U	8 U	2 U
Arsenic	14 U	22 U	**28.9**	**13.3 J**	**12 J**	**9.2 J**
Lead	**21.5**	8 U	8 U	8 U	9.1 J	5 U
Manganese	**1080**	4 U	4 U	1 U	4 U	1 U

ANALYTE	MW30&33-05R						
	10/06/2009	01/07/2010	1/7/2010 D	07/06/2010	7/6/2010 D	01/25/2011	1/25/2011 D
TDS	25,300	13,600	18,100	16,900	19,800	19,500	20,400
Arsenic, dissolved	**15.4**	11 U	11 U	8 U	8 U	2 U	2 U
Arsenic	**15.3**	11 UJ	11 UJ	8 U	8 U	**8.5 J**	**6.3 J**
Trichloroethene	**21**	**30.6**	**29.2**	**22.2**	**22.3**	**24**	**25.2**

ANALYTE	MW30&33-05			
	07/11/2008	7/11/2008 D	01/07/2009	01/09/2009
TDS	22,500	22,100	21,000	22,200
Arsenic	**23.3 J**	**31.3 J**	22 U	22 U
Lead	**22**	**20.1**	8.7 U	8 U
Manganese	**1460**	**1190**	110	109
Thallium	14 U	14 U	**16.9 J**	14 U
Trichloroethene	**42.5**	**41.7**	**35.2**	**32.4**

ANALYTE	MW30&33-04						
	07/11/2008	01/09/2009	07/08/2009	7/8/2009 D	01/07/2010	07/06/2010	01/24/2011
TDS	22,600	28,000	35,500	31,100	21,800	27,300	24,800
Arsenic, dissolved	14 U	22 U	27 U	**31.6**	11 U	8 U	2 U
Arsenic	**28.8 J**	22 U	27 U	27 U	11 UJ	**10.3 J**	**9.3 J**
Thallium	**20.4 J**	14 U	18 U	18 U	3.6 U	6 U	9.3 U
Trichloroethene	**10.1**	**7.5**	4.4	4.5	**5.2**	**6.5**	**6.9**

ANALYTE	MW30&33-03					
	07/11/2008	01/09/2009	07/08/2009	01/07/2010	07/06/2010	01/24/2011
TDS	31,900	29,300	39,500	28,100	20,900	27,200
Thallium, dissolved	17 U	**18.5 J**	18 U	3.6 U	6 U	9.3 U
Arsenic	18 U	22 U	27 U	11 UJ	8 U	**3 J**
Selenium	24.7 J	32.1 J	**50.2**	49.2	32.6 J	20.4
Thallium	**18.9 J**	14 U	18 U	3.6 U	6 U	9.3 U
Trichloroethene	**6.1**	**13.8**	**6.9**	**8.2**	**12**	**19.1**

ANALYTE	MW30&33-02					
	07/11/2008	01/09/2009	07/08/2009	01/07/2010	07/06/2010	01/24/2011
TDS	26,900	31,700	38,700	27,200	28,500	31,500
Arsenic, dissolved	18 U	22 U	**28.2**	11 U	8 U	2 U
Antimony	23 U	18 U	23 U	**10**	8 U	2 U
Arsenic	18 U	22 U	27 U	**14.3 J**	8 U	**6.1 J**
Selenium	34.2 J	33.3 J	40.1	**54.7**	34.3 J	18.3 J
Thallium	17 U	**14.7 J**	18 U	3.6 U	6 U	9.3 U
Trichloroethene	**5.2**	**7.4**	**7.7**	**10.6**	**9**	**14.5**

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LEGEND

- MONITORING WELL
- RFI OBSERVED TRENCHES
- RI OBSERVED TRENCHES
- SOIL BERM
- LAND FARM FENCE
- DP-30 SITE BOUNDARY
- SD-33 SITE BOUNDARY
- ROAD/PARKING (UNPAVED)
- INDEX CONTOUR (10')
- INTERVAL CONTOUR (2')

EXCEEDANCE THRESHOLDS

ANALYTE	UNIT	NMED	EPA
TDS	mg/L	n/a	n/a
Arsenic, dissolved	µg/L	0.448	10
Arsenic	µg/L	0.448	10
Lead	µg/L	n/a	15
Manganese	µg/L	876	n/a
Antimony	µg/L	14.6	6
Selenium	µg/L	183	50
Thallium	µg/L	2.41	2
Trichloroethene	µg/L	16.5	5

NOTES

1. NA - NOT ANALYZED
2. U - NOT DETECTED
3. J - QUANTITATION ESTIMATED
4. TDS - TOTAL DISSOLED SOLIDS
5. HIGHLIGHTED VALUES EXCEED NMED TAPWATER SCREENING LEVELS
6. BOLD VALUES EXCEED US EPA MAXIMUM CONTAMINANT LEVELS

N

0 50 100 200
FEET

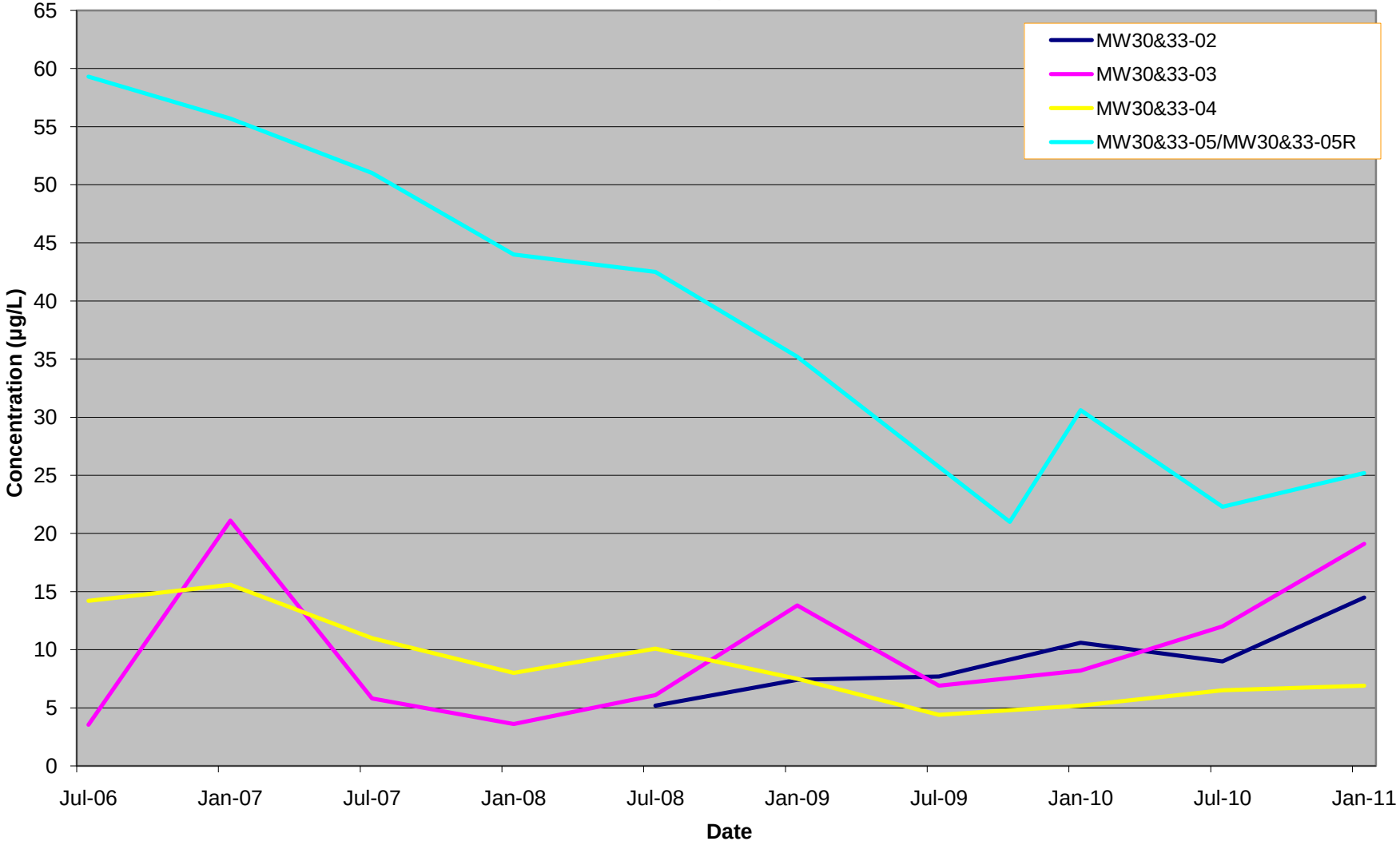
LONG TERM MONITORING REPORT
HOLLOMAN AIR FORCE BASE
ALAMOGORDO, NEW MEXICO

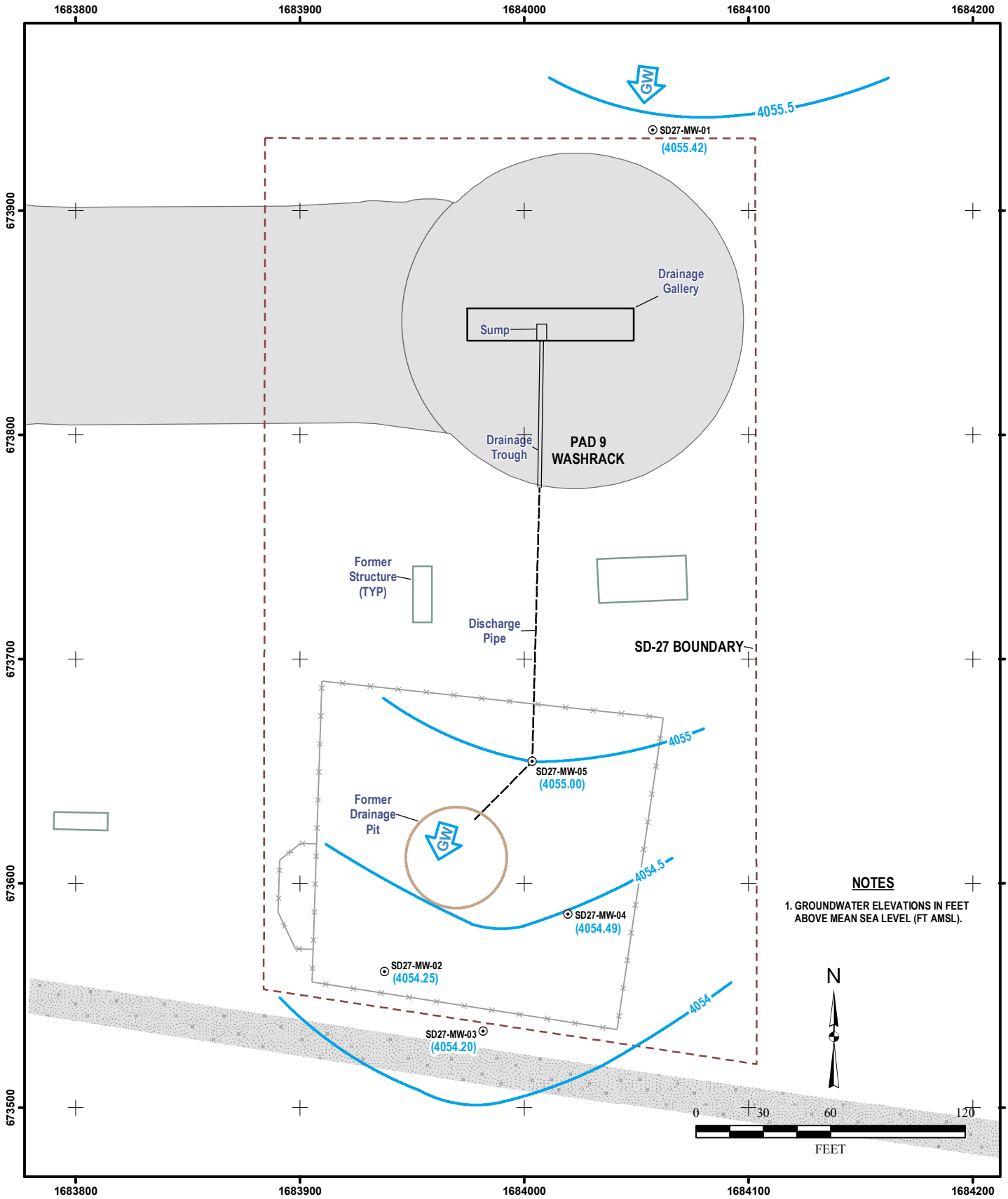
TETRA TECH

FIGURE 4-3

GROUNDWATER SAMPLING EXCEEDANCES AT DP-30/SD-33

Figure 4-4
Trichloroethene (TCE) Trends at DP-30/SD-33
Holloman AFB, New Mexico





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State Plane Coordinate System, NAD83, NM Central, US Feet

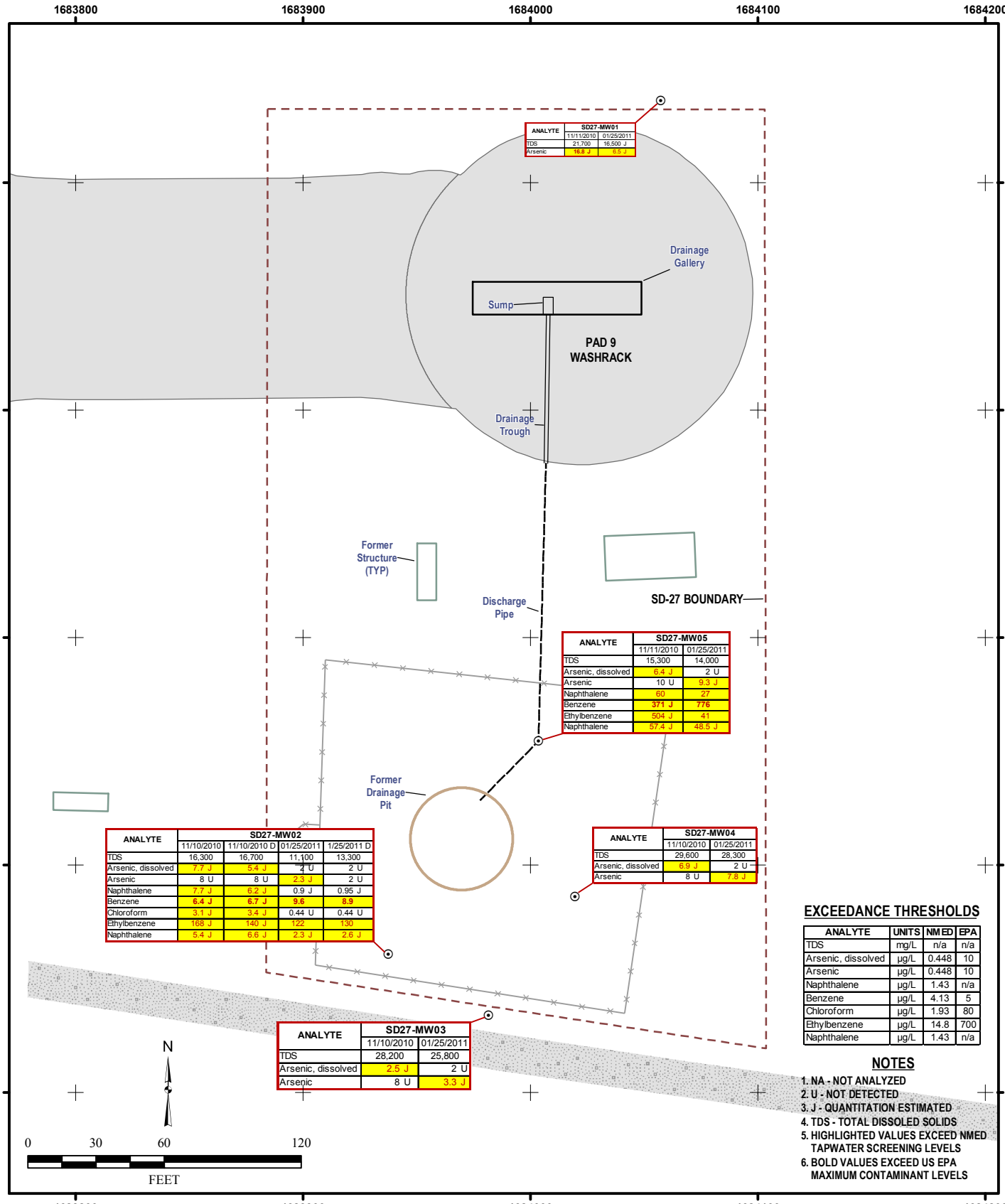
TETRA TECH

LEGEND

- MONITORING WELL
- GROUNDWATER CONTOUR
- CHAIN-LINK FENCE
- AIRFIELD SURFACE
- ROAD/PARKING (GRAVEL)

FIGURE 4-5

GROUNDWATER POTENTIOMETRIC SURFACE AT SD-27 (JANUARY, 2011)



ANALYTE	SD27-MW01	
	11/11/2010	01/25/2011
TDS	21,700	16,500 J
Arsenic	16.8 J	8.5 J

ANALYTE	SD27-MW05	
	11/11/2010	01/25/2011
TDS	15,300	14,000
Arsenic, dissolved	6.4 J	2 U
Arsenic	10 U	9.3 J
Naphthalene	60	27
Benzene	**371 J**	**776**
Ethylbenzene	504 J	41
Naphthalene	57.4 J	48.5 J

ANALYTE	SD27-MW02			
	11/10/2010	11/10/2010 D	01/25/2011	1/25/2011 D
TDS	16,300	16,700	11,100	13,300
Arsenic, dissolved	7.7 J	5.4 J	2 U	2 U
Arsenic	8 U	8 U	2.3 J	2 U
Naphthalene	7.7 J	6.2 J	0.9 J	0.95 J
Benzene	**6.4 J**	**6.7 J**	**9.6**	**8.9**
Chloroform	3.1 J	3.4 J	0.44 U	0.44 U
Ethylbenzene	168 J	140 J	122	130
Naphthalene	5.4 J	6.6 J	2.3 J	2.6 J

ANALYTE	SD27-MW04	
	11/10/2010	01/25/2011
TDS	29,600	28,300
Arsenic, dissolved	6.9 J	2 U
Arsenic	8 U	7.8 J

ANALYTE	SD27-MW03	
	11/10/2010	01/25/2011
TDS	28,200	25,800
Arsenic, dissolved	2.5 J	2 U
Arsenic	8 U	3.3 J

EXCEEDANCE THRESHOLDS

ANALYTE	UNITS	NMED	EPA
TDS	mg/L	n/a	n/a
Arsenic, dissolved	µg/L	0.448	10
Arsenic	µg/L	0.448	10
Naphthalene	µg/L	1.43	n/a
Benzene	µg/L	4.13	5
Chloroform	µg/L	1.93	80
Ethylbenzene	µg/L	14.8	700
Naphthalene	µg/L	1.43	n/a

NOTES

1. NA - NOT ANALYZED
2. U - NOT DETECTED
3. J - QUANTITATION ESTIMATED
4. TDS - TOTAL DISSOLED SOLIDS
5. HIGHLIGHTED VALUES EXCEED NMED TAPWATER SCREENING LEVELS
6. BOLD VALUES EXCEED US EPA MAXIMUM CONTAMINANT LEVELS

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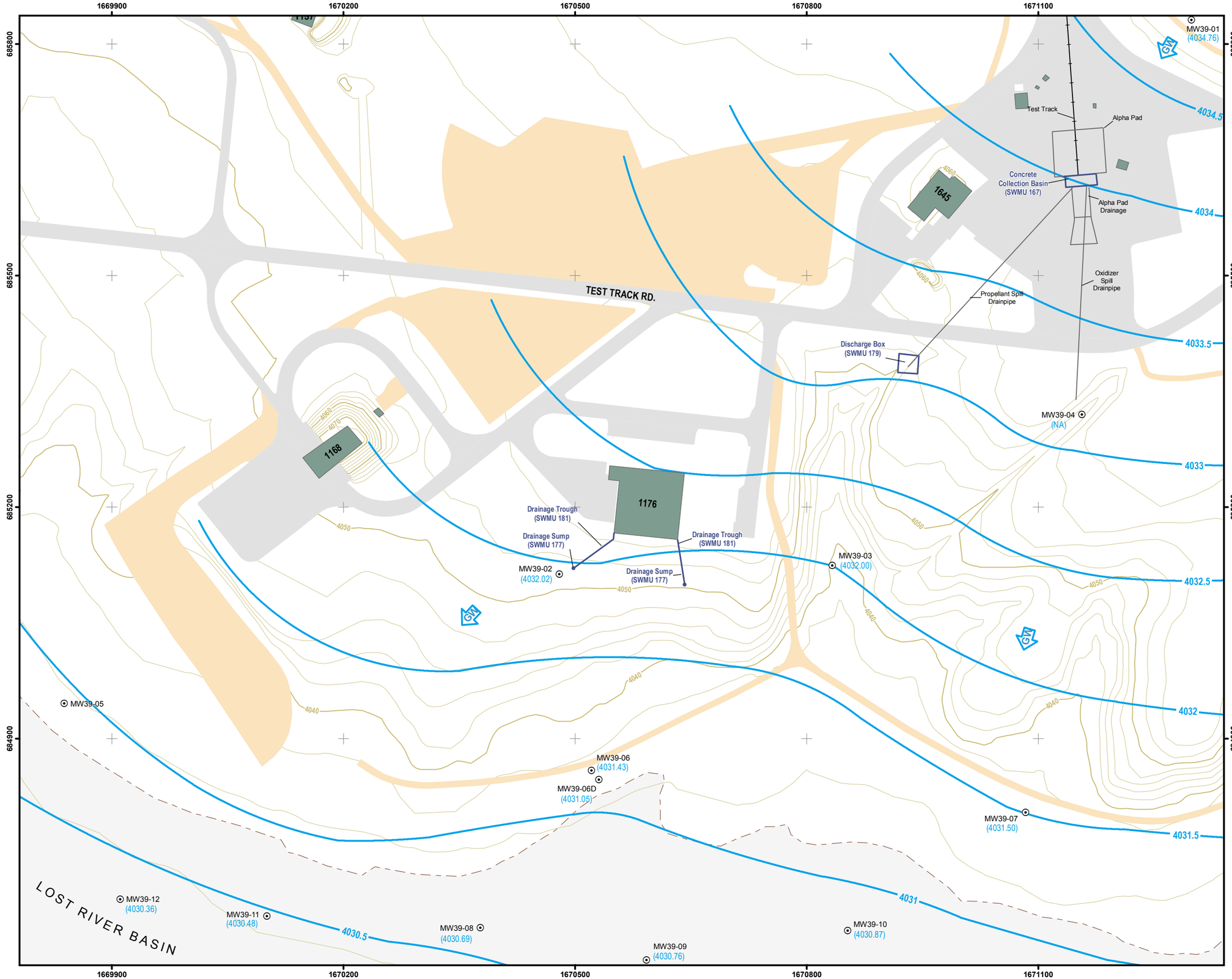
Long Term Monitoring Report
Revised: 6/1/11 SRA
Map Source: Holloman AFB
State Plane Coordinate System, NAD83, NM Central, US Feet

TETRA TECH

LEGEND

- MONITORING WELL
- CHAIN-LINK FENCE
- AIRFIELD SURFACE
- ROAD/PARKING (GRAVEL)

FIGURE 4-6
GROUNDWATER SAMPLING EXCEEDANCES AT SD-27



FILE: K:\GIS\Holloman\LTM2011\Fig4-7.mxd
REVISED: 6/1/10 SRA
SOURCE: HGL

ALL COORDINATES ARE ON THE NEW MEXICO STATE PLANE, CENTRAL ZONE IN FEET BASED ON NAD83 ADJUSTMENT OF 1996. THE VERTICAL CONTROL REFERENCE DATUM IS NAVD88.

LEGEND

- MONITORING WELL
- GROUNDWATER CONTOUR
- INDEX CONTOUR (10')
- INTERVAL CONTOUR (2')
- 14 HOLLOMAN AFB BUILDING
- ROAD/PARKING (PAVED)
- ROAD/PARKING (UNPAVED)
- WETLAND AREA
- SWMU BOUNDARY

NOTES

1. GROUNDWATER ELEVATIONS IN FEET ABOVE MEAN SEA LEVEL (FT AMSL).

N

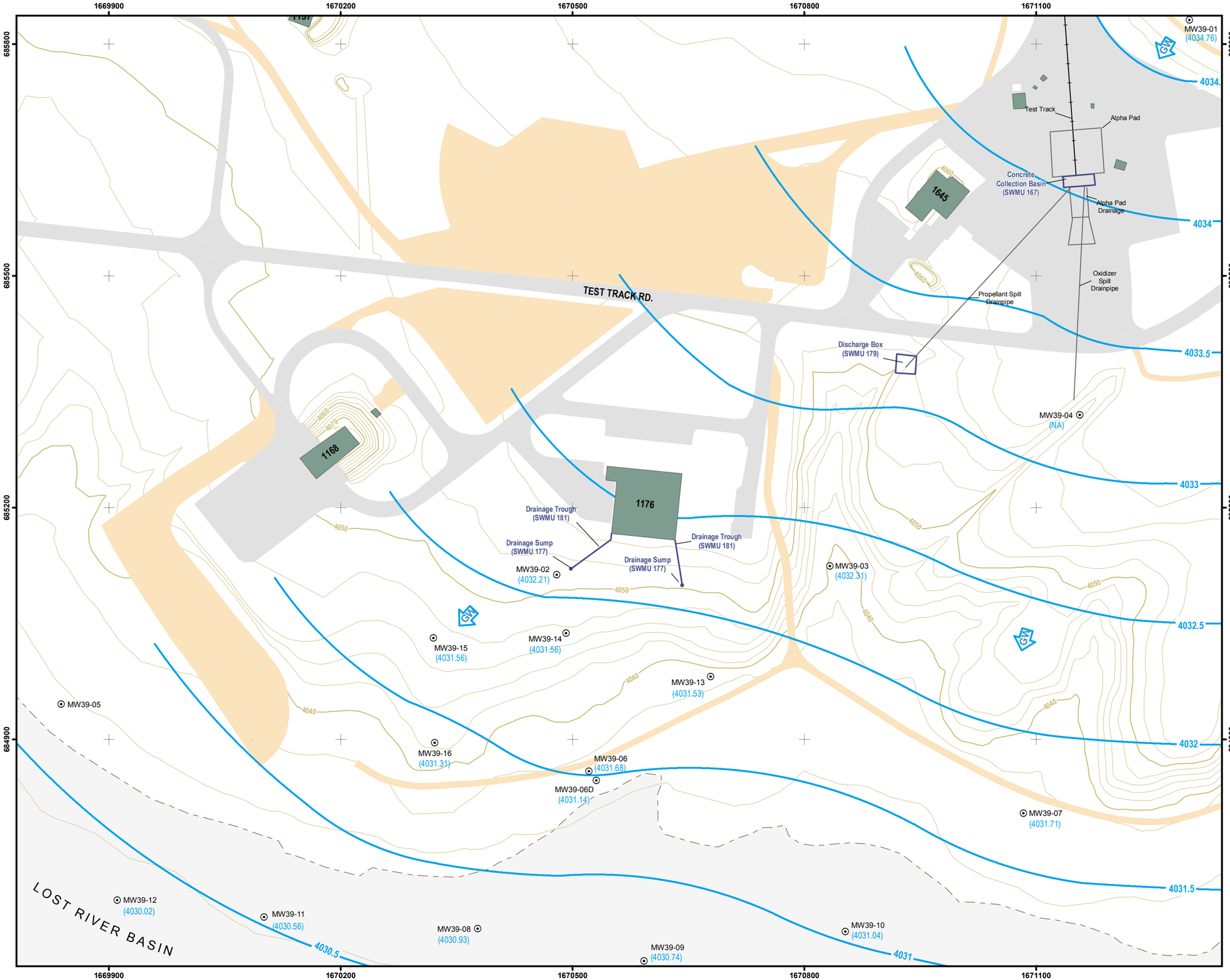
0 60 120 240
FEET

LONG TERM MONITORING REPORT
HOLLOMAN AIR FORCE BASE
ALAMOGORDO, NEW MEXICO

TETRA TECH

FIGURE 4-7

GROUNDWATER POTENTIOMETRIC SURFACE AT SS-39 (JULY 2010)



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REVISED: 6/1/10 SRA
SOURCE: HGL

ALL COORDINATES ARE ON THE NEW MEXICO STATE PLANE, CENTRAL ZONE IN FEET BASED ON NAD83 ADJUSTMENT OF 1996. THE VERTICAL CONTROL REFERENCE DATUM IS NAVD88.

LEGEND

- MONITORING WELL
- GROUNDWATER CONTOUR
- INDEX CONTOUR (10')
- INTERVAL CONTOUR (2')
- 14 HOLLOMAN AFB BUILDING
- ROAD/PARKING (PAVED)
- ROAD/PARKING (UNPAVED)
- WETLAND AREA
- SWMU BOUNDARY

NOTES

1. GROUNDWATER ELEVATIONS IN FEET ABOVE MEAN SEA LEVEL (FT AMSL).

N

0 60 120 240
FEET

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HOLLOMAN AIR FORCE BASE
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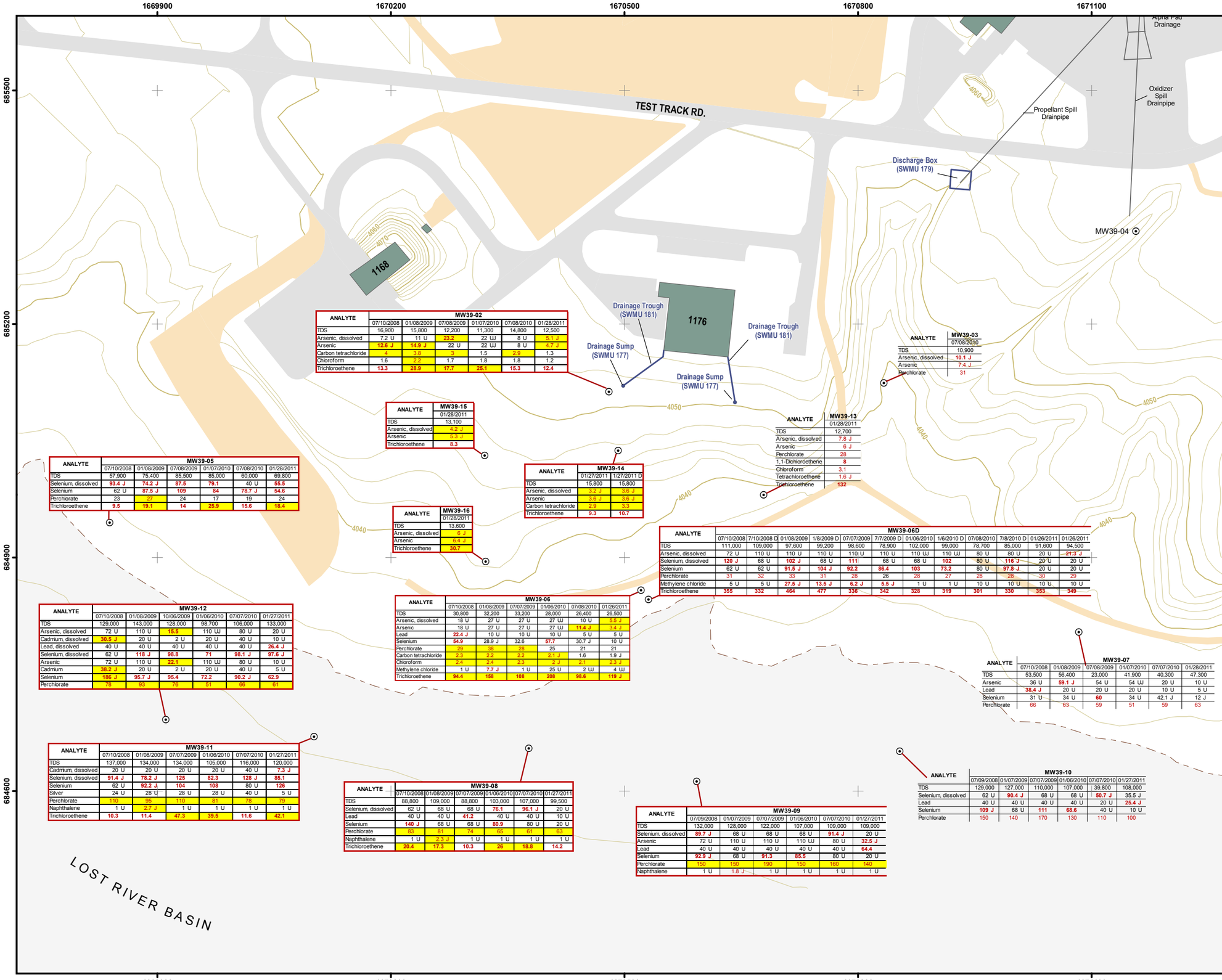
FIGURE 4-8

GROUNDWATER POTENTIOMETRIC SURFACE AT SS-39 (JANUARY 2011)



ANALYTE	MW39-02					
	07/10/2008	01/08/2009	07/08/2009	01/07/2010	07/08/2010	01/28/2011
TDS	16,900	15,800	12,200	11,300	14,800	12,500
Arsenic, dissolved	7.2 U	11 U	23.2	22 UJ	8 U	5.1 J
Arsenic	12.6 J	14.9 J	22 U	22 UJ	8 U	4.7 J
Carbon tetrachloride	4	3.8	3	1.5	2.9	1.3
Chloroform	1.6	2.2	1.7	1.8	1.8	1.2
Trichloroethene	13.3	26.9	17.7	25.1	15.3	12.4

ANALYTE	MW39-03
	07/08/2010
TDS	10,900
Arsenic, dissolved	10.1 J
Arsenic	7.4 J
Perchlorate	31

ANALYTE	MW39-15
	01/28/2011
TDS	13,100
Arsenic, dissolved	4.2 J
Arsenic	5.3 J
Trichloroethene	8.3

ANALYTE	MW39-13
	01/28/2011
TDS	12,700
Arsenic, dissolved	7.8 J
Arsenic	8 J
Perchlorate	28
1,1-Dichloroethene	8
Chloroform	3.1
Tetrachloroethene	1.6 J
Trichloroethene	132

ANALYTE	MW39-05					
	07/10/2008	01/08/2009	07/08/2009	01/07/2010	07/08/2010	01/28/2011
TDS	57,900	75,400	85,500	85,000	60,000	69,800
Selenium, dissolved	93.4 J	74.2 J	87.5	79.1	40 U	55.5
Selenium	62 U	87.5 J	109	84	78.7 J	54.6
Perchlorate	23	27	24	17	19	24
Trichloroethene	9.5	19.1	14	25.9	15.6	16.4

ANALYTE	MW39-14	
	01/27/2011	1/27/2011 D
TDS	15,800	15,800
Arsenic, dissolved	3.2 J	3.6 J
Arsenic	3.6 J	3.6 J
Carbon tetrachloride	2.9	3.3
Trichloroethene	9.3	10.7

ANALYTE	MW39-16
	01/28/2011
TDS	13,600
Arsenic, dissolved	6 J
Arsenic	6.4 J
Trichloroethene	30.7

ANALYTE	MW39-06D											
	07/10/2008	7/10/2008 D	01/08/2009	1/8/2009 D	07/07/2009	7/7/2009 D	01/06/2010	1/6/2010 D	07/08/2010	7/8/2010 D	01/26/2011	01/26/2011
TDS	111,000	109,000	97,600	99,200	98,600	78,900	102,000	99,000	78,700	85,000	91,600	94,500
Arsenic, dissolved	72 U	110 U	110 U	110 U	110 UJ	110 U	110 UJ	110 UJ	80 U	80 U	20 U	21.3 J
Selenium, dissolved	120 J	68 U	102 J	68 U	111	68 U	68 U	102	80 U	116 J	20 U	20 U
Selenium	62 U	62 U	91.5 J	104 J	92.2	86.4	103	73.2	80 U	97.8 J	20 U	20 U
Perchlorate	31	32	33	31	28	26	28	27	28	28	30	29
Methylene chloride	5 U	5 U	27.5 J	13.5 J	6.2 J	5.5 J	1 U	1 U	10 U	10 U	10 U	10 U
Trichloroethene	355	332	464	477	336	342	328	319	301	330	353	349

ANALYTE	MW39-12					
	07/10/2008	01/08/2009	10/06/2009	01/06/2010	07/07/2010	01/27/2011
TDS	129,000	143,000	128,000	98,700	106,000	133,000
Arsenic, dissolved	72 U	110 U	15.5	110 UJ	80 U	20 U
Cadmium, dissolved	30.5 J	20 U	2 U	20 U	40 U	10 U
Lead, dissolved	40 U	40 U	40 U	40 U	40 U	26.4 J
Selenium, dissolved	62 U	118 J	98.8	71	98.1 J	97.6 J
Arsenic	72 U	110 U	22.1	110 UJ	80 U	10 U
Cadmium	38.2 J	20 U	2 U	20 U	40 U	5 U
Selenium	186 J	95.7 J	95.4	72.2	90.2 J	62.9
Perchlorate	78	93	76	51	66	61

ANALYTE	MW39-06					
	07/10/2008	01/08/2009	07/07/2009	01/06/2010	07/08/2010	01/26/2011
TDS	30,800	32,200	33,200	28,000	26,400	26,500
Arsenic, dissolved	18 U	27 U	27 U	27 UJ	10 U	5.5 J
Arsenic	18 U	27 U	27 U	27 UJ	11.4 J	3.4 J
Lead	22.4 J	10 U	10 U	10 U	5 U	5 U
Selenium	54.9	28.9 J	32.6	57.7	30.7 J	10 U
Perchlorate	29	38	28	25	21	21
Carbon tetrachloride	2.3	2.2	2.2	2.1 J	1.6	1.9 J
Chloroform	2.4	2.4	2.3	2 J	2.1	2.3 J
Methylene chloride	1 U	7.7 J	1 U	25 U	2 UJ	4 UJ
Trichloroethene	94.4	158	108	208	98.6	119 J

ANALYTE	MW39-07					
	07/10/2008	01/08/2009	07/08/2009	01/07/2010	07/07/2010	01/28/2011
TDS	53,500	56,400	23,000	41,900	40,300	47,300
Arsenic	36 U	59.1 J	54 U	54 UJ	20 U	10 U
Lead	38.4 J	20 U	20 U	20 U	10 U	5 U
Selenium	31 U	34 U	60	34 U	42.1 J	12 J
Perchlorate	66	63	59	51	59	63

ANALYTE	MW39-11					
	07/10/2008	01/08/2009	07/07/2009	01/06/2010	07/07/2010	01/27/2011
TDS	137,000	134,000	134,000	105,000	116,000	120,000
Cadmium, dissolved	20 U	20 U	20 U	20 U	40 U	7.3 J
Selenium, dissolved	91.4 J	78.2 J	125	82.3	128 J	85.1
Selenium	62 U	92.2 J	104	108	80 U	126
Silver	24 U	28 U	28 U	28 U	40 U	5 U
Perchlorate	110	95	110	81	78	79
Naphthalene	1 U	2.7 J	1 U	1 U	1 U	1 U
Trichloroethene	10.3	11.4	47.3	39.5	11.6	42.1

ANALYTE	MW39-08					
	07/10/2008	01/08/2009	07/07/2009	01/06/2010	07/07/2010	01/27/2011
TDS	88,800	109,000	88,800	103,000	107,000	99,500
Selenium, dissolved	62 U	68 U	68 U	76.1	96.1 J	20 U
Lead	40 U	40 U	41.2	40 U	40 U	10 U
Selenium	140 J	68 U	68 U	80.9	80 U	20 U
Perchlorate	83	81	74	65	61	63
Naphthalene	1 U	2.3 J	1 U	1 U	1 U	1 U
Trichloroethene	20.4	17.3	10.3	26	18.8	14.2

ANALYTE	MW39-09					
	07/09/2008	01/07/2009	07/07/2009	01/06/2010	07/07/2010	01/27/2011
TDS	132,000	128,000	122,000	107,000	109,000	109,000
Selenium, dissolved	89.7 J	68 U	68 U	68 U	91.4 J	20 U
Arsenic	72 U	110 U	110 U	110 UJ	80 U	32.5 J
Lead	40 U	40 U	40 U	40 U	40 U	64.4
Selenium	92.9 J	68 U	91.3	85.5	80 U	20 U
Perchlorate	150	150	190	150	160	140
Naphthalene	1 U	1.8 J	1 U	1 U	1 U	1 U

ANALYTE	MW39-10					
	07/09/2008	01/07/2009	07/07/2009	01/06/2010	07/07/2010	01/27/2011
TDS	129,000	127,000	110,000	107,000	39,800	108,000
Selenium, dissolved	62 U	90.4 J	68 U	68 U	50.7 J	35.5 J
Lead	40 U	40 U	40 U	40 U	20 U	25.4 J
Selenium	109 J	68 U	111	68.6	40 U	10 U
Perchlorate	150	140	170	130	110	100

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SOURCE: HGL

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LEGEND

- MONITORING WELL
- INDEX CONTOUR (10')
- INTERVAL CONTOUR (2')
- 14 HOLLOMAN AFB BUILDING
- ROAD/PARKING (PAVED)
- ROAD/PARKING (UNPAVED)
- WETLAND AREA
- SWMU BOUNDARY

EXCEEDANCE THRESHOLDS

ANALYTE	UNITS	NMED	EPA
TDS	mg/L	n/a	n/a
Arsenic, dissolved	µg/L	0.448	10
Arsenic	µg/L	0.448	10
Cadmium, dissolved	µg/L	18.3	5
Cadmium	µg/L	18.3	5
Lead, dissolved	µg/L	n/a	15
Lead	µg/L	n/a	15
Selenium, dissolved	µg/L	183	50
Selenium	µg/L	183	50
Silver	µg/L	183	n/a
Perchlorate	µg/L	26	n/a
1,1-Dichloroethene	µg/L	340	7
Carbon tetrachloride	µg/L	1.99	5
Chloroform	µg/L	1.93	80
Methylene chloride	µg/L	48	5
Naphthalene	µg/L	1.43	n/a
Tetrachloroethene	µg/L	1.08	5
Trichloroethene	µg/L	16.5	5

NOTES

1. NA - NOT ANALYZED
2. U - NOT DETECTED
3. J - QUANTITATION ESTIMATED
4. TDS - TOTAL DISSOLED SOLIDS
5. HIGHLIGHTED VALUES EXCEED NMED TAPWATER SCREENING LEVELS
6. BOLD VALUES EXCEED US EPA MAXIMUM CONTAMINANT LEVELS

N

0 60 120 240
FEET

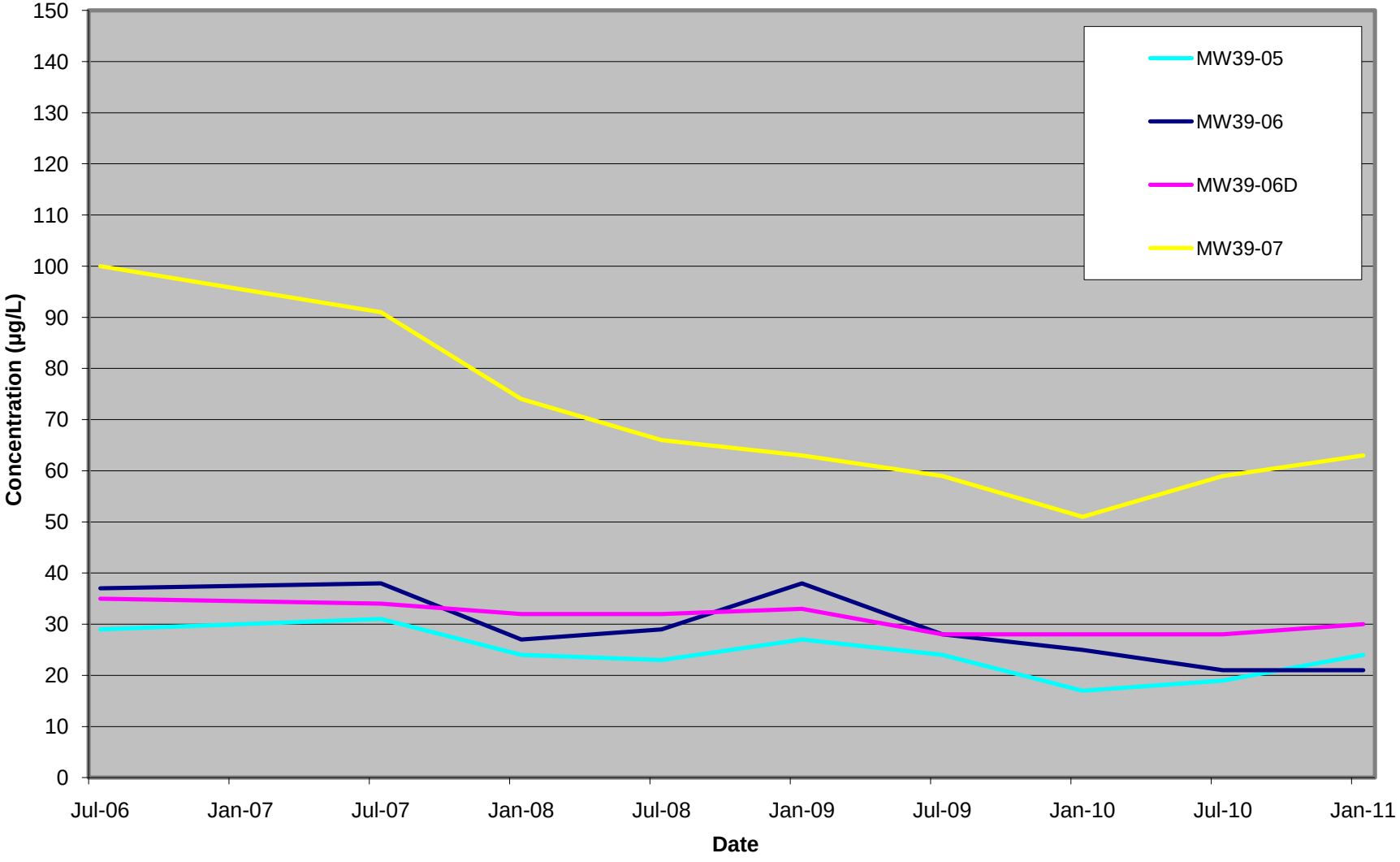
LONG TERM MONITORING REPORT
HOLLOMAN AIR FORCE BASE
ALAMOGORDO, NEW MEXICO

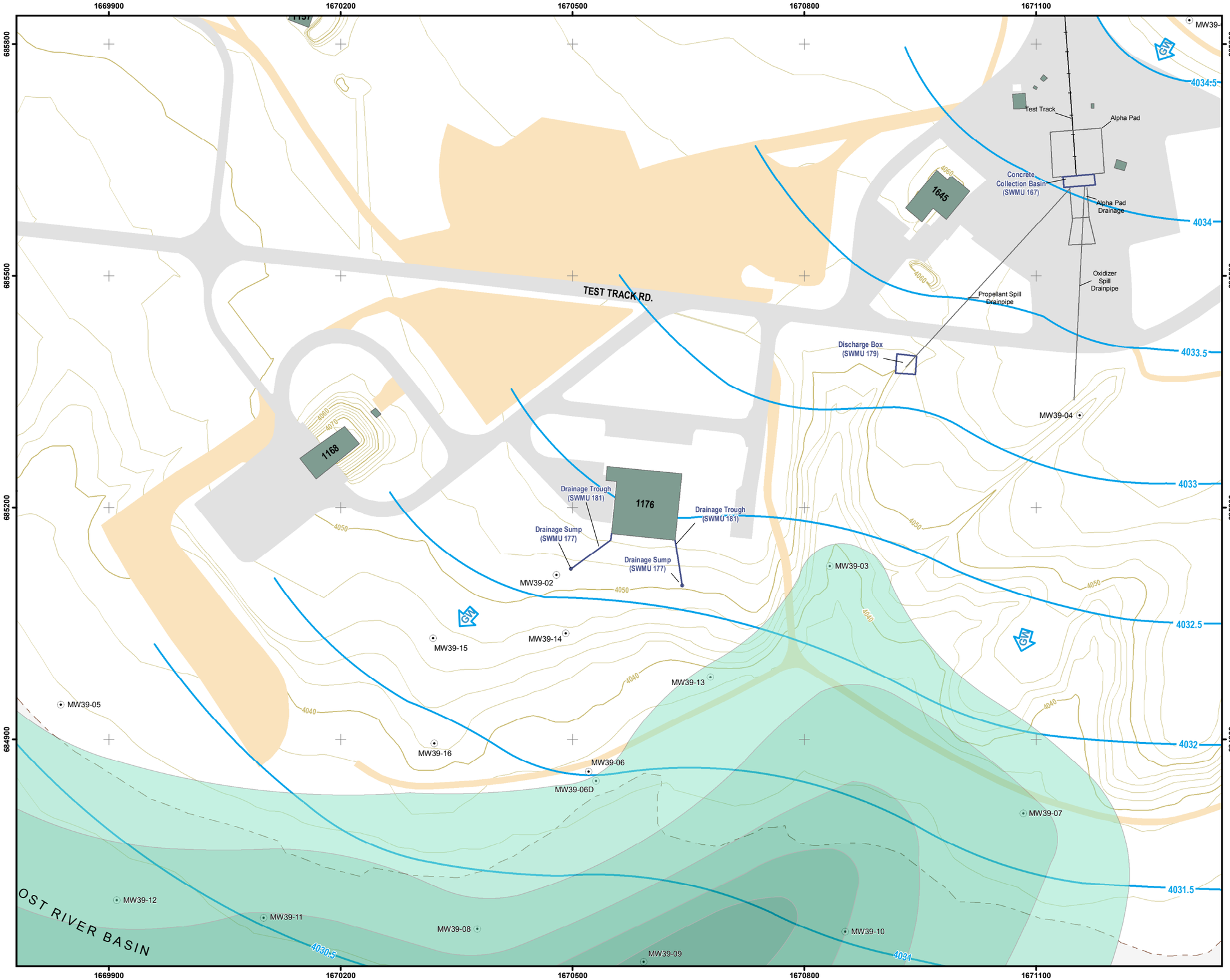
TETRA TECH

FIGURE 4-9

GROUNDWATER SAMPLING EXCEEDANCES AT SS-39

Figure 4-10
Perchlorate Trends at SS-39 (Side Slope of Lost River Drainage Basin)
Holloman AFB, New Mexico





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LEGEND

- MONITORING WELL
- GROUNDWATER CONTOUR
- INDEX CONTOUR (10')
- INTERVAL CONTOUR (2')
- 14 HOLLOMAN AFB BUILDING
- ROAD/PARKING (PAVED)
- ROAD/PARKING (UNPAVED)
- WETLAND AREA
- SWMU BOUNDARY

PERCHLORATE CONCETRATION

- >25-50 µg/L
- >50-75 µg/L
- >75-100 µg/L
- >100-125 µg/L
- >125-150 µg/L

N

0 60 120 240
FEET

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HOLLOMAN AIR FORCE BASE
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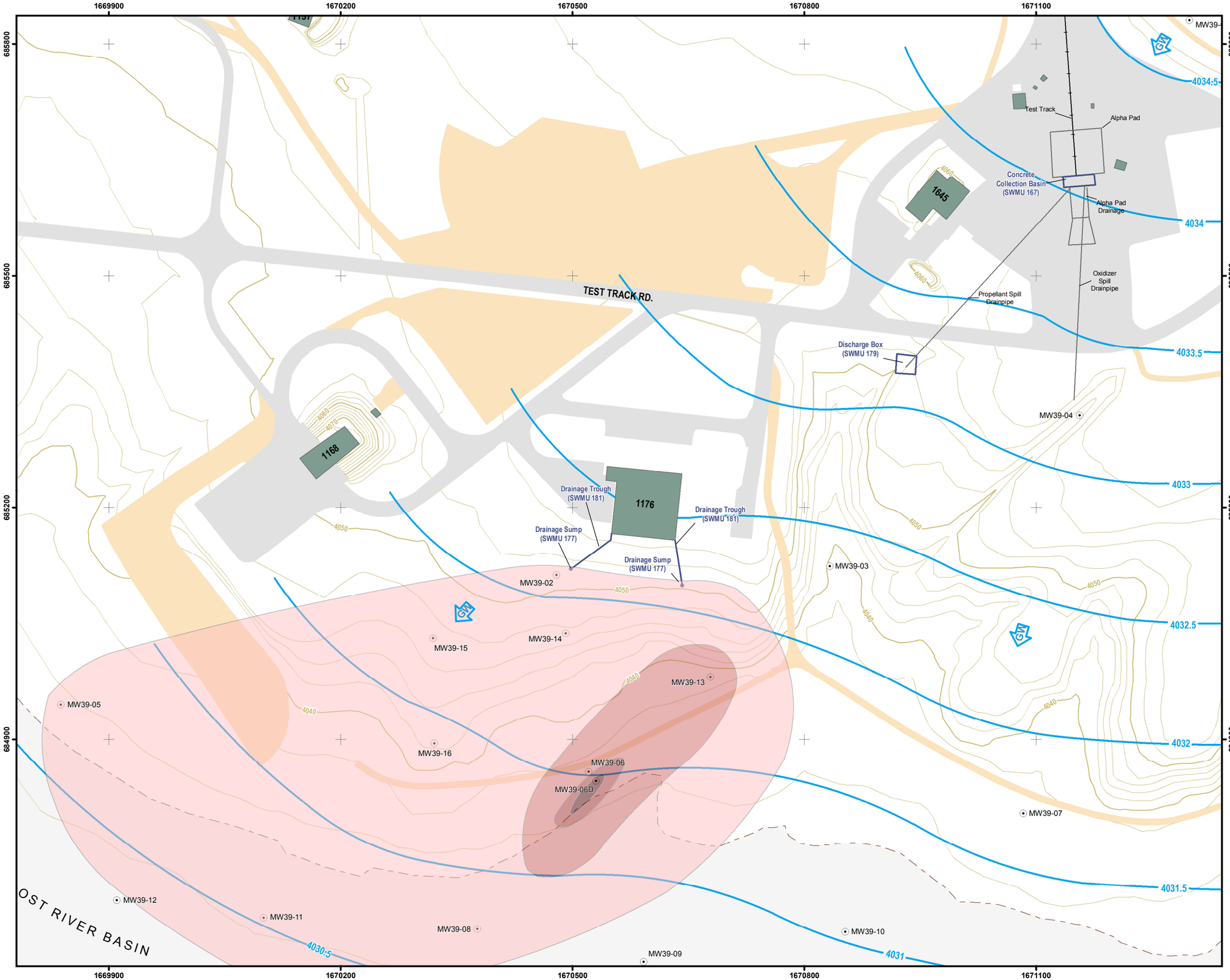
FIGURE 4-11

PERCHLORATE CONCENTRATION GRADIENT AT SS-39



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SOURCE: HGL

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LEGEND

- MONITORING WELL
- GROUNDWATER CONTOUR
- INDEX CONTOUR (10')
- INTERVAL CONTOUR (2')
- 14 HOLLOMAN AFB BUILDING
- ROAD/PARKING (PAVED)
- ROAD/PARKING (UNPAVED)
- WETLAND AREA
- SWMU BOUNDARY

TRICHLOROETHENE (TCE) CONCENTRATION

- >5-100 µg/L
- >100-200 µg/L
- >200-300 µg/L
- >300-400 µg/L

N

0 60 120 240
FEET

LONG TERM MONITORING REPORT
HOLLOMAN AIR FORCE BASE
ALAMOGORDO, NEW MEXICO

TETRA TECH

FIGURE 4-12

TRICHLOROETHENE (TCE) CONCENTRATION GRADIENT AT SS-39

APPENDIX A

DATA REVIEW CHECKLISTS

JULY 2009 DATA REVIEW CHECKLISTS

Data Review Checklist

Project Name:	Holloman AFB	SDG/Report No.:	280-5193-1
Project No.:	100-TEN-T93002-1	Lab ID:	TestAmerica
No. of Samples:	12	Matrix:	Water

Area Reviewed	**Reviewed**	**Anomalies**		**Qualification Required**
		Yes	No	Y or N (or N/A)
1. Hold Time/Preservation.	Yes		X	N
2. Instrument Performance Check	Yes		X	N
3. Calibrations	Yes		X	N
4. Blanks (Method and/or Field QC)	Yes		X	N
5. Surrogates	N/A	---	---	N/A
6. MS/MSD	Yes	X		N
7. LCS	Yes		X	N
8. Internal Standards	Yes		X	N
9. Duplicates (field, lab)	Yes		X	N
10. Serial Dilution	N/A	---	---	N/A
11. Laboratory Case Narrative	Yes		X	N
12. Completeness of Data Package	Yes		X	N
13. Other issues	Yes		X	N

The following section is intended to specify areas evaluated and to provide an explanation (where applicable) for those areas where problems were identified during review. Only applicable methods are listed.

Comments/Discussion:

1. **Hold Time/Preservation**.
Cooler temperature at receipt was 3.1 degrees C.
Samples were analyzed within the holding time of 28 days.
2. **Instrument Performance Check**
6860: Interference Check Sample (ICS) recovery is within 85%-115%.
3. **Calibrations (Initial and Continuing)**
6860: Initial calibration (ICAL) r $\geq$ 0.995; Initial calibration verification % difference < 10%.
Continuing calibration verification % difference < 15% at the midpoint.
Limit of Detection Verification Standard (LODV) recoveries were within 70%-130.
4. **Blanks (Method and/or Field QC)**
6860: Perchlorate was not detected in the method blank.

Data Review Checklist

5. **Surrogates**
N/A
6. **MS/MSD**
6860: MS/MSD ran on MW39-07-070710. Recoveries were below limits. The RPD was acceptable.
The concentration of perchlorate in the sample is >4x the amount spiked, so recovery criteria do not apply. No qualification is needed.
7. **LCS (and LCS duplicate, if applicable)**
6860: Recovery is within 80%-120%.
8. **Internal Standards**
6860: Sample areas were within 50% - 150% of the standards.
9. **Duplicates (field, lab)**
One field duplicate pair was analyzed: MW39-06D-070810 and MW39-DUP01-070810.
The samples were in agreement with RPD <30%.
10. **Serial Dilution**
N/A
11. **Laboratory Case Narrative**
Acceptable
12. **Completeness of Data Package**
Acceptable
13. **Other Issues**
None
Overall: Useable as reported.
Reviewed by: Maureen McMyler 05/10/11

Data Review Checklist

Project Name:	Holloman AFB	SDG/Report No.:	F74973
Project No.:	100-TEN-T93002-1	Lab ID:	Accutest
No. of Samples:	6 and 1 TB	Matrix:	Water

Area Reviewed	Reviewed	Anomalies		Qualification Required
		Yes	No	Y or N (or N/A)
1. Hold Time/Preservation.	Yes		X	N
2. Instrument Performance Check	Yes		X	N
3. Calibrations	Yes	X		Y
4. Blanks (Method and/or Field QC)	Yes	X		N
5. Surrogates	Yes		X	N
6. MS/MSD	Yes	X		Y
7. LCS	Yes	X		N
8. Internal Standards	Yes		X	N
9. Duplicates (field, lab)	Yes	X		N
10. Serial Dilution	Yes	X		N
11. Laboratory Case Narrative	Yes		X	N
12. Completeness of Data Package	Yes		X	N
13. Other issues	Yes		X	Y

The following section is intended to specify areas evaluated and to provide an explanation (where applicable) for those areas where problems were identified during review. Only applicable methods are listed.

Comments/Discussion:

1. **Hold Time/Preservation**.
Cooler temperatures at receipt were 3.0 and 3.6 degrees C.
Samples were prepared and analyzed within holding times.
2. **Instrument Performance Check (Method and/or Field QC)**
6010B: Interference check samples' recoveries were acceptable.
8260B: BFB abundances were acceptable.
3. **Calibrations (Initial and Continuing)**
6010B: ICV and CCV recoveries were between 90% and 110% for analytes of interest.
7470A: Initial calibration verification (ICV) and continuing calibration verification (CCV) recoveries were between 80% and 120%. The low calibration check standard for mercury was above the lab's control limits, but below validation criteria. No qualification is needed.
8260B: Initial calibration (ICAL) %RSD < 15% or correlation coefficient (r) >0.99 for most; For trans-1,4-dichloro-2-butene, r = 0.9867. It will be qualified "UJ" in all the samples.
CCV %difference (%D) should be < 20%. The following compounds had % differences > 20: 1,2-

Dibromo-3-chloropropane, 2-butanone, 2-chloroethyl vinyl ether, acetone, acetonitrile, acrolein, acrylonitrile, cis-1,4-dichloro-2-butene, dichlorodifluoromethane, methacrylonitrile, methyl methacrylate, methylene chloride, propionitrile, and trans-1,4-dichloro-2-butene. All will be qualified in the samples – "J" for detects. "UJ" for non-detects.
4. **Blanks (Method and/or Field QC)**
6010B: No metals were detected in the blanks above the reporting limit (RL). Zinc was detected above the MDL in a method blank in batch MP18653. Antimony was detected -3.5. The absolute value is > than the MDL. Antimony, iron, and thallium were detected in some of the calibration blanks. They were not detected in the associated samples. No qualification is needed.
7470A: Mercury (Hg) was not detected in the blanks above the RL.
8260B: No compounds were detected in the method blank or trip blank.
SM19 2540C: Total dissolved solids were not detected in the blank above the RL.
5. **Surrogates**
8260B: Recoveries were within limits.
6. **MS/MSD**
6010B: MS/MSD ran on MW30&33-01-070610. In batch MP18639 (total metals), recoveries were outside limits for calcium, magnesium, selenium, silver, and sodium. In batch MP18653, recoveries were below limits for dissolved magnesium and sodium. Concentrations of calcium, magnesium, and sodium were >4x the amount spiked, so the recovery criteria do not apply. Silver was not detected in the sample, so there is no high bias. Total selenium will be qualified "J" in MW30&33-01-070610.
7470A: MS/MSD ran on MW30&33-01-070610 and another sample. Recoveries and RPDs were within limits.
8260B: MS/MSD ran on MW30&33-01-070610. Recoveries for the following compounds were outside acceptable limits: 1,1,2,2-tetrachloroethane (MS only), 2-hexanone, 4-methyl-2-pentanone, acetonitrile, acrolein, 2-chloroethyl vinyl ether (MSD only), cis-1,4-dichloro-2-butene, trans-1,3-dichloropropene (MS only), and trans-1,4-dichloro-2-butene. All recoveries, except 2-chloroethyl vinyl ether, were high. The compounds were not detected in the original sample, so the possibility for high bias does not exist. 1,1-Dichloropropene, 2-chloroethyl vinyl ether, and p-isopropyltoluene RPDs were high. 1,1-Dichloropropene, 2-chloroethyl vinyl ether, and p-isopropyltoluene will be qualified "UJ" in MW30&33-01-070610.
7. **LCS (and LCS duplicate, if applicable)**
6010B: Recoveries were within limits.
7470A: Recoveries were within limits.
8260B: Recoveries were high for acrolein, 2-chloroethyl vinyl ether, cis-1,4-dichloro-2-butene, and trans-1,4-dichloro-2-butene. The compounds were not detected in the samples, so there is no high bias. No qualification is needed.
8. **Internal Standards**
8260B: Area and retention times were within acceptable limits.
9. **Duplicates (field, lab)**
One field duplicate pair was analyzed: MW30&33-05R-070610 and MW30&33-DUP01-070610. All

results were in agreement with RPDs < 30%.
6010B: Ran on MW30&33-01-070610. In batch MP18639 (total metals), RPDs were high for the following metals: aluminum, antimony, arsenic, barium, copper, lead, and potassium. In batch MP18653 (dissolved metals), RPDs were high for arsenic and lead. The sample concentrations are <5x the RL, so the RPD criteria do not apply. No qualification is necessary.
7470A: Ran on MW30&33-01-070610 and another sample. Samples were in agreement. Mercury was not detected. RPD was not calculated.
SM19 2540C: Ran on MW30&33-01-070610. RPD was within control limits.
10. **Serial Dilution**
6010B: Ran on MW30&33-01-070610. In batch MP18639 (total metals), %Ds were high for arsenic, barium, lead, potassium, selenium, and vanadium. In batch MP18653 (dissolved metals), %Ds were high for barium, potassium, selenium, and vanadium. Percent difference is allowable because the initial sample concentration is < 50 times IDL. No qualification is needed.
7470A: Ran on MW30&33-01-070610 and another sample. Percent difference was not calculated in either case because mercury was not detected in the samples or the dilutions. No qualification.
11. **Laboratory Case Narrative**
Acceptable
12. **Completeness of Data Package**
Acceptable
13. **Other Issues**
6010B: There were elevated reporting limits because of matrix interference.
ALL: Detections between the method detection limit and the reporting limit are estimated and qualified "J".
Overall: Useable as qualified.

Reviewed by: Maureen McMyler 04/22/11

Data Review Checklist

Project Name:	Holloman AFB	SDG/Report No.:	F74974
Project No.:	100-TEN-T93002-1	Lab ID:	Accutest
No. of Samples:	12 and 1 TB	Matrix:	Water

Area Reviewed	Reviewed	Anomalies		Qualification Required
		Yes	No	Y or N (or N/A)
1. Hold Time/Preservation.	Yes		X	N
2. Instrument Performance Check	Yes		X	N
3. Calibrations	Yes	X		Y
4. Blanks (Method and/or Field QC)	Yes		X	N
5. Surrogates	Yes		X	N
6. MS/MSD	Yes	X		N
7. LCS	Yes	X		N
8. Internal Standards	Yes	X		N
9. Duplicates (field, lab)	Yes	X		N
10. Serial Dilution	Yes	X		N
11. Laboratory Case Narrative	Yes		X	N
12. Completeness of Data Package	Yes		X	N
13. Other issues	Yes	X		Y

The following section is intended to specify areas evaluated and to provide an explanation (where applicable) for those areas where problems were identified during review. Only applicable methods are listed.

Comments/Discussion:

1. **Hold Time/Preservation**.
Cooler temperatures at receipt were 2.4, 2.6, 2.8, and 3.8 degrees C.
Samples were prepared and analyzed within holding times.
2. **Instrument Performance Check (Method and/or Field QC)**
6010B: Interference check samples' recoveries were acceptable.
8260B: BFB abundances were acceptable.
3. **Calibrations (Initial and Continuing)**
6010B: ICV and CCV recoveries were between 90% and 110% for analytes of interest.
7470A: Initial calibration verification (ICV) and continuing calibration verification (CCV) recoveries were between 80% and 120%. The low calibration check standard for mercury was above the lab's control limits, but below validation criteria. No qualification is needed.
8260B: Initial calibration (ICAL) %RSD < 15% or correlation coefficient (r) >0.99 for most; For trans-1,4-dichloro-2-butene, r = 0.9867. It will be qualified "UJ" in all the samples.
CCV %difference (%D) should be < 20%. For the calibration analyzed 7/14/10, the following

compounds had % differences > 20: 1,2-Dibromo-3-chloropropane, 2-butanone, 2-chloroethyl vinyl ether, acetone, acetonitrile, acrolein, acrylonitrile, cis-1,4-dichloro-2-butene, dichlorodifluoromethane, methacrylonitrile, methyl methacrylate, methylene chloride, propionitrile, and trans-1,4-dichloro-2-butene. All will be qualified in the samples analyzed on 7/14/10 – "J" for detects. "UJ" for non-detects. For the calibration analyzed 7/15/10, the following compounds had % differences > 20: 2-chloroethyl vinyl ether, acrolein, cis-1,4-dichloro-2-butene, dichlorodifluoromethane, methyl methacrylate, and trans-1,4-dichloro-2-butene. All will be qualified "UJ" in the samples analyzed on 7/15/10.
4. **Blanks (Method and/or Field QC)**
6010B: No metals were detected in the blanks above the reporting limit (RL).
7470A: Mercury (Hg) was not detected in the blanks above the RL.
8260B: No compounds were detected in the method blank or trip blank.
SM19 2540C: Total dissolved solids were not detected in the blanks above the RL.
5. **Surrogates**
8260B: Recoveries were within limits.
6. **MS/MSD**
6010B: MS/MSD ran on MW39-07-070710. Recoveries were within limits for all except for the MS of dissolved selenium, which was high. Since all other criteria were acceptable, no qualification will be applied.
7470A: MS/MSD ran on MW39-07-070710. Recoveries and RPDs were within limits.
8260B: MS/MSD ran on MW30&33-01-070610 (F74973) and MW39-07-070710. Recoveries for the following compounds were outside acceptable limits in MW30&33-01-070610: 1,1,2,2-tetrachloroethane (MS only), 2-hexanone, 4-methyl-2-pentanone, acetonitrile, acrolein, 2-chloroethyl vinyl ether (MSD only), cis-1,4-dichloro-2-butene, trans-1,3-dichloropropene (MS only), and trans-1,4-dichloro-2-butene. All recoveries, except 2-chloroethyl vinyl ether, were high. The compounds were not detected in the original sample, so the possibility for high bias does not exist. 1,1-Dichloropropene, 2-chloroethyl vinyl ether, and p-isopropyltoluene RPDs were high. No qualification is needed for this work order. In MW39-07-070710, the following recoveries were high: 1,1,2,2-tetrachloroethane, 1,2,3-trichloropropane, 1,2-dibromo-3-chloropropane, 2-chloroethyl vinyl ether, 2-hexanone, 4-methyl-2-pentanone, acetonitrile, acrolein, benzyl chloride, cis-1,4-dichloro-2-butene, ethyl methacrylate, pentachloroethane, trans-1,3-dichloropropene, and trans-1,4-dichloro-2-butene. The compounds were not detected in the samples, so there is no possibility of high bias. No qualification is needed.
7. **LCS (and LCS duplicate, if applicable)**
6010B: Recoveries were within limits.
7470A: Recoveries were within limits.
8260B: In batches VF1252 and VF 1253, recoveries were high for acrolein, 2-chloroethyl vinyl ether, cis-1,4-dichloro-2-butene, and trans-1,4-dichloro-2-butene. The compounds were not detected in the samples, so there is no high bias. No qualification is needed.
8. **Internal Standards**
8260B: Tert Butyl Alcohol-D10 areas exceeded the allowable upper limits in the following samples: MW39-11-070710, MW39-12-070710, MW39-08-070710, MW39-09-070710, MW39-10-070710, and

MW39-07-070710. The areas were confirmed by re-analysis. No associated compounds were detected. No qualification is needed.
9. **Duplicates (field, lab)**
One field duplicate pair was analyzed: MW39-06D-070810 and MW39-DUP01-070810. All detected results were in agreement with RPDs < 30%.
6010B: Ran on MW39-07-070710. In batch MP18652 (total metals), RPD of selenium was high. In batch MP18659 (dissolved metals), RPDs were within limits or not calculated. The sample concentrations are <5x the RL, so the RPD criteria do not apply. No qualification is necessary.
7470A: Ran on MW39-07-070710. Samples were in agreement. Mercury was not detected. RPD was not calculated.
SM19 2540C: Ran on MW39-07-070710 and another sample. RPDs were within control limits.
10. **Serial Dilution**
6010B: Ran on MW39-07-070710. In batch MP18652 (total metals) and batch MP18659 (dissolved metals), %D was high for selenium. Others were not calculated because the metals were not detected or were detected below the RL. Percent differences are allowable because the initial sample concentrations were < 50 times IDL. No qualification is needed.
7470A: Ran on MW39-07-070710. Percent difference was not calculated in either case because mercury was not detected in the samples or the dilutions. No qualification.
11. **Laboratory Case Narrative**
Acceptable
12. **Completeness of Data Package**
Acceptable
13. **Other Issues**
6010B: There were elevated reporting limits because of matrix interference.
ALL: Detections between the method detection limit and the reporting limit are estimated and qualified "J".
Overall: Useable as qualified.

Reviewed by: Maureen McMyler 05/05/11

NOVEMBER 2010 DATA REVIEW CHECKLISTS

Data Review Checklist

Project Name:	Holloman AFB	SDG/Report No.:	F77967
Project No.:	100-TEN-T93002-1	Lab ID:	Accutest
No. of Samples:	4 and 1 TB	Matrix:	Water

Area Reviewed	Reviewed	Anomalies		Qualification Required
		Yes	No	Y or N (or N/A)
1. Hold Time/Preservation.	Yes	X		Y
2. Instrument Performance Check	Yes		X	N
3. Calibrations	Yes	X		N
4. Blanks (Method and/or Field QC)	Yes	X		Y
5. Surrogates	Yes	X		N
6. MS/MSD	Yes	X		N
7. LCS	Yes	X		N
8. Internal Standards	Yes		X	N
9. Duplicates (field, lab)	Yes	X		Y
10. Serial Dilution	Yes	X		N
11. Laboratory Case Narrative	Yes		X	N
12. Completeness of Data Package	Yes		X	N
13. Other issues	Yes	X		Y

The following section is intended to specify areas evaluated and to provide an explanation (where applicable) for those areas where problems were identified during review. Only applicable methods are listed.

Comments/Discussion:

1. **Hold Time/Preservation**.
Cooler temperatures at receipt were 3.8, 4.4, and 4.6 degrees C.
8260B: Samples were analyzed outside of the holding time. All results should be considered estimated, biased low, and qualified "UJ" for non-detects or "J" for detects.
2. **Instrument Performance Check (Method and/or Field QC)**
6010B: Interference check samples' recoveries were acceptable.
8260B: BFB abundances were acceptable.
8270D: DFTPP abundances were acceptable.
3. **Calibrations (Initial and Continuing)**
6010B: ICV and CCV recoveries were between 90% and 110% for analytes of interest. In analytical batch MA8512, the reporting limit check standard recovery for lead was below the lab's control limits. It was within the range allowed for validation. No qualification is needed.
7470A: Initial calibration verification (ICV) and continuing calibration verification (CCV) recoveries were between 80% and 120%.
8015C-DRO: Initial calibration (ICAL) %RSDs were < 15%. CCV % differences (%D) were < 20%.

8015C-GRO: ICAL %RSDs were < 15%. CCV %Ds were < 20%.
8260B: ICAL %RSDs were < 15% and correlation coefficients were >0.99. CCV %Ds were < 20%.
8270D: ICAL %RSDs were < 15% and correlation coefficients were >0.99. CCV %Ds were < 20%.
4. **Blanks (Method and/or Field QC)**
6010B: No metals were detected in the blanks above the reporting limit (RL). Lead was detected above the MDL in method blanks in batches MP19475 and MP19495. Lead was not detected in the samples. No qualification is needed.
7470A: Mercury (Hg) was not detected in the blanks above the RL. Mercury was detected above the MDL and IDL in MP19477. Total mercury should be considered non-detect in SD27-TTMW-03. Mercury will be qualified "U" because of lab contamination.
8015C-DRO: Diesel range organics were not detected in the blanks above the RL.
8015C-GRO: Gasoline range organics were not detected in the blanks above the RL.
8260B: Methylene chloride was detected in the trip blank and the method blank of batch VF1350. It was not detected in the samples. No qualification is needed.
8270D: bis(2-Ethylhexyl)phthalate was detected in a method blank. It was detected in two samples at similar levels. bis(2-Ethylhexyl)phthalate should be considered non-detect in SD27-TTMW-03 and SD27-TTMW-04 and will be qualified "U".
SM19 2540C: Total dissolved solids were not detected in the blank above the RL.
5. **Surrogates**
8015C-DRO: Recoveries and retention times were within limits.
8015C-GRO: Recoveries and retention times were within limits for project samples.
8260B: Recoveries were within limits.
8270D: Recoveries were within limits for the project samples.
6. **MS/MSD**
6010B: MS/MSD ran on unrelated samples. Recoveries and RPDs were within limits.
7470A: MS/MSD ran on unrelated samples. Recoveries and RPDs were within limits.
8015C-DRO: MS/MSD ran on an unrelated sample. Recoveries were high and RPD was within limits. No qualification is needed for this work order.
8015C-GRO: MS/MSD ran on unrelated samples. Recoveries and RPDs were within limits.
8260B: MS/MSD ran on samples from different work orders. In batch VF1352, the following recoveries were outside control limits: 2-chloroethyl vinyl ether, acetone, acetonitrile (MSD only), bromochloromethane (MS only), n-butylbenzene (MSD only), and trans-1,4-dichloro-2-butene (MS only). RPDs for acetonitrile and n-Butylbenzene were high. In batch VF1350, the following recoveries were outside control limits: 2-chloroethyl vinyl ether, 4-methyl-2-pentanone, acetone, and n-butylbenzene (MS only). RPDs were high for n-butylbenzene and trichlorofluoromethane. No qualification is needed for this work order.
8270D: MS/MSD ran on an unrelated sample. Recoveries were within limits. The following RPDs were high: 2,4,5-trichlorophenol, 2,4,6-trichlorophenol, 2-nitroaniline, 4-chlorophenyl phenyl ether, acenaphthene, acenaphthylene, dibenzofuran, dimethyl phthalate, and fluorene. No qualification is needed for this work order.
7. **LCS (and LCS duplicate, if applicable)**

6010B: Recoveries were within limits.
7470A: Recoveries were within limits.
8015C-DRO: Recovery was within limits.
8015C-GRO: Recoveries were within limits.
8260B: Recoveries were within limits.
8270D: Recoveries were within limits.
8. **Internal Standards**
8260B: Areas and retention times were within limits.
8270D: Areas and retention times were within limits.
9. **Duplicates (field, lab)**
6010B: Ran on unrelated samples. RPD was high for dissolved lead. The sample concentration was <5x the RL, so the RPD criteria do not apply. No qualification is necessary.
7470A: Ran on unrelated samples. RPD was high in batch MP19478. The sample concentration was <5x the RL, so the RPD criteria do not apply. No qualification is necessary.
8015-GRO: Ran on unrelated sample. RPD was within control limits.
SM19 2540C: Ran on SD27-TTMW-02. RPD was within control limits.
One field duplicate pair was analyzed: SD27-TTMW-02 and SD27-TTMW-02-FD. Dissolved arsenic and total chromium had RPDs that exceeded 35%. They will be qualified "J" in SD27-TTMW-02 and SD27-TTMW-02-FD.
10. **Serial Dilution**
6010B: Ran on unrelated samples. In batch MP19475 (total metals), %Ds were high for arsenic, lead, and selenium. In batch MP19495 (dissolved metals), %Ds were high for barium, cadmium, lead, and selenium. %Ds are allowable because the initial sample concentrations are < 50 times IDL. No qualification is needed.
7470A: Ran on unrelated samples. Percent differences were high. %Ds are allowable because the initial sample concentrations are < 50 times IDL. No qualification is needed.
11. **Laboratory Case Narrative**
Acceptable
12. **Completeness of Data Package**
Acceptable
13. **Other Issues**
6010B: There were elevated reporting limits because of matrix interference.
ALL: Detections between the method detection limit and the reporting limit are estimated and qualified "J".
Overall: Useable as qualified.

Reviewed by: Maureen McMyler 05/11/11

Data Review Checklist

Project Name:	Holloman AFB	SDG/Report No.:	F77967
Project No.:	100-TEN-T93002-1	Lab ID:	Accutest
No. of Samples:	4 and 1 TB	Matrix:	Water

Area Reviewed	Reviewed	Anomalies		Qualification Required
		Yes	No	Y or N (or N/A)
1. Hold Time/Preservation.	Yes	X		Y
2. Instrument Performance Check	Yes		X	N
3. Calibrations	Yes	X		N
4. Blanks (Method and/or Field QC)	Yes	X		Y
5. Surrogates	Yes	X		N
6. MS/MSD	Yes	X		N
7. LCS	Yes	X		N
8. Internal Standards	Yes		X	N
9. Duplicates (field, lab)	Yes	X		N
10. Serial Dilution	Yes	X		Y
11. Laboratory Case Narrative	Yes		X	N
12. Completeness of Data Package	Yes		X	N
13. Other issues	Yes	X		Y

The following section is intended to specify areas evaluated and to provide an explanation (where applicable) for those areas where problems were identified during review. Only applicable methods are listed.

Comments/Discussion:

1. **Hold Time/Preservation**.
Cooler temperatures at receipt were 3.8, 4.4, and 4.6 degrees C.
8260B: Sample SD27-TTMW-05 was analyzed outside of the holding time. All results should be considered estimated, biased low, and qualified "UJ" for non-detects or "J" for detects.
2. **Instrument Performance Check (Method and/or Field QC)**
6010B: Interference check samples' recoveries were acceptable.
8260B: BFB abundances were acceptable.
8270D: DFTPP abundances were acceptable.
3. **Calibrations (Initial and Continuing)**
6010B: ICV and CCV recoveries were between 90% and 110% for analytes of interest.
7470A: Initial calibration verification (ICV) and continuing calibration verification (CCV) recoveries were between 80% and 120%. In analytical batch MA8520, the reporting limit check standard recovery was below the lab's control limits. It was within the range allowed for validation. No qualification is needed.
8015C-DRO: Initial calibration (ICAL) %RSDs were < 15%. CCV % differences (%D) were < 20%.

8015C-GRO: ICAL %RSDs were < 15%. CCV %Ds were < 20%.
8260B: ICAL %RSDs were < 15% and correlation coefficients were >0.99. CCV %Ds were < 20%.
8270D: ICAL %RSDs were < 15% and correlation coefficients were >0.99. CCV %Ds were < 20%.
4. **Blanks (Method and/or Field QC)**
6010B: No metals were detected in the blanks above the reporting limit (RL). Selenium was detected above the MDL in batch MP19523. Total selenium was detected below the reporting limit in SD27-TTMW-01. It should be considered non-detect and qualified "U".
7470A: Mercury (Hg) was not detected in the blanks above the RL.
8015C-DRO: Diesel range organics were not detected in the blanks above the RL.
8015C-GRO: Gasoline range organics were not detected in the blanks above the RL.
8260B: Methylene chloride was detected in the trip blank and the method blank of batch VF1350. It was detected in SD27-TTMW-01. Methylene chloride should be considered non-detect and will be qualified "U" in SD27-TTMW-01.
8270D: No semivolatile compounds were detected in the blanks.
SM19 2540C: Total dissolved solids were not detected in the blank above the RL.
5. **Surrogates**
8015C-DRO: Recoveries and retention times were within limits.
8015C-GRO: Recoveries and retention times were within limits for project samples.
8260B: Recoveries were within limits.
8270D: Recoveries were within limits for the project samples.
6. **MS/MSD**
6010B: MS/MSD ran on SD27-TTMW-01 for total metals and SD27-TTMW-05 for dissolved metals. Recoveries were high for the following: total arsenic (MSD only), total selenium (MSD only), and total silver SD27-TTMW-01; dissolved silver in SD27-TTMW-05. Total selenium was qualified "U" and is considered non-detect in SD27-TTMW-01. Silver was not detected in either sample. Since the MS recovery and RPD of total arsenic is within limits, no qualification will be applied.
7470A: MS/MSD ran on SD27-TTMW-01. Recoveries and RPDs were within limits.
8015C-DRO: MS/MSD ran on SD27-TTMW-01. Recoveries and RPD were within limits.
8015C-GRO: MS/MSD ran on SD27-TTMW-01. Recoveries and RPD were within limits.
8260B: MS/MSD ran on SD27-TTMW-01 and another sample. In SD27-TTMW-01, the following recoveries were outside control limits: 2-chloroethyl vinyl ether (low), 4-methyl-2-pentanone (high), acetone (low), and n-butylbenzene (low in MS only). RPDs were high for n-butylbenzene and trichlorofluoromethane. 4-Methyl-2-pentanone was not detected in the sample, so there is no high bias. The other compounds will be qualified "J" in SD27-TTMW-01. Several compounds and RPDs are outside limits in the other sample, but the project data is not affected.
8270D: MS/MSD ran on an unrelated sample. MS recoveries were outside the lab's control limits for the following compounds: 4-nitrophenol, benzidine, benzoic acid, and phenol. No qualification is needed for this work order.
7. **LCS (and LCS duplicate, if applicable)**
6010B: Recoveries were within limits.
7470A: Recoveries were within limits.

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8015C-DRO: Recovery was within limits.
8015C-GRO: Recoveries were within limits.
8260B: Recoveries were within limits.
8270D: Recoveries were within limits.
8. **Internal Standards**
8260B: Areas and retention times were within limits.
8270D: Areas and retention times were within limits.
9. **Duplicates (field, lab)**
6010B: Ran on SD27-TTMW-01 for total metals and SD27-TTMW-05 for dissolved metals. RPDs were high for total arsenic and lead. The sample concentration were <5x the RL, so the RPD criteria do not apply. No qualification is necessary.
7470A: Ran on SD27-TTMW-01. Samples were in agreement. Mercury was not detected in either. RPDs were not calculated.
8015-GRO: Ran on unrelated sample. RPD was within control limits.
SM19 2540C: Ran on SD27-TTMW-01. RPD was within control limits.
10. **Serial Dilution**
6010B: Ran on SD27-TTMW-01 for total metals and SD27-TTMW-05 for dissolved metals. %Ds were high for total and dissolved arsenic, total and dissolved barium, total chromium, total lead, and total selenium. In most cases, %Ds are allowable because the initial sample concentrations are < 50 times IDL. Total barium will be qualified "J" in SD27-TTMW-01.
7470A: Ran on SD27-TTMW-01. Percent differences were not calculated because mercury was not detected in the samples or the dilutions. No qualification.
11. **Laboratory Case Narrative**
Acceptable
12. **Completeness of Data Package**
Acceptable
13. **Other Issues**
6010B: There were elevated reporting limits because of matrix interference.
ALL: Detections between the method detection limit and the reporting limit are estimated and qualified "J".
Overall: Useable as qualified.

Reviewed by: Maureen McMyler 05/11/11

JANUARY 2011 DATA REVIEW CHECKLISTS

Data Review Checklist

Project Name:	Holloman AFB	SDG/Report No.:	280-12097
Project No.:	100-TEN-T93002-1	Lab ID:	TestAmerica
No. of Samples:	16	Matrix:	Water

Area Reviewed	**Reviewed**	**Anomalies**		**Qualification Required**
		Yes	No	Y or N (or N/A)
1. Hold Time/Preservation.	Yes		X	N
2. Instrument Performance Check	Yes		X	N
3. Calibrations	Yes		X	N
4. Blanks (Method and/or Field QC)	Yes		X	N
5. Surrogates	N/A	---	---	N/A
6. MS/MSD	Yes		X	N
7. LCS	Yes		X	N
8. Internal Standards	Yes		X	N
9. Duplicates (field, lab)	Yes		X	N
10. Serial Dilution	N/A	---	---	N/A
11. Laboratory Case Narrative	Yes		X	N
12. Completeness of Data Package	Yes		X	N
13. Other issues	Yes	X		N

The following section is intended to specify areas evaluated and to provide an explanation (where applicable) for those areas where problems were identified during review. Only applicable methods are listed.

Comments/Discussion:

1. **Hold Time/Preservation**.
Cooler temperature at receipt was 2.4 degrees C.
Samples were analyzed within the holding time of 28 days.
2. **Instrument Performance Check**
6860: Interference Check Sample (ICS) recovery is within 85%-115%.
3. **Calibrations (Initial and Continuing)**
6860: Initial calibration (ICAL) r $\geq$ 0.99; Initial calibration verification % difference < 10%.
Continuing calibration verification % difference < 15% at the midpoint.
Limit of Detection Verification Standard (LODV) recoveries were within 70%-130.
4. **Blanks (Method and/or Field QC)**
6860: Perchlorate was not detected in the method blank.

Data Review Checklist

5. **Surrogates**
N/A
6. **MS/MSD**
6860: MS/MSD ran on MW39-07-012811 and MW39-15-012811. Recoveries and RPDs were within the lab's control limits.
In MW39-07-012811, the concentration of perchlorate in the sample was >4x the amount spiked, so recovery criteria do not apply. The lab applied the "m" qualifier, though no qualification is needed.
7. **LCS (and LCS duplicate, if applicable)**
6860: Recovery is within 80%-120%.
8. **Internal Standards**
6860: Sample areas were within 50% - 150% of the standards.
9. **Duplicates (field, lab)**
Two field duplicate pairs were analyzed: MW39-06D-012611 and MW39-DUP01-012611; MW39-14-012711 and MW39-DUP02-012711
The samples were in agreement with RPD <30%.
10. **Serial Dilution**
N/A
11. **Laboratory Case Narrative**
Acceptable
12. **Completeness of Data Package**
Acceptable
13. **Other Issues**
6860: The lab applied the "m" qualifier, matrix effect, though no qualification was needed.
Overall: Useable as reported.
Reviewed by: Maureen McMyler 05/10/11

Data Review Checklist

Project Name:	Holloman AFB	SDG/Report No.:	F79564
Project No.:	100-TEN-T93002-1	Lab ID:	Accutest
No. of Samples:	6 and 1 TB	Matrix:	Water

Area Reviewed	Reviewed	Anomalies		Qualification Required
		Yes	No	Y or N (or N/A)
1. Hold Time/Preservation.	Yes		X	N
2. Instrument Performance Check	Yes		X	N
3. Calibrations	Yes	X		Y
4. Blanks (Method and/or Field QC)	Yes	X		N
5. Surrogates	Yes		X	N
6. MS/MSD	Yes	X		Y
7. LCS	Yes	X		N
8. Internal Standards	Yes		X	N
9. Duplicates (field, lab)	Yes	X		Y
10. Serial Dilution	Yes	X		Y
11. Laboratory Case Narrative	Yes		X	N
12. Completeness of Data Package	Yes		X	N
13. Other issues	Yes		X	Y

The following section is intended to specify areas evaluated and to provide an explanation (where applicable) for those areas where problems were identified during review. Only applicable methods are listed.

Comments/Discussion:

1. **Hold Time/Preservation**.
Cooler temperature at receipt was 3.8 degrees C.
Samples were prepared and analyzed within holding times.
2. **Instrument Performance Check (Method and/or Field QC)**
6010B: Interference check samples' recoveries were acceptable.
8260B: BFB abundances were acceptable.
3. **Calibrations (Initial and Continuing)**
6010B: ICV and CCV recoveries were between 90% and 110% for analytes of interest.
7470A: Initial calibration verification (ICV) and continuing calibration verification (CCV) recoveries were between 80% and 120%.
8260B: Initial calibration (ICAL) %RSD < 15% or correlation coefficient (r) >0.99.
CCV %difference (%D) should be < 20%. The following compounds had % differences > 20: carbon disulfide, chloroethane, and methacrylonitrile. They will be qualified "UJ" in the samples.

4. **Blanks (Method and/or Field QC)**
6010B: No metals were detected in the blanks above the reporting limit (RL). In batch MP19913, zinc was detected above the MDL and thallium was detected at -3.0 in a method blank. The absolute value is > than the MDL. In batch MP19917, selenium, sodium, and zinc were detected above the MDL. Arsenic and thallium were detected at negative concentrations. The absolute values are > than the MDLs. Dissolved arsenic and selenium detected below the reporting limit should be considered non-detect in the samples and qualified "U".
7470A: Mercury (Hg) was not detected in the blanks above the RL.
8260B: 1,2,3-Trichlorobenzene was detected in the prep blank of batch VJ3476. Methyl chloride (chloromethane) was detected in the trip blank. Neither was detected in the associated samples. No qualification is needed.
SM19 2540C: Total dissolved solids were not detected in the blank above the RL.
5. **Surrogates**
8260B: Recoveries were within limits.
6. **MS/MSD**
6010B: MS/MSD ran on MW30&33-01-012411. In batch MP19913 (total metals), recoveries were outside limits for calcium (high in MSD), magnesium, selenium (high in MSD), silver (high), and sodium (low in MSD). RPDs were within limits. In batch MP19917 (dissolved metals), recoveries were outside limits for arsenic (high in MS), calcium (high), magnesium (low in MSD), selenium (high in MSD), silver (high), and sodium (low in MSD). Concentrations of calcium, magnesium, and sodium were >4x the amount spiked, so the recovery criteria do not apply. Silver was not detected in the sample, so there is no high bias. Dissolved arsenic and selenium were qualified "U" for blank contamination, so they are not considered detected. Since the MS recovery and RPD of total selenium is within limits, no qualification will be applied.
7470A: MS/MSD ran on MW30&33-01-012411 and another sample. Recoveries and RPDs were within limits.
8260B: MS/MSD ran on MW30&33-01-012411 and an unrelated sample. In MW30&33-01-012411, the following recoveries were outside the lab's control limits: acetone (low in MSD only), 2-chloroethyl vinyl ether (low), 4-methyl-2-pentanone (high), cis-1,4-dichloro-2-butene (low), ethyl methacrylate (high in MS only), Freon 113 (high in MS only), hexane (high in MS only), methyl iodide (high in MS only), methyl methacrylate (high), o-dichlorobenzene (high in MS only), and trans-1,4-dichloro-2-butene (low). None of the compounds was detected in the sample. For those with high recoveries, there is no high bias. RPDs were high for 1,1,1,2-tetrachloroethane, 1,1-dichloropropene, 1,2,4-trimethylbenzene, acrolein, allyl chloride, benzyl chloride, bromodichloromethane, bromoform, carbon disulfide, carbon tetrachloride, chloroethane, cis-1,3-dichloropropene, dibromochloromethane, Freon 113, hexane, m-dichlorobenzene, methyl chloride, methyl iodide, methylene chloride, pentachloroethane, sec-butylbenzene, styrene, trans-1,2-dichloroethylene, and trans-1,3-Dichloropropene. They will be qualified "UJ" for imprecision. 2-chloroethyl vinyl ether, cis-1,4-dichloro-2-butene, and trans-1,4-dichloro-2-butene will be qualified "UJ" for poor accuracy.
7. **LCS (and LCS duplicate, if applicable)**
6010B: Recoveries were within limits.
7470A: Recoveries were within limits.
8260B: Recovery was high for hexane. It was not detected in the samples, so there is no high bias. No

qualification is needed.
8. **Internal Standards**
8260B: Area and retention times were within acceptable limits.
9. **Duplicates (field, lab)**
One field duplicate pair was analyzed: MW30&33-05-012511 and MW30&33-DUP01-012511. Most results were in agreement with RPDs < 30%. Dissolved selenium RPD was high. Dissolved selenium would be qualified "J" in MW30&33-05-012511 and MW30&33-DUP01-012511, however, it was qualified "U" in both samples because of lab contamination.
6010B: Ran on MW30&33-01-012411. In batch MP19913 (total metals), RPDs were high for the following metals: aluminum, copper, selenium, and zinc. In batch MP19917 (dissolved metals), RPDs were high for aluminum, antimony, and zinc. The sample concentrations were <5x the RL, so the RPD criteria do not apply. No qualification is needed.
7470A: Ran on MW30&33-01-012411 and another sample. Samples were in agreement. Mercury was not detected. RPD was not calculated.
SM19 2540C: Ran on MW30&33-01-012411. RPD was within control limits.
10. **Serial Dilution**
6010B: Ran on MW30&33-01-012411. In batch MP19913 (total metals), %Ds were high for aluminum, antimony, arsenic, barium, cobalt, copper, iron, potassium, selenium, sodium, and zinc. In batch MP19917 (dissolved metals), %Ds were high aluminum, antimony, barium, calcium, cobalt, copper, selenium, sodium, vanadium, and zinc. In most cases. %D is allowable because the initial sample concentration was < 50 times IDL. The following will be qualified "J" in MW30&33-01-012411: dissolved calcium, total potassium, and dissolved and total sodium.
7470A: Ran on MW30&33-01-012411 and another sample. Percent difference was not calculated in either case because mercury was not detected in the samples or the dilutions. No qualification.
11. **Laboratory Case Narrative**
Acceptable
12. **Completeness of Data Package**
Acceptable
13. **Other Issues**
6010B: There were elevated reporting limits because of matrix interference.
ALL: Detections between the method detection limit and the reporting limit are estimated and qualified "J".
Overall: Useable as qualified.

Reviewed by: Maureen McMyler 05/02/11

Data Review Checklist

Project Name:	Holloman AFB	SDG/Report No.:	F79608
Project No.:	100-TEN-T93002-1	Lab ID:	Accutest
No. of Samples:	6 and 1 TB	Matrix:	Water

Area Reviewed	Reviewed	Anomalies		Qualification Required
		Yes	No	Y or N (or N/A)
1. Hold Time/Preservation.	Yes		X	N
2. Instrument Performance Check	Yes		X	N
3. Calibrations	Yes		X	N
4. Blanks (Method and/or Field QC)	Yes	X		Y
5. Surrogates	Yes	X		N
6. MS/MSD	Yes	X		Y
7. LCS	Yes	X		N
8. Internal Standards	Yes		X	N
9. Duplicates (field, lab)	Yes	X		Y
10. Serial Dilution	Yes	X		N
11. Laboratory Case Narrative	Yes		X	N
12. Completeness of Data Package	Yes		X	N
13. Other issues	Yes		X	Y

The following section is intended to specify areas evaluated and to provide an explanation (where applicable) for those areas where problems were identified during review. Only applicable methods are listed.

Comments/Discussion:

1. **Hold Time/Preservation**.
Cooler temperatures at receipt were 2.8, 3.0, 3.0, 3.6, and 3.8 degrees C.
Samples were prepared and analyzed within holding times.
2. **Instrument Performance Check (Method and/or Field QC)**
6010B: Interference check samples' recoveries were acceptable.
8260B: BFB abundances were acceptable.
8270D: DFTPP abundances were acceptable.
3. **Calibrations (Initial and Continuing)**
6010B: ICV and CCV recoveries were between 90% and 110% for analytes of interest.
7470A: Initial calibration verification (ICV) and continuing calibration verification (CCV) recoveries were between 80% and 120%.
8015C-DRO: Initial calibration (ICAL) %RSDs were < 15%. CCV % differences (%D) were < 20%.
8015C-GRO: ICAL %RSDs were < 15%. CCV %Ds were < 20%.
8260B: ICAL %RSDs were < 15% and correlation coefficients were >0.99.
CCV %Ds were < 20% for the compounds of interest.

8270D: ICAL %RSDs were < 15% and correlation coefficients were >0.99. CCV %Ds were < 20%.
4. **Blanks (Method and/or Field QC)**
6010B: No metals were detected in the blanks above the reporting limit (RL). Selenium was detected above the MDL in method blanks in batches MP19932 and MP19933. Selenium was not detected in the samples. Arsenic was detected at -2.8 and -2.5 in batch MP19933. The absolute values are > than the MDL of 2. Dissolved arsenic should be considered non-detect in MW27-01-012511, MW27-02-012511, and MW27-05-012511 because of lab contamination and will be qualified "U".
7470A: Mercury (Hg) was not detected in the blanks above the RL.
8015C-DRO: Diesel range organics were not detected in the blanks above the RL.
8015C-GRO: Gasoline range organics were not detected in the blanks above the RL.
8260B: No compounds were detected in the trip blank. In batch VJ3483, 1,2,3-trichlorobenzene was detected in the method blank. It was not detected in the samples. No qualification is needed.
8270D: No semivolatile compounds were detected in blanks.
SM19 2540C: Total dissolved solids were not detected in the blank above the RL.
5. **Surrogates**
8015C-DRO: Recoveries and retention times were within limits.
8015C-GRO: Recoveries and retention times were within limits.
8260B: Recoveries were within limits.
8270D: Recoveries were within limits for the project samples. 2-Fluorophenol and phenol-d5 recoveries were high in the MS and MSD of MW27-01-012511. The recoveries were under 70%. Project data are not affected. No qualification is needed.
6. **MS/MSD**
6010B: MS/MSD ran on MW27-01-012511. In batch MP19932 (total metals), recoveries were above limits for arsenic and silver. In batch MP19933, recoveries were above limits for silver. Silver was not detected in the sample, so there is no high bias. Total arsenic will be qualified "J" in MW27-01-012511.
7470A: MS/MSD ran on MW27-01-012511. Recoveries and RPDs were within limits.
8015C-DRO: MS/MSD ran on MW27-01-01251. Recoveries and RPD were within limits.
8015C-GRO: MS/MSD ran on MW27-01-012511 and MW27-DUP01-012511. Recoveries and RPDs were within limits.
8260B: MS/MSD ran on MW27-01-012511 for methylene chloride and naphthalene and samples from other work orders. Recoveries for the following compounds were outside the lab's control limits in another sample: acetone, 2-chloroethyl vinyl ether, cis-1,4-dichloro-2-butene, dichlorodifluoromethane, ethyl methacrylate, trans-1,4-dichloro-2-butene, trichloroethylene (MSD). The following RPDs were high: 1,2,4-trichlorobenzene, allyl chloride, carbon disulfide, cis-1,4-dichloro-2-butene, styrene, and trans-1,4-dichloro-2-butene. No qualification is needed for this work order.
8270D: MS/MSD ran on MW27-01-01251. Recoveries and RPDs were within limits.
7. **LCS (and LCS duplicate, if applicable)**
6010B: Recoveries were within limits.
7470A: Recoveries were within limits.
8015C-DRO: Recovery was within limits.

8015C-GRO: Recoveries were within limits.
8260B: In batch VJ3483, dichlorodifluoromethane recovery was high. It was not detected in the samples, so there is no high bias. No qualification is needed.
8270D: Recoveries were within limits.
8. **Internal Standards**
8260B: Areas and retention times were within limits.
8270D: Areas and retention times were within limits.
9. **Duplicates (field, lab)**
One field duplicate pair was analyzed: MW27-02-012511 and MW27-DUP01-012511. All detected results were in agreement with RPDs < 30%.
6010B: Ran on MW27-01-012511. In batch MP19932 (total metals), RPD was high for arsenic. In batch MP19933 (dissolved metals), RPDs were high for arsenic and selenium. The sample concentrations were <5x the RL, so the RPD criteria do not apply. No qualification is necessary.
7470A: Ran on MW27-01-012511. Samples were in agreement. Mercury was not detected. RPD was not calculated.
SM19 2540C: Ran on MW27-01-012511. RPD was above control limits. Total dissolved solids should be considered estimated and will be qualified "J" in MW27-01-012511.
10. **Serial Dilution**
6010B: Ran on MW27-01-012511. In batch MP19932 (total metals), %Ds were high for arsenic and barium. In batch MP19933 (dissolved metals), %Ds were high for arsenic and selenium. %Ds are allowable because the initial sample concentrations are < 50 times IDL. No qualification is needed.
7470A: Ran on MW27-01-012511. Percent difference was not calculated in either case because mercury was not detected in the samples or the dilutions. No qualification.
11. **Laboratory Case Narrative**
Acceptable
12. **Completeness of Data Package**
Acceptable
13. **Other Issues**
6010B: There were elevated reporting limits because of matrix interference.
ALL: Detections between the method detection limit and the reporting limit are estimated and qualified "J".
Overall: Useable as qualified.

Reviewed by: Maureen McMyler 05/05/11

Data Review Checklist

Project Name:	Holloman AFB	SDG/Report No.:	F79653
Project No.:	100-TEN-T93002-1	Lab ID:	Accutest
No. of Samples:	7 and 1 TB	Matrix:	Water

Area Reviewed	Reviewed	Anomalies		Qualification Required
		Yes	No	Y or N (or N/A)
1. Hold Time/Preservation.	Yes	X		Y
2. Instrument Performance Check	Yes		X	N
3. Calibrations	Yes		X	N
4. Blanks (Method and/or Field QC)	Yes	X		Y
5. Surrogates	Yes	X		N
6. MS/MSD	Yes	X		Y
7. LCS	Yes	X		N
8. Internal Standards	Yes	X		N
9. Duplicates (field, lab)	Yes	X		N
10. Serial Dilution	Yes	X		N
11. Laboratory Case Narrative	Yes		X	N
12. Completeness of Data Package	Yes		X	N
13. Other issues	Yes		X	Y

The following section is intended to specify areas evaluated and to provide an explanation (where applicable) for those areas where problems were identified during review. Only applicable methods are listed.

Comments/Discussion:

1. **Hold Time/Preservation**.
Cooler temperatures at receipt were 2.4 and 3.2 degrees C.
Samples were prepared and analyzed within holding times.
8260B: MW39-06-012611 was not preserved to pH of <2. It was analyzed after 7 days. All results should be considered estimated, biased low, and will be qualified "UJ" or "J". For sample MW39-06D-012611, the vial used for Run #2 had headspace. Naphthalene, 1,2,3-trichlorobenzene, and 1,2,4-trichlorobenzene should be considered estimated, biased low, and will be qualified "UJ".
2. **Instrument Performance Check (Method and/or Field QC)**
6010B: Interference check samples' recoveries were acceptable.
8260B: BFB abundances were acceptable.
3. **Calibrations (Initial and Continuing)**
6010B: ICV and CCV recoveries were between 90% and 110% for analytes of interest.
7470A: Initial calibration verification (ICV) and continuing calibration verification (CCV) recoveries were between 80% and 120%.
8015C-DRO: Initial calibration (ICAL) %RSDs were < 15%. CCV % differences (%D) were < 20%.
8015C-GRO: ICAL %RSDs were < 15%. CCV %Ds were < 20%.

8260B: ICAL %RSDs were < 15% and correlation coefficients were >0.99.
CCV %Ds were < 20% for the compounds of interest.
4. **Blanks (Method and/or Field QC)**
6010B: No metals were detected in the blanks above the reporting limit (RL). Selenium was detected above the MDL in method blanks in batch MP19932 at 3.0 ug/L and 3.8 ug/L. Selenium was detected in all the samples below the reporting limit, but multiplied by a dilution factor of five. All may be the result of lab contamination and will be qualified "U".
7470A: Mercury (Hg) was not detected in the blanks above the RL.
8015C-DRO: Diesel range organics were not detected in the blank above the RL.
8015C-GRO: Gasoline range organics were not detected in the blank above the RL.
8260B: No compounds were detected in the trip blank. In batch VJ3483, 1,2,3-trichlorobenzene was detected in the method blank. It was not detected in the samples. No qualification is needed.
SM19 2540C: Total dissolved solids were not detected in the blank above the RL.
5. **Surrogates**
8015C-DRO: Recoveries and retention times were within limits.
8015C-GRO: Recoveries and retention times were within limits.
8260B: Recoveries were within limits.
6. **MS/MSD**
6010B: MS/MSD ran on MW27-01-012511 (F79608). Recoveries were above limits for arsenic and silver. Silver was not detected in the sample, so there is no high bias. Total arsenic will be qualified in MW27-01-012511 in the original work order. No qualification is needed for this work order.
7470A: MS/MSD ran on MW27-01-012511 (F79608) and MW39-07-012811 (F79701). Recoveries and RPDs were within limits.
8015C-DRO: MS/MSD ran on MW39-15-012811 (F79701). Recoveries and RPD were within limits.
8015C-GRO: MS/MSD ran on MW27-01-01251 (F79608). Recoveries and RPD were within limits.
8260B: MS/MSD ran on MW39-14-012711 and samples from other work orders. Recoveries for the following compounds were outside the lab's control limits in MW39-14-012711: acetone (low), 2-chloroethyl vinyl ether (low), cis-1,4-dichloro-2-butene (low), dichlorodifluoromethane (high), ethyl methacrylate (high), trans-1,4-dichloro-2-butene (low), trichloroethylene (high in MSD). The following RPDs were high: 1,2,4-trichlorobenzene, allyl chloride, carbon disulfide, cis-1,4-dichloro-2-butene, styrene, and trans-1,4-dichloro-2-butene. Dichlorodifluoromethane and ethyl methacrylate were not detected in the sample, so there can be no high bias. The other compounds will be qualified "UJ" or "J" in MW39-14-012711 and MW39-DUP02-012711. Recoveries for the following compounds were outside the lab's control limits in an unrelated sample: 2-chloroethyl vinyl ether, acrolein, allyl chloride, cis-1,3-dichloropropene (MSD only), cis-1,4-dichloro-2-butene, trans-1,4-dichloro-2-butene, ethylbenzene (MS only), and 1,2,4-trimethylbenzene (MS only). The following RPDs were high: cis-1,3-dichloropropene, cis-1,4-dichloro-2-butene, trans-1,3-dichloropropene, and trans-1,4-dichloro-2-butene. No qualification is needed.
7. **LCS (and LCS duplicate, if applicable)**
6010B: Recoveries were within limits.
7470A: Recoveries were within limits.

8015C-DRO: Recovery was within limits.
8015C-GRO: Recovery was within limits.
8260B: In batch VJ3483, dichlorodifluoromethane recovery was high. It was not detected in the samples, so there is no high bias. No qualification is needed.
8. **Internal Standards**
8260B: Tert Butyl Alcohol-D10 area exceeded the allowable upper limit in MW39-09-01271. The area was confirmed by re-analysis. No associated compounds were detected. No qualification is needed.
9. **Duplicates (field, lab)**
Two field duplicate pairs were analyzed: MW39-06D-012611 and MW39-DUP01-012611; MW39-14-012711 and MW39-DUP02-012711. All detected results were in agreement with RPDs < 30%. There were a few instances where an analyte was detected in one of the samples below the RL, but not in the other sample. No qualification is needed in such cases.
6010B: Ran on MW27-01-012511 (F79608). In batch MP19932, RPD was high for arsenic. The sample concentration was <5x the RL, so the RPD criteria do not apply. No qualification is necessary.
7470A: Ran on MW27-01-012511 (F79608) and MW39-07-012811 (F79701). Samples were in agreement. Mercury was not detected. RPD was not calculated.
SM19 2540C: Ran on an unrelated sample. RPD was within control limits.
10. **Serial Dilution**
6010B: Ran on MW27-01-012511 (F79608). In batch MP19932, %Ds were high for arsenic and barium. %Ds are allowable because the initial sample concentrations were < 50 times IDL. No qualification is needed.
7470A: Ran on MW27-01-012511 (F79608) and MW39-07-012811 (F79701). Percent difference was not calculated in either case because mercury was not detected in the samples or the dilutions. No qualification.
11. **Laboratory Case Narrative**
Acceptable
12. **Completeness of Data Package**
Acceptable
13. **Other Issues**
6010B: There were elevated reporting limits because of matrix interference.
ALL: Detections between the method detection limit and the reporting limit are estimated and qualified "J".
Overall: Useable as qualified.

Reviewed by: Maureen McMyler 05/06/11

Data Review Checklist

Project Name:	Holloman AFB	SDG/Report No.:	F79653
Project No.:	100-TEN-T93002-1	Lab ID:	Accutest
No. of Samples:	9	Matrix:	Water

Area Reviewed	Reviewed	Anomalies		Qualification Required
		Yes	No	Y or N (or N/A)
1. Hold Time/Preservation.	Yes		X	N
2. Instrument Performance Check	Yes		X	N
3. Calibrations	Yes	X		Y
4. Blanks (Method and/or Field QC)	Yes	X		Y
5. Surrogates	Yes		X	N
6. MS/MSD	Yes	X		Y
7. LCS	Yes	X		N
8. Internal Standards	Yes	X		N
9. Duplicates (field, lab)	Yes	X		N
10. Serial Dilution	Yes	X		N
11. Laboratory Case Narrative	Yes		X	N
12. Completeness of Data Package	Yes	X		N
13. Other issues	Yes	X		Y

The following section is intended to specify areas evaluated and to provide an explanation (where applicable) for those areas where problems were identified during review. Only applicable methods are listed.

Comments/Discussion:

1. **Hold Time/Preservation**.
Cooler temperatures at receipt were 2.8, 3.6, and 4.0 degrees C.
Samples were prepared and analyzed within holding times.
2. **Instrument Performance Check (Method and/or Field QC)**
6010B: Interference check samples' recoveries were acceptable.
8260B: BFB abundances were acceptable.
3. **Calibrations (Initial and Continuing)**
6010B: ICV and CCV recoveries were between 90% and 110% for analytes of interest. In analytical batch MA8706, the reporting limit check standard recovery for lead was below the lab's control limits. It was within the range allowed for validation. No qualification is needed.
7470A: Initial calibration verification (ICV) and continuing calibration verification (CCV) recoveries were between 80% and 120%.
8015C-DRO: Initial calibration (ICAL) %RSDs were < 15%. CCV % differences (%D) were < 20%.
8015C-GRO: ICAL %RSDs were < 15%. CCV %Ds were < 20%.
8260B: ICAL %RSDs were < 15% and correlation coefficients were >0.99. Most CCV %Ds were <20%
For the analysis ran on 2/10/11, CCV %Ds were > 20% for cis-1,4-dichloro-2-butene and trans-1,4-

dichloro-2-butene. The compounds will be qualified “UJ” in MW39-02-012811, MW39-05-012811, MW39-07-012811, MW39-15-012811, and MW39-16-012811.
4. **Blanks (Method and/or Field QC)**
6010B: No metals were detected in the blanks above the reporting limit (RL). Selenium was detected above the MDL in method blanks in batch MP19934 at 2.2 ug/L and 2.8 ug/L. Dissolved selenium was detected in the associated sample below the reporting limit. Dissolved selenium will be qualified “U” in MW39-07-012811. Lead was detected at (-1.3) ug/L in a blank of batch MP19934. Lead was detected at (-1.4) ug/L in a blank of batch MP19934. In both cases the absolute value of the detection was greater than the MDL. Dissolved lead should be considered non-detect in MW39-15-012811 and qualified “U”.
7470A: Mercury (Hg) was not detected in the blanks above the RL.
8015C-DRO: Diesel range organics were not detected in the blank above the RL.
8015C-GRO: Gasoline range organics were not detected in the blank above the RL.
8260B: No compounds were detected in the method blanks. Naphthalene was detected at 2.6 ug/L in the trip blank. Naphthalene should be considered non-detect in MW39-10-012711, and qualified "U".
SM19 2540C: Total dissolved solids were not detected in the blank above the RL.
5. **Surrogates**
8015C-DRO: Recoveries and retention times were within limits.
8015C-GRO: Recoveries and retention times were within limits.
8260B: Recoveries were within limits.
6. **MS/MSD**
6010B: MS/MSD ran on MW39-07-012811 and MW39-15-012811. In batch MP19934 (MW39-07-012811), recoveries were above limits for dissolved selenium and silver. Silver was not detected in the sample, so there is no high bias. Selenium was determined to be non-detect due to lab contamination. No qualification is needed. In batch MP19938 (MW39-07-012811), recoveries were above limits for total arsenic, selenium, and silver. Arsenic and silver was not detected in the sample, so there is no high bias. Total selenium will be qualified “J” in MW39-07-012811. In batch MP19949 (MW39-15-012811), MSD recovery was above limits for dissolved silver. Silver was not detected in the sample, so there is no high bias. No qualification is needed.
7470A: MS/MSD ran on MW39-07-012811 and MW39-15-012811. Recoveries and RPDs were within limits.
8015C-DRO: MS/MSD ran on MW39-15-012811. Recoveries and RPD were within limits.
8015C-GRO: MS/MSD ran on MW39-15-012811. Recoveries and RPD were within limits.
8260B: MS/MSD ran on MW39-07-01281 and samples from other work orders. MS recoveries for the following compounds were outside the lab’s control limits in MW39-07-01281: 1,1,2,2-tetrachloroethane, 1,1,2-trichloroethane, 1,1-dichloropropene, 1,2,3-trichloropropane, 1,2-dibromo-3-chloropropane, 1,2-dibromoethane, 1,2-dichloropropane, 1,3-dichloropropane, 2-chloroethyl vinyl ether, 2-hexanone, 4-methyl-2-pentanone, acetone, acetonitrile, acrylonitrile, benzyl chloride, bromochloromethane, chlorobenzene, cis-1,2-dichloroethylene, cis-1,3-dichloropropene, Ethyl methacrylate, m-dichlorobenzene, methacrylonitrile, methyl iodide, methyl methacrylate, methyl tert butyl ether, methylene bromide, naphthalene, o-dichlorobenzene, p-dichlorobenzene, pentachloroethane, propionitrile, trans-1,3-dichloropropene, trichloroethylene, trichlorofluoromethane, and vinyl acetate. MSD recoveries for the following compounds were outside the lab’s control limits: 1,1,2,2-tetrachloroethane, 1,1,2-trichloroethane, 1,2,3-trichloropropane, 1,2-dibromo-3-chloropropane, 1,2-

dibromoethane, 1,3-dichloropropane, 2-chloroethyl vinyl ether, 2-hexanone, 4-methyl-2-pentanone, acetonitrile, benzyl chloride, chlorobenzene, ethyl methacrylate, methacrylonitrile, methyl methacrylate, methyl tert butyl ether, naphthalene, o-dichlorobenzene, propionitrile, trichloroethylene, and vinyl acetate. All the recoveries were high except 2-chloroethyl vinyl ether. Only trichloroethylene was detected in the sample, so the other compounds cannot be biased high. 2-Chloroethyl vinyl ether will be qualified "UJ" and trichloroethylene will be qualified "J" in MW39-07-01281. The following RPDs were high: allyl chloride, bromodichloromethane, bromoform, carbon disulfide, carbon tetrachloride, cis-1,3-dichloropropene, dibromochloromethane, pentachloroethane, and trans-1,3-dichloropropene. All will be qualified "UJ" for imprecision in MW39-07-01281. Several recoveries and RPDs were outside limits in the other samples, but the results do not affect the project data in this work order.
7. **LCS (and LCS duplicate, if applicable)**
6010B: Recoveries were within limits.
7470A: Recoveries were within limits.
8015C-DRO: Recovery was within limits.
8015C-GRO: Recovery was within limits.
8260B: In batch VJ3490, chlorobenzene and pentachloroethane were above control limits. They were not detected in the samples, so there is no high bias. No qualification is needed.
8. **Internal Standards**
8260B: Tert Butyl Alcohol-D10 area exceeded the allowable upper limit in MW39-10-012711, MW39-11-012711, and MW39-12-012711. The areas were confirmed by re-analysis. No associated compounds were detected. No qualification is needed.
9. **Duplicates (field, lab)**
6010B: Ran on MW39-07-012811 and MW39-15-012811. RPDs were high for the following: dissolved and total arsenic and total selenium in MW39-07-012811; dissolved and total arsenic and dissolved lead in MW39-15-012811. The sample concentrations were <5x the RL, so the RPD criteria do not apply. No qualification is necessary.
7470A: Ran on MW39-07-012811 and MW39-15-012811. Samples were in agreement. Mercury was not detected in either. RPDs were not calculated.
SM19 2540C: Ran on MW39-07-012811. RPD was within control limits.
10. **Serial Dilution**
6010B: Ran on MW39-07-012811 and MW39-15-012811. %Ds were high for the following in MW39-07-012811: arsenic (total), barium (dissolved and total), and selenium (total). %Ds were high for the following in MW39-15-012811: arsenic (dissolved and total), barium (dissolved and total), lead (dissolved) and selenium (dissolved and total). %Ds are allowable because the initial sample concentrations were < 50 times IDL. No qualification is needed.
7470A: Ran on MW39-07-012811 and MW39-15-012811. Percent differences were not calculated because mercury was not detected in the samples or the dilutions. No qualification.

Data Review Checklist

11. **Laboratory Case Narrative**
Acceptable
12. **Completeness of Data Package**
8015C-GRO: The lab did not report the trip blank.
8260B: The lab did not report the trip blank.
13. **Other Issues**
6010B: There were elevated reporting limits because of matrix interference.
ALL: Detections between the method detection limit and the reporting limit are estimated and qualified "J".
Overall: Useable as qualified.

Reviewed by: Maureen McMyler 05/17/11

APPENDIX B

CHAIN OF CUSTODY RECORDS

JULY 2010 CHAIN OF CUSTODY RECORDS

Accutest Laboratories Southeast
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

COC-040

Accutest JOB #

PAGE 1 OF 1

Accutest Quote #

SKIFF#

Client / Reporting Information

Company Name: TETRA TECH
Address: 800 OAK RIDGE TURNPIKE A-600
City: OAK RIDGE State: TN Zip: 37831
Project Contact: LUKE HIGGINS@TETRATECH.COM E-mail
Phone#: 865-705-1290
Sampler(s) Name(s) (Printed): J. BENNETT / R. CLOWERS

Project Information

Project Name: HOLLOMAN AFB
Street
City: ALAMOGORDO State: NM
Project #: T93002
Fax #
Client Purchase Order #

Analytical Information

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

Accutest Sample #	Field ID / Point of Collection	Date	Time	Sampled By	Matrix	Total # of Bottles	Other	None	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI Water	MeOH	VOCs 624.1	TAL Metals	TAL Metals Dissolved	TDS								LAB USE ONLY
	MW30+33-01-070610	7/6/10	1435	JB	GW	6			X		X					X	X	X	X								
	MW30+33-01-MS-070610	7/6/10	1435	JB	GW	6			X		X					X	X	X	X								
	MW30+33-01-MSD-070610	7/6/10	1435	JB	GW	6			X		X					X	X	X	X								
	MW30+33-05R-070610	7/6/10	1550	JB	GW	6			X		X					X	X	X	X								
	MW30+33-03-070610	7/6/10	1600	BC	GW	6			X		X					X	X	X	X								
	MW30+33-04-070610	7/6/10	1745	BC	GW	6			X		X					X	X	X	X								
	MW30+33-02-070610	7/6/10	1750	JB	GW	6			X		X					X	X	X	X								
	MW30+33-DUP01-070610	7/6/10	—	—	GW	6			X		X					X	X	X	X								
	TB01-070610	7/6/10	—	—	W	2			X							X											

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [x] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [x] REDT1 (EPA LEVEL 3) & RPIMS
- [ ] FULT1 (EPA LEVEL 4)
- [x] EDD'S

Comments / Remarks

FEDEX 8723 7968 9081
8723 7968 9070

LAB FILTERED METALS

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by :	Date Time:	Received By:
1	7/6/10 1815	2	3	7/8/10 1300	4 FEDEX
Relinquished by:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
5		6	7		8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: Cooler Temperature (s) Celsius: _____

Accutest Laboratories Southeast
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

COC-021

Accutest JOB #

PAGE 1 OF 2

Accutest Quote #

SKIFF#

Client / Reporting Information

Company Name: Tetra Tech
Address: 800 Oak Ridge Turnpike A-600
City: Oak Ridge State: TN Zip: 37830
Project Contact: Mike.Higgins@tetratech.com E-mail:
Phone#: 865 705-1290
Sampler(s) Name(s) (Printed): J Bennett / B Clowers

Project Information

Project Name: Holloman AFB SS39
Street:
City: Alamogordo State: NM
Project #: T93002
Fax #:
Client Purchase Order #:

Analytical Information

Accutest Sample #	Field ID / Point of Collection	Date	Time	Sampled By	Matrix	Total # of Bottles	Other	None	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI Water	MeOH	VOCs 8260	RCRA Metals Total	RCRA Metals Dissolved	TDS								LAB USE ONLY
	MW39-11-070710	07/07/10	1128	JB	GW	6			X		X					X	X	X	X								
	MW39-12-070710	07/07/10	1145	JB	GW	6			X		X					X	X	X	X								
	MW39-08-070710	7/7/10	1432	JB	GW	6			X		X					X	X	X	X								
	MW39-09-070710	7/7/10	1510	BC	GW	6			X		X					X	X	X	X								
	MW39-10-070710	7/7/10	1724	JB	GW	6			X		X					X	X	X	X								
	MW39-07-070710	7/7/10	1800	BC	GW	6			X		X					X	X	X	X								
	MW39-07-MS-070710	7/7/10	1800	BC	GW	6			X		X					X	X	X	X								
	MW39-07-MSD-070710	7/7/10	1800	BC	GW	6			X		X					X	X	X	X								
	MW39-05-070810	7/8/10	1020	BC	GW	6			X		X					X	X	X	X								
	MW39-02-070810	7/8/10	1034	JB	GW	6			X		X					X	X	X	X								
	MW39-06D-070810	7/8/10	1205	JB	GW	6			X		X					X	X	X	X								
	MW39-DUP01-070810	7/8/10	—	—	GW	6			X		X					X	X	X	X								

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [x] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [x] REDT1 (EPA LEVEL 3) ERPIMS
- [ ] FULT1 (EPA LEVEL 4)
- [x] EDD'S

Comments / Remarks

Lab Filtered Metals

FEDX ~~8770~~ 8723 7968 9060

8723 7968 9059

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1	7/8/10 1300	2	3	7/8/10 1400	4 FEDEX
Relinquished by: 5	Date Time:	Received By: 6	Relinquished by: 7	Date Time:	Received By: 8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: Cooler Temperature (s) Celsius: _____

COC-021

Accutest Laboratories Southeast
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX. 407-425-0707
www.accutest.com

Accutest JOB #

Accutest Quote #

SKIFF# 34628

Client / Reporting Information

Company Name: TETRA TECH
Address: 800 OAK RIDGE TURNPIKE A-1000
City: OAK RIDGE State: TN Zip: 37830
Project Contact: MIKE HIGHINSON E-mail: MIKE.HIGHINSON@TETRATECH.COM
Phone#: 865-705-1290
Sampler(s) Name(s) (Printed): J. BENNETT / B. CLOWERS

Project Information

Project Name: HOLLOMAN AFB SS-39
Street:
City: ALAMOGORDO State: NM
Project #: T93002-1
Fax #:
Client Purchase Order #:

Analytical Information

Accutest Sample #	Field ID / Point of Collection	Date	Time	Sampled By	Matrix	Total # of Bottles	Other	None	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI Water	MeOH	VOCs 8260	6 RCRA Metals Total	6 RCRA Metals Dissolved	TDS
	MW39-06-070810	7/8/10	1215	BC	GW	6			X		X					X	X	X	X
	MW39-03-070810	7/8/10	1314	JB	GW	6			X		X					X	X	X	X
	~~TRIP BLANK~~																		
	TB01-070810	7/8/10	—	—	W	3			X							X			

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

LAB USE ONLY

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [X] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [X] REDT1 (EPA LEVEL 3) ERPIMS
- [ ] FULT1 (EPA LEVEL 4)
- [X] EDD'S

Comments / Remarks

LAB FILTERED METALS
8723 7968 9048
8723 7968 9037

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1	7/8/10 1700	2	3	7/8/10 1900	4 FED EX
Relinquished by: 5	Date Time:	Received By: 6	Relinquished by: 7	Date Time:	Received By: 8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: Cooler Temperature (s) Celsius: _____

Chain of Custody Record

Sampler ID _____

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica TA-COC-08

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124-280 (0508)

Client	Project Manager	Date	Chain of Custody Number
TETRA TECH, INC.	MIKE HIGGINS@TETRATECH.COM	7/7/10	123572
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 2**
800 OAK RIDGE TURNPIKE A-600	865-705-1290		
City / State / Zip Code	**Site Contact / Lab Contact**		
OAK RIDGE TN 37830	M. HIGGINS / L. DRIGGS		
Project Name and Location (State)	**Carrier/Waybill Number**		
LOVELAND AFB, NM	865314173409		
Contract/Purchase Order/Quote No.			
80189 LISA DRIGGS			

Analysis (Attach list if more space is needed): Perchlorate 6850

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Perchlorate 6850	Special Instructions/ Conditions of Receipt
MW39-11-070710	07-07-10	1128		X			X						X	
MW39-12 070710	07-07-10	1145		X			X						X	
MW39-08-070710	07-07-10	1432		X			X						X	
MW39-09-070710	07-07-10	1510		X			X						X	
MW39-10-070710	07-07-10	1724		X			X						X	
MW39-07-070710	07-07-10	1800		X			X						X	
MW39-07-MS-070710	07-07-10	1800		X			X						X	MS
MW39-07-MSD-070710	07-07-10	1800		X			X						X	MSD
MW39-05-070810	07-08-10	1022		X			X						X	
MW39-02-070810	07-08-10	1034		X			X						X	
MW39-06D-070810	07-08-10	1208		X			X						X	
MW39-DUP01-070810	07-08-10	—		X			X						X	

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☒ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	7/8/10	1700	1. Received By: FEDEX	7/8/10	1900
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Sampler ID _____

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica TA-CCC-08

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124-280 (0508)

Client: TETRA TECH, INC	Project Manager: MIKE.HIGGINS@TETRATECH.COM	Date: 7/7/10	Chain of Custody Number: 131725
Address: 800 OAK RIDGE TURNPIKE A-600	Telephone Number (Area Code)/Fax Number: 865-705-1250	Lab Number	Page 2 of 2
City: OAK RIDGE; State: TN; Zip Code: 37830	Site Contact: M. HIGGINS	Lab Contact: L. URIELL	
Project Name and Location (State): HOLLOMAN AFB, NM	Carrier/Waybill Number: 865314123409		
Contract/Purchase Order/Quote No.: 80188 / ISA URIELL			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil		Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH		Perchlorate 6860		Special Instructions/ Conditions of Receipt
MW39-06-070810	7/8/10	1215		X				X							X		
MW39-03-070810	7/8/10	1544		X				X							X		

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☒ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	7/8/10	1700	1. Received By: FED EX	7/8/10	1900
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

NOVEMBER 2010 CHAIN OF CUSTODY RECORDS

Tetra Tech, Inc.
800 Oak Ridge Turnpike, Ste A-500
Oak Ridge, TN 37830
865/283-9900

CHAIN-OF-CUSTODY

Laboratory Name: **Eberline Services** Address: **601 Scarboro Rd. Oak Ridge, TN 37830** Contact: **Kathy Shaulis 865/481-0683**

Project Name Holloman AFB, SD27 Project Location HAFB, NM

Project No. Holloman AFB SD27 | Project Contact **Maureen McMyler** | Site Telephone No.

Report to: Maureen McMyler 800 Oak Ridge Turnpike 865/535-2030

Bill to: Sheila Hall, 800 Oak Ridge Turnpike 865/283-9900

Project Manager/Supervisor **Mike Higgins**

Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	Lead (210 Pb) by E905.0 Modified, Radium (226 Ra) by E903.0 Radium (228 Ra) by E904.0 Istopic Thorium (C228Th, 230Th, 232 Th) by E907.0 Isotopic Uranium by E907.0	Gross Alpha/Beta by EPA 900.0	Notes
1	SD27-DPT-13A	11/5/2010	1310		X	SO	SD27-DPT-09 Depth:7.5	1	X		
2	SD27-DPT-13B	11/5/2010	1320		X	SO	SD27-DPT-09 Depth:12.5	1	X		
3	SD27-DPT-13C	11/5/2010	1340		X	SO	SD27-DPT-09 Depth:17.5	1	X		
4	SD27-TTMW-04	11/10/2010	1040		X	GW	SD27-TTMW-04	1		X	
5	SD27-TTMW-03	11/10/2010	1120		X	GW	SD27-TTMW-03	1		X	
6	SD27-TTMW-02	11/10/2010	1200		X	GW	SD27-TTMW-02	1		X	
7	SD27-TTMW-02FD	11/10/2010	1200		X	GW	SD27-TTMW-02FD	1		X	
8	SD27-TTMW-05	11/11/2010	850		X	GW	SD27-TTMW-05	1		X	
9	SD27-TTMW-01	11/11/2010	1005		X	GW	SD27-TTMW-01	2		X	
10	SD27-TTMW-MS-01	11/11/2010	1005		X	GW	SD27-TTMW-MS-01	1		X	Matrix Spike
11	SD27-TTMW-MSD-01	11/11/2010	1005		X		SD27-TTMW-MSD-01	1		X	Matrix Spike Duplicate

Transfers Relinquished By (Signature)	Date/Time	epted By (Signature)	Date/Time
[signature]	11/12/10 0725		
		Laboratory	

Special Instructions:

FedEx Airbill No.:

Sampler's Signature [signature]

TAT: ____ Standard ____ Rush Due: _____ ? ____ Y ____ N Received Good Condition ____ Y ____ N ____ Cold

JANUARY 2011 CHAIN OF CUSTODY RECORDS

Tetra Tech, Inc.

800 Oak Ridge Turnpike, Ste A-500
Oak Ridge, TN 37830
865/283-9900

HAFB-DP-30/SD-33-GW

CHAIN-OF-CUSTODY

Laboratory Name: **Accutest Laboratories** Address: **4405 Vineland Rd. Suite C-15 Orlando, FL 32811** Contact: **Sue Bell (813/741-3338)**

Project Name Holloman AFB Project Location **Holloman AFB, New Mexico**

Project No. DP-30/SD-33 (Groundwater) Project Contact **Maureen McMyler** Site Telephone No.

Report to: Maureen McMyler 800 Oak Ridge Turnpike 865/535-2030

Bill to: Sheila Hall, 800 Oak Ridge Turnpike 865/283-9900

Project Manager/Supervisor **Mike Higgins**

Analysis and Method Desired

Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	VOCs by SW8260B	TAL Metals by SW6010B/ SW7471A, Total	TAL Metals by SW6010B/ SW7471A, Dissolved	TDS by 2540C			Remarks: Notes
1	**MW30&33-01-012411**	1/24/2011	1504		X	GW	**MW-30_33-01**	6	3	1	1	1			
2	**MW30&33-01-012411-MS**	1/24/2011	1504		X	GW	**MW-30_33-01**	6	3	1	1	1			Matrix Spike
3	**MW30&33-01-012411-MSD**	1/24/2011	1504		X	GW	**MW-30_33-01**	6	3	1	1	1			Matrix Spike Duplicate
4	**MW30&33-02-012411**	1/24/2011	1510		X	GW	**MW-30_33-02**	6	3	1	1	1			
5	**MW30&33-03-012411**	1/24/2011	1620		X	GW	**MW-30_33-03**	6	3	1	1	1			
6	**MW30&33-04-012411**	1/24/2011	1730		X	GW	**MW-30_33-04**	6	3	1	1	1			
7	**MW30&33-05-012511**	1/25/2011	916		X	GW	**MW-30_33-05R**	6	3	1	1	1			
8	**MW30&33-DUP01-012511**	1/25/2011			X	GW	**MW-30_33-DUP01**	6	3	1	1	1			
9	**TB01-012511**	1/25/2011	1100		X	BW	**Trip Blank**	2	2						
10															
11															

Transfers Relinquished By (Signature)	Date/Time	Transfers Accepted By (Signature)	Date/Time
		Laboratory	

Special Instructions:
Dissolved Metals: Lab to filter and preserve

FedEx Airbill No.:

Sampler's Signature

TAT: _____ Standard _____ Rush Due: _____ Seals Intact? _____ Y _____ N Received Good Condition _____ Y _____ N _____ Cold

Tetra Tech, Inc.
800 Oak Ridge Turnpike, Ste A-500
Oak Ridge, TN 37830
865/283-9900

HAFB-SD-27-GW

CHAIN-OF-CUSTODY

Laboratory Name: **Accutest Laboratories** Address: **4405 Vineland Rd. Suite C-15 Orlando, FL 32811** Contact: **Sue Bell (813/741-3338)**

Project Name Holloman AFB Project Location **Holloman AFB, New Mexico**

Project No. **SD-27 (Groundwater)** Project Contact **Maureen McMyler** Site Telephone No.

Report to: Maureen McMyler 800 Oak Ridge Turnpike 865/535-2030

Bill to: Sheila Hall, 800 Oak Ridge Turnpike 865/283-9900

Project Manager/Supervisor **Mike Higgins**

Analysis and Method Desired

Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	VOCs by SW8260B	SVOCs by SW8270C	TPH-DRO by 8015BModified	GRO by SW8015B	RCRA 8 Metals by SW6010B/ SW7471A, TOTAL	RCRA 8 Metals by SW6010B/ SW7471A, DISSOLVED	Total Dissolved Solids by 2540 C		Remarks: Notes
1	MW27-01-012511	1/25/2011	1646		X	GW	SD27-MW-01	13	3	2	2	3	1	1	1		
2	MW27-01-012511-MS	1/25/2011	1646		X	GW	SD27-MW-01	13	3	2	2	3	1	1	1		Matrix Spike
3	MW27-01-012511-MSD	1/25/2011	1646		X	GW	SD27-MW-01	13	3	2	2	3	1	1	1		Matrix Spike Duplicate
4	MW27-02-012511	1/25/2011	1700		X	GW	SD27-MW-02	13	3	2	2	3	1	1	1		
5	MW27-DUP01-012511	1/25/2011	1700		X	GW	SD27-MW-02	13	3	2	2	3	1	1	1		
6	MW27-03-012511	1/25/2011	1640		X	GW	SD27-MW-03	13	3	2	2	3	1	1	1		
7	MW27-04-012511	1/25/2011	1430		X	GW	SD27-MW-04	13	3	2	2	3	1	1	1		
8	MW27-05-012511	1/25/2011	1500		X	GW	SD27-MW-05	13	3	2	2	3	1	1	1		
9	TB01-012611	1/26/2011	1130		X	BW	TRIP BLANK	4	2			2					All VOCs in Cooler 1

Transfers Relinquished By (Signature)	Date/Time	Transfers Accepted By (Signature)	Date/Time
Maureen A. Tay	1/26/11 1146		
		Laboratory	

Special Instructions:
Dissolved Metals: Lab to filter and preserve

FedEx Airbill No.:

Sampler's Signature

TAT: ____ Standard ____ Rush Due: _____ Seals Intact? ____ Y ____ N Received Good Condition ____ Y ____ N ____ Cold

HAFB-SS-39-GW

Tetra Tech, Inc.
800 Oak Ridge Turnpike, Ste A-500
Oak Ridge, TN 37830
865/283-9900

CHAIN-OF-CUSTODY

Laboratory Name: **Accutest Laboratories** Address: **4405 Vineland Rd. Suite C-15 Orlando, FL 32811** Contact: **Sue Bell (813/741-3338)**

Project Name Holloman AFB Project Location **Holloman AFB, New Mexico**

Project No. **SS-39 (Groundwater)** Project Contact **Maureen McMyler** Site Telephone No. **865-621-8754**

Report to: Maureen McMyler 800 Oak Ridge Turnpike 865/535-2030

Bill to: Sheila Hall, 800 Oak Ridge Turnpike 865/283-9900

Project Manager/Supervisor **Mike Higgins**

Analysis and Method Desired

Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	VOCs by SW8260B	TPH-DRO by 8015BModified	GRO by SW8015B	RCRA 8 Metals by SW6010B/ SW7471A, TOTAL	RCRA 8 Metals by SW6010B/ SW7471A, DISSOLVED	Total Dissolved Solids by 2540 C		Notes
1	**MW39-06-012611**	1/26/2011	1600		X	GW	**MW-39-06**	**6**	**3**	---	---	**1**	**1**	**1**		All VOCs and GRO in Cooler 1
2	**MW39-06D-012611**	1/26/2011	1700		X	GW	**MW-39-06D**	**6**	**3**	---	---	**1**	**1**	**1**		All VOCs and GRO in Cooler 1
3	**MW39-08-012711**	1/27/2011	1200		X	GW	**MW-39-08**	**6**	**3**	---	---	**1**	**1**	**1**		All VOCs and GRO in Cooler 1
4	**MW39-09-012711**	1/27/2011	1050		X	GW	**MW-39-09**	**6**	**3**	---	---	**1**	**1**	**1**		All VOCs and GRO in Cooler 1
5	**MW39-14-012711**	1/27/2011	1130		X	GW	**MW-39-14**	**11**	**3**	**2**	**3**	**1**	**1**	**1**		All VOCs and GRO in Cooler 1
6	**MW39-DUP01-012611**	1/26/2011			X	GW	**DUP01**	**6**	**3**	---	---	**1**	**1**	**1**		All VOCs and GRO in Cooler 1
7	**MW39-DUP02-012711**	1/27/2011			X	GW	**DUP02**	**11**	**3**	**2**	**3**	**1**	**1**	**1**		All VOCs and GRO in Cooler 1
8	**TB01-012711**	1/27/2011	1600		X	BW	**TRIP BLANK**	**4**	**2**	---	**2**	---	---	---		All VOCs and GRO in Cooler 1

Transfers Relinquished By (Signature)	Date/Time	Transfers Accepted By (Signature)	Date/Time
Brenda Clowers	1/27/11 1600		
		Laboratory	

TAT: ____ Standard ____ Rush Due: _____ Seals Intact? ____ Y ____ N Received Good Condition ____ Y ____ N ____ Cold

Tetra Tech, Inc.
800 Oak Ridge Turnpike, Ste A-500
Oak Ridge, TN 37830
865/283-9900

CHAIN-OF-CUSTODY

Laboratory Name: **Accutest Laboratories** Address: **4405 Vineland Rd. Suite C-15 Orlando, FL 32811** Contact: **Sue Bell (813/741-3338)**

Project Name Holloman AFB Project Location **Holloman AFB, New Mexico**

Project No. **SS-39 (Groundwater)** Project Contact **Maureen McMyler** Site Telephone No.

Report to: Maureen McMyler 800 Oak Ridge Turnpike 865/535-2030

Bill to: Sheila Hall, 800 Oak Ridge Turnpike 865/283-9900

Project Manager/Supervisor **Mike Higgins**

Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	VOCs by SW8260B	TPH-DRO by 8015BModified	GRO by SW8015B	RCRA 8 Metals by SW6010B/ SW7471A, TOTAL	RCRA 8 Metals by SW6010B/ SW7471A, DISSOLVED	Total Dissolved Solids by 2540 C		Notes
	MW39-10-012711	1/27/2011	1500		X	GW	MW-39-10	6	3	---	---	1	1	1		All VOCs and GRO in Cooler 1
	MW39-11-012711	1/27/2011	1640		X	GW	MW-39-11	6	3	---	---	1	1	1		All VOCs and GRO in Cooler 1
	MW39-12-012711	1/27/2011	1515		X	GW	MW-39-12	6	3	---	---	1	1	1		All VOCs and GRO in Cooler 1
1	MW39-02-012811	1/28/2011	1120		X	GW	MW-39-02	6	3	---	---	1	1	1		All VOCs and GRO in Cooler 1
2	MW39-05-012811	1/28/2011	1135		X	GW	MW-39-05	6	3	---	---	1	1	1		All VOCs and GRO in Cooler 1
6	MW39-07-012811	1/28/2011	1345		X	GW	MW-39-07	6	3	---	---	1	1	1		All VOCs and GRO in Cooler 1
7	MW39-07-012811-MS	1/28/2011	1345		X	GW	MW-39-07	6	3	---	---	1	1	1		Matrix Spike
8	MW39-07-012811-MSD	1/28/2011	1345		X	GW	MW-39-07	6	3	---	---	1	1	1		Matrix Spike Duplicate
14	MW39-13-012811	1/28/2011	1040		X	GW	MW-39-13	11	3	2	3	1	1	1		All VOCs and GRO in Cooler 1
17	MW39-15-012811	1/28/2011	1330		X	GW	MW-39-15	11	3	2	3	1	1	1		All VOCs and GRO in Cooler 1
18	MW39-15-012811-MS	1/28/2011	1330		X	GW	MW-39-15	11	3	2	3	1	1	1		Matrix Spike
19	MW39-15-012811-MSD	1/28/2011	1330		X	GW	MW-39-15	11	3	2	3	1	1	1		Matrix Spike Duplicate
20	MW39-16-012811	1/28/2011	1300		X	GW	MW-39-16	11	3	2	3	1	1	1		All VOCs and GRO in Cooler 1
21	TB01-012811	1/28/2011	1510		X	BW	TRIP BLANK	4	2	---	2	---	---	---		All VOCs and GRO in Cooler 1

Transfers Relinquished By (Signature)	Date/Time	Transfers Accepted By (Signature)	Date/Time
Laura Taylor	1/28/11 1514		
		Laboratory	

TAT: ____ Standard ____ Rush Due: _____ Seals Intact? ____ Y ____ N Received Good Condition ____ Y ____ N ____ Cold

Tetra Tech, Inc.
800 Oak Ridge Turnpike, Ste A-500
Oak Ridge, TN 37830
865/283-9900

CHAIN-OF-CUSTODY

HAFB-SS39-TALDEN

Laboratory Name: Test America Denver
Address: 4955 Yarrow Street, Arvada, CO 80002-4517, (303) 736-0100
Contact: LISA B. URIELL (303) 736-0103

Project Name Holloman AFB
Project Location HAFB, NM
Project No. Holloman AFB
Project Contact Maureen McMyler
Site Telephone No.
Report to: Maureen McMyler 800 Oak Ridge Turnpike 865/220-4762
Bill to: Sheila Hall, 800 Oak Ridge Turnpike 865/283-9900
Project Manager/Supervisor Mike Higgins

Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	Analysis and Method Desired	Notes
1	MW39-02-012811	1/28/2011	1120		X	GW	MW-39-02	1	Perchlorate by SW6860	
2	MW39-05-012811	1/28/2011	1135		X	GW	MW-39-05	1	Perchlorate by SW6850	
3	MW39-06-012611	1/26/2011	1600		X	GW	MW-39-06	1	Perchlorate by SW6860	
4	MW39-06D-012611	1/26/2011	1700		X	GW	MW-39-06D	1	Perchlorate by SW6860	
5	MW39-DUP01-012611	1/26/2011	1700		X	GW	MW-39-06D	1	Perchlorate by SW6860	
6	MW39-07-012811	1/28/2011	1345		X	GW	MW-39-07	1	Perchlorate by SW6860	
7	MW39-07-012811-MS	1/28/2011	1345		X	GW	MW-39-07	1	Perchlorate by SW6860	Matrix Spike
8	MW39-07-012811-MSD	1/28/2011	1345		X	GW	MW-39-07	1	Perchlorate by SW6860	Matrix Spike Duplicate
9	MW39-08-012711	1/27/2011	1200		X	GW	MW-39-08	1	Perchlorate by SW6860	
10	MW39-09-012711	1/27/2011	1050		X	GW	MW-39-09	1	Perchlorate by SW6860	Non-Filtered
11	MW39-10-012711	1/27/2011	1500		X	GW	MW-39-10	1	Perchlorate by SW6860	
12	MW39-11-012711	1/27/2011	1640		X	GW	MW-39-11	1	Perchlorate by SW6860	
13	MW39-12-012711	1/27/2011	1515		X	GW	MW-39-12	1	Perchlorate by SW6860	
14	MW39-13-012811	1/28/2011	1040		X	GW	MW-39-13	1	Perchlorate by SW6860	
15	MW39-14-012711	1/27/2011	1130		X	GW	MW-39-14	1	Perchlorate by SW6860	
16	MW39-DUP02-012711	1/27/2011	1130		X	GW	MW-39-14	1	Perchlorate by SW6860	
17	MW39-15-012811	1/28/2011	1330		X	GW	MW-39-15	1	Perchlorate by SW6860	
18	MW39-15-012811-MS	1/28/2011	1330		X	GW	MW-39-15	1	Perchlorate by SW6860	Matrix Spike
19	MW39-15-012811-MSD	1/28/2011	1330		X	GW	MW-39-15	1	Perchlorate by SW6860	Matrix Spike Duplicate
20	MW39-16-012811	1/28/2011	1300		X	GW	MW-39-16	1	Perchlorate by SW6860	

Transfers Relinquished By (Signature)	Date/Time	Transfers Accepted By (Signature)	Date/Time	Special Instructions:
Raven Tay	1/31/11 1310			
				FedEx Airbill No.:
		Laboratory		Sampler's Signature

TAT: ____ Standard ____ Rush Due: _____ Seals Intact? ____ Y ____ N Received Good Condition ____ Y ____ N ____ Cold

APPENDIX C

LABORATORY ANALYTICAL DATA
(ATTACHED CD-ROM)

ANALYTICAL REPORT

Job Number: 280-12097-1

Job Description: Tetra Tech - Holloman AFB

For:
Tetra Tech, Inc.
800 Oak Ridge Turnpike
Suite A-500
Oak Ridge, TN 37830

Attention: Mike Higgins

Approved for release.
Lisa B Uriell
Project Manager I
2/16/2011 5:24 PM

Lisa B Uriell
Project Manager I
lisa.uriell@testamericainc.com
02/16/2011

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is E87667.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: Holloman AFB

Report Number: 280-12097-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receiving

Sixteen water samples were received under chain of custody on February 1, 2011. The samples were received in good condition at a temperature of 2.4°C.

No anomalies were encountered during sample receipt.

Perchlorate, SW 846 6860

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to elevated levels of Perchlorate present above the linear calibration curve, the following samples had to be analyzed at a dilution. The reporting limits have been adjusted relative to the dilutions required.

MW39-02-012811 (280-12097-1) analyzed at a 100X dilution
MW39-05-012811 (280-12097-2) analyzed at a 100X dilution
MW39-06-012611 (280-12097-3) analyzed at a 100X dilution
MW39-06D-012611 (280-12097-4) analyzed at a 100X dilution
MW39-DUP01-012611 (280-12097-5) analyzed at a 100X dilution
MW39-07-012811 (280-12097-6) analyzed at a 200X dilution
MW39-08-012711 (280-12097-7) analyzed at a 200X dilution
MW39-09-012711 (280-12097-8) analyzed at a 1000X dilution
MW39-10-012711 (280-12097-9) analyzed at a 200X dilution
MW39-11-012711 (280-12097-10) analyzed at a 200X dilution
MW39-12-012711 (280-12097-11) analyzed at a 200X dilution
MW39-13-012811 (280-12097-12) analyzed at a 50X dilution
MW39-14-012711 (280-12097-13) analyzed at a 50X dilution
MW39-DUP02-012711 (280-12097-14) analyzed at a 50X dilution
MW39-15-012811 (280-12097-15) analyzed at a 50X dilution
MW39-16-012811 (280-12097-16) analyzed at a 50X dilution

The MS/MSD analyses associated with batch 280-53049 were performed on MW39-07-012811 (280-12097-6), as requested. The Perchlorate MS/MSD recoveries could not be accurately calculated, as the parent sample contained concentrations greater than four times the spike amount. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample has been flagged “m” per the AFCEE QAPP.

The MS/MSD analyses associated with batch 280-53049 were performed on MW39-15-012811 (280-12097-15), as requested. All spike parameters were within QC control limits.

No other anomalies were observed.

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Instrument ID: LC_LCMS1 Analysis Batch Number: 53050

Lab Sample ID: 280-12097-12 Client Sample ID: MW39-13-012811

Date Analyzed: 02/14/11 03:57 Lab File ID: IC11b1342.d GC Column: IonPac ID: 2(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perchlorate	14.28	Baseline	bonnettj	02/15/11 09:38

6860

SAMPLE SUMMARY

Client: Tetra Tech, Inc. Job Number: 280-12097-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-12097-1	MW39-02-012811	Water	01/28/2011 1120	02/01/2011 0900
280-12097-2	MW39-05-012811	Water	01/28/2011 1135	02/01/2011 0900
280-12097-3	MW39-06-012611	Water	01/26/2011 1600	02/01/2011 0900
280-12097-4	MW39-06D-012611	Water	01/26/2011 1700	02/01/2011 0900
280-12097-5FD	MW39-DUP01-012611	Water	01/26/2011 1700	02/01/2011 0900
280-12097-6	MW39-07-012811	Water	01/28/2011 1345	02/01/2011 0900
280-12097-6MS	MW39-07-012811	Water	01/28/2011 1345	02/01/2011 0900
280-12097-6MSD	MW39-07-012811	Water	01/28/2011 1345	02/01/2011 0900
280-12097-7	MW39-08-012711	Water	01/27/2011 1200	02/01/2011 0900
280-12097-8	MW39-09-012711	Water	01/27/2011 1050	02/01/2011 0900
280-12097-9	MW39-10-012711	Water	01/27/2011 1500	02/01/2011 0900
280-12097-10	MW39-11-012711	Water	01/27/2011 1640	02/01/2011 0900
280-12097-11	MW39-12-012711	Water	01/27/2011 1515	02/01/2011 0900
280-12097-12	MW39-13-012811	Water	01/28/2011 1040	02/01/2011 0900
280-12097-13	MW39-14-012711	Water	01/27/2011 1130	02/01/2011 0900
280-12097-14FD	MW39-DUP02-012711	Water	01/27/2011 1130	02/01/2011 0900
280-12097-15	MW39-15-012811	Water	01/28/2011 1330	02/01/2011 0900
280-12097-15MS	MW39-15-012811	Water	01/28/2011 1330	02/01/2011 0900
280-12097-15MSD	MW39-15-012811	Water	01/28/2011 1330	02/01/2011 0900
280-12097-16	MW39-16-012811	Water	01/28/2011 1300	02/01/2011 0900

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 280-12097-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
280-12097-1	**MW39-02-012811**				
Perchlorate		19	5.0	ug/L	6860
280-12097-2	**MW39-05-012811**				
Perchlorate		24	5.0	ug/L	6860
280-12097-3	**MW39-06-012611**				
Perchlorate		21	5.0	ug/L	6860
280-12097-4	**MW39-06D-012611**				
Perchlorate		29	5.0	ug/L	6860
280-12097-5FD	**MW39-DUP01-012611**				
Perchlorate		30	5.0	ug/L	6860
280-12097-6	**MW39-07-012811**				
Perchlorate		63	10	ug/L	6860
280-12097-7	**MW39-08-012711**				
Perchlorate		63	10	ug/L	6860
280-12097-8	**MW39-09-012711**				
Perchlorate		140	50	ug/L	6860
280-12097-9	**MW39-10-012711**				
Perchlorate		100	10	ug/L	6860
280-12097-10	**MW39-11-012711**				
Perchlorate		79	10	ug/L	6860
280-12097-11	**MW39-12-012711**				
Perchlorate		61	10	ug/L	6860

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 280-12097-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
280-12097-12	**MW39-13-012811**					
Perchlorate		28	M	2.5	ug/L	6860
280-12097-13	**MW39-14-012711**					
Perchlorate		11		2.5	ug/L	6860
280-12097-14FD	**MW39-DUP02-012711**					
Perchlorate		11		2.5	ug/L	6860
280-12097-15	**MW39-15-012811**					
Perchlorate		7.3		2.5	ug/L	6860
280-12097-16	**MW39-16-012811**					
Perchlorate		13		2.5	ug/L	6860

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 280-12097-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Perchlorate by IC/MS or IC/MS/MS	TAL DEN	EPA 6860	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

EPA = US Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: Tetra Tech, Inc.

Job Number: 280-12097-1

Method	Analyst	Analyst ID
EPA 6860	Bonnett, Jaqueline C	JCB

Client: Tetra Tech, Inc. Job Number: 280-12097-1

Client Sample ID: **MW39-02-012811**

Lab Sample ID: 280-12097-1 Date Sampled: 01/28/2011 1120
Client Matrix: Water Date Received: 02/01/2011 0900

6860 Perchlorate by IC/MS or IC/MS/MS

Method:	6860	Analysis Batch: 280-53049	Instrument ID:	LC_LCMS1
Preparation:	N/A		Lab File ID:	IC11b1320.d
Dilution:	100		Initial Weight/Volume:	5 mL
Date Analyzed:	02/13/2011 1733		Final Weight/Volume:	1.0 mL
Date Prepared:			Injection Volume:	250 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perchlorate	19		0.88	5.0

Client: Tetra Tech, Inc. Job Number: 280-12097-1

Client Sample ID: **MW39-05-012811**

Lab Sample ID: 280-12097-2 Date Sampled: 01/28/2011 1135
Client Matrix: Water Date Received: 02/01/2011 0900

6860 Perchlorate by IC/MS or IC/MS/MS

Method:	6860	Analysis Batch: 280-53049	Instrument ID:	LC_LCMS1
Preparation:	N/A		Lab File ID:	IC11b1321.d
Dilution:	100		Initial Weight/Volume:	5 mL
Date Analyzed:	02/13/2011 1801		Final Weight/Volume:	1.0 mL
Date Prepared:			Injection Volume:	250 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perchlorate	24		0.88	5.0

Client: Tetra Tech, Inc. Job Number: 280-12097-1

Client Sample ID: **MW39-06-012611**

Lab Sample ID: 280-12097-3 Date Sampled: 01/26/2011 1600
Client Matrix: Water Date Received: 02/01/2011 0900

6860 Perchlorate by IC/MS or IC/MS/MS

Method:	6860	Analysis Batch: 280-53049	Instrument ID:	LC_LCMS1
Preparation:	N/A		Lab File ID:	IC11b1322.d
Dilution:	100		Initial Weight/Volume:	5 mL
Date Analyzed:	02/13/2011 1829		Final Weight/Volume:	1.0 mL
Date Prepared:			Injection Volume:	250 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perchlorate	21		0.88	5.0

Client: Tetra Tech, Inc. Job Number: 280-12097-1

Client Sample ID: **MW39-06D-012611**

Lab Sample ID: 280-12097-4 Date Sampled: 01/26/2011 1700
Client Matrix: Water Date Received: 02/01/2011 0900

6860 Perchlorate by IC/MS or IC/MS/MS

Method:	6860	Analysis Batch: 280-53049	Instrument ID:	LC_LCMS1
Preparation:	N/A		Lab File ID:	IC11b1326.d
Dilution:	100		Initial Weight/Volume:	5 mL
Date Analyzed:	02/13/2011 2023		Final Weight/Volume:	1.0 mL
Date Prepared:			Injection Volume:	250 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perchlorate	29		0.88	5.0

Client: Tetra Tech, Inc. Job Number: 280-12097-1

Client Sample ID: **MW39-DUP01-012611**

Lab Sample ID: 280-12097-5FD Date Sampled: 01/26/2011 1700
Client Matrix: Water Date Received: 02/01/2011 0900

6860 Perchlorate by IC/MS or IC/MS/MS

Method:	6860	Analysis Batch: 280-53049	Instrument ID:	LC_LCMS1
Preparation:	N/A		Lab File ID:	IC11b1327.d
Dilution:	100		Initial Weight/Volume:	5 mL
Date Analyzed:	02/13/2011 2051		Final Weight/Volume:	1.0 mL
Date Prepared:			Injection Volume:	250 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perchlorate	30		0.88	5.0

Client: Tetra Tech, Inc. Job Number: 280-12097-1

Client Sample ID: **MW39-07-012811**

Lab Sample ID: 280-12097-6 Date Sampled: 01/28/2011 1345
Client Matrix: Water Date Received: 02/01/2011 0900

6860 Perchlorate by IC/MS or IC/MS/MS

Method:	6860	Analysis Batch: 280-53049	Instrument ID:	LC_LCMS1
Preparation:	N/A		Lab File ID:	IC11b1328.d
Dilution:	200		Initial Weight/Volume:	5 mL
Date Analyzed:	02/13/2011 2120		Final Weight/Volume:	1.0 mL
Date Prepared:			Injection Volume:	250 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perchlorate	63		1.8	10

Client: Tetra Tech, Inc. Job Number: 280-12097-1

Client Sample ID: **MW39-08-012711**

Lab Sample ID: 280-12097-7 Date Sampled: 01/27/2011 1200
Client Matrix: Water Date Received: 02/01/2011 0900

6860 Perchlorate by IC/MS or IC/MS/MS

Method:	6860	Analysis Batch: 280-53049	Instrument ID:	LC_LCMS1
Preparation:	N/A		Lab File ID:	IC11b1331.d
Dilution:	200		Initial Weight/Volume:	5 mL
Date Analyzed:	02/13/2011 2245		Final Weight/Volume:	1.0 mL
Date Prepared:			Injection Volume:	250 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perchlorate	63		1.8	10

Client: Tetra Tech, Inc. Job Number: 280-12097-1

Client Sample ID: **MW39-09-012711**

Lab Sample ID: 280-12097-8 Date Sampled: 01/27/2011 1050
Client Matrix: Water Date Received: 02/01/2011 0900

6860 Perchlorate by IC/MS or IC/MS/MS

Method:	6860	Analysis Batch: 280-53049	Instrument ID:	LC_LCMS1
Preparation:	N/A		Lab File ID:	IC11b1332.d
Dilution:	1000		Initial Weight/Volume:	5 mL
Date Analyzed:	02/13/2011 2313		Final Weight/Volume:	1.0 mL
Date Prepared:			Injection Volume:	250 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perchlorate	140		8.8	50

Client: Tetra Tech, Inc. Job Number: 280-12097-1

Client Sample ID: **MW39-10-012711**

Lab Sample ID: 280-12097-9 Date Sampled: 01/27/2011 1500
Client Matrix: Water Date Received: 02/01/2011 0900

6860 Perchlorate by IC/MS or IC/MS/MS

Method:	6860	Analysis Batch: 280-53049	Instrument ID:	LC_LCMS1
Preparation:	N/A		Lab File ID:	IC11b1333.d
Dilution:	200		Initial Weight/Volume:	5 mL
Date Analyzed:	02/13/2011 2342		Final Weight/Volume:	1.0 mL
Date Prepared:			Injection Volume:	250 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perchlorate	100		1.8	10

Client: Tetra Tech, Inc. Job Number: 280-12097-1

Client Sample ID: **MW39-11-012711**

Lab Sample ID: 280-12097-10 Date Sampled: 01/27/2011 1640
Client Matrix: Water Date Received: 02/01/2011 0900

6860 Perchlorate by IC/MS or IC/MS/MS

Method:	6860	Analysis Batch: 280-53049	Instrument ID:	LC_LCMS1
Preparation:	N/A		Lab File ID:	IC11b1334.d
Dilution:	200		Initial Weight/Volume:	5 mL
Date Analyzed:	02/14/2011 0010		Final Weight/Volume:	1.0 mL
Date Prepared:			Injection Volume:	250 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perchlorate	79		1.8	10

Client: Tetra Tech, Inc. Job Number: 280-12097-1

Client Sample ID: **MW39-12-012711**

Lab Sample ID: 280-12097-11 Date Sampled: 01/27/2011 1515
Client Matrix: Water Date Received: 02/01/2011 0900

6860 Perchlorate by IC/MS or IC/MS/MS

Method:	6860	Analysis Batch: 280-53050	Instrument ID:	LC_LCMS1
Preparation:	N/A		Lab File ID:	IC11b1341.d
Dilution:	200		Initial Weight/Volume:	5 mL
Date Analyzed:	02/14/2011 0329		Final Weight/Volume:	1.0 mL
Date Prepared:			Injection Volume:	250 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perchlorate	61		1.8	10

Client: Tetra Tech, Inc. Job Number: 280-12097-1

Client Sample ID: **MW39-13-012811**

Lab Sample ID: 280-12097-12 Date Sampled: 01/28/2011 1040
Client Matrix: Water Date Received: 02/01/2011 0900

6860 Perchlorate by IC/MS or IC/MS/MS

Method:	6860	Analysis Batch: 280-53050	Instrument ID:	LC_LCMS1
Preparation:	N/A		Lab File ID:	IC11b1342.d
Dilution:	50		Initial Weight/Volume:	5 mL
Date Analyzed:	02/14/2011 0357		Final Weight/Volume:	1.0 mL
Date Prepared:			Injection Volume:	250 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perchlorate	28	M	0.44	2.5

Client: Tetra Tech, Inc. Job Number: 280-12097-1

Client Sample ID: **MW39-14-012711**

Lab Sample ID: 280-12097-13 Date Sampled: 01/27/2011 1130
Client Matrix: Water Date Received: 02/01/2011 0900

6860 Perchlorate by IC/MS or IC/MS/MS

Method:	6860	Analysis Batch: 280-53050	Instrument ID:	LC_LCMS1
Preparation:	N/A		Lab File ID:	IC11b1343.d
Dilution:	50		Initial Weight/Volume:	5 mL
Date Analyzed:	02/14/2011 0426		Final Weight/Volume:	1.0 mL
Date Prepared:			Injection Volume:	250 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perchlorate	11		0.44	2.5

Client: Tetra Tech, Inc. Job Number: 280-12097-1

Client Sample ID: **MW39-DUP02-012711**

Lab Sample ID: 280-12097-14FD Date Sampled: 01/27/2011 1130
Client Matrix: Water Date Received: 02/01/2011 0900

6860 Perchlorate by IC/MS or IC/MS/MS

Method:	6860	Analysis Batch: 280-53050	Instrument ID:	LC_LCMS1
Preparation:	N/A		Lab File ID:	IC11b1344.d
Dilution:	50		Initial Weight/Volume:	5 mL
Date Analyzed:	02/14/2011 0454		Final Weight/Volume:	1.0 mL
Date Prepared:			Injection Volume:	250 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perchlorate	11		0.44	2.5

Client: Tetra Tech, Inc. Job Number: 280-12097-1

Client Sample ID: **MW39-15-012811**

Lab Sample ID: 280-12097-15 Date Sampled: 01/28/2011 1330
Client Matrix: Water Date Received: 02/01/2011 0900

6860 Perchlorate by IC/MS or IC/MS/MS

Method:	6860	Analysis Batch: 280-53050	Instrument ID:	LC_LCMS1
Preparation:	N/A		Lab File ID:	IC11b1345.d
Dilution:	50		Initial Weight/Volume:	5 mL
Date Analyzed:	02/14/2011 0523		Final Weight/Volume:	1.0 mL
Date Prepared:			Injection Volume:	250 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perchlorate	7.3		0.44	2.5

Client: Tetra Tech, Inc. Job Number: 280-12097-1

Client Sample ID: **MW39-16-012811**

Lab Sample ID: 280-12097-16 Date Sampled: 01/28/2011 1300
Client Matrix: Water Date Received: 02/01/2011 0900

6860 Perchlorate by IC/MS or IC/MS/MS

Method:	6860	Analysis Batch: 280-53050	Instrument ID:	LC_LCMS1
Preparation:	N/A		Lab File ID:	IC11b1351.d
Dilution:	50		Initial Weight/Volume:	5 mL
Date Analyzed:	02/14/2011 0813		Final Weight/Volume:	1.0 mL
Date Prepared:			Injection Volume:	250 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perchlorate	13		0.44	2.5

Client: Tetra Tech, Inc.

Job Number: 280-12097-1

Detection Limit Check Standard - Batch: 280-50977

Method: 6860
Preparation: N/A

Lab Sample ID:	DLCK 280-50977/10	Analysis Batch:	280-50977	Instrument ID:	LC_LCMS1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	IC11A3110.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	01/31/2011 1727			Final Weight/Volume:	1.0 mL
Date Prepared:	N/A			Injection Volume:	250 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Perchlorate	0.0500	0.0499	100	70 - 130	F

Client: Tetra Tech, Inc.

Job Number: 280-12097-1

Method Blank - Batch: 280-53049

Method: 6860
Preparation: N/A

Lab Sample ID: MB 280-53049/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/13/2011 1440
Date Prepared: N/A

Analysis Batch: 280-53049
Prep Batch: N/A
Units: ug/L

Instrument ID: LC_LCMS1
Lab File ID: IC11b1314.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 1.0 mL
Injection Volume: 250 uL

Analyte	Result	Qual	MDL	RL
Perchlorate	0.0088	U	0.0088	0.050

Lab Control Sample - Batch: 280-53049

Method: 6860
Preparation: N/A

Lab Sample ID: LCS 280-53049/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/13/2011 1511
Date Prepared: N/A

Analysis Batch: 280-53049
Prep Batch: N/A
Units: ug/L

Instrument ID: LC_LCMS1
Lab File ID: IC11b1315.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 1.0 mL
Injection Volume: 250 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Perchlorate	0.0500	0.0519	104	80 - 120	

LC Interference Check Standard - Batch: 280-53049

Method: 6860
Preparation: N/A

Lab Sample ID: INF 280-53049/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/13/2011 1539
Date Prepared: N/A

Analysis Batch: 280-53049
Prep Batch: N/A
Units: ug/L

Instrument ID: LC_LCMS1
Lab File ID: IC11b1316.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 1.0 mL
Injection Volume: 250 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Perchlorate	0.0500	0.0521	104	70 - 130	

Client: Tetra Tech, Inc.

Job Number: 280-12097-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-53049

Method: 6860
Preparation: N/A

MS Lab Sample ID:	280-12097-6	Analysis Batch:	280-53049	Instrument ID:	LC_LCMS1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	IC11b1329.d
Dilution:	200			Initial Weight/Volume:	5 mL
Date Analyzed:	02/13/2011 2148			Final Weight/Volume:	1.0 mL
Date Prepared:	N/A			Injection Volume:	250 uL

MSD Lab Sample ID:	280-12097-6	Analysis Batch:	280-53049	Instrument ID:	LC_LCMS1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	IC11b1330.d
Dilution:	200			Initial Weight/Volume:	5 mL
Date Analyzed:	02/13/2011 2217			Final Weight/Volume:	1.0 mL
Date Prepared:	N/A			Injection Volume:	250 uL

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Perchlorate	92	111	80 - 120	3	15	m	m

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-53049

Method: 6860
Preparation: N/A

MS Lab Sample ID:	280-12097-6	Units: ug/L		MSD Lab Sample ID:	280-12097-6
Client Matrix:	Water			Client Matrix:	Water
Dilution:	200			Dilution:	200
Date Analyzed:	02/13/2011 2148			Date Analyzed:	02/13/2011 2217
Date Prepared:	N/A			Date Prepared:	N/A

	Sample	MS Spike	MSD Spike	MS		MSD	
Analyte	Result/Qual	Amount	Amount	Result/Qual		Result/Qual	
Perchlorate	63	10.0	10.0	72.6	m	74.5	m

Client: Tetra Tech, Inc.

Job Number: 280-12097-1

Method Blank - Batch: 280-53050

Method: 6860
Preparation: N/A

Lab Sample ID: MB 280-53050/28
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/14/2011 0204
Date Prepared: N/A

Analysis Batch: 280-53050
Prep Batch: N/A
Units: ug/L

Instrument ID: LC_LCMS1
Lab File ID: IC11b1338.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 1.0 mL
Injection Volume: 250 uL

Analyte	Result	Qual	MDL	RL
Perchlorate	0.0088	U	0.0088	0.050

Lab Control Sample - Batch: 280-53050

Method: 6860
Preparation: N/A

Lab Sample ID: LCS 280-53050/29
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/14/2011 0232
Date Prepared: N/A

Analysis Batch: 280-53050
Prep Batch: N/A
Units: ug/L

Instrument ID: LC_LCMS1
Lab File ID: IC11b1339.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 1.0 mL
Injection Volume: 250 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Perchlorate	0.0500	0.0522	104	80 - 120	

LC Interference Check Standard - Batch: 280-53050

Method: 6860
Preparation: N/A

Lab Sample ID: INF 280-53050/30
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/14/2011 0301
Date Prepared: N/A

Analysis Batch: 280-53050
Prep Batch: N/A
Units: ug/L

Instrument ID: LC_LCMS1
Lab File ID: IC11b1340.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 1.0 mL
Injection Volume: 250 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Perchlorate	0.0500	0.0484	97	70 - 130	F

Client: Tetra Tech, Inc.

Job Number: 280-12097-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-53050

Method: 6860
Preparation: N/A

MS Lab Sample ID:	280-12097-15	Analysis Batch:	280-53050	Instrument ID:	LC_LCMS1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	IC11b1346.d
Dilution:	50			Initial Weight/Volume:	5 mL
Date Analyzed:	02/14/2011 0551			Final Weight/Volume:	1.0 mL
Date Prepared:	N/A			Injection Volume:	250 uL

MSD Lab Sample ID:	280-12097-15	Analysis Batch:	280-53050	Instrument ID:	LC_LCMS1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	IC11b1347.d
Dilution:	50			Initial Weight/Volume:	5 mL
Date Analyzed:	02/14/2011 0619			Final Weight/Volume:	1.0 mL
Date Prepared:	N/A			Injection Volume:	250 uL

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Perchlorate	105	99	80 - 120	1	15		

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-53050

Method: 6860
Preparation: N/A

MS Lab Sample ID:	280-12097-15	Units: ug/L		MSD Lab Sample ID:	280-12097-15
Client Matrix:	Water			Client Matrix:	Water
Dilution:	50			Dilution:	50
Date Analyzed:	02/14/2011 0551			Date Analyzed:	02/14/2011 0619
Date Prepared:	N/A			Date Prepared:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Perchlorate	7.3	2.50	2.50	9.94	9.80

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc. Job Number: 280-12097-1

Lab Section	Qualifier	Description
LCMS		
	m	A matrix effect was present.
	M	Manual integrated compound.
	U	The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL
	F	The analyte was positively identified but the associated numerical value is below the RL.

Client: Tetra Tech, Inc.

Job Number: 280-12097-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
LCMS					
Analysis Batch:280-50977					
DLCK 280-50977/10	Detection Limit Check Standard	T	Water	6860	
Analysis Batch:280-53049					
LCS 280-53049/5	Lab Control Sample	T	Water	6860	
MB 280-53049/4	Method Blank	T	Water	6860	
280-12097-1	MW39-02-012811	T	Water	6860	
280-12097-2	MW39-05-012811	T	Water	6860	
280-12097-3	MW39-06-012611	T	Water	6860	
280-12097-4	MW39-06D-012611	T	Water	6860	
280-12097-5FD	MW39-DUP01-012611	T	Water	6860	
280-12097-6	MW39-07-012811	T	Water	6860	
280-12097-6MS	Matrix Spike	T	Water	6860	
280-12097-6MSD	Matrix Spike Duplicate	T	Water	6860	
280-12097-7	MW39-08-012711	T	Water	6860	
280-12097-8	MW39-09-012711	T	Water	6860	
280-12097-9	MW39-10-012711	T	Water	6860	
280-12097-10	MW39-11-012711	T	Water	6860	
Analysis Batch:280-53050					
LCS 280-53050/29	Lab Control Sample	T	Water	6860	
MB 280-53050/28	Method Blank	T	Water	6860	
280-12097-11	MW39-12-012711	T	Water	6860	
280-12097-12	MW39-13-012811	T	Water	6860	
280-12097-13	MW39-14-012711	T	Water	6860	
280-12097-14FD	MW39-DUP02-012711	T	Water	6860	
280-12097-15	MW39-15-012811	T	Water	6860	
280-12097-15MS	Matrix Spike	T	Water	6860	
280-12097-15MSD	Matrix Spike Duplicate	T	Water	6860	
280-12097-16	MW39-16-012811	T	Water	6860	

Report Basis

T = Total

Client: Tetra Tech, Inc. Job Number: 280-12097-1

Laboratory Chronicle

Lab ID: 280-12097-1 **Client ID:** MW39-02-012811

Sample Date/Time: 01/28/2011 11:20 Received Date/Time: 02/01/2011 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-12097-A-1		280-53049		02/13/2011 17:33	100	TAL DEN	JCB

Lab ID: 280-12097-2 **Client ID:** MW39-05-012811

Sample Date/Time: 01/28/2011 11:35 Received Date/Time: 02/01/2011 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-12097-A-2		280-53049		02/13/2011 18:01	100	TAL DEN	JCB

Lab ID: 280-12097-3 **Client ID:** MW39-06-012611

Sample Date/Time: 01/26/2011 16:00 Received Date/Time: 02/01/2011 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-12097-A-3		280-53049		02/13/2011 18:29	100	TAL DEN	JCB

Lab ID: 280-12097-4 **Client ID:** MW39-06D-012611

Sample Date/Time: 01/26/2011 17:00 Received Date/Time: 02/01/2011 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-12097-A-4		280-53049		02/13/2011 20:23	100	TAL DEN	JCB

Lab ID: 280-12097-5 **Client ID:** MW39-DUP01-012611

Sample Date/Time: 01/26/2011 17:00 Received Date/Time: 02/01/2011 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-12097-A-5		280-53049		02/13/2011 20:51	100	TAL DEN	JCB

Lab ID: 280-12097-6 **Client ID:** MW39-07-012811

Sample Date/Time: 01/28/2011 13:45 Received Date/Time: 02/01/2011 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-12097-C-6		280-53049		02/13/2011 21:20	200	TAL DEN	JCB

Lab ID: 280-12097-6 **Client ID:** MW39-07-012811

Sample Date/Time: 01/28/2011 13:45 Received Date/Time: 02/01/2011 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-12097-C-6 MS		280-53049		02/13/2011 21:48	200	TAL DEN	JCB

Client: Tetra Tech, Inc. Job Number: 280-12097-1

Laboratory Chronicle

Lab ID: 280-12097-6 **Client ID:** MW39-07-012811

Sample Date/Time: 01/28/2011 13:45 Received Date/Time: 02/01/2011 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-12097-C-6 MSD		280-53049		02/13/2011 22:17	200	TAL DEN	JCB

Lab ID: 280-12097-7 **Client ID:** MW39-08-012711

Sample Date/Time: 01/27/2011 12:00 Received Date/Time: 02/01/2011 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-12097-A-7		280-53049		02/13/2011 22:45	200	TAL DEN	JCB

Lab ID: 280-12097-8 **Client ID:** MW39-09-012711

Sample Date/Time: 01/27/2011 10:50 Received Date/Time: 02/01/2011 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-12097-A-8		280-53049		02/13/2011 23:13	1000	TAL DEN	JCB

Lab ID: 280-12097-9 **Client ID:** MW39-10-012711

Sample Date/Time: 01/27/2011 15:00 Received Date/Time: 02/01/2011 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-12097-A-9		280-53049		02/13/2011 23:42	200	TAL DEN	JCB

Lab ID: 280-12097-10 **Client ID:** MW39-11-012711

Sample Date/Time: 01/27/2011 16:40 Received Date/Time: 02/01/2011 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-12097-A-10		280-53049		02/14/2011 00:10	200	TAL DEN	JCB

Lab ID: 280-12097-11 **Client ID:** MW39-12-012711

Sample Date/Time: 01/27/2011 15:15 Received Date/Time: 02/01/2011 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-12097-A-11		280-53050		02/14/2011 03:29	200	TAL DEN	JCB

Lab ID: 280-12097-12 **Client ID:** MW39-13-012811

Sample Date/Time: 01/28/2011 10:40 Received Date/Time: 02/01/2011 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-12097-A-12		280-53050		02/14/2011 03:57	50	TAL DEN	JCB

Client: Tetra Tech, Inc. Job Number: 280-12097-1

Laboratory Chronicle

Lab ID: 280-12097-13 **Client ID:** MW39-14-012711

Sample Date/Time: 01/27/2011 11:30 Received Date/Time: 02/01/2011 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-12097-A-13		280-53050		02/14/2011 04:26	50	TAL DEN	JCB

Lab ID: 280-12097-14 **Client ID:** MW39-DUP02-012711

Sample Date/Time: 01/27/2011 11:30 Received Date/Time: 02/01/2011 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-12097-A-14		280-53050		02/14/2011 04:54	50	TAL DEN	JCB

Lab ID: 280-12097-15 **Client ID:** MW39-15-012811

Sample Date/Time: 01/28/2011 13:30 Received Date/Time: 02/01/2011 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-12097-C-15		280-53050		02/14/2011 05:23	50	TAL DEN	JCB

Lab ID: 280-12097-15 **Client ID:** MW39-15-012811

Sample Date/Time: 01/28/2011 13:30 Received Date/Time: 02/01/2011 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-12097-C-15 MS		280-53050		02/14/2011 05:51	50	TAL DEN	JCB

Lab ID: 280-12097-15 **Client ID:** MW39-15-012811

Sample Date/Time: 01/28/2011 13:30 Received Date/Time: 02/01/2011 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-12097-C-15 MSD		280-53050		02/14/2011 06:19	50	TAL DEN	JCB

Lab ID: 280-12097-16 **Client ID:** MW39-16-012811

Sample Date/Time: 01/28/2011 13:00 Received Date/Time: 02/01/2011 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-12097-A-16		280-53050		02/14/2011 08:13	50	TAL DEN	JCB

Lab ID: MB **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	MB 280-53049/4		280-53049		02/13/2011 14:40	1	TAL DEN	JCB
A:6860	MB 280-53050/28		280-53050		02/14/2011 02:04	1	TAL DEN	JCB

Client: Tetra Tech, Inc. Job Number: 280-12097-1

Laboratory Chronicle

Lab ID: **LCS** **Client ID:** **N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	LCS 280-53049/5		280-53049		02/13/2011 15:11	1	TAL DEN	JCB
A:6860	LCS 280-53050/29		280-53050		02/14/2011 02:32	1	TAL DEN	JCB

Lab ID: **DLCK** **Client ID:** **N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	DLCK 280-50977/10		280-50977		01/31/2011 17:27	1	TAL DEN	SC

Lab References:
TAL DEN = TestAmerica Denver

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
6860_ICScal=2_00106	02/20/11	02/13/11	H2O, Lot j41e00	5 mL	6860_ICS_Wspk_00004	2500 uL	Perchlorate	50 ng/L
.6860_ICS_Wspk_00004	11/30/11	12/16/10	H2O, Lot j41e00	100 mL	6860CalStock3_00003	0.1 mL	Perchlorate	100 ng/L
..6860CalStock3_00003	11/30/11	12/16/10	H2O, Lot j41e00	10 mL	6860CalStock2_00004	0.1 mL	Perchlorate	0.1 ug/mL
...6860CalStock2_00004	11/30/11	12/16/10	H2O, Lot j41e00	10 mL	6860StockClO4_00003	0.1 mL	Perchlorate	10 ug/mL
....6860StockClO4_00003	11/30/11	Accustandard, Lot 209115027			(Purchased Reagent)		Perchlorate	1000 ug/mL
6860Cal1-LODV_00270	02/04/11	01/28/11	H2O, Lot j41e00	5 mL	6860-IS-Spike_00021	50 uL	Perchlorate-18O	200 ng/L
					6860CalStockW_00010	100 uL	Perchlorate	20 ng/L
.6860-IS-Spike_00021	08/12/11	01/20/11	H2O, Lot J28E00	200 mL	6860-ISStock2_00002	2 mL	Perchlorate-18O	0.02 ug/mL
..6860-ISStock2_00002	08/12/11	08/12/10	H2O, Lot j28e00	10 mL	6860-ISStock1_00002	0.2 mL	Perchlorate-18O	2 ug/mL
...6860-ISStock1_00002	09/28/17	Cambridge, Lot SCHI-001			(Purchased Reagent)		Perchlorate-18O	100 ug/mL
.6860CalStockW_00010	11/30/11	12/16/10	H2O, Lot j41e00	100 mL	6860CalStock3_00003	1 mL	Perchlorate	0.001 ug/mL
..6860CalStock3_00003	11/30/11	12/16/10	H2O, Lot j41e00	10 mL	6860CalStock2_00004	0.1 mL	Perchlorate	0.1 ug/mL
...6860CalStock2_00004	11/30/11	12/16/10	H2O, Lot j41e00	10 mL	6860StockClO4_00003	0.1 mL	Perchlorate	10 ug/mL
....6860StockClO4_00003	11/30/11	Accustandard, Lot 209115027			(Purchased Reagent)		Perchlorate	1000 ug/mL
6860Cal1-LODV_00285	02/20/11	02/13/11	H2O, Lot j41e00	5 mL	6860CalStockW_00010	100 uL	Perchlorate	20 ng/L
.6860CalStockW_00010	11/30/11	12/16/10	H2O, Lot j41e00	100 mL	6860CalStock3_00003	1 mL	Perchlorate	0.001 ug/mL
..6860CalStock3_00003	11/30/11	12/16/10	H2O, Lot j41e00	10 mL	6860CalStock2_00004	0.1 mL	Perchlorate	0.1 ug/mL
...6860CalStock2_00004	11/30/11	12/16/10	H2O, Lot j41e00	10 mL	6860StockClO4_00003	0.1 mL	Perchlorate	10 ug/mL
....6860StockClO4_00003	11/30/11	Accustandard, Lot 209115027			(Purchased Reagent)		Perchlorate	1000 ug/mL
6860Cal1-LODV_00286	02/20/11	02/13/11	H2O, Lot j41e00	5 mL	6860CalStockW_00010	100 uL	Perchlorate	20 ng/L
.6860CalStockW_00010	11/30/11	12/16/10	H2O, Lot j41e00	100 mL	6860CalStock3_00003	1 mL	Perchlorate	0.001 ug/mL
..6860CalStock3_00003	11/30/11	12/16/10	H2O, Lot j41e00	10 mL	6860CalStock2_00004	0.1 mL	Perchlorate	0.1 ug/mL
...6860CalStock2_00004	11/30/11	12/16/10	H2O, Lot j41e00	10 mL	6860StockClO4_00003	0.1 mL	Perchlorate	10 ug/mL
....6860StockClO4_00003	11/30/11	Accustandard, Lot 209115027			(Purchased Reagent)		Perchlorate	1000 ug/mL
6860Cal2_00039	02/04/11	01/28/11		5 mL	6860-IS-Spike_00021	50 uL	Perchlorate-18O	200 ng/L
					6860CalStockW_00010	250 uL	Perchlorate	50 ng/L
.6860-IS-Spike_00021	08/12/11	01/20/11	H2O, Lot J28E00	200 mL	6860-ISStock2_00002	2 mL	Perchlorate-18O	0.02 ug/mL
..6860-ISStock2_00002	08/12/11	08/12/10	H2O, Lot j28e00	10 mL	6860-ISStock1_00002	0.2 mL	Perchlorate-18O	2 ug/mL
...6860-ISStock1_00002	09/28/17	Cambridge, Lot SCHI-001			(Purchased Reagent)		Perchlorate-18O	100 ug/mL
.6860CalStockW_00010	11/30/11	12/16/10	H2O, Lot j41e00	100 mL	6860CalStock3_00003	1 mL	Perchlorate	0.001 ug/mL
..6860CalStock3_00003	11/30/11	12/16/10	H2O, Lot j41e00	10 mL	6860CalStock2_00004	0.1 mL	Perchlorate	0.1 ug/mL
...6860CalStock2_00004	11/30/11	12/16/10	H2O, Lot j41e00	10 mL	6860StockClO4_00003	0.1 mL	Perchlorate	10 ug/mL
....6860StockClO4_00003	11/30/11	Accustandard, Lot 209115027			(Purchased Reagent)		Perchlorate	1000 ug/mL
6860Cal3_00039	02/04/11	01/28/11		5 mL	6860-IS-Spike_00021	50 uL	Perchlorate-18O	200 ng/L
					6860CalStockW_00010	500 uL	Perchlorate	100 ng/L
.6860-IS-Spike_00021	08/12/11	01/20/11	H2O, Lot J28E00	200 mL	6860-ISStock2_00002	2 mL	Perchlorate-18O	0.02 ug/mL
..6860-ISStock2_00002	08/12/11	08/12/10	H2O, Lot j28e00	10 mL	6860-ISStock1_00002	0.2 mL	Perchlorate-18O	2 ug/mL
...6860-ISStock1_00002	09/28/17	Cambridge, Lot SCHI-001			(Purchased Reagent)		Perchlorate-18O	100 ug/mL
.6860CalStockW_00010	11/30/11	12/16/10	H2O, Lot j41e00	100 mL	6860CalStock3_00003	1 mL	Perchlorate	0.001 ug/mL
..6860CalStock3_00003	11/30/11	12/16/10	H2O, Lot j41e00	10 mL	6860CalStock2_00004	0.1 mL	Perchlorate	0.1 ug/mL
...6860CalStock2_00004	11/30/11	12/16/10	H2O, Lot j41e00	10 mL	6860StockClO4_00003	0.1 mL	Perchlorate	10 ug/mL
....6860StockClO4_00003	11/30/11	Accustandard, Lot 209115027			(Purchased Reagent)		Perchlorate	1000 ug/mL
6860Cal4-CCV_00270	02/04/11	01/28/11	Di Water, Lot j41e00	5 mL	6860-IS-Spike_00021	50 uL	Perchlorate-18O	200 ng/L
					6860CalStockW_00010	1000 uL	Perchlorate	200 ng/L
.6860-IS-Spike_00021	08/12/11	01/20/11	H2O, Lot J28E00	200 mL	6860-ISStock2_00002	2 mL	Perchlorate-18O	0.02 ug/mL
..6860-ISStock2_00002	08/12/11	08/12/10	H2O, Lot j28e00	10 mL	6860-ISStock1_00002	0.2 mL	Perchlorate-18O	2 ug/mL
...6860-ISStock1_00002	09/28/17	Cambridge, Lot SCHI-001			(Purchased Reagent)		Perchlorate-18O	100 ug/mL
.6860CalStockW_00010	11/30/11	12/16/10	H2O, Lot j41e00	100 mL	6860CalStock3_00003	1 mL	Perchlorate	0.001 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..6860CalStock3_00003	11/30/11	12/16/10	H2O, Lot j41e00	10 mL	6860CalStock2_00004	0.1 mL	Perchlorate	0.1 ug/mL
...6860CalStock2_00004	11/30/11	12/16/10	H2O, Lot j41e00	10 mL	6860StockClO4_00003	0.1 mL	Perchlorate	10 ug/mL
....6860StockClO4_00003	11/30/11	Accustandard, Lot 209115027			(Purchased Reagent)		Perchlorate	1000 ug/mL
6860Cal4-CCV_00285	02/20/11	02/13/11	Di Water, Lot j41e00	5 mL	6860CalStockW_00010	1000 uL	Perchlorate	200 ng/L
.6860CalStockW_00010	11/30/11	12/16/10	H2O, Lot j41e00	100 mL	6860CalStock3_00003	1 mL	Perchlorate	0.001 ug/mL
..6860CalStock3_00003	11/30/11	12/16/10	H2O, Lot j41e00	10 mL	6860CalStock2_00004	0.1 mL	Perchlorate	0.1 ug/mL
...6860CalStock2_00004	11/30/11	12/16/10	H2O, Lot j41e00	10 mL	6860StockClO4_00003	0.1 mL	Perchlorate	10 ug/mL
....6860StockClO4_00003	11/30/11	Accustandard, Lot 209115027			(Purchased Reagent)		Perchlorate	1000 ug/mL
6860Cal4-CCV_00286	02/20/11	02/13/11	Di Water, Lot j41e00	5 mL	6860CalStockW_00010	1000 uL	Perchlorate	200 ng/L
.6860CalStockW_00010	11/30/11	12/16/10	H2O, Lot j41e00	100 mL	6860CalStock3_00003	1 mL	Perchlorate	0.001 ug/mL
..6860CalStock3_00003	11/30/11	12/16/10	H2O, Lot j41e00	10 mL	6860CalStock2_00004	0.1 mL	Perchlorate	0.1 ug/mL
...6860CalStock2_00004	11/30/11	12/16/10	H2O, Lot j41e00	10 mL	6860StockClO4_00003	0.1 mL	Perchlorate	10 ug/mL
....6860StockClO4_00003	11/30/11	Accustandard, Lot 209115027			(Purchased Reagent)		Perchlorate	1000 ug/mL
6860Cal5_00038	02/04/11	01/28/11		5 mL	6860-IS-Spike_00021	50 uL	Perchlorate-18O	200 ng/L
					6860CalStockW_00010	2500 uL	Perchlorate	500 ng/L
.6860-IS-Spike_00021	08/12/11	01/20/11	H2O, Lot J28E00	200 mL	6860-ISStock2_00002	2 mL	Perchlorate-18O	0.02 ug/mL
..6860-ISStock2_00002	08/12/11	08/12/10	H2O, Lot j28e00	10 mL	6860-ISStock1_00002	0.2 mL	Perchlorate-18O	2 ug/mL
...6860-ISStock1_00002	09/28/17	Cambridge, Lot SCHI-001			(Purchased Reagent)		Perchlorate-18O	100 ug/mL
.6860CalStockW_00010	11/30/11	12/16/10	H2O, Lot j41e00	100 mL	6860CalStock3_00003	1 mL	Perchlorate	0.001 ug/mL
..6860CalStock3_00003	11/30/11	12/16/10	H2O, Lot j41e00	10 mL	6860CalStock2_00004	0.1 mL	Perchlorate	0.1 ug/mL
...6860CalStock2_00004	11/30/11	12/16/10	H2O, Lot j41e00	10 mL	6860StockClO4_00003	0.1 mL	Perchlorate	10 ug/mL
....6860StockClO4_00003	11/30/11	Accustandard, Lot 209115027			(Purchased Reagent)		Perchlorate	1000 ug/mL
6860Cal6_00037	02/04/11	01/28/11	Di Water, Lot J41E00	5 mL	6860-IS-Spike_00021	50 uL	Perchlorate-18O	200 ng/L
					6860CalStockW_00010	5000 uL	Perchlorate	1000 ng/L
.6860-IS-Spike_00021	08/12/11	01/20/11	H2O, Lot J28E00	200 mL	6860-ISStock2_00002	2 mL	Perchlorate-18O	0.02 ug/mL
..6860-ISStock2_00002	08/12/11	08/12/10	H2O, Lot j28e00	10 mL	6860-ISStock1_00002	0.2 mL	Perchlorate-18O	2 ug/mL
...6860-ISStock1_00002	09/28/17	Cambridge, Lot SCHI-001			(Purchased Reagent)		Perchlorate-18O	100 ug/mL
.6860CalStockW_00010	11/30/11	12/16/10	H2O, Lot j41e00	100 mL	6860CalStock3_00003	1 mL	Perchlorate	0.001 ug/mL
..6860CalStock3_00003	11/30/11	12/16/10	H2O, Lot j41e00	10 mL	6860CalStock2_00004	0.1 mL	Perchlorate	0.1 ug/mL
...6860CalStock2_00004	11/30/11	12/16/10	H2O, Lot j41e00	10 mL	6860StockClO4_00003	0.1 mL	Perchlorate	10 ug/mL
....6860StockClO4_00003	11/30/11	Accustandard, Lot 209115027			(Purchased Reagent)		Perchlorate	1000 ug/mL
6860ICV_00039	02/04/11	01/28/11	Di Water, Lot J41E00	5 mL	6860ICVStockW_00004	1000 uL	Perchlorate	200 ng/L
.6860ICVStockW_00004	12/16/11	12/16/10	H2O, Lot j41e00	50 mL	6860ICVStock3_00006	0.5 mL	Perchlorate	0.001 ug/mL
..6860ICVStock3_00006	12/16/11	12/16/10	H2O, Lot j41e00	10 mL	6860ICVStock2_00003	0.1 mL	Perchlorate	0.1 ug/mL
...6860ICVStock2_00003	12/16/11	12/16/10	H2O, Lot j41e00	10 mL	6860ICVStock1_00002	0.1 mL	Perchlorate	10 ug/mL
....6860ICVStock1_00002	11/04/12	Absolute Standards, Lot 110409			(Purchased Reagent)		Perchlorate	1000 ug/mL
6860LCSspkH2O_00003	12/16/11	12/16/10	H2O, Lot j41e00	25 mL	6860ICVStock3_00006	1.25 mL	Perchlorate	0.005 ug/mL
.6860ICVStock3_00006	12/16/11	12/16/10	H2O, Lot j41e00	10 mL	6860ICVStock2_00003	0.1 mL	Perchlorate	0.1 ug/mL
..6860ICVStock2_00003	12/16/11	12/16/10	H2O, Lot j41e00	10 mL	6860ICVStock1_00002	0.1 mL	Perchlorate	10 ug/mL
...6860ICVStock1_00002	11/04/12	Absolute Standards, Lot 110409			(Purchased Reagent)		Perchlorate	1000 ug/mL

Method 6860

Perchlorate (IC/MS) by Method 6860

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Matrix: Water Level: Low Lab File ID: IC11b1315.d

Lab ID: LCS 280-53049/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Perchlorate	0.0500	0.0519	104	80-120	

Column to be used to flag recovery and RPD values

FORM III 6860

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Matrix: Water Level: Low Lab File ID: IC11b1339.d

Lab ID: LCS 280-53050/29 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Perchlorate	0.0500	0.0522	104	80-120	

Column to be used to flag recovery and RPD values

FORM III 6860

FORM III
LCMS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Matrix: Water Level: Low Lab File ID: IC11b1329.d

Lab ID: 280-12097-6 MS Client ID: MW39-07-012811 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Perchlorate	10.0	63	72.6	92	80-120	m

Column to be used to flag recovery and RPD values

FORM III 6860

FORM III
LCMS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Matrix: Water Level: Low Lab File ID: IC11b1346.d

Lab ID: 280-12097-15 MS Client ID: MW39-15-012811 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Perchlorate	2.50	7.3	9.94	105	80-120	

Column to be used to flag recovery and RPD values

FORM III 6860

FORM III
LCMS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Matrix: Water Level: Low Lab File ID: IC11b1330.d

Lab ID: 280-12097-6 MSD Client ID: MW39-07-012811 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Perchlorate	10.0	74.5	111	3	15	80-120	m

Column to be used to flag recovery and RPD values

FORM III 6860

FORM III
LCMS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Matrix: Water Level: Low Lab File ID: IC11b1347.d

Lab ID: 280-12097-15 MSD Client ID: MW39-15-012811 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Perchlorate	2.50	9.80	99	1	15	80-120	

Column to be used to flag recovery and RPD values

FORM III 6860

FORM III
LCMS DETECTION LIMIT CHECK STANDARD RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Matrix: Water Level: Low Lab File ID: IC11A3110.d

Lab ID: DLCK 280-50977/10 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	DLCK CONCENTRATION (ug/L)	DLCK % REC	QC LIMITS REC	#
Perchlorate	0.0500	0.0499 F	100	70-130	

Column to be used to flag recovery and RPD values

FORM III 6860

FORM III
LCMS LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Matrix: Water Level: Low Lab File ID: IC11b1316.d

Lab ID: INF 280-53049/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	INF CONCENTRATION (ug/L)	INF % REC	QC LIMITS REC	#
Perchlorate	0.0500	0.0521	104	70-130	

Column to be used to flag recovery and RPD values

FORM III 6860

FORM III
LCMS LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Matrix: Water Level: Low Lab File ID: IC11b1340.d

Lab ID: INF 280-53050/30 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	INF CONCENTRATION (ug/L)	INF % REC	QC LIMITS REC	#
Perchlorate	0.0500	0.0484 F	97	70-130	

Column to be used to flag recovery and RPD values

FORM III 6860

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Lab File ID: IC11b1314.d Lab Sample ID: MB 280-53049/4

Matrix: Water Date Extracted:

Instrument ID: LC_LCMS1 Date Analyzed: 02/13/2011 14:40

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	CCB 280-53049/1	IC11b1311.d	02/13/2011 11:48
	LCS 280-53049/5	IC11b1315.d	02/13/2011 15:11
MW39-02-012811	280-12097-1	IC11b1320.d	02/13/2011 17:33
MW39-05-012811	280-12097-2	IC11b1321.d	02/13/2011 18:01
MW39-06-012611	280-12097-3	IC11b1322.d	02/13/2011 18:29
	CCB 280-53049/15	IC11b1325.d	02/13/2011 19:55
MW39-06D-012611	280-12097-4	IC11b1326.d	02/13/2011 20:23
MW39-DUP01-012611	280-12097-5	IC11b1327.d	02/13/2011 20:51
MW39-07-012811	280-12097-6	IC11b1328.d	02/13/2011 21:20
MW39-07-012811 MS	280-12097-6 MS	IC11b1329.d	02/13/2011 21:48
MW39-07-012811 MSD	280-12097-6 MSD	IC11b1330.d	02/13/2011 22:17
MW39-08-012711	280-12097-7	IC11b1331.d	02/13/2011 22:45
MW39-09-012711	280-12097-8	IC11b1332.d	02/13/2011 23:13
MW39-10-012711	280-12097-9	IC11b1333.d	02/13/2011 23:42
MW39-11-012711	280-12097-10	IC11b1334.d	02/14/2011 00:10
	CCB 280-53049/27	IC11b1337.d	02/14/2011 01:35

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Lab File ID: IC11b1338.d Lab Sample ID: MB 280-53050/28

Matrix: Water Date Extracted:

Instrument ID: LC_LCMS1 Date Analyzed: 02/14/2011 02:04

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	CCB 280-53050/27	IC11b1337.d	02/14/2011 01:35
	LCS 280-53050/29	IC11b1339.d	02/14/2011 02:32
MW39-12-012711	280-12097-11	IC11b1341.d	02/14/2011 03:29
MW39-13-012811	280-12097-12	IC11b1342.d	02/14/2011 03:57
MW39-14-012711	280-12097-13	IC11b1343.d	02/14/2011 04:26
MW39-DUP02-012711	280-12097-14	IC11b1344.d	02/14/2011 04:54
MW39-15-012811	280-12097-15	IC11b1345.d	02/14/2011 05:23
MW39-15-012811 MS	280-12097-15 MS	IC11b1346.d	02/14/2011 05:51
MW39-15-012811 MSD	280-12097-15 MSD	IC11b1347.d	02/14/2011 06:19
	CCB 280-53050/40	IC11b1350.d	02/14/2011 07:44
MW39-16-012811	280-12097-16	IC11b1351.d	02/14/2011 08:13
	CCB 280-53050/50	IC11b1360.d	02/14/2011 12:28

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Instrument ID: LC_LCMS1 Calibration Start Date: 01/31/2011 13:40

GC Column: IonPac ID: 2(mm) Calibration End Date: 01/31/2011 16:02

Calibration ID: 4482

		ClO418					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		3314324	15.06				
UPPER LIMIT		4971486	20.06				
LOWER LIMIT		1657162	10.06				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICB 280-50977/8		3454950	15.06				
ICV 280-50977/9		3145865	15.09				
DLCK 280-50977/10		3316828	15.06				
CCB 280-53049/1		3756935	14.28				
CCV 280-53049/2		3815881	14.28				
CCVL 280-53049/3		3942821	14.25				
MB 280-53049/4		3887092	14.26				
LCS 280-53049/5		3447008	14.25				
INF 280-53049/6		3014871	14.28				
280-12097-1	MW39-02-012811	2869433	14.20				
280-12097-2	MW39-05-012811	2875284	14.25				
280-12097-3	MW39-06-012611	3222760	14.23				
CCV 280-53049/13		3395527	14.21				
CCVL 280-53049/14		3555981	14.26				
CCB 280-53049/15		3730962	14.23				
280-12097-4	MW39-06D-012611	3499714	14.28				
280-12097-5	MW39-DUP01-012611	3448985	14.28				
280-12097-6	MW39-07-012811	3617264	14.21				
280-12097-6 MS	MW39-07-012811 MS	3551921	14.20				
280-12097-6 MSD	MW39-07-012811 MSD	3470868	14.23				
280-12097-7	MW39-08-012711	3449259	14.28				
280-12097-8	MW39-09-012711	3582106	14.20				
280-12097-9	MW39-10-012711	3410432	14.28				
280-12097-10	MW39-11-012711	3465830	14.28				
CCV 280-53049/25		3652099	14.23				
CCV 280-53050/25		3652099	14.23				
CCVL 280-53050/26		3677807	14.26				
CCVL 280-53049/26		3677807	14.26				
CCB 280-53049/27		3799305	14.23				
CCB 280-53050/27		3799305	14.23				

ClO418 = Perchlorate-18O

Area Limit = 50%-150% of internal standard area
RT Limit = ± 5.0 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6860

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Instrument ID: LC_LCMS1 Calibration Start Date: 01/31/2011 13:40

GC Column: IonPac ID: 2(mm) Calibration End Date: 01/31/2011 16:02

Calibration ID: 4482

		ClO418					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		3314324	15.06				
UPPER LIMIT		4971486	20.06				
LOWER LIMIT		1657162	10.06				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 280-53050/28		3704810	14.21				
LCS 280-53050/29		3708786	14.26				
INF 280-53050/30		3373048	14.26				
280-12097-11	MW39-12-012711	3409063	14.33				
280-12097-12	MW39-13-012811	3459495	14.26				
280-12097-13	MW39-14-012711	3368646	14.26				
280-12097-14	MW39-DUP02-012711	3348090	14.21				
280-12097-15	MW39-15-012811	3524442	14.21				
280-12097-15 MS	MW39-15-012811 MS	3460321	14.23				
280-12097-15 MSD	MW39-15-012811 MSD	3407711	14.21				
CCV 280-53050/38		3672803	14.16				
CCVL 280-53050/39		3762115	14.21				
CCB 280-53050/40		3944089	14.25				
280-12097-16	MW39-16-012811	3463850	14.31				
CCV 280-53050/48		3737078	14.25				
CCB 280-53050/50		3806963	14.26				

ClO418 = Perchlorate-18O

Area Limit = 50%-150% of internal standard area
RT Limit = ± 5.0 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6860

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID: MW39-02-012811
Lab Sample ID: 280-12097-1
Matrix: Water
Lab File ID: IC11b1320.d
Analysis Method: 6860
Date Collected: 01/28/2011 11:20
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/13/2011 17:33
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 100
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53049
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	19		5.0	0.88

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1320.d		
Lims ID:	280-12097-A-1	Client ID:	MW39-02-012811
Inject. Date:	13-Feb-2011 17:33:04	Dil. Factor:	100.0000
Sample Type:	Client		
Sample ID:	280-12097-A-1 100X 280-0001541-010		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53049	Lims Sample ID:	10
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:18:00	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.202	14.252	-0.050	2869433	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.278	14.303	1.005	3061514	189.0	0.70- 1.30	1.00	
2	100.9 > 85.0	14.253	14.303	1.004	1096595		2.30- 3.80	2.79	

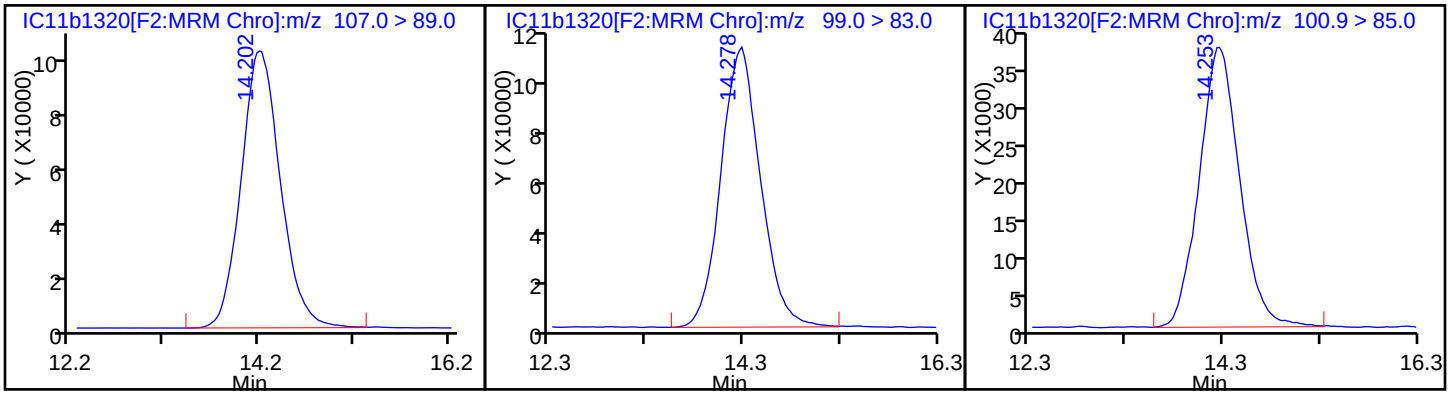
QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:18:02 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1320.d		
Injection Date:	13-Feb-2011 17:33:04	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-02-012811	Instrument ID:	LC_LCMS1
Lims Batch ID:	53049	Lims Sample ID:	10
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID: MW39-05-012811
Lab Sample ID: 280-12097-2
Matrix: Water
Lab File ID: IC11b1321.d
Analysis Method: 6860
Date Collected: 01/28/2011 11:35
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/13/2011 18:01
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 100
Injection Volume: 250(uL)
GC Column: IonPac
ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53049
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	24		5.0	0.88

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1321.d		
Lims ID:	280-12097-A-2	Client ID:	MW39-05-012811
Inject. Date:	13-Feb-2011 18:01:28	Dil. Factor:	100.0000
Sample Type:	Client		
Sample ID:	280-12097-A-2 100X 280-0001541-011		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53049	Lims Sample ID:	11
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:18:00	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.254	14.252	0.002	2875284	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.279	14.303	1.002	3924327	242.3	0.70- 1.30	1.00	
2	100.9 > 85.0	14.254	14.303	1.000	1409046		2.30- 3.80	2.79	

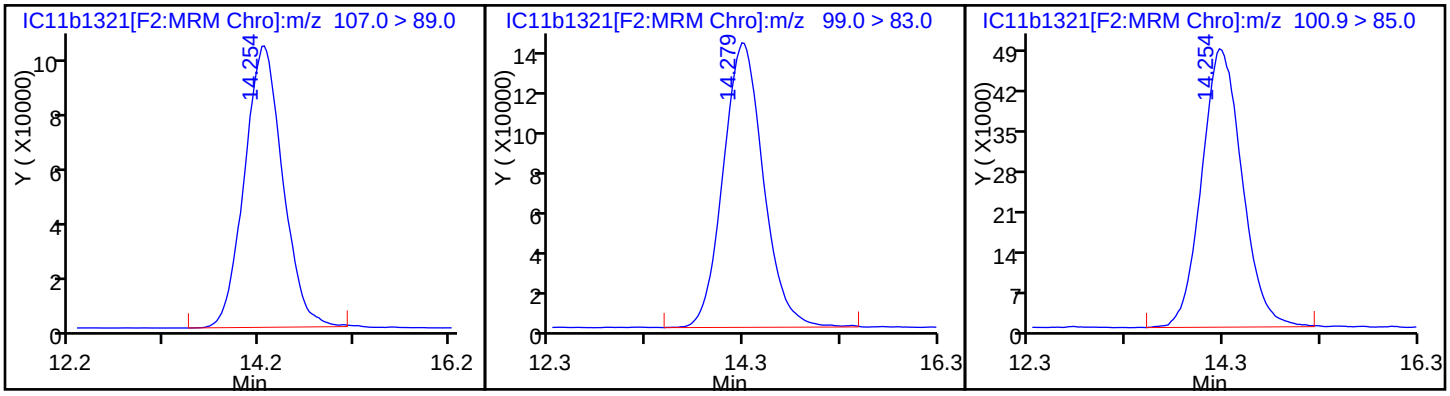
QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:18:01 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1321.d		
Injection Date:	13-Feb-2011 18:01:28	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-05-012811	Instrument ID:	LC_LCMS1
Lims Batch ID:	53049	Lims Sample ID:	11
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID: MW39-06-012611
Lab Sample ID: 280-12097-3
Matrix: Water
Lab File ID: IC11b1322.d
Analysis Method: 6860
Date Collected: 01/26/2011 16:00
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/13/2011 18:29
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 100
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53049
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	21		5.0	0.88

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1322.d		
Lims ID:	280-12097-A-3	Client ID:	MW39-06-012611
Inject. Date:	13-Feb-2011 18:29:52	Dil. Factor:	100.0000
Sample Type:	Client		
Sample ID:	280-12097-A-3 100X 280-0001541-012		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53049	Lims Sample ID:	12
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:18:00	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.227	14.252	-0.025	3222760	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.278	14.303	1.004	3867814	212.8	0.70- 1.30	1.00	
2	100.9 > 85.0	14.252	14.303	1.002	1405934		2.30- 3.80	2.75	

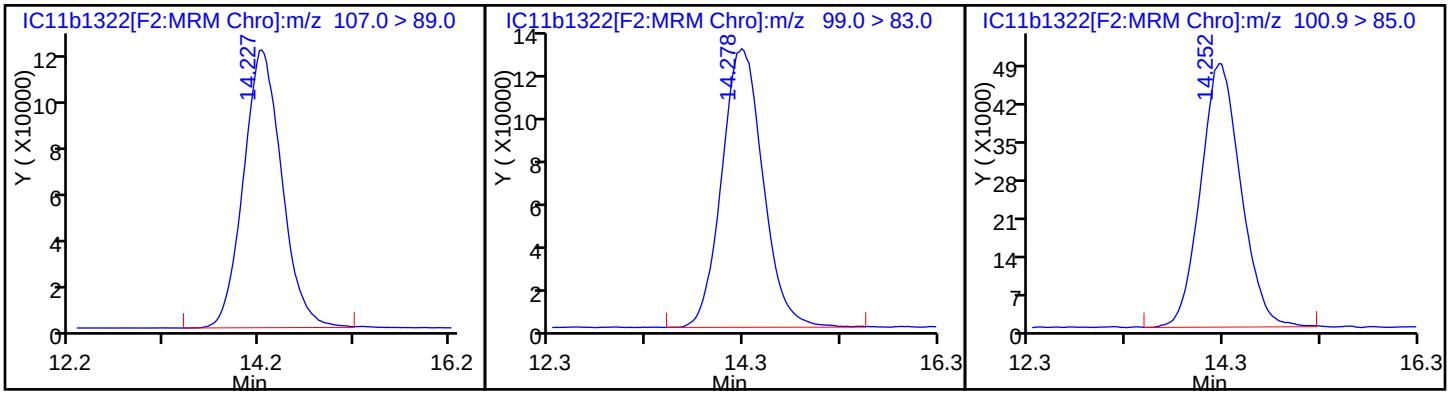
QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:18:01 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1322.d		
Injection Date:	13-Feb-2011 18:29:52	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-06-012611	Instrument ID:	LC_LCMS1
Lims Batch ID:	53049	Lims Sample ID:	12
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID: MW39-06D-012611
Lab Sample ID: 280-12097-4
Matrix: Water
Lab File ID: IC11b1326.d
Analysis Method: 6860
Date Collected: 01/26/2011 17:00
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/13/2011 20:23
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 100
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53049
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	29		5.0	0.88

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1326.d		
Lims ID:	280-12097-A-4	Client ID:	MW39-06D-012611
Inject. Date:	13-Feb-2011 20:23:27	Dil. Factor:	100.0000
Sample Type:	Client		
Sample ID:	280-12097-A-4 100X 280-0001541-016		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53049	Lims Sample ID:	16
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:54	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.284	14.259	0.025	3499714	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.335	14.284	1.004	5701227	289.6	0.70- 1.30	1.00	
2	100.9 > 85.0	14.309	14.284	1.002	2132046		2.30- 3.80	2.67	

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:17:59 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File: \\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1326.d

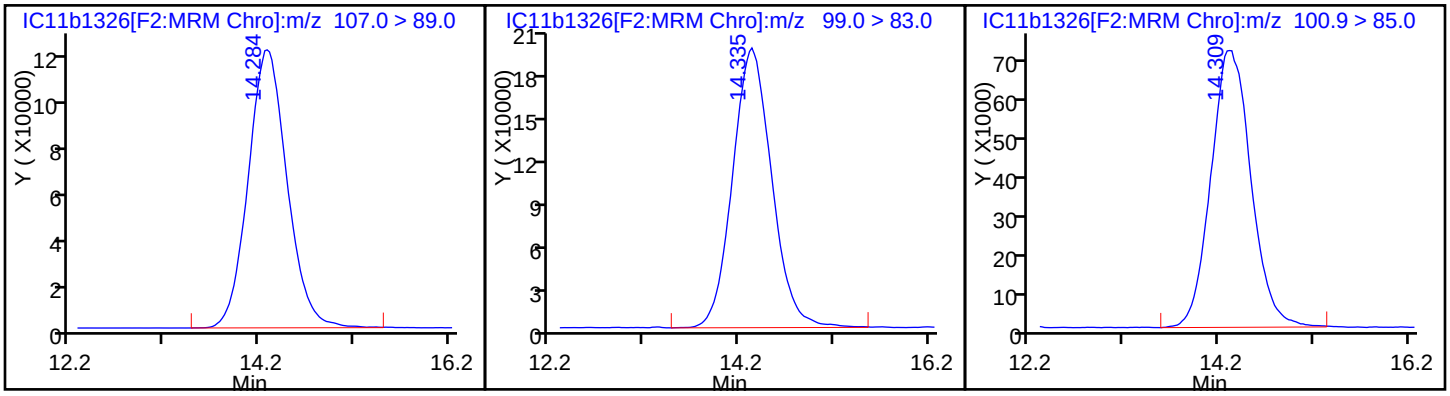
Injection Date: 13-Feb-2011 20:23:27 Limit Group: LC - 6860 Perchlorate

Client ID: MW39-06D-012611 Instrument ID: LC_LCMS1

Lims Batch ID: 53049 Lims Sample ID: 16

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID: MW39-DUP01-012611
Lab Sample ID: 280-12097-5
Matrix: Water
Lab File ID: IC11b1327.d
Analysis Method: 6860
Date Collected: 01/26/2011 17:00
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/13/2011 20:51
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 100
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53049
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	30		5.0	0.88

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1327.d		
Lims ID:	280-12097-A-5	Client ID:	MW39-DUP01-012611
Inject. Date:	13-Feb-2011 20:51:52	Dil. Factor:	100.0000
Sample Type:	Client		
Sample ID:	280-12097-A-5 100X 280-0001541-017		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53049	Lims Sample ID:	17
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:54	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.281	14.259	0.022	3448985	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.306	14.284	1.002	5797179	298.8	0.70- 1.30	1.00	
2	100.9 > 85.0	14.306	14.284	1.002	2137062		2.30- 3.80	2.71	

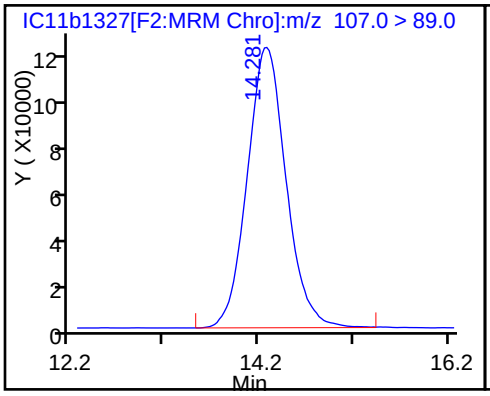
QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

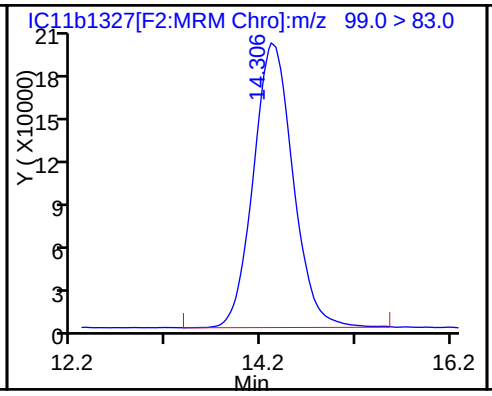
Report Date: 15-Feb-2011 09:17:58 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1327.d		
Injection Date:	13-Feb-2011 20:51:52	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-DUP01-012611	Instrument ID:	LC_LCMS1
Lims Batch ID:	53049	Lims Sample ID:	17
Operator ID:		Injection Vol:	250.00 ul

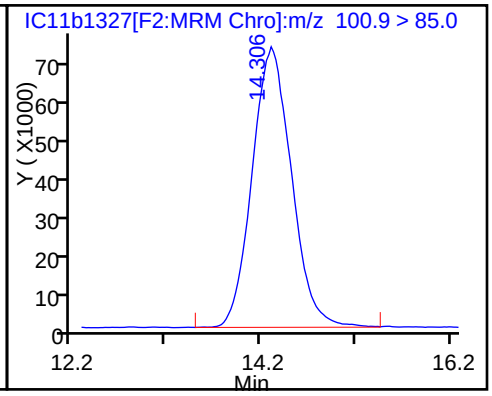
* 1 Perchlorate-18O



2 Perchlorate



2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID: MW39-07-012811
Lab Sample ID: 280-12097-6
Matrix: Water
Lab File ID: IC11b1328.d
Analysis Method: 6860
Date Collected: 01/28/2011 13:45
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/13/2011 21:20
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 200
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53049
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	63		10	1.8

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1328.d		
Lims ID:	280-12097-C-6	Client ID:	MW39-07-012811
Inject. Date:	13-Feb-2011 21:20:16	Dil. Factor:	200.0000
Sample Type:	Client		
Sample ID:	280-12097-C-6 200X 280-0001541-018		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53049	Lims Sample ID:	18
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:54	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.206	14.259	-0.053	3617264	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.282	14.284	1.005	6442860	316.8	0.70- 1.30	1.00	
2	100.9 > 85.0	14.257	14.284	1.004	2384905		2.30- 3.80	2.70	

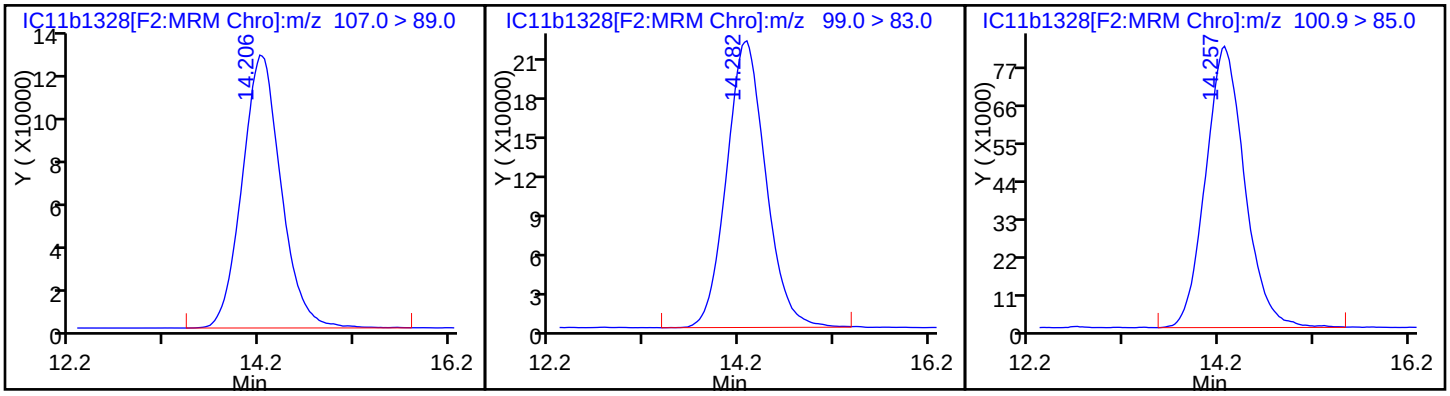
QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:17:58 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1328.d		
Injection Date:	13-Feb-2011 21:20:16	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-07-012811	Instrument ID:	LC_LCMS1
Lims Batch ID:	53049	Lims Sample ID:	18
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID: MW39-08-012711
Lab Sample ID: 280-12097-7
Matrix: Water
Lab File ID: IC11b1331.d
Analysis Method: 6860
Date Collected: 01/27/2011 12:00
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/13/2011 22:45
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 200
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53049
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	63		10	1.8

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1331.d		
Lims ID:	280-12097-A-7	Client ID:	MW39-08-012711
Inject. Date:	13-Feb-2011 22:45:27	Dil. Factor:	200.0000
Sample Type:	Client		
Sample ID:	280-12097-A-7 200X 280-0001541-021		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53049	Lims Sample ID:	21
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:54	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.282	14.259	0.023	3449259	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.333	14.284	1.004	6076258	313.3	0.70- 1.30	1.00	
2	100.9 > 85.0	14.333	14.284	1.004	2247455		2.30- 3.80	2.70	

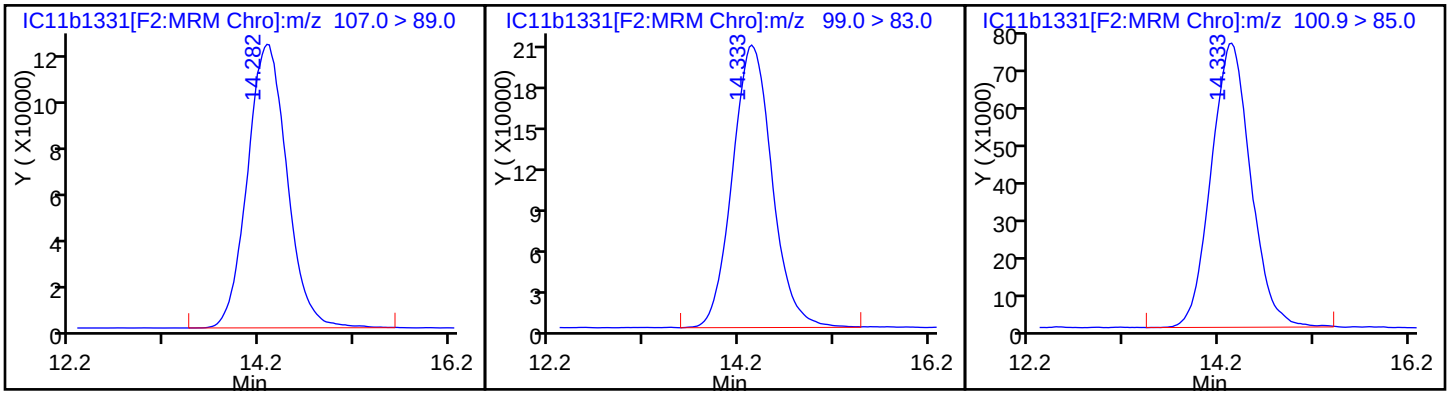
QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:17:56 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1331.d		
Injection Date:	13-Feb-2011 22:45:27	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-08-012711	Instrument ID:	LC_LCMS1
Lims Batch ID:	53049	Lims Sample ID:	21
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID: MW39-09-012711
Lab Sample ID: 280-12097-8
Matrix: Water
Lab File ID: IC11b1332.d
Analysis Method: 6860
Date Collected: 01/27/2011 10:50
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/13/2011 23:13
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1000
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53049
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	140		50	8.8

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1332.d		
Lims ID:	280-12097-A-8	Client ID:	MW39-09-012711
Inject. Date:	13-Feb-2011 23:13:51	Dil. Factor:	1000.0000
Sample Type:	Client		
Sample ID:	280-12097-A-8 1000X 280-0001541-022		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53049	Lims Sample ID:	22
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:54	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.203	14.259	-0.056	3582106	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.279	14.284	1.005	2843064	140.1	0.70- 1.30	1.00	
2	100.9 > 85.0	14.254	14.284	1.004	1026827		2.30- 3.80	2.77	

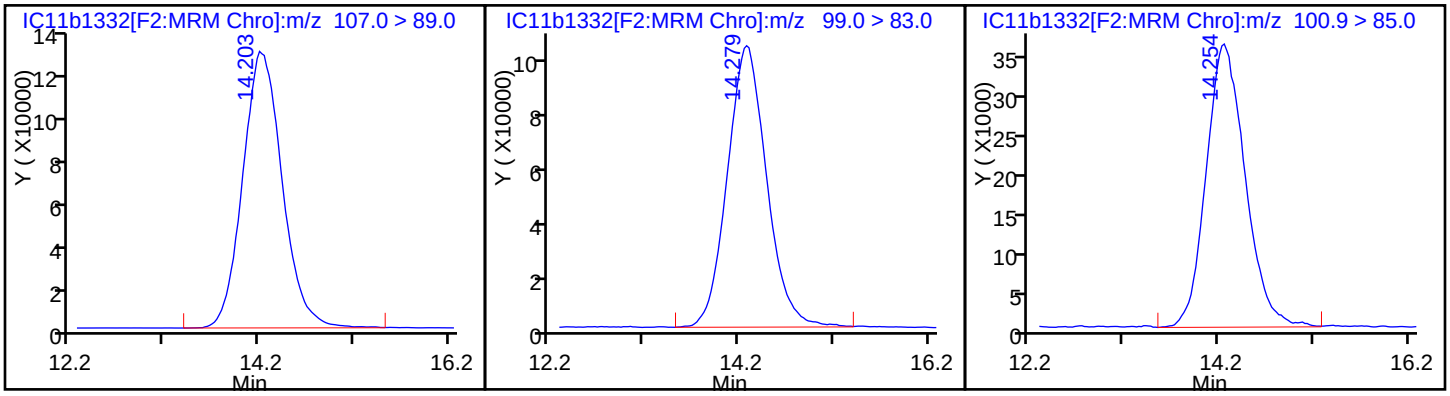
QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:17:56 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1332.d		
Injection Date:	13-Feb-2011 23:13:51	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-09-012711	Instrument ID:	LC_LCMS1
Lims Batch ID:	53049	Lims Sample ID:	22
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID: MW39-10-012711
Lab Sample ID: 280-12097-9
Matrix: Water
Lab File ID: IC11b1333.d
Analysis Method: 6860
Date Collected: 01/27/2011 15:00
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/13/2011 23:42
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 200
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53049
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	100		10	1.8

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1333.d		
Lims ID:	280-12097-A-9	Client ID:	MW39-10-012711
Inject. Date:	13-Feb-2011 23:42:15	Dil. Factor:	200.0000
Sample Type:	Client		
Sample ID:	280-12097-A-9 200X 280-0001541-023		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53049	Lims Sample ID:	23
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:54	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.280	14.259	0.021	3410432	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.305	14.284	1.002	9532694	498.1	0.70- 1.30	1.00	
2	100.9 > 85.0	14.280	14.284	1.000	3496428		2.30- 3.80	2.73	

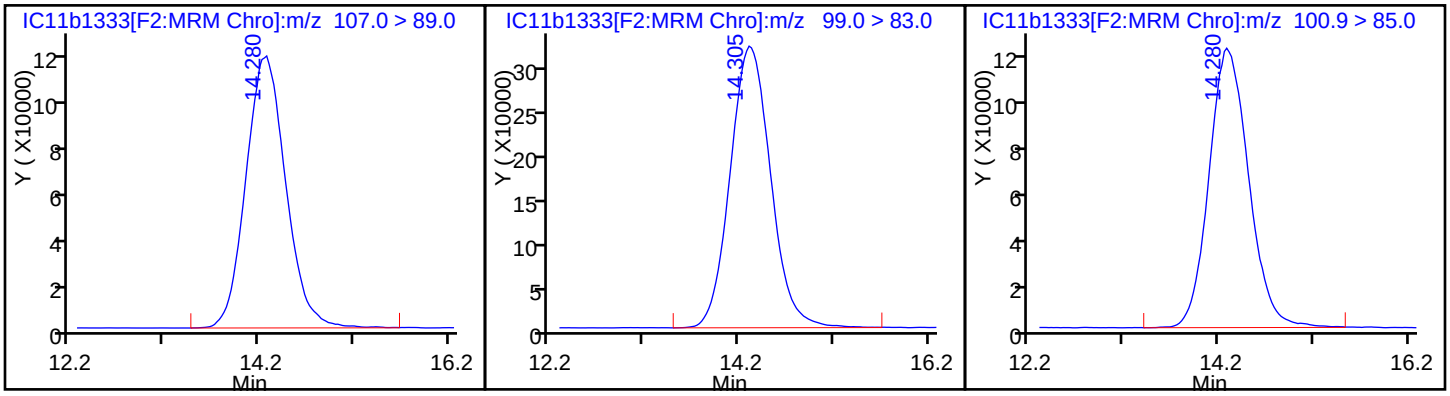
QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:17:55 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1333.d		
Injection Date:	13-Feb-2011 23:42:15	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-10-012711	Instrument ID:	LC_LCMS1
Lims Batch ID:	53049	Lims Sample ID:	23
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID: MW39-11-012711
Lab Sample ID: 280-12097-10
Matrix: Water
Lab File ID: IC11b1334.d
Analysis Method: 6860
Date Collected: 01/27/2011 16:40
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/14/2011 00:10
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 200
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53049
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	79		10	1.8

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1334.d		
Lims ID:	280-12097-A-10	Client ID:	MW39-11-012711
Inject. Date:	14-Feb-2011 00:10:38	Dil. Factor:	200.0000
Sample Type:	Client		
Sample ID:	280-12097-A-10 200X 280-0001541-024		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53049	Lims Sample ID:	24
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:54	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.282	14.259	0.023	3465830	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.332	14.284	1.004	7695838	395.3	0.70- 1.30	1.00	
2	100.9 > 85.0	14.332	14.284	1.004	2841399		2.30- 3.80	2.71	

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:17:55 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File: \\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1334.d

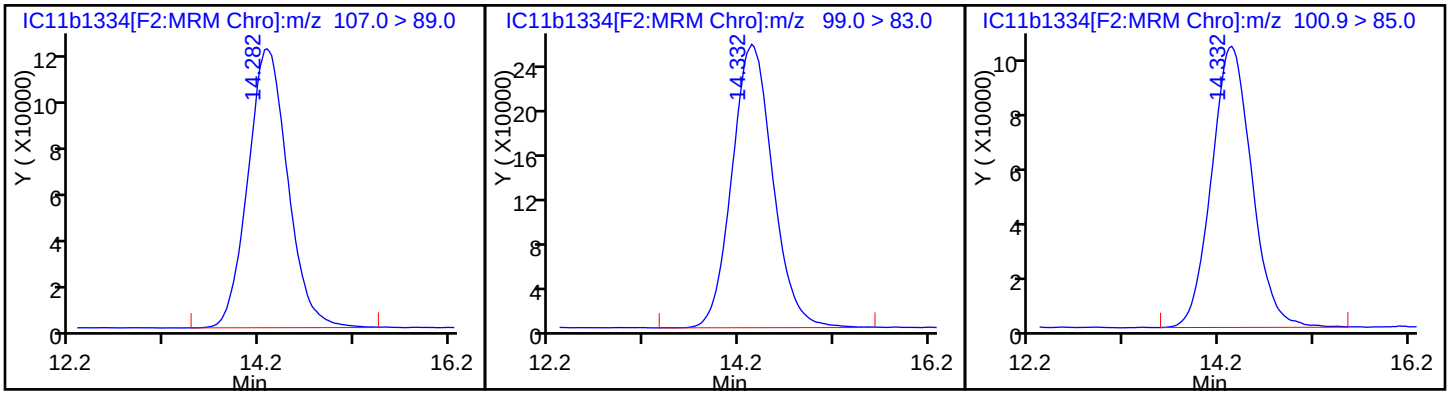
Injection Date: 14-Feb-2011 00:10:38 Limit Group: LC - 6860 Perchlorate

Client ID: MW39-11-012711 Instrument ID: LC_LCMS1

Lims Batch ID: 53049 Lims Sample ID: 24

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID: MW39-12-012711
Lab Sample ID: 280-12097-11
Matrix: Water
Lab File ID: IC11b1341.d
Analysis Method: 6860
Date Collected: 01/27/2011 15:15
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/14/2011 03:29
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 200
Injection Volume: 250(uL)
GC Column: IonPac
ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53050
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	61		10	1.8

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1341.d		
Lims ID:	280-12097-A-11	Client ID:	MW39-12-012711
Inject. Date:	14-Feb-2011 03:29:24	Dil. Factor:	200.0000
Sample Type:	Client		
Sample ID:	280-12097-A-11 200X 280-0001541-031		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53050	Lims Sample ID:	31
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:48	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.333	14.256	0.077	3409063	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.358	14.256	1.002	5803407	302.7	0.70- 1.30	1.00	
2	100.9 > 85.0	14.358	14.256	1.002	2105874		2.30- 3.80	2.76	

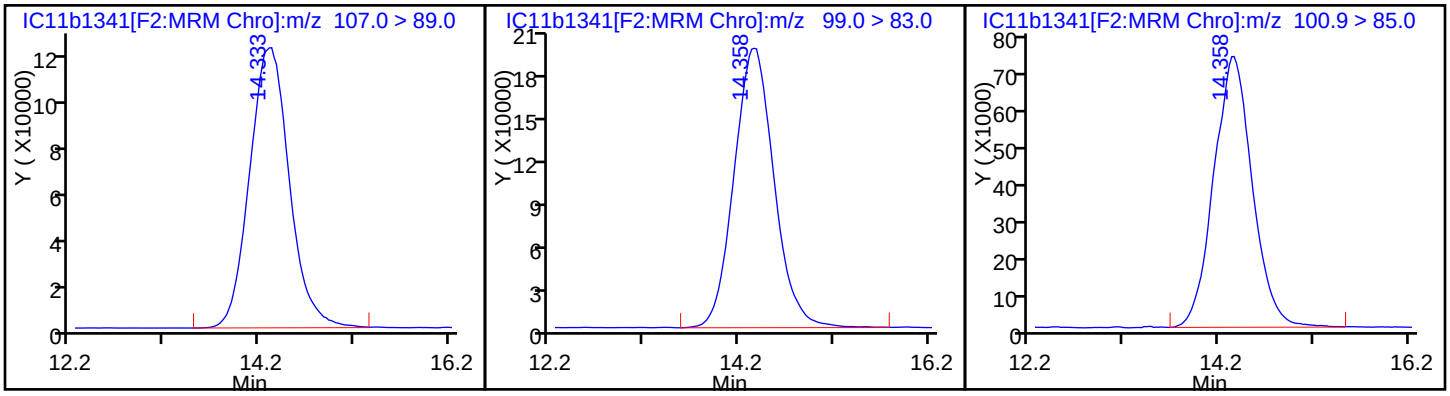
QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:17:51 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1341.d		
Injection Date:	14-Feb-2011 03:29:24	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-12-012711	Instrument ID:	LC_LCMS1
Lims Batch ID:	53050	Lims Sample ID:	31
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID: MW39-13-012811
Lab Sample ID: 280-12097-12
Matrix: Water
Lab File ID: IC11b1342.d
Analysis Method: 6860
Date Collected: 01/28/2011 10:40
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/14/2011 03:57
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 50
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53050
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	28	M	2.5	0.44

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1342.d		
Lims ID:	280-12097-A-12	Client ID:	MW39-13-012811
Inject. Date:	14-Feb-2011 03:57:48	Dil. Factor:	50.0000
Sample Type:	Client		
Sample ID:	280-12097-A-12 50X 280-0001541-032		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53050	Lims Sample ID:	32
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:36:53	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

First Level Reviewer: bonnettj Date: 15-Feb-2011 09:38:29

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.257	14.256	0.001	3459495	200.0			
2 Perchlorate									M
2	99.0 > 83.0	14.282	14.282	1.002	10768322	554.9	0.70- 1.30	1.00	M
2	100.9 > 85.0	14.282	14.282	1.002	3927807		2.30- 3.80	2.74	

QC Flag Legend

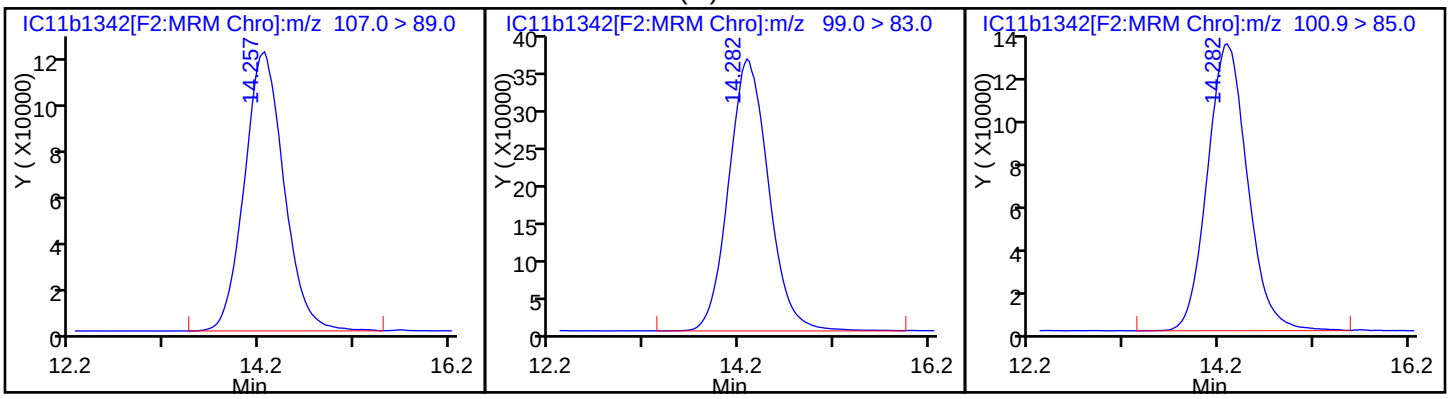
Processing Flags
s - Failed ISTD Recovery Test

Review Flags
M - Manually Integrated

Report Date: 15-Feb-2011 09:38:30 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1342.d		
Injection Date:	14-Feb-2011 03:57:48	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-13-012811	Instrument ID:	LC_LCMS1
Lims Batch ID:	53050	Lims Sample ID:	32
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate (M) 2 Perchlorate



Report Date: 15-Feb-2011 09:38:30 Chrom Revision: 1.2 10-Feb-2011 10:49:26

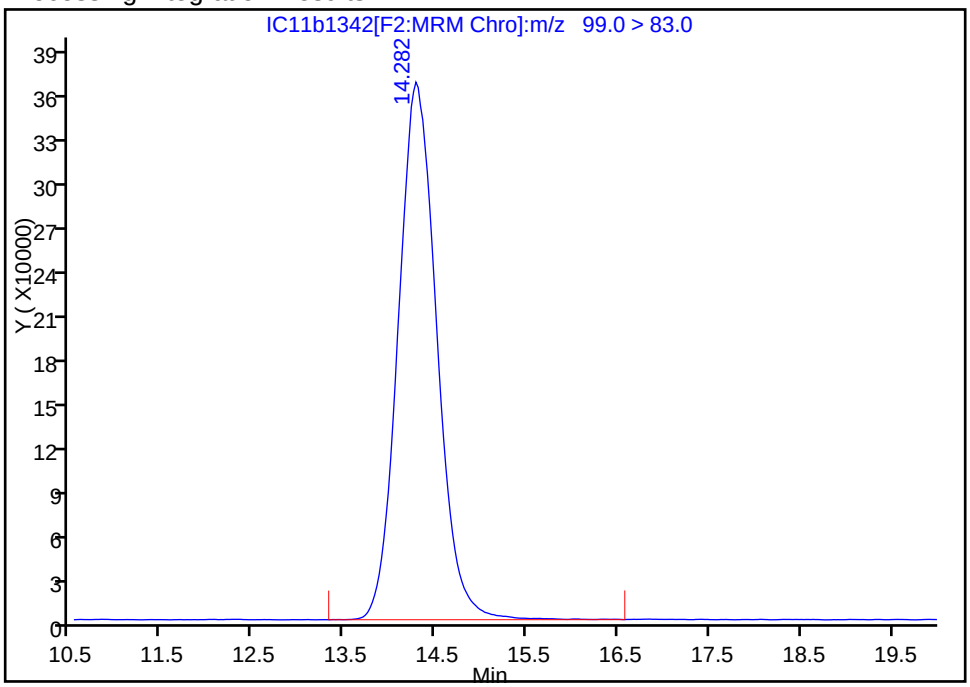
Manual Integration/User Assign Peak Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1342.d		
Injection Date:	14-Feb-2011 03:57:48	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-13-012811	Instrument ID:	LC_LCMS1
Lims Batch ID:	53050	Lims Sample ID:	32
Operator ID:		Injection Vol:	250.00 ul

2 Perchlorate, Signal: 1, m/z: 99.00 > 83.00 Type: quant, RT: 14.26, Det: F2:MRM

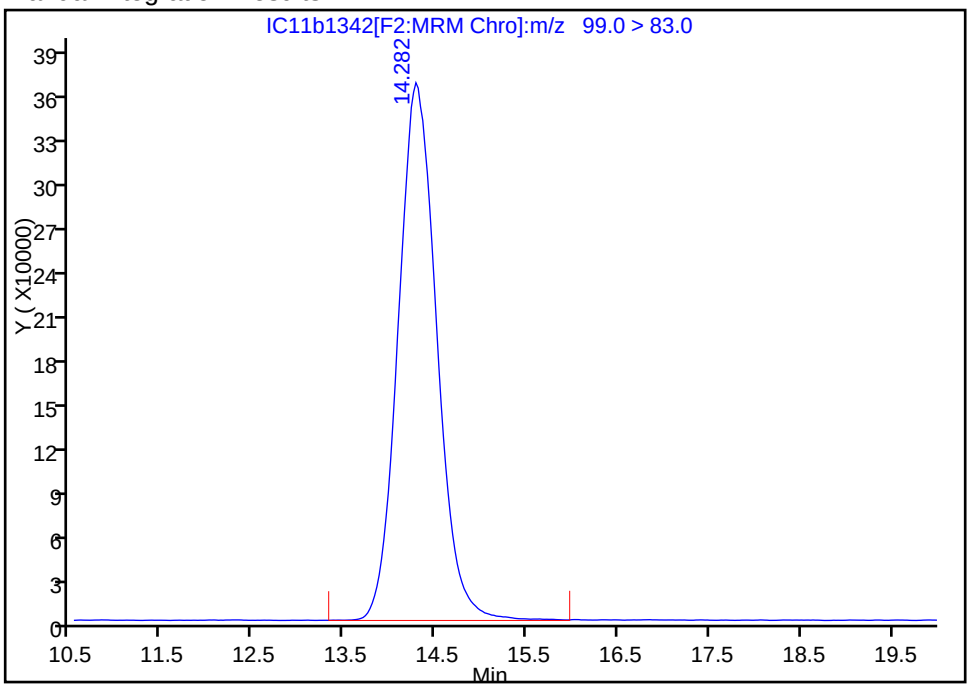
Processing Integration Results

RT: 14.28
Response: 10762652
Amount: 554.6302



Manual Integration Results

RT: 14.28
Response: 10768322
Amount: 554.9233



Reviewer: bonnettj, 15-Feb-2011 09:38:29
Audit Action: Manually Integrated
Audit Reason: Baseline

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID: MW39-14-012711
Lab Sample ID: 280-12097-13
Matrix: Water
Lab File ID: IC11b1343.d
Analysis Method: 6860
Date Collected: 01/27/2011 11:30
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/14/2011 04:26
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 50
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53050
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	11		2.5	0.44

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1343.d		
Lims ID:	280-12097-A-13	Client ID:	MW39-14-012711
Inject. Date:	14-Feb-2011 04:26:13	Dil. Factor:	50.0000
Sample Type:	Client		
Sample ID:	280-12097-A-13 50X 280-0001541-033		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53050	Lims Sample ID:	33
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:48	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.258	14.256	0.002	3368646	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.308	14.256	1.004	4163612	219.2	0.70- 1.30	1.00	
2	100.9 > 85.0	14.308	14.256	1.004	1493767		2.30- 3.80	2.79	

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:17:50 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File: \\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1343.d

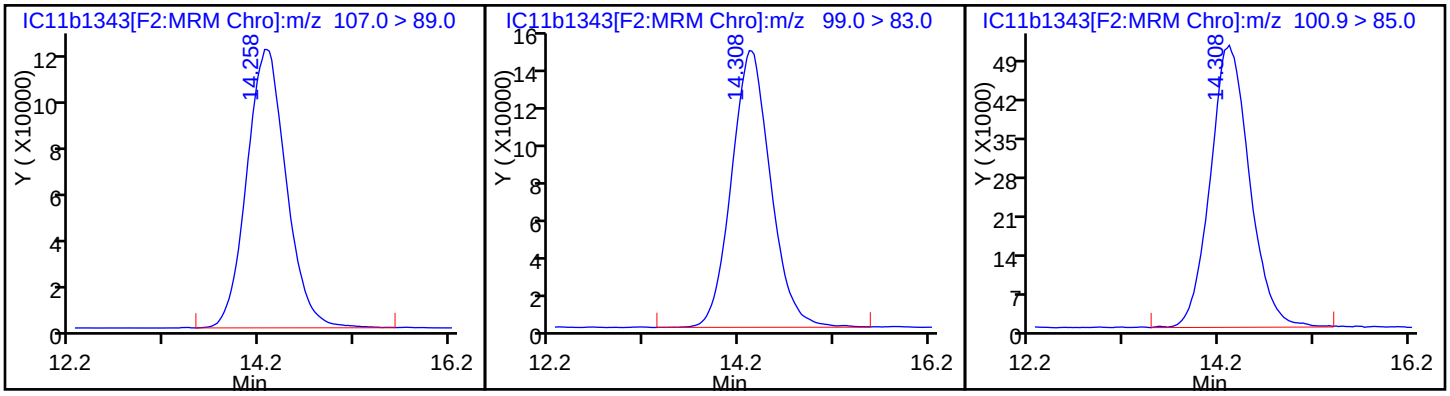
Injection Date: 14-Feb-2011 04:26:13 Limit Group: LC - 6860 Perchlorate

Client ID: MW39-14-012711 Instrument ID: LC_LCMS1

Lims Batch ID: 53050 Lims Sample ID: 33

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID: MW39-DUP02-012711
Lab Sample ID: 280-12097-14
Matrix: Water
Lab File ID: IC11b1344.d
Analysis Method: 6860
Date Collected: 01/27/2011 11:30
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/14/2011 04:54
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 50
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53050
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	11		2.5	0.44

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1344.d		
Lims ID:	280-12097-A-14	Client ID:	MW39-DUP02-012711
Inject. Date:	14-Feb-2011 04:54:36	Dil. Factor:	50.0000
Sample Type:	Client		
Sample ID:	280-12097-A-14 50X 280-0001541-034		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53050	Lims Sample ID:	34
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:48	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.207	14.256	-0.049	3348090	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.232	14.256	1.002	4144028	219.6	0.70- 1.30	1.00	
2	100.9 > 85.0	14.232	14.256	1.002	1499492		2.30- 3.80	2.76	

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:17:50 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File: \\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1344.d

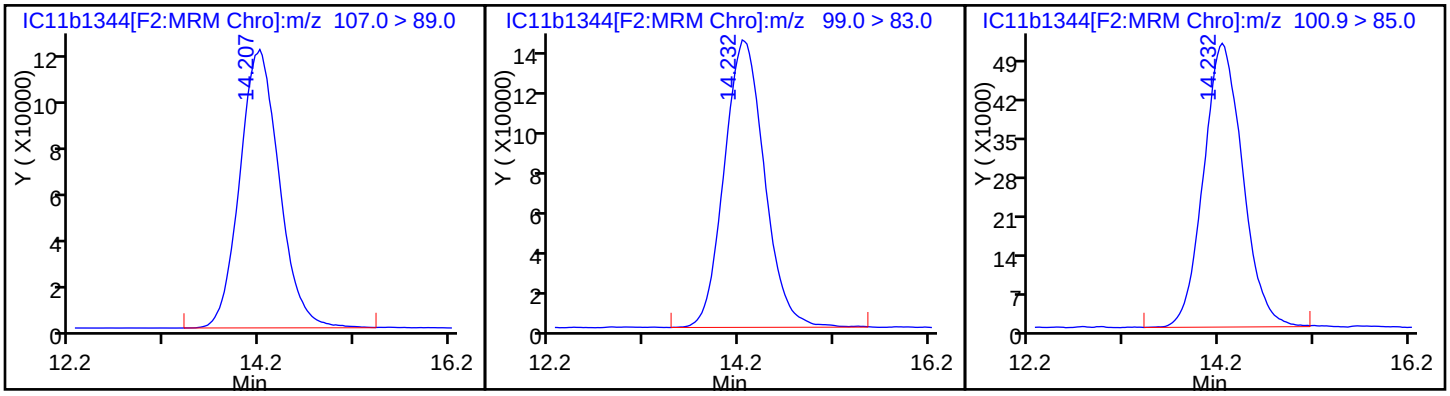
Injection Date: 14-Feb-2011 04:54:36 Limit Group: LC - 6860 Perchlorate

Client ID: MW39-DUP02-012711 Instrument ID: LC_LCMS1

Lims Batch ID: 53050 Lims Sample ID: 34

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID: MW39-15-012811
Lab Sample ID: 280-12097-15
Matrix: Water
Lab File ID: IC11b1345.d
Analysis Method: 6860
Date Collected: 01/28/2011 13:30
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/14/2011 05:23
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 50
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53050
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	7.3		2.5	0.44

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1345.d		
Lims ID:	280-12097-C-15	Client ID:	MW39-15-012811
Inject. Date:	14-Feb-2011 05:23:00	Dil. Factor:	50.0000
Sample Type:	Client		
Sample ID:	280-12097-C-15 50X 280-0001541-035		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53050	Lims Sample ID:	35
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:48	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.207	14.256	-0.049	3524442	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.257	14.256	1.004	2924277	146.6	0.70- 1.30	1.00	
2	100.9 > 85.0	14.207	14.256	1.000	1102253		2.30- 3.80	2.65	

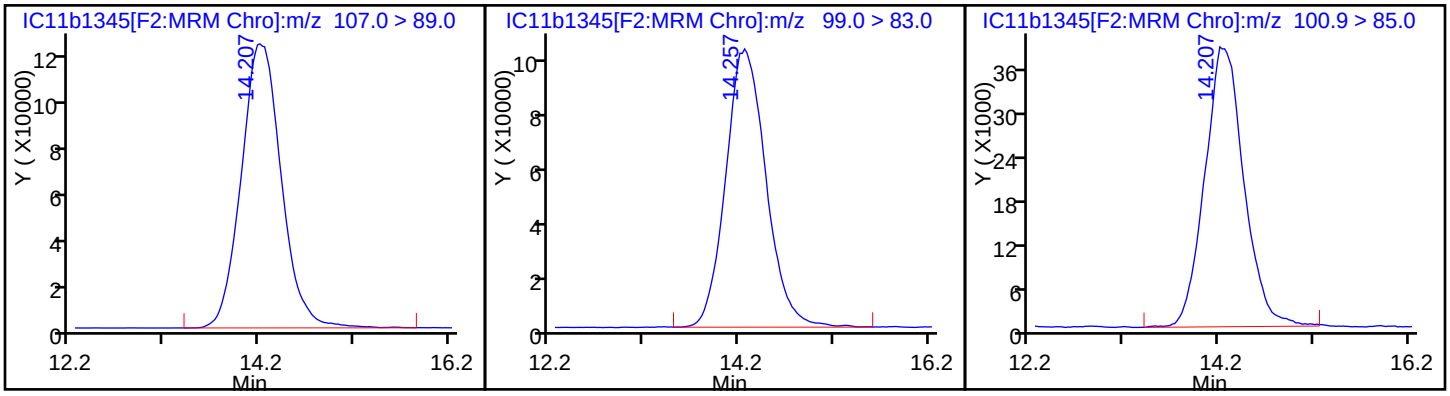
QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:17:50 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1345.d		
Injection Date:	14-Feb-2011 05:23:00	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-15-012811	Instrument ID:	LC_LCMS1
Lims Batch ID:	53050	Lims Sample ID:	35
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID: MW39-16-012811
Lab Sample ID: 280-12097-16
Matrix: Water
Lab File ID: IC11b1351.d
Analysis Method: 6860
Date Collected: 01/28/2011 13:00
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/14/2011 08:13
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 50
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53050
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	13		2.5	0.44

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1351.d		
Lims ID:	280-12097-A-16	Client ID:	MW39-16-012811
Inject. Date:	14-Feb-2011 08:13:23	Dil. Factor:	50.0000
Sample Type:	Client		
Sample ID:	280-12097-A-16 50X 280-0001541-041		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53050	Lims Sample ID:	41
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:43	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.309	14.207	0.102	3463850	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.360	14.232	1.004	5249402	269.2	0.70- 1.30	1.00	
2	100.9 > 85.0	14.335	14.232	1.002	1878751		2.30- 3.80	2.79	

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:17:47 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File: \\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1351.d

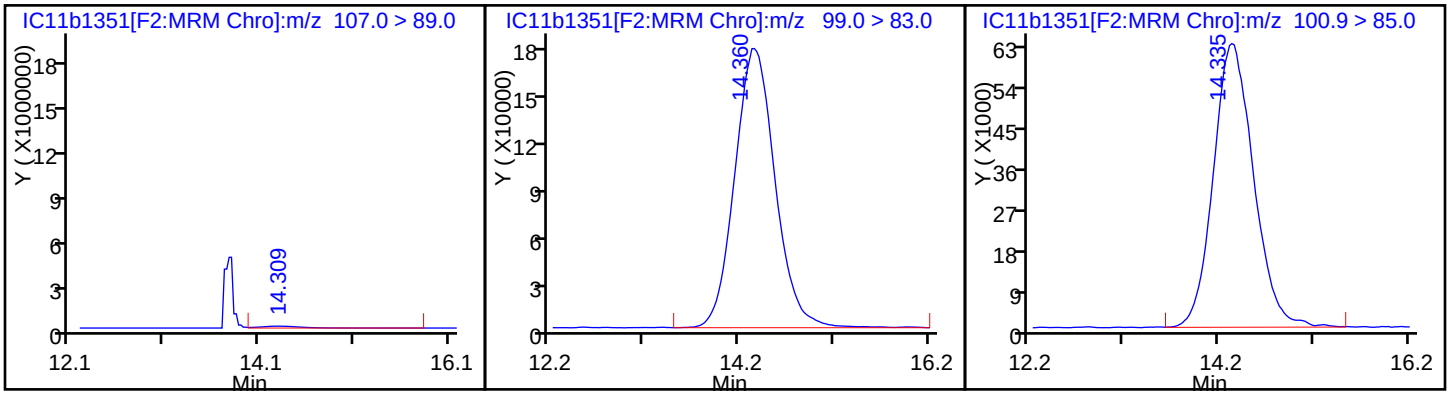
Injection Date: 14-Feb-2011 08:13:23 Limit Group: LC - 6860 Perchlorate

Client ID: MW39-16-012811 Instrument ID: LC_LCMS1

Lims Batch ID: 53050 Lims Sample ID: 41

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM VI
LCMS INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica Denver Job No.: 280-12097-1 Analy Batch No.: 50977

SDG No.:

Instrument ID: LC_LCMS1 GC Column: IonPac ID: 2(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/31/2011 13:40 Calibration End Date: 01/31/2011 16:02 Calibration ID: 4482

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 280-50977/2	IC11A3102.d
Level 2	STD 280-50977/3	IC11A3103.d
Level 3	STD 280-50977/4	IC11A3104.d
Level 4	ICISAV 280-50977/5	IC11A3105.d
Level 5	STD 280-50977/6	IC11A3106.d
Level 6	STD 280-50977/7	IC11A3107.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Perchlorate	1.1759 1.1124	1.1609	1.1631	1.1515	1.1254	Lin1	2.0481	1.1182							1.0000		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
LCMS INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-12097-1 Analy Batch No.: 50977

SDG No.:

Instrument ID: LC_LCMS1 GC Column: IonPac ID: 2(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/31/2011 13:40 Calibration End Date: 01/31/2011 16:02 Calibration ID: 4482

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 280-50977/2	IC11A3102.d
Level 2	STD 280-50977/3	IC11A3103.d
Level 3	STD 280-50977/4	IC11A3104.d
Level 4	ICISAV 280-50977/5	IC11A3105.d
Level 5	STD 280-50977/6	IC11A3106.d
Level 6	STD 280-50977/7	IC11A3107.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Perchlorate	ClO4 18	Lin1	399443 18517029	976800	1891694	3749973	9241148	20.0 1000	50.0	100	200	500

Curve Type Legend:

Lin1 = Linear 1/conc ISTD

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3102.d		
Lims ID:	STD 020	Client ID:	
Inject. Date:	31-Jan-2011 13:40:15	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	1
Sample ID:	STD 020 280-0001477-002		
Misc. Info.:	IC11A31		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	50977	Lims Sample ID:	2
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\6860_1.m		
Last Update:	01-Feb-2011 09:14:19	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC102		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.038	15.063	-0.025	3396969	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.063	15.114	1.002	399443	19.2	0.70- 1.30	1.00	
2	100.9 > 85.0	15.063	15.114	1.002	138542		2.30- 3.80	2.88	

Report Date: 01-Feb-2011 09:14:19 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3102.d

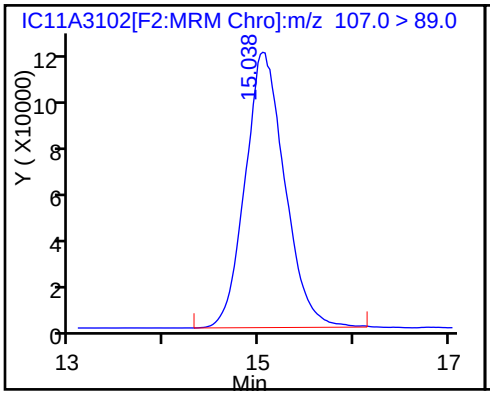
Injection Date: 31-Jan-2011 13:40:15 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

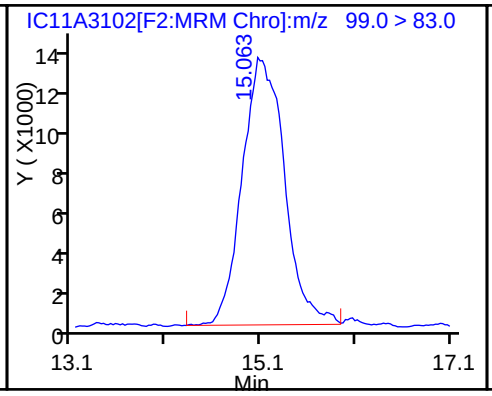
Lims Batch ID: 50977 Lims Sample ID: 2

Operator ID: Injection Vol: 250.00 ul

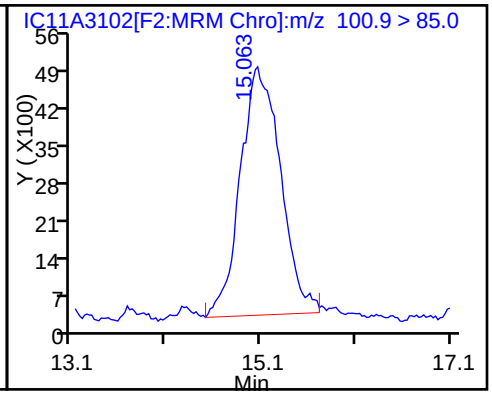
* 1 Perchlorate-18O



2 Perchlorate



2 Perchlorate



TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3103.d		
Lims ID:	STD 050	Client ID:	
Inject. Date:	31-Jan-2011 14:08:39	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	2
Sample ID:	STD 050 280-0001477-003		
Misc. Info.:	IC11A31		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	50977	Lims Sample ID:	3
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\6860_1.m		
Last Update:	01-Feb-2011 09:14:19	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC102		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.109	15.063	0.046	3365630	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.084	15.114	0.998	976800	50.1	0.70- 1.30	1.00	
2	100.9 > 85.0	15.184	15.114	1.005	371768		2.30- 3.80	2.63	

Report Date: 01-Feb-2011 09:14:20 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3103.d

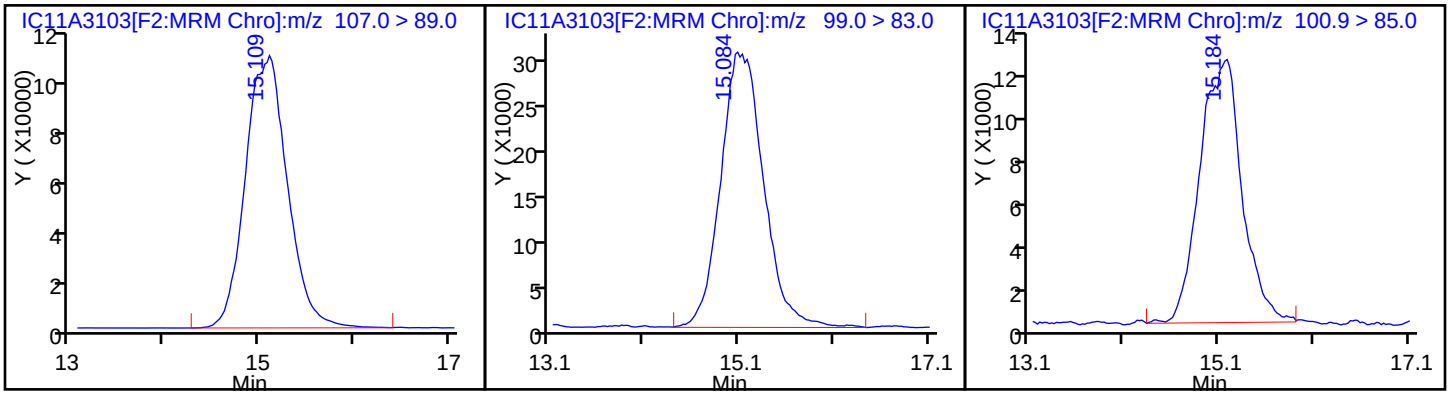
Injection Date: 31-Jan-2011 14:08:39 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

Lims Batch ID: 50977 Lims Sample ID: 3

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3104.d		
Lims ID:	STD 100	Client ID:	
Inject. Date:	31-Jan-2011 14:37:02	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	3
Sample ID:	STD 100 280-0001477-004		
Misc. Info.:	IC11A31		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	50977	Lims Sample ID:	4
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\6860_1.m		
Last Update:	01-Feb-2011 09:14:20	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC102		

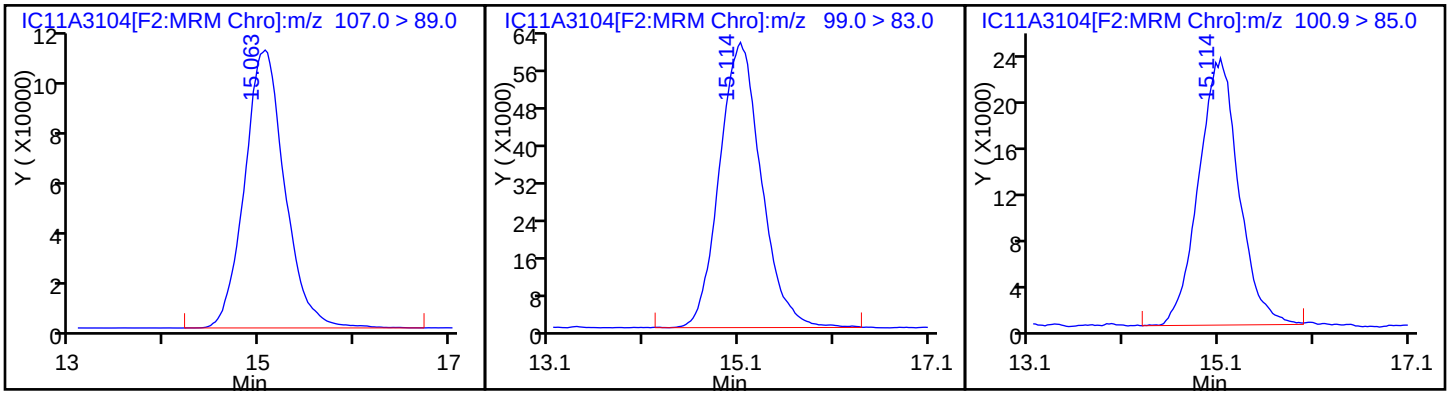
Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.063	15.063	0.000	3252876	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.114	15.114	1.003	1891694	102.2	0.70- 1.30	1.00	
2	100.9 > 85.0	15.114	15.114	1.003	694314		2.30- 3.80	2.72	

Report Date: 01-Feb-2011 09:14:20 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3104.d

Injection Date:	31-Jan-2011 14:37:02	Limit Group:	LC - 6860 Perchlorate
Client ID:		Instrument ID:	LC_LCMS1
Lims Batch ID:	50977	Lims Sample ID:	4
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3105.d		
Lims ID:	STD 200	Client ID:	
Inject. Date:	31-Jan-2011 15:05:26	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	4
Sample ID:	STD 200 280-0001477-005		
Misc. Info.:	IC11A31		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	50977	Lims Sample ID:	5
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\6860_1.m		
Last Update:	01-Feb-2011 09:14:20	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC102		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.061	15.063	-0.002	3256548	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.137	15.114	1.005	3749973	204.1	0.70- 1.30	1.00	
2	100.9 > 85.0	15.112	15.114	1.003	1459214		2.30- 3.80	2.57	

Report Date: 01-Feb-2011 09:14:20 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3105.d

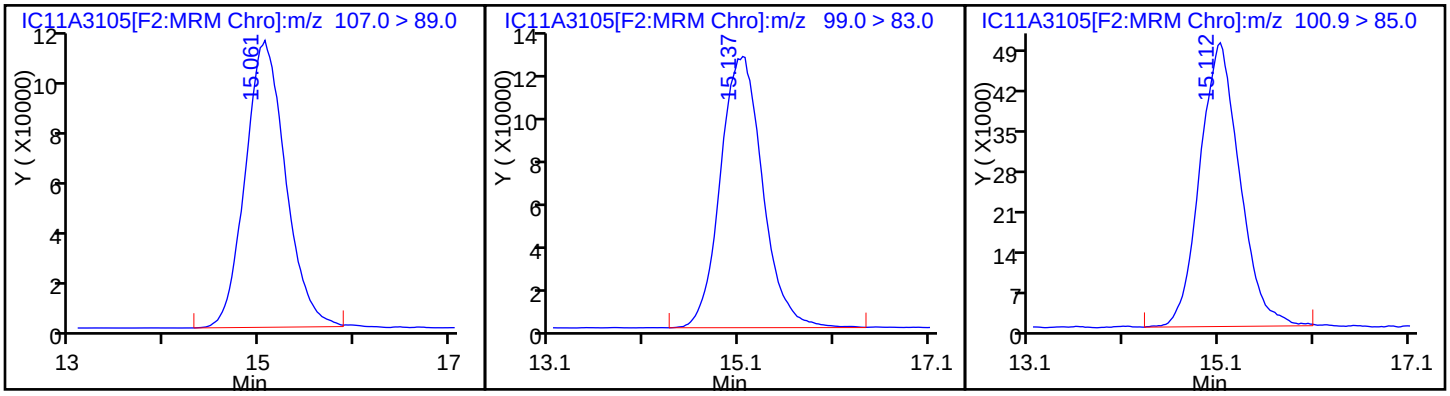
Injection Date: 31-Jan-2011 15:05:26 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

Lims Batch ID: 50977 Lims Sample ID: 5

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3106.d		
Lims ID:	STD 500	Client ID:	
Inject. Date:	31-Jan-2011 15:33:51	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	5
Sample ID:	STD 500 280-0001477-006		
Misc. Info.:	IC11A31		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	50977	Lims Sample ID:	6
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\6860_1.m		
Last Update:	01-Feb-2011 09:14:21	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC102		

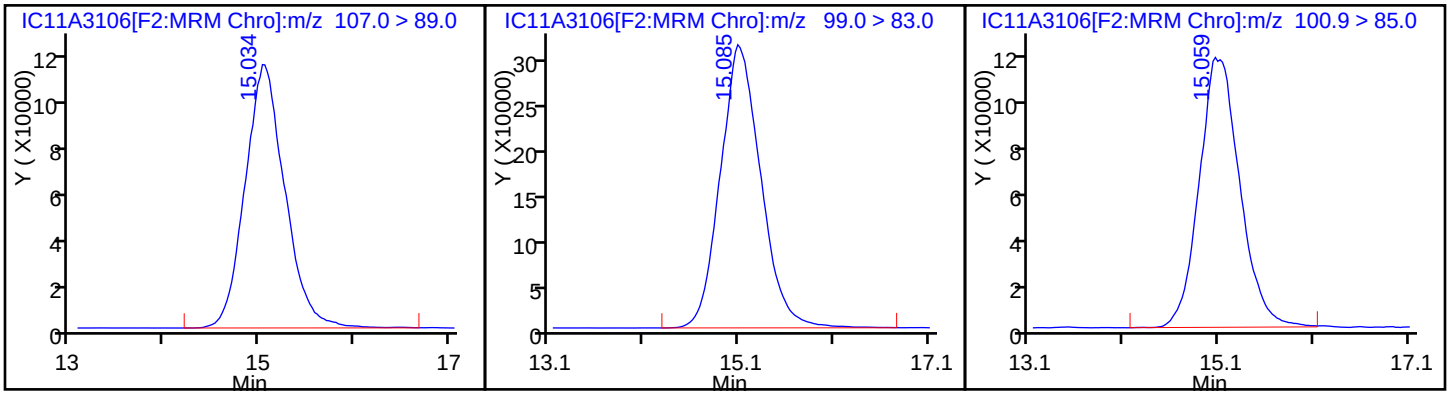
Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.034	15.063	-0.029	3284616	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.085	15.114	1.003	9241148	501.4	0.70- 1.30	1.00	
2	100.9 > 85.0	15.059	15.114	1.002	3548292		2.30- 3.80	2.60	

Report Date: 01-Feb-2011 09:14:21 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3106.d

Injection Date:	31-Jan-2011 15:33:51	Limit Group:	LC - 6860 Perchlorate
Client ID:		Instrument ID:	LC_LCMS1
Lims Batch ID:	50977	Lims Sample ID:	6
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Lims ID:	STD 1000	Client ID:	
Inject. Date:	31-Jan-2011 16:02:14	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	6
Sample ID:	STD 1000 280-0001477-007		
Misc. Info.:	IC11A31		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	50977	Lims Sample ID:	7
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\6860_1.m		
Last Update:	01-Feb-2011 09:14:21	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC102		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.059	15.063	-0.004	3329305	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.110	15.114	1.003	18517029	993.0	0.70- 1.30	1.00	
2	100.9 > 85.0	15.110	15.114	1.003	7058247		2.30- 3.80	2.62	

Report Date: 01-Feb-2011 09:14:21 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d

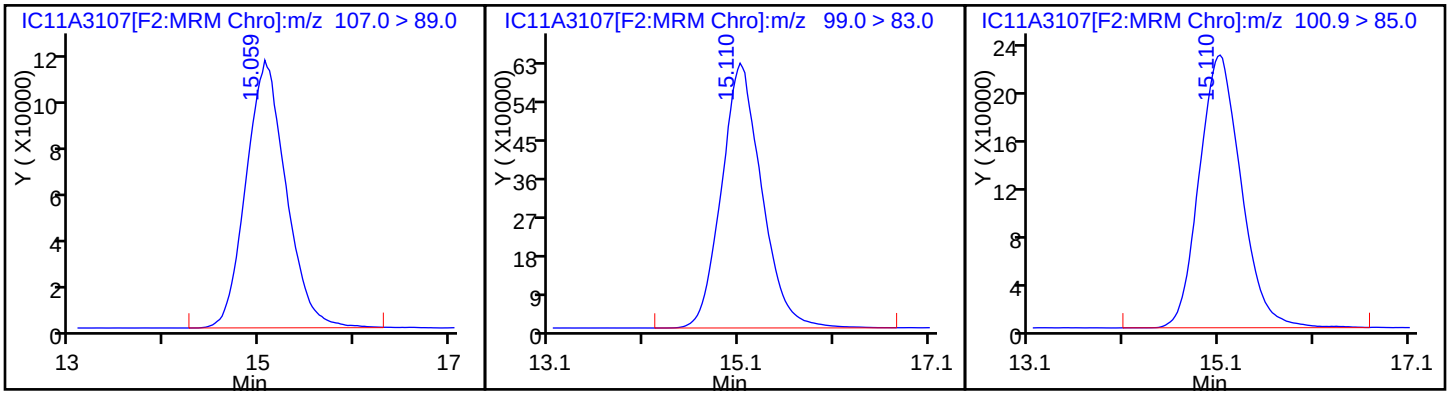
Injection Date: 31-Jan-2011 16:02:14 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

Lims Batch ID: 50977 Lims Sample ID: 7

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Lab Sample ID: ICV 280-50977/9 Calibration Date: 01/31/2011 16:59

Instrument ID: LC_LCMS1 Calib Start Date: 01/31/2011 13:40

GC Column: IonPac ID: 2.00(mm) Calib End Date: 01/31/2011 16:02

Lab File ID: IC11A3109.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		1.130		0.200	0.200	0.2	10.0

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3109.d		
Lims ID:	ICV	Client ID:	
Inject. Date:	31-Jan-2011 16:59:01	Dil. Factor:	1.0000
Sample Type:	ICV		
Sample ID:	ICV 280-0001477-009		
Misc. Info.:	IC11A31		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	50977	Lims Sample ID:	9
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\6860_1.m		
Last Update:	01-Feb-2011 09:14:21	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC102		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.087	15.063	0.024	3145865	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.112	15.114	1.002	3555775	200.3	0.70- 1.30	1.00	
2	100.9 > 85.0	15.036	15.114	0.997	1344415		2.30- 3.80	2.64	

Report Date: 01-Feb-2011 09:14:22 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3109.d

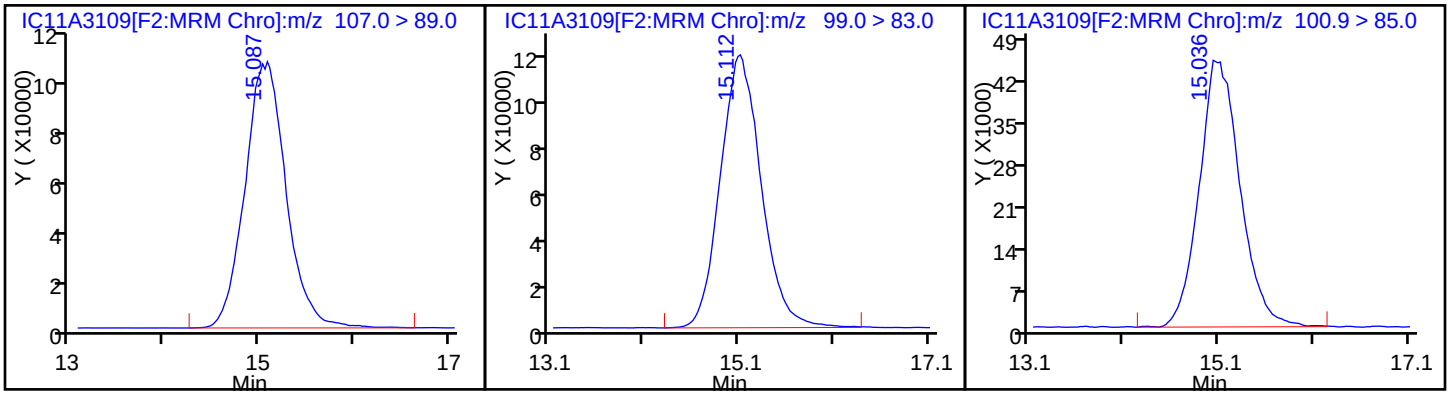
Injection Date: 31-Jan-2011 16:59:01 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

Lims Batch ID: 50977 Lims Sample ID: 9

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Lab Sample ID: CCV 280-53049/2 Calibration Date: 02/13/2011 12:16

Instrument ID: LC_LCMS1 Calib Start Date: 01/31/2011 13:40

GC Column: IonPac ID: 2.00(mm) Calib End Date: 01/31/2011 16:02

Lab File ID: IC11b1312.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		1.130		0.200	0.200	0.2	15.0

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1312.d		
Lims ID:	CCV	Client ID:	
Inject. Date:	13-Feb-2011 12:16:33	Dil. Factor:	1.0000
Sample Type:	CCV		
Sample ID:	CCV 2		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53049	Lims Sample ID:	2
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:18:07	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.281	14.281	0.000	3815881	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.306	14.306	1.002	4312802	200.3	0.70- 1.30	1.00	
2	100.9 > 85.0	14.281	14.306	1.000	1737026		2.30- 3.80	2.48	

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:18:07 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File: \\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1312.d

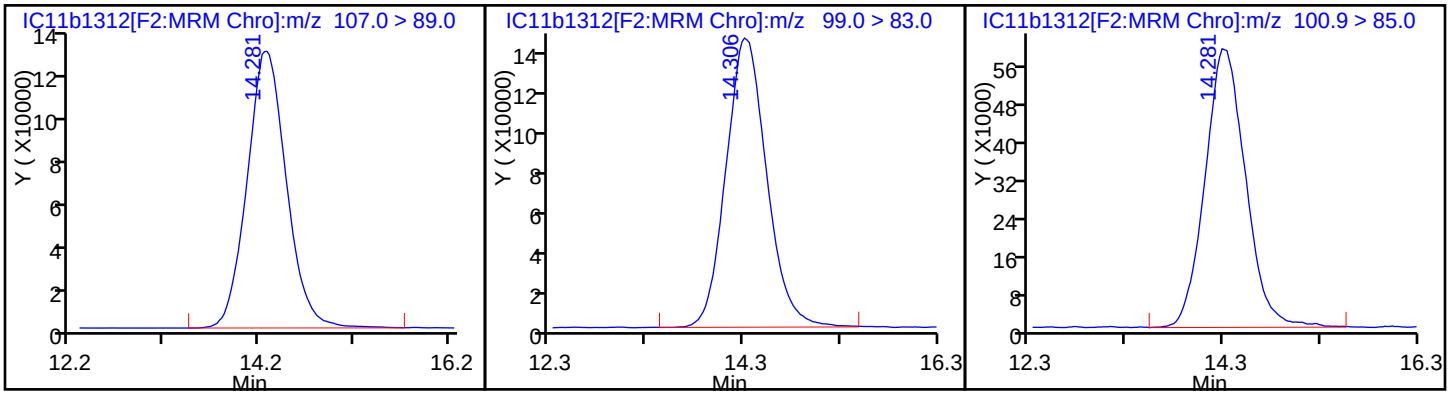
Injection Date: 13-Feb-2011 12:16:33 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

Lims Batch ID: 53049 Lims Sample ID: 2

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Lab Sample ID: CCVL 280-53049/3 Calibration Date: 02/13/2011 12:44

Instrument ID: LC_LCMS1 Calib Start Date: 01/31/2011 13:40

GC Column: IonPac ID: 2.00(mm) Calib End Date: 01/31/2011 16:02

Lab File ID: IC11b1313.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		1.306		0.0215	0.0200	7.6	30.0

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1313.d		
Lims ID:	CCVL	Client ID:	
Inject. Date:	13-Feb-2011 12:44:56	Dil. Factor:	1.0000
Sample Type:	CCVL		
Sample ID:	CCVL 2		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53049	Lims Sample ID:	3
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:18:06	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.252	14.252	0.000	3942821	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.303	14.303	1.004	514965	21.5	0.70- 1.30	1.00	
2	100.9 > 85.0	14.202	14.303	0.996	193854		2.30- 3.80	2.66	

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:18:06 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File: \\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1313.d

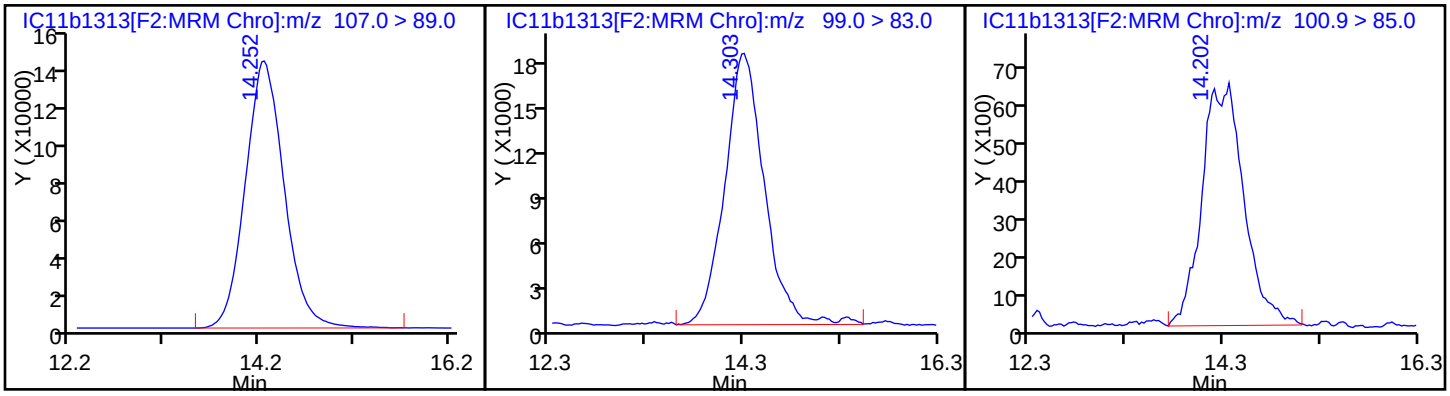
Injection Date: 13-Feb-2011 12:44:56 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

Lims Batch ID: 53049 Lims Sample ID: 3

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Lab Sample ID: CCV 280-53049/13 Calibration Date: 02/13/2011 18:58

Instrument ID: LC_LCMS1 Calib Start Date: 01/31/2011 13:40

GC Column: IonPac ID: 2.00(mm) Calib End Date: 01/31/2011 16:02

Lab File ID: IC11b1323.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		1.159		0.205	0.200	2.7	15.0

FORM VII 6860

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1323.d		
Lims ID:	CCV	Client ID:	
Inject. Date:	13-Feb-2011 18:58:16	Dil. Factor:	1.0000
Sample Type:	CCV		
Sample ID:	CCV 1 280-0001541-013		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53049	Lims Sample ID:	13
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:18:00	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.205	14.205	0.000	3395527	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.255	14.255	1.004	3935634	205.5	0.70- 1.30	1.00	
2	100.9 > 85.0	14.230	14.255	1.002	1394325		2.30- 3.80	2.82	

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:18:00 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File: \\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1323.d

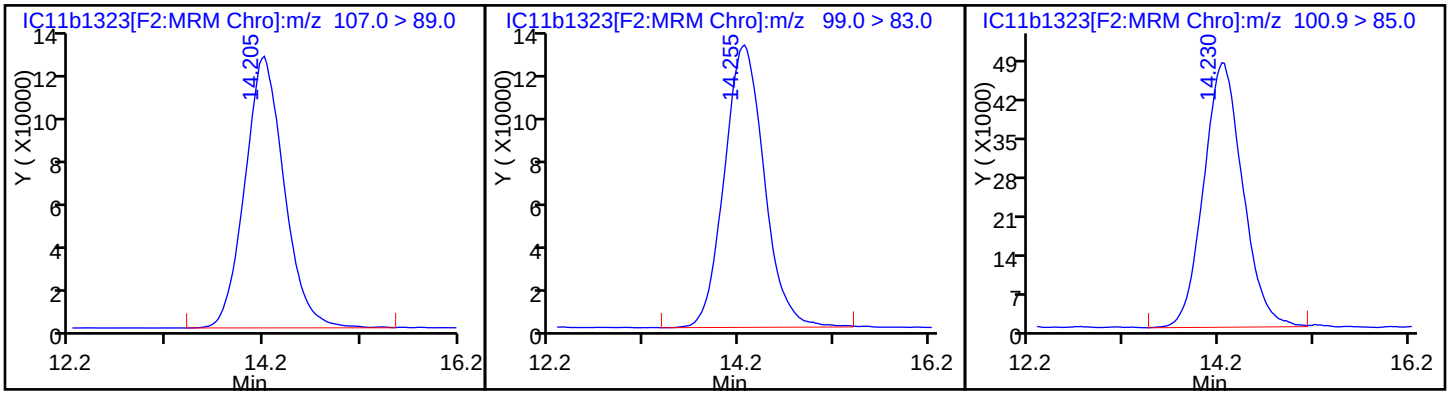
Injection Date: 13-Feb-2011 18:58:16 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

Lims Batch ID: 53049 Lims Sample ID: 13

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Lab Sample ID: CCVL 280-53049/14 Calibration Date: 02/13/2011 19:26

Instrument ID: LC_LCMS1 Calib Start Date: 01/31/2011 13:40

GC Column: IonPac ID: 2.00(mm) Calib End Date: 01/31/2011 16:02

Lab File ID: IC11b1324.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		1.278		0.0210	0.0200	5.1	30.0

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1324.d		
Lims ID:	CCVL	Client ID:	
Inject. Date:	13-Feb-2011 19:26:40	Dil. Factor:	1.0000
Sample Type:	CCVL		
Sample ID:	CCVL 1 280-0001541-014		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53049	Lims Sample ID:	14
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:59	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.259	14.259	0.000	3555981	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.284	14.284	1.002	454318	21.0	0.70- 1.30	1.00	
2	100.9 > 85.0	14.310	14.284	1.004	167333		2.30- 3.80	2.72	

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:18:00 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File: \\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1324.d

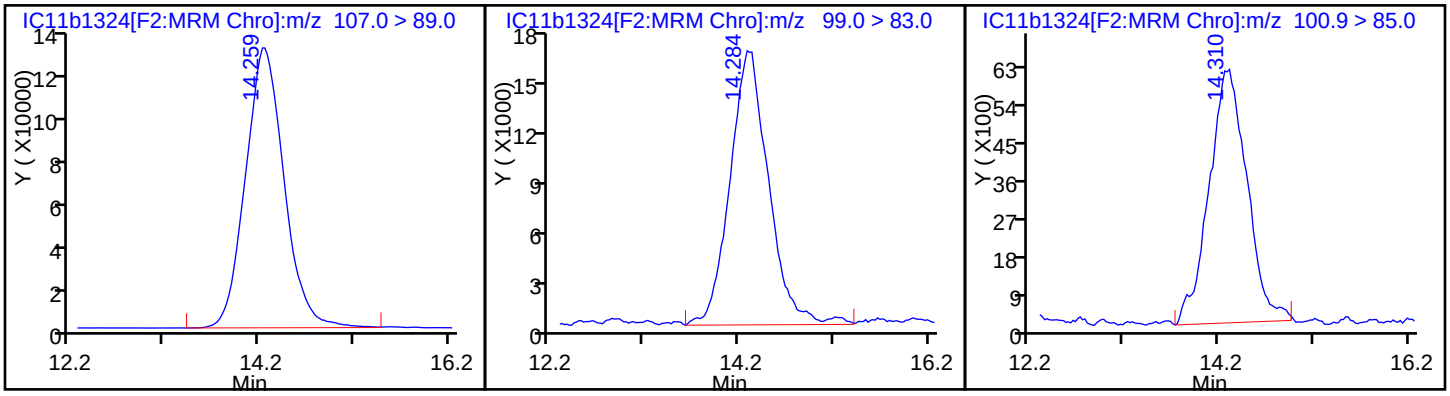
Injection Date: 13-Feb-2011 19:26:40 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

Lims Batch ID: 53049 Lims Sample ID: 14

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Lab Sample ID: CCV 280-53049/25 Calibration Date: 02/14/2011 00:39

Instrument ID: LC_LCMS1 Calib Start Date: 01/31/2011 13:40

GC Column: IonPac ID: 2.00(mm) Calib End Date: 01/31/2011 16:02

Lab File ID: IC11b1335.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		1.173		0.208	0.200	4.0	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Lab Sample ID: CCV 280-53050/25 Calibration Date: 02/14/2011 00:39

Instrument ID: LC_LCMS1 Calib Start Date: 01/31/2011 13:40

GC Column: IonPac ID: 2.00(mm) Calib End Date: 01/31/2011 16:02

Lab File ID: IC11b1335.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		1.173		0.208	0.200	4.0	15.0

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1335.d		
Lims ID:	CCV	Client ID:	
Inject. Date:	14-Feb-2011 00:39:02	Dil. Factor:	1.0000
Sample Type:	CCV		
Sample ID:	CCV 2 280-0001541-025		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53049	Lims Sample ID:	25
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:54	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.233	14.233	0.000	3652099	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.283	14.283	1.004	4282718	207.9	0.70- 1.30	1.00	
2	100.9 > 85.0	14.258	14.283	1.002	1539435		2.30- 3.80	2.78	

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1335.d		
Lims ID:	CCV	Client ID:	
Inject. Date:	14-Feb-2011 00:39:02	Dil. Factor:	1.0000
Sample Type:	CCV		
Sample ID:	CCV 2 280-0001541-025		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53050	Lims Sample ID:	25
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:54	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.233	14.233	0.000	3652099	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.283	14.283	1.004	4282718	207.9	0.70- 1.30	1.00	
2	100.9 > 85.0	14.258	14.283	1.002	1539435		2.30- 3.80	2.78	

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:17:54 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File: \\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1335.d

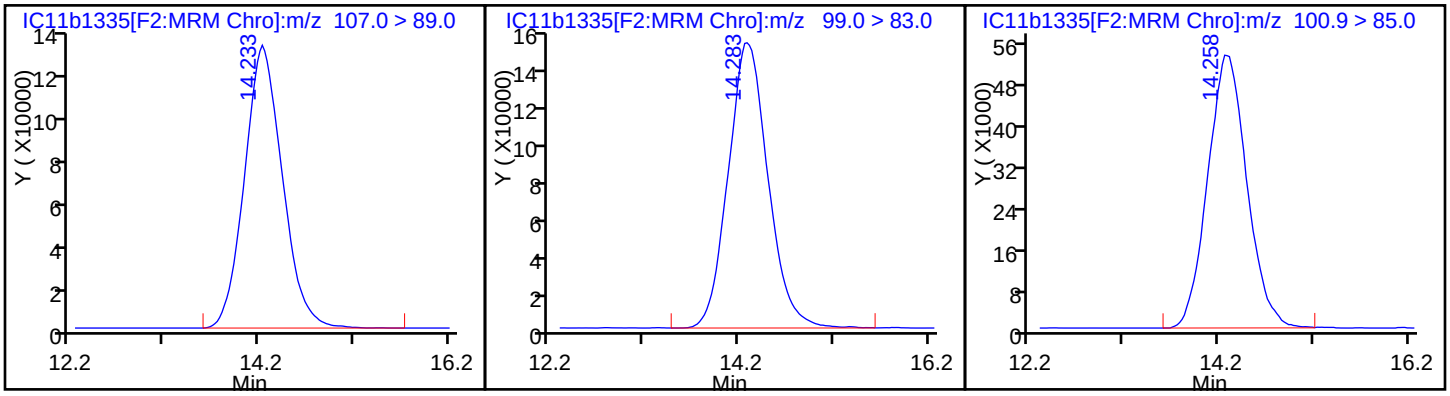
Injection Date: 14-Feb-2011 00:39:02 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

Lims Batch ID: 53049 Lims Sample ID: 25

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



Report Date: 15-Feb-2011 09:17:54 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File: \\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1335.d

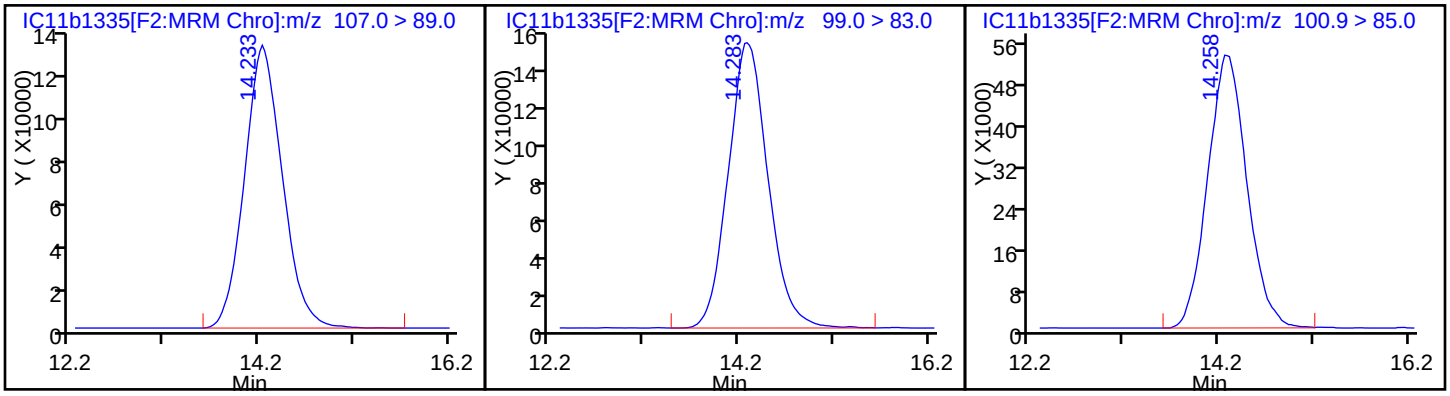
Injection Date: 14-Feb-2011 00:39:02 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

Lims Batch ID: 53050 Lims Sample ID: 25

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Lab Sample ID: CCVL 280-53049/26 Calibration Date: 02/14/2011 01:07

Instrument ID: LC_LCMS1 Calib Start Date: 01/31/2011 13:40

GC Column: IonPac ID: 2.00(mm) Calib End Date: 01/31/2011 16:02

Lab File ID: IC11b1336.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		1.279		0.0210	0.0200	5.2	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Lab Sample ID: CCVL 280-53050/26 Calibration Date: 02/14/2011 01:07

Instrument ID: LC_LCMS1 Calib Start Date: 01/31/2011 13:40

GC Column: IonPac ID: 2.00(mm) Calib End Date: 01/31/2011 16:02

Lab File ID: IC11b1336.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		1.279		0.0210	0.0200	5.2	30.0

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1336.d		
Lims ID:	CCVL	Client ID:	
Inject. Date:	14-Feb-2011 01:07:26	Dil. Factor:	1.0000
Sample Type:	CCVL		
Sample ID:	CCVL 2 280-0001541-026		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53049	Lims Sample ID:	26
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:54	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.256	14.256	0.000	3677807	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.256	14.256	1.000	470310	21.0	0.70- 1.30	1.00	
2	100.9 > 85.0	14.306	14.256	1.004	158979		2.30- 3.80	2.96	

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1336.d		
Lims ID:	CCVL	Client ID:	
Inject. Date:	14-Feb-2011 01:07:26	Dil. Factor:	1.0000
Sample Type:	CCVL		
Sample ID:	CCVL 2 280-0001541-026		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53050	Lims Sample ID:	26
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:54	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.256	14.256	0.000	3677807	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.256	14.256	1.000	470310	21.0	0.70- 1.30	1.00	
2	100.9 > 85.0	14.306	14.256	1.004	158979		2.30- 3.80	2.96	

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:17:54 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File: \\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1336.d

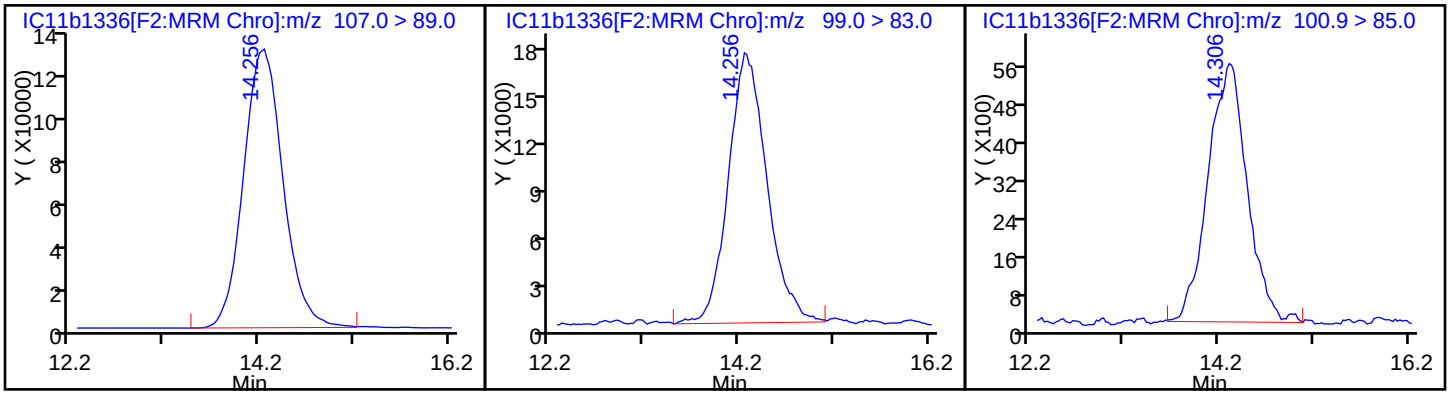
Injection Date: 14-Feb-2011 01:07:26 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

Lims Batch ID: 53049 Lims Sample ID: 26

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



Report Date: 15-Feb-2011 09:17:54 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File: \\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1336.d

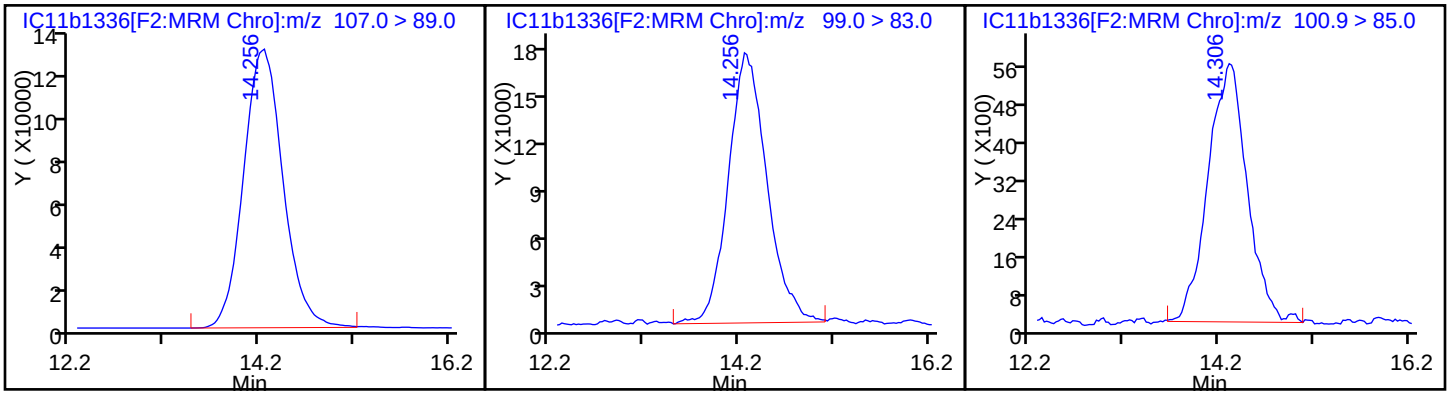
Injection Date: 14-Feb-2011 01:07:26 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

Lims Batch ID: 53050 Lims Sample ID: 26

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Lab Sample ID: CCV 280-53050/38 Calibration Date: 02/14/2011 06:48

Instrument ID: LC_LCMS1 Calib Start Date: 01/31/2011 13:40

GC Column: IonPac ID: 2.00(mm) Calib End Date: 01/31/2011 16:02

Lab File ID: IC11b1348.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		1.196		0.212	0.200	6.1	15.0

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1348.d		
Lims ID:	CCV	Client ID:	
Inject. Date:	14-Feb-2011 06:48:11	Dil. Factor:	1.0000
Sample Type:	CCV		
Sample ID:	CCV 3 280-0001541-038		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53050	Lims Sample ID:	38
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:48	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.155	14.155	0.000	3672803	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.231	14.231	1.005	4394266	212.2	0.70- 1.30	1.00	
2	100.9 > 85.0	14.231	14.231	1.005	1576687		2.30- 3.80	2.79	

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:17:48 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File: \\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1348.d

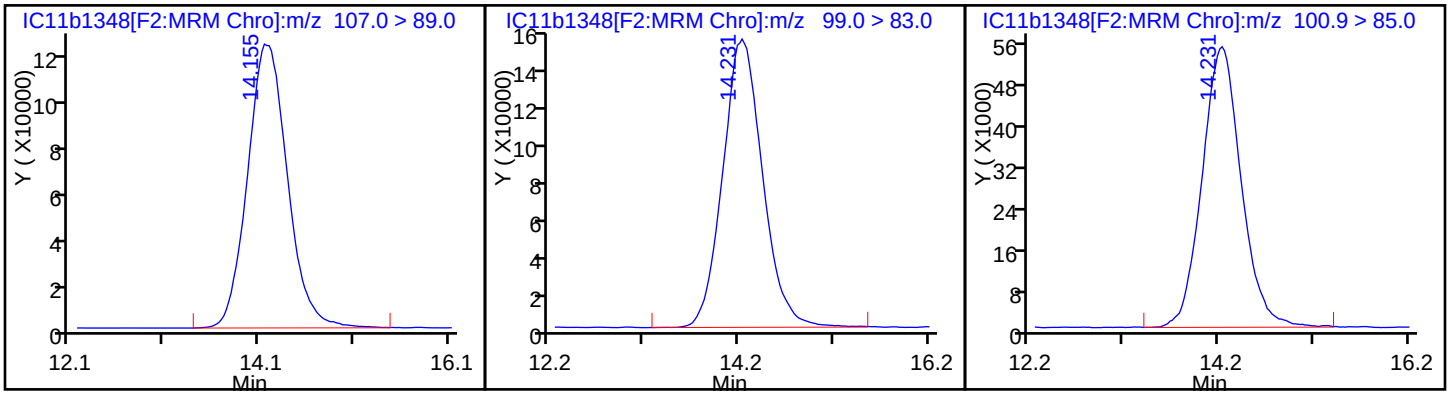
Injection Date: 14-Feb-2011 06:48:11 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

Lims Batch ID: 53050 Lims Sample ID: 38

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Lab Sample ID: CCVL 280-53050/39 Calibration Date: 02/14/2011 07:16

Instrument ID: LC_LCMS1 Calib Start Date: 01/31/2011 13:40

GC Column: IonPac ID: 2.00(mm) Calib End Date: 01/31/2011 16:02

Lab File ID: IC11b1349.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		1.283		0.0211	0.0200	5.6	30.0

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1349.d		
Lims ID:	CCVL	Client ID:	
Inject. Date:	14-Feb-2011 07:16:35	Dil. Factor:	1.0000
Sample Type:	CCVL		
Sample ID:	CCVL 3 280-0001541-039		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53050	Lims Sample ID:	39
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:47	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.207	14.207	0.000	3762115	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.232	14.232	1.002	482865	21.1	0.70- 1.30	1.00	
2	100.9 > 85.0	14.232	14.232	1.002	177798		2.30- 3.80	2.72	

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:17:48 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File: \\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1349.d

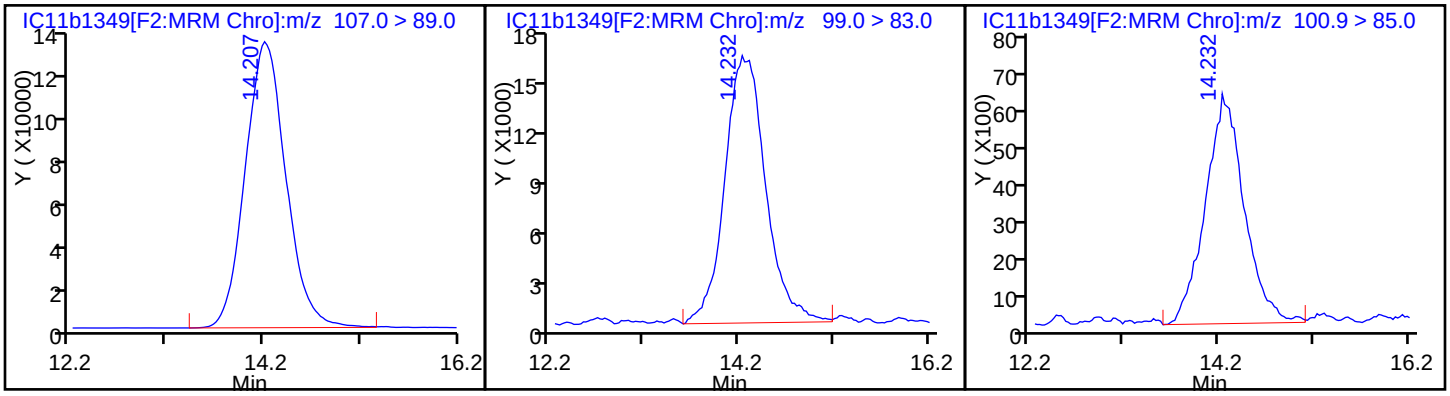
Injection Date: 14-Feb-2011 07:16:35 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

Lims Batch ID: 53050 Lims Sample ID: 39

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Lab Sample ID: CCV 280-53050/48 Calibration Date: 02/14/2011 11:32

Instrument ID: LC_LCMS1 Calib Start Date: 01/31/2011 13:40

GC Column: IonPac ID: 2.00(mm) Calib End Date: 01/31/2011 16:02

Lab File ID: IC11b1358.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		1.143		0.203	0.200	1.3	15.0

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1358.d		
Lims ID:	CCV	Client ID:	
Inject. Date:	14-Feb-2011 11:32:10	Dil. Factor:	1.0000
Sample Type:	CCV		
Sample ID:	CCV 1 280-0001541-048		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53050	Lims Sample ID:	48
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:47:19	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.252	14.252	0.000	3737078	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.302	14.302	1.004	4272155	202.6	0.70- 1.30	1.00	
2	100.9 > 85.0	14.277	14.302	1.002	1584732		2.30- 3.80	2.70	

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:47:19 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File: \\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1358.d

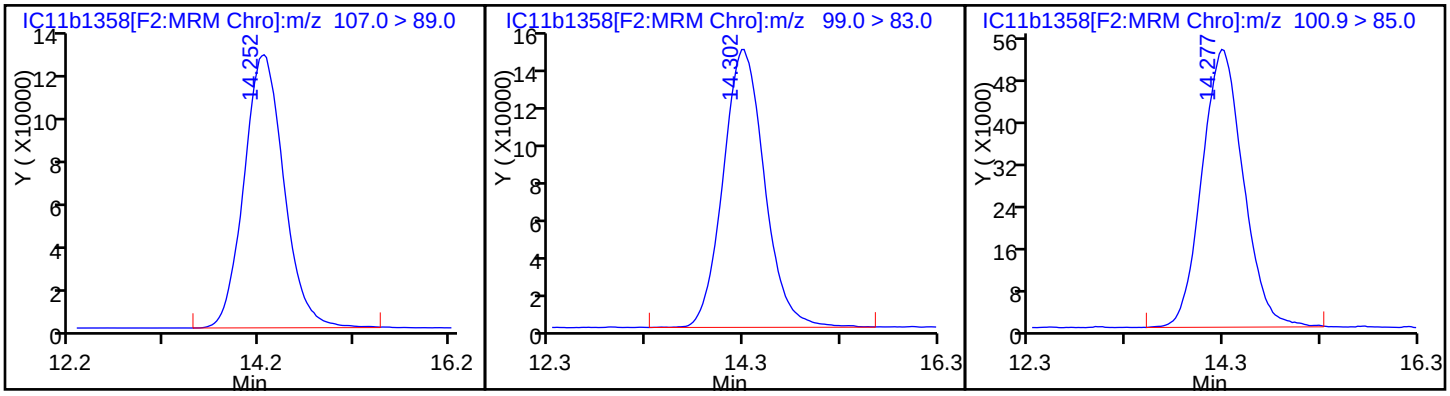
Injection Date: 14-Feb-2011 11:32:10 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

Lims Batch ID: 53050 Lims Sample ID: 48

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Lab Sample ID: CCVL 280-53050/49 Calibration Date: 02/14/2011 12:00

Instrument ID: LC_LCMS1 Calib Start Date: 01/31/2011 13:40

GC Column: IonPac ID: 2.00(mm) Calib End Date: 01/31/2011 16:02

Lab File ID: IC11b1359.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		1.199		0.0196	0.0200	-1.9	30.0

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1359.d		
Lims ID:	CCVL.	Client ID:	
Inject. Date:	14-Feb-2011 12:00:33	Dil. Factor:	1.0000
Sample Type:	CCVL		
Sample ID:	CCVL 1 280-0001541-049		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53050	Lims Sample ID:	49
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:53:01	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.229	14.229	0.000	3821408	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.305	14.305	1.005	458285	19.6	0.70- 1.30	1.00	
2	100.9 > 85.0	14.279	14.305	1.004	177654		2.30- 3.80	2.58	

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:53:01 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File: \\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1359.d

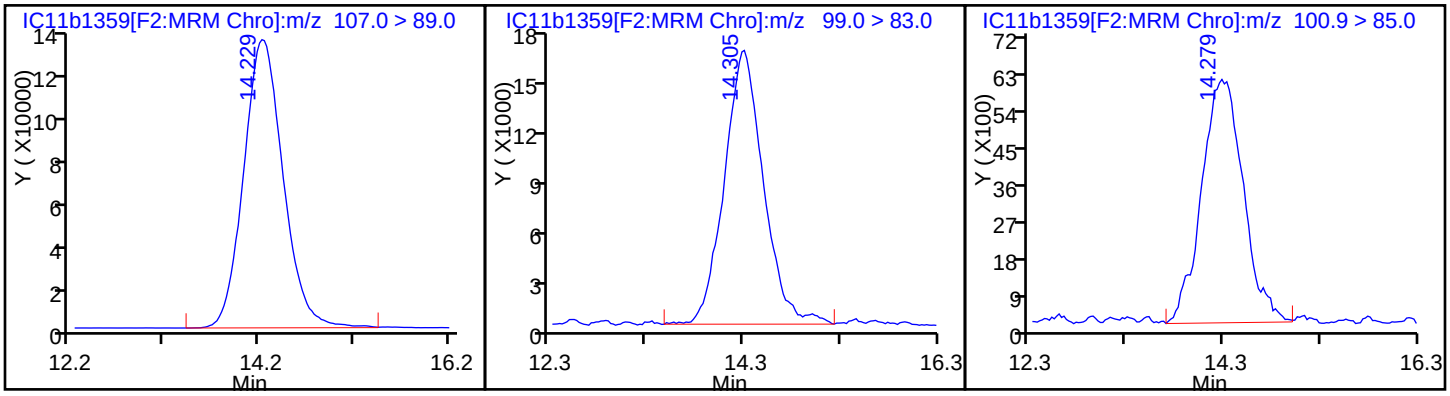
Injection Date: 14-Feb-2011 12:00:33 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

Lims Batch ID: 53050 Lims Sample ID: 49

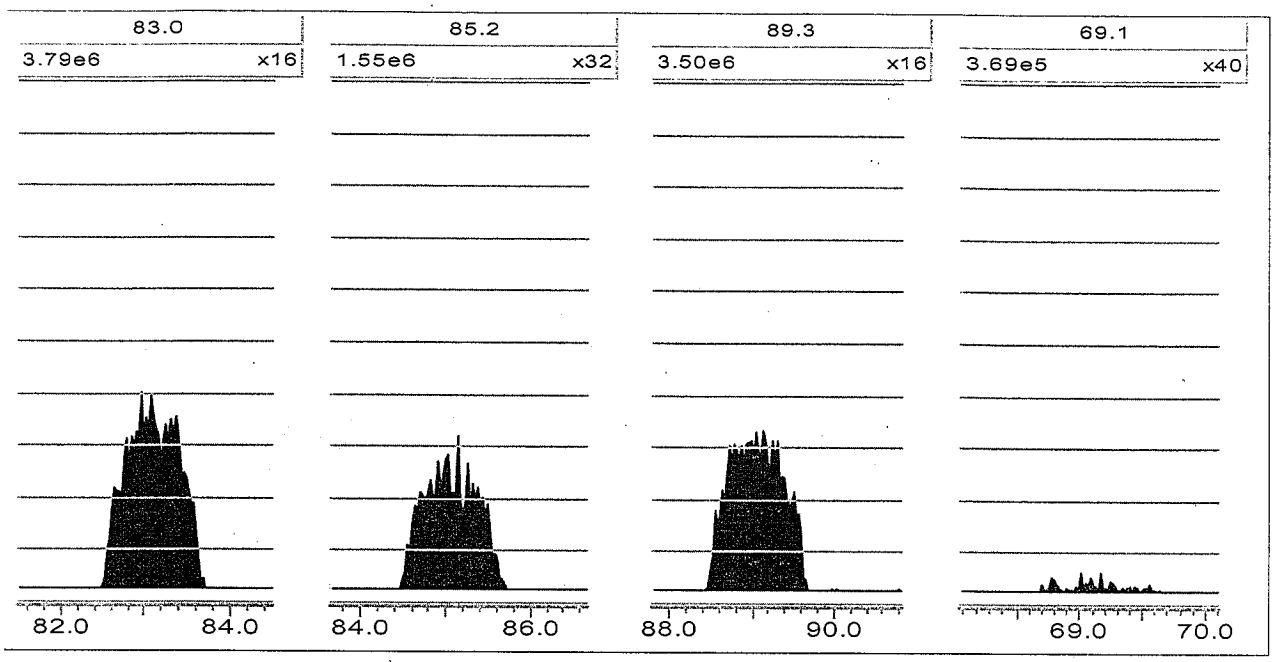
Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



File: C:\MassLynx\ICPerchlorate.PRO\ACQUDB\ICPerchlorate.ipr

Printed: Monday, January 31, 2011 13:03:20 Mountain Standard Time



Type	Start Mass	End Mass	Set Mass
Daughter Scan	82	85	99
Daughter Scan	84	87	101
Daughter Scan	88	91	107
Daughter Scan	68	70	85

Source (ES-)	Settings	Readbacks
Capillary (kV)	0.25	-0.21
Cone (V)	90	-92
Hex 1 (V)	0.4	
Aperture (V)	0.2	
Hex 2 (V)	0.4	
Source Temperature (°C)	120	121
Desolvation Temperature (°C)	500	498
Cone Gas Flow (L/Hr)	55	
Desolvation Gas Flow (L/Hr)	679	

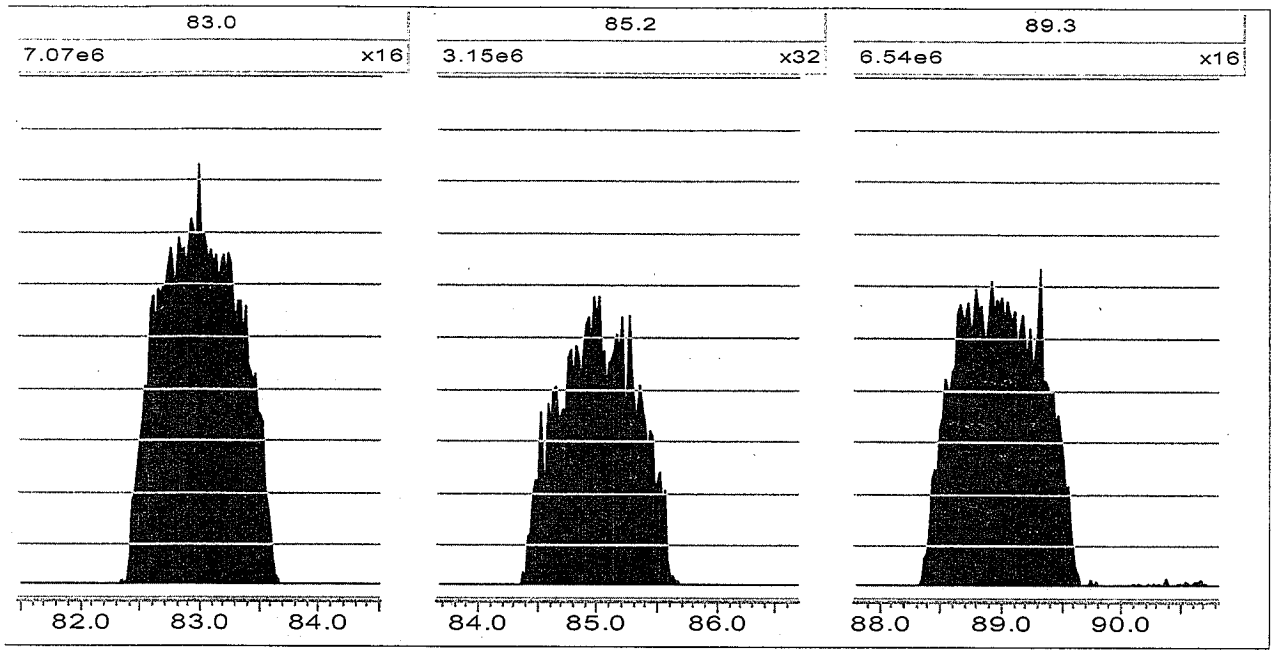
Analyser	Settings	Readbacks
LM 1 Resolution	10.0	
HM 1 Resolution	8.0	
Ion Energy 1	1.0	
Entrance	-2	23
Collision	25	25
Exit	1	26
LM 2 Resolution	10.0	
HM 2 Resolution	8.0	
Ion Energy 2	1.0	
Multiplier (V)	650	-644

Pressure Gauges	
Collision Cell Pressure(mbar)	6.41e-3
Analyser Pressure (mbar)	OFF

MUX Configuration	
Probe	Standard

File: C:\MassLynx\ICPerchlorate.PRO\ACQUDB\ICPerchlorate.ipr

Printed: Sunday, February 13, 2011 14:37:30 Mountain Standard Time



Type	Start Mass	End Mass	Set Mass
Daughter Scan	82	85	99
Daughter Scan	84	87	101
Daughter Scan	88	91	107

Source (ES-)	Settings	Readbacks
Capillary (kV)	0.25	-0.21
Cone (V)	90	-92
Hex 1 (V)	0.4	
Aperture (V)	0.2	
Hex 2 (V)	0.4	
Source Temperature (°C)	120	130
Desolvation Temperature (°C)	500	498
Cone Gas Flow (L/Hr)	54	
Desolvation Gas Flow (L/Hr)	674	

Analyser	Settings	Readbacks
LM 1 Resolution	10.0	
HM 1 Resolution	8.0	
Ion Energy 1	1.0	
Entrance	-2	23
Collision	25	25
Exit	1	26
LM 2 Resolution	10.0	
HM 2 Resolution	8.0	
Ion Energy 2	1.0	
Multiplier (V)	650	-644

Pressure Gauges	
Collision Cell Pressure(mbar)	8.55e-3
Analyser Pressure (mbar)	OFF

MUX Configuration	
Probe	Standard

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 280-53049/4
Matrix: Water
Lab File ID: IC11b1314.d
Analysis Method: 6860
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/13/2011 14:40
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53049
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.0088	U	0.050	0.0088

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1314.d		
Lims ID:	MB	Client ID:	
Inject. Date:	13-Feb-2011 14:40:33	Dil. Factor:	1.0000
Sample Type:	MB		
Sample ID:	mb		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53049	Lims Sample ID:	4
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:18:00	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.256	14.252	0.004	3887092	200.0			

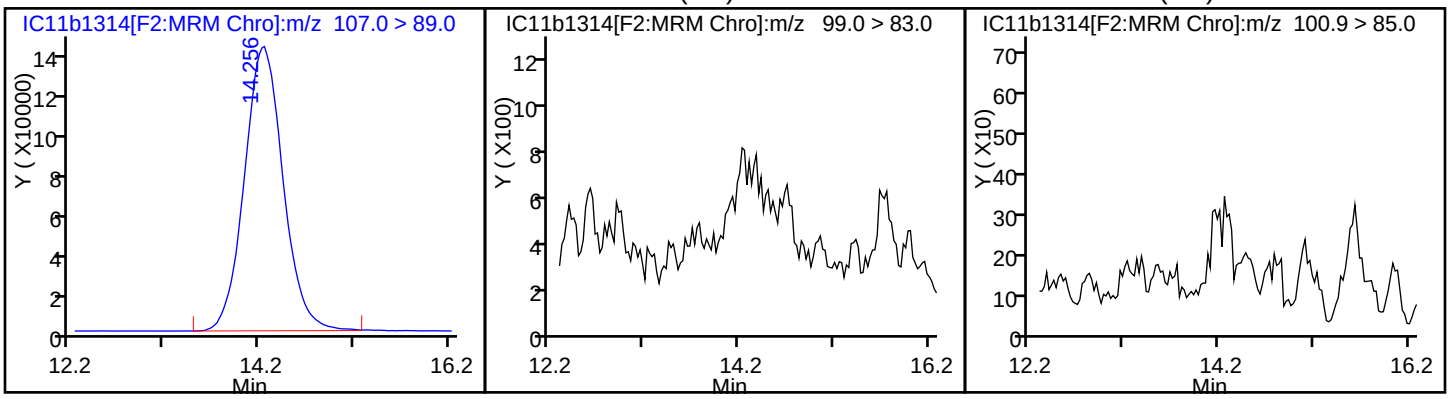
QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:18:06 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1314.d		
Injection Date:	13-Feb-2011 14:40:33	Limit Group:	LC - 6860 Perchlorate
Client ID:		Instrument ID:	LC_LCMS1
Lims Batch ID:	53049	Lims Sample ID:	4
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O | 2 Perchlorate (ND) | 2 Perchlorate (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 280-53050/28
Matrix: Water
Lab File ID: IC11b1338.d
Analysis Method: 6860
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/14/2011 02:04
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53050
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.0088	U	0.050	0.0088

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1338.d		
Lims ID:	MB	Client ID:	
Inject. Date:	14-Feb-2011 02:04:16	Dil. Factor:	1.0000
Sample Type:	MB		
Sample ID:	mb 280-0001541-028		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53050	Lims Sample ID:	28
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:48	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1	Perchlorate-18O								s
2	107.0 > 89.0	14.206	14.256	-0.050	3704810	200.0			

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:17:53 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File: \\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1338.d

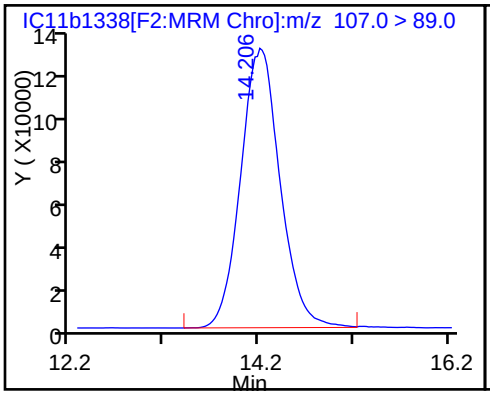
Injection Date: 14-Feb-2011 02:04:16 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

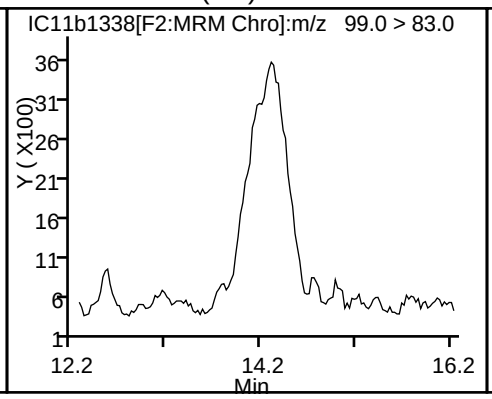
Lims Batch ID: 53050 Lims Sample ID: 28

Operator ID: Injection Vol: 250.00 ul

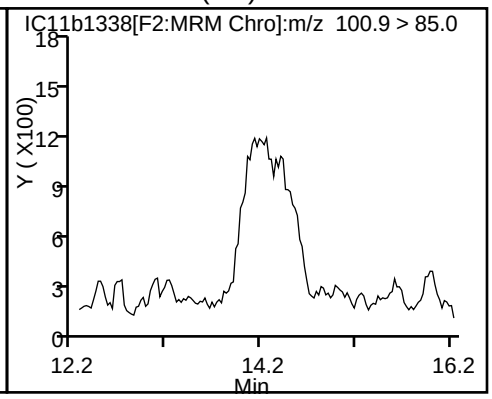
* 1 Perchlorate-18O



2 Perchlorate (ND)



2 Perchlorate (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID:
Lab Sample ID: CCB 280-53049/1
Matrix: Water
Lab File ID: IC11b1311.d
Analysis Method: 6860
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/13/2011 11:48
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53049
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.0088	U	0.050	0.0088

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1311.d		
Lims ID:	CCB	Client ID:	
Inject. Date:	13-Feb-2011 11:48:11	Dil. Factor:	1.0000
Sample Type:	CCB		
Sample ID:	CCB 2		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53049	Lims Sample ID:	1
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:18:07	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1	Perchlorate-18O								s
2	107.0 > 89.0	14.279	14.281	-0.002	3756935	200.0			

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:18:07 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File: \\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1311.d

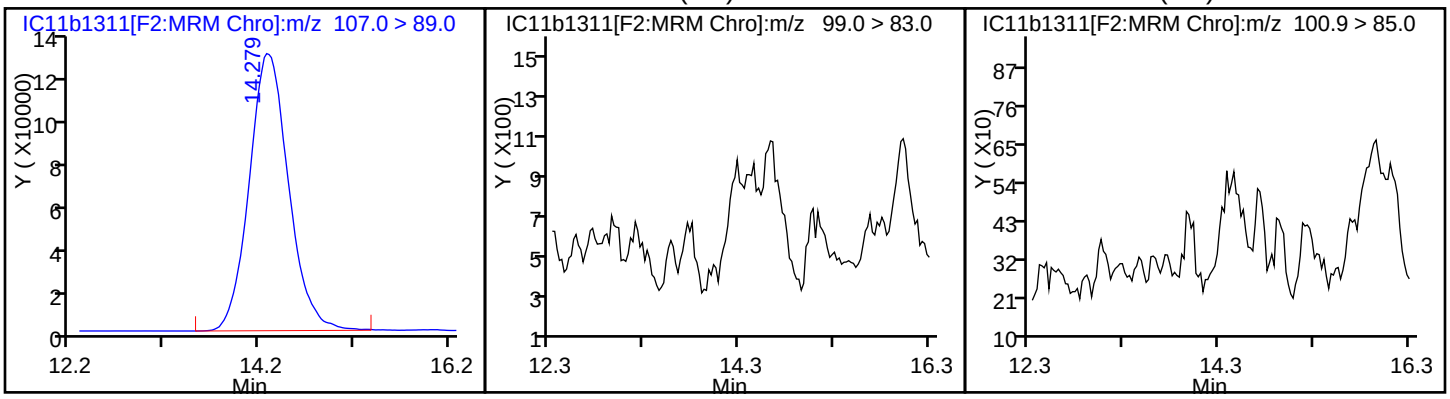
Injection Date: 13-Feb-2011 11:48:11 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

Lims Batch ID: 53049 Lims Sample ID: 1

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate (ND) 2 Perchlorate (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID:
Lab Sample ID: CCB 280-53049/15
Matrix: Water
Lab File ID: IC11b1325.d
Analysis Method: 6860
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/13/2011 19:55
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53049
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.0088	U	0.050	0.0088

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1325.d		
Lims ID:	CCB	Client ID:	
Inject. Date:	13-Feb-2011 19:55:04	Dil. Factor:	1.0000
Sample Type:	CCB		
Sample ID:	CCB 1 280-0001541-015		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53049	Lims Sample ID:	15
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:54	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1	Perchlorate-18O								s
2	107.0 > 89.0	14.234	14.259	-0.025	3730962	200.0			

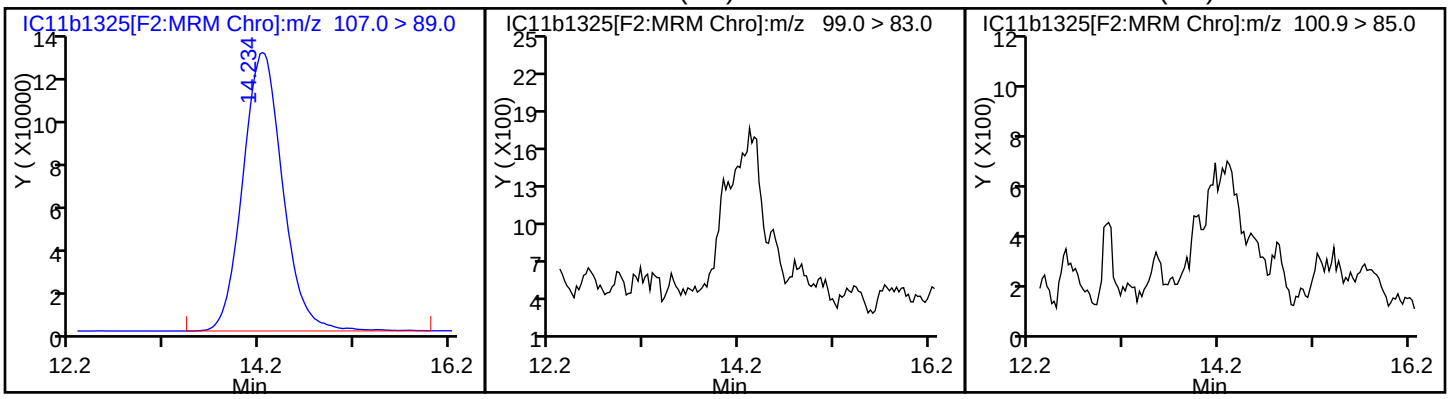
QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:17:59 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1325.d		
Injection Date:	13-Feb-2011 19:55:04	Limit Group:	LC - 6860 Perchlorate
Client ID:		Instrument ID:	LC_LCMS1
Lims Batch ID:	53049	Lims Sample ID:	15
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate (ND) 2 Perchlorate (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID:
Lab Sample ID: CCB 280-53049/27
Matrix: Water
Lab File ID: IC11b1337.d
Analysis Method: 6860
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/14/2011 01:35
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53049
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.0088	U	0.050	0.0088

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1337.d		
Lims ID:	CCB	Client ID:	
Inject. Date:	14-Feb-2011 01:35:49	Dil. Factor:	1.0000
Sample Type:	CCB		
Sample ID:	CCB 2 280-0001541-027		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53049	Lims Sample ID:	27
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:48	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1	Perchlorate-18O								s
2	107.0 > 89.0	14.233	14.256	-0.023	3799305	200.0			

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:17:53 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File: \\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1337.d

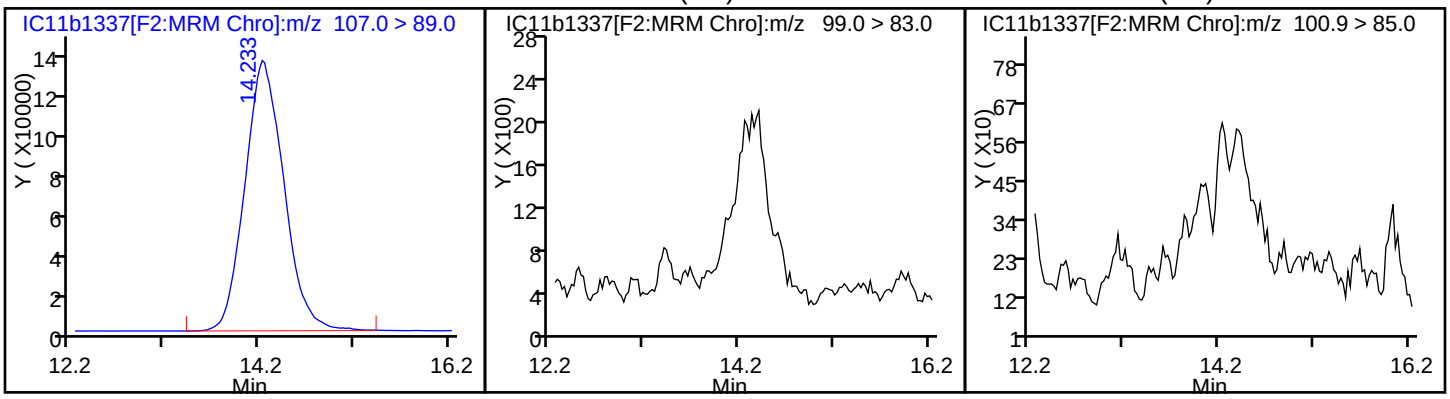
Injection Date: 14-Feb-2011 01:35:49 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

Lims Batch ID: 53049 Lims Sample ID: 27

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate (ND) 2 Perchlorate (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID:
Lab Sample ID: CCB 280-53050/27
Matrix: Water
Lab File ID: IC11b1337.d
Analysis Method: 6860
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/14/2011 01:35
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53050
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.0088	U	0.050	0.0088

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1337.d		
Lims ID:	CCB	Client ID:	
Inject. Date:	14-Feb-2011 01:35:49	Dil. Factor:	1.0000
Sample Type:	CCB		
Sample ID:	CCB 2 280-0001541-027		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53050	Lims Sample ID:	27
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:48	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1	Perchlorate-18O								s
2	107.0 > 89.0	14.233	14.256	-0.023	3799305	200.0			

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:17:53 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File: \\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1337.d

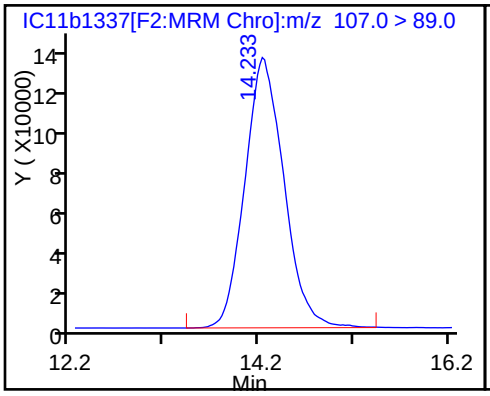
Injection Date: 14-Feb-2011 01:35:49 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

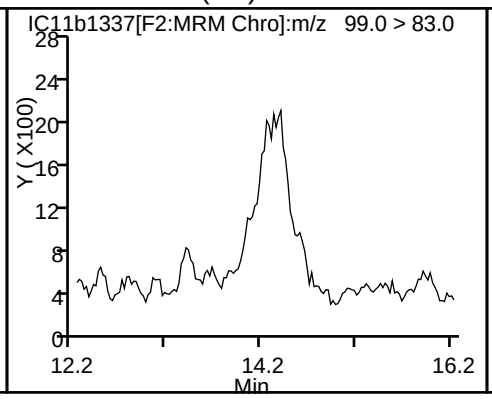
Lims Batch ID: 53050 Lims Sample ID: 27

Operator ID: Injection Vol: 250.00 ul

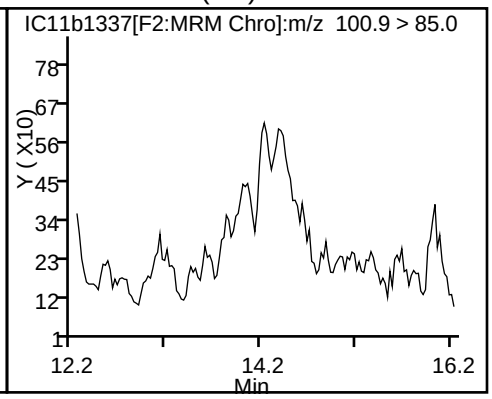
* 1 Perchlorate-18O



2 Perchlorate (ND)



2 Perchlorate (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID:
Lab Sample ID: CCB 280-53050/40
Matrix: Water
Lab File ID: IC11b1350.d
Analysis Method: 6860
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/14/2011 07:44
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53050
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.0088	U	0.050	0.0088

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1350.d		
Lims ID:	CCB	Client ID:	
Inject. Date:	14-Feb-2011 07:44:59	Dil. Factor:	1.0000
Sample Type:	CCB		
Sample ID:	CCB 3 280-0001541-040		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53050	Lims Sample ID:	40
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:43	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1	Perchlorate-18O								s
2	107.0 > 89.0	14.253	14.207	0.046	3944089	200.0			

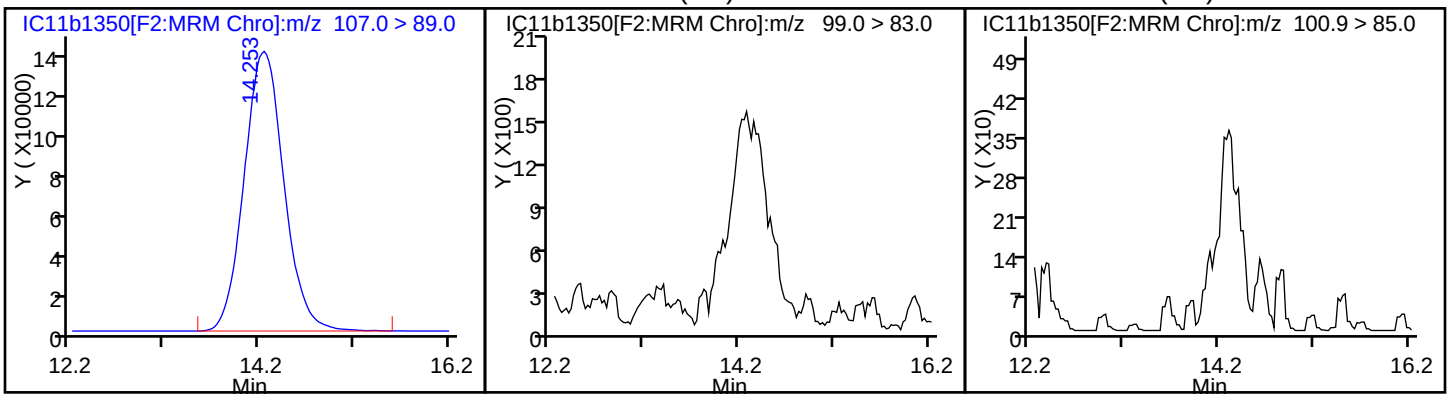
QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:17:47 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1350.d		
Injection Date:	14-Feb-2011 07:44:59	Limit Group:	LC - 6860 Perchlorate
Client ID:		Instrument ID:	LC_LCMS1
Lims Batch ID:	53050	Lims Sample ID:	40
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate (ND) 2 Perchlorate (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID:
Lab Sample ID: CCB 280-53050/50
Matrix: Water
Lab File ID: IC11b1360.d
Analysis Method: 6860
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/14/2011 12:28
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53050
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.0088	U	0.050	0.0088

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1360.d		
Lims ID:	CCB	Client ID:	
Inject. Date:	14-Feb-2011 12:28:57	Dil. Factor:	1.0000
Sample Type:	CCB		
Sample ID:	CCB 1 280-0001541-050		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53050	Lims Sample ID:	50
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:47:20	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1	Perchlorate-18O								s
2	107.0 > 89.0	14.256	14.229	0.027	3806963	200.0			

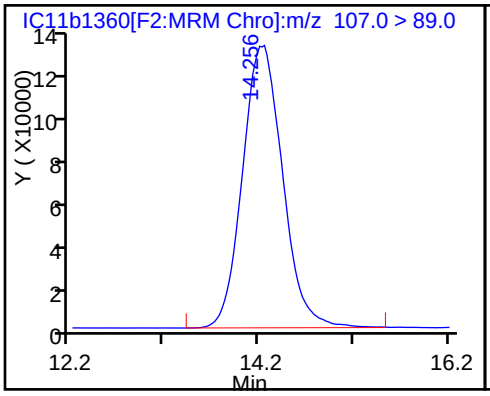
QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

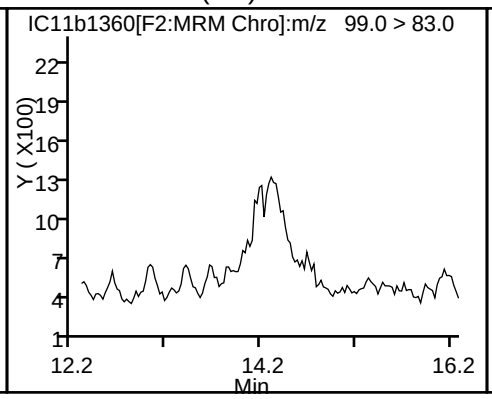
Report Date: 15-Feb-2011 09:47:20 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1360.d		
Injection Date:	14-Feb-2011 12:28:57	Limit Group:	LC - 6860 Perchlorate
Client ID:		Instrument ID:	LC_LCMS1
Lims Batch ID:	53050	Lims Sample ID:	50
Operator ID:		Injection Vol:	250.00 ul

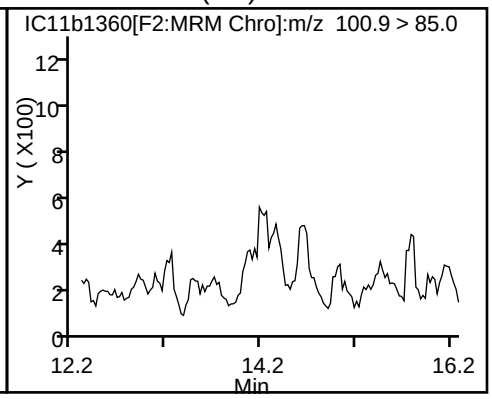
* 1 Perchlorate-18O



2 Perchlorate (ND)



2 Perchlorate (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID:
Lab Sample ID: ICB 280-50977/8
Matrix: Water
Lab File ID: IC11A3108.d
Analysis Method: 6860
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 01/31/2011 16:30
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 50977
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.0088	U	0.050	0.0088

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3108.d		
Lims ID:	ICB	Client ID:	
Inject. Date:	31-Jan-2011 16:30:37	Dil. Factor:	1.0000
Sample Type:	ICB		
Sample ID:	ICB 280-0001477-008		
Misc. Info.:	IC11A31		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	50977	Lims Sample ID:	8
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\6860_1.m		
Last Update:	01-Feb-2011 09:14:21	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC102		

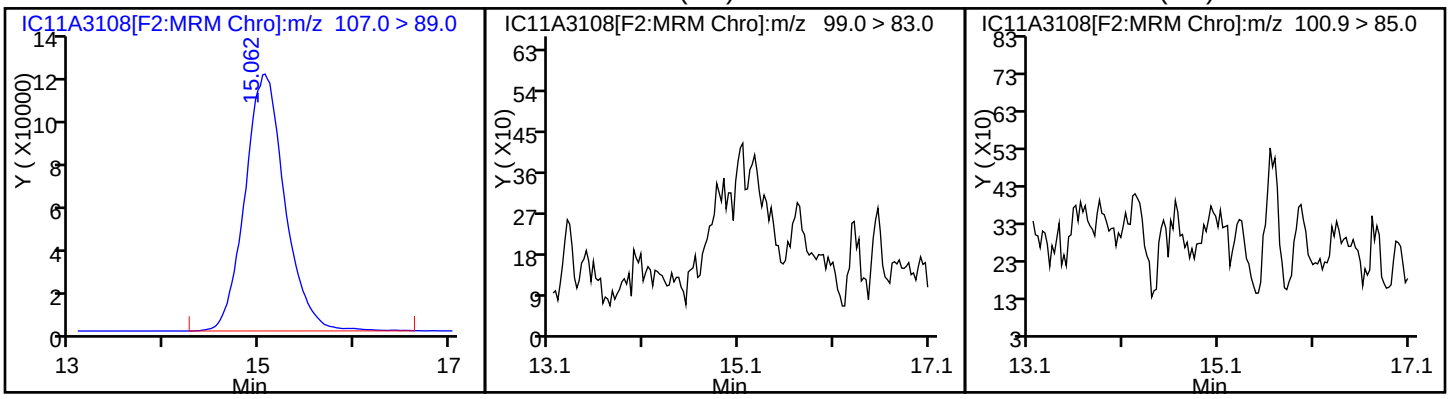
Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.062	15.063	-0.001	3454950	200.0			

Report Date: 01-Feb-2011 09:14:22 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3108.d

Injection Date:	31-Jan-2011 16:30:37	Limit Group:	LC - 6860 Perchlorate
Client ID:		Instrument ID:	LC_LCMS1
Lims Batch ID:	50977	Lims Sample ID:	8
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O | 2 Perchlorate (ND) | 2 Perchlorate (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 280-53049/5
Matrix: Water
Lab File ID: IC11b1315.d
Analysis Method: 6860
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/13/2011 15:11
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53049
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.0519		0.050	0.0088

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1315.d		
Lims ID:	LCS	Client ID:	
Inject. Date:	13-Feb-2011 15:11:03	Dil. Factor:	1.0000
Sample Type:	LCS		
Sample ID:	lcs		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53049	Lims Sample ID:	5
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:18:00	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.254	14.252	0.002	3447008	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.279	14.303	1.002	1035026	51.9	0.70- 1.30	1.00	
2	100.9 > 85.0	14.304	14.303	1.004	371809		2.30- 3.80	2.78	

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:18:05 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File: \\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1315.d

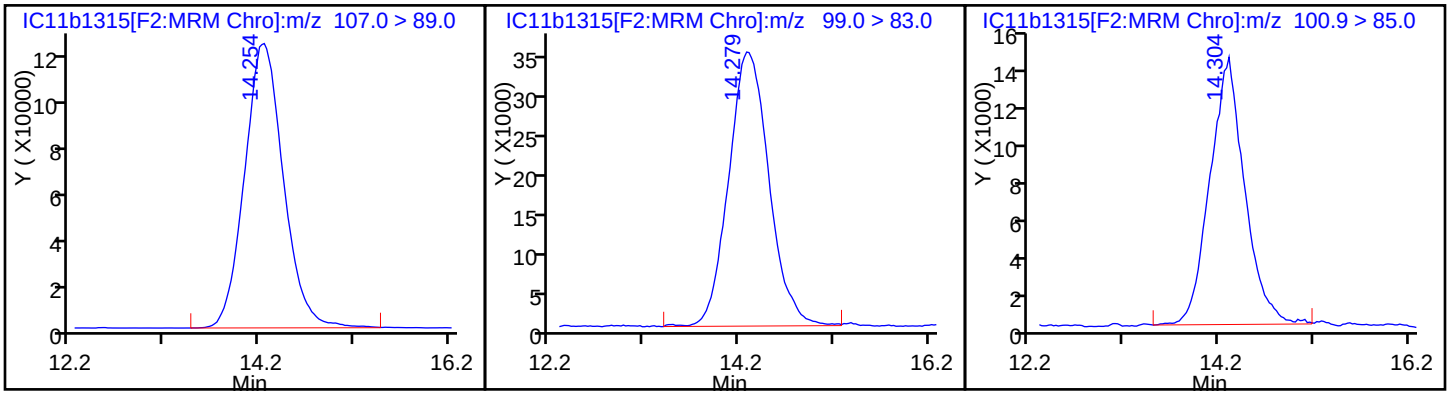
Injection Date: 13-Feb-2011 15:11:03 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

Lims Batch ID: 53049 Lims Sample ID: 5

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 280-53050/29
Matrix: Water
Lab File ID: IC11b1339.d
Analysis Method: 6860
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/14/2011 02:32
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53050
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.0522		0.050	0.0088

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1339.d		
Lims ID:	LCS	Client ID:	
Inject. Date:	14-Feb-2011 02:32:38	Dil. Factor:	1.0000
Sample Type:	LCS		
Sample ID:	lcs 280-0001541-029		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53050	Lims Sample ID:	29
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:48	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.256	14.256	0.000	3708786	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.281	14.256	1.002	1120561	52.2	0.70- 1.30	1.00	
2	100.9 > 85.0	14.281	14.256	1.002	406393		2.30- 3.80	2.76	

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:17:52 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File: \\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1339.d

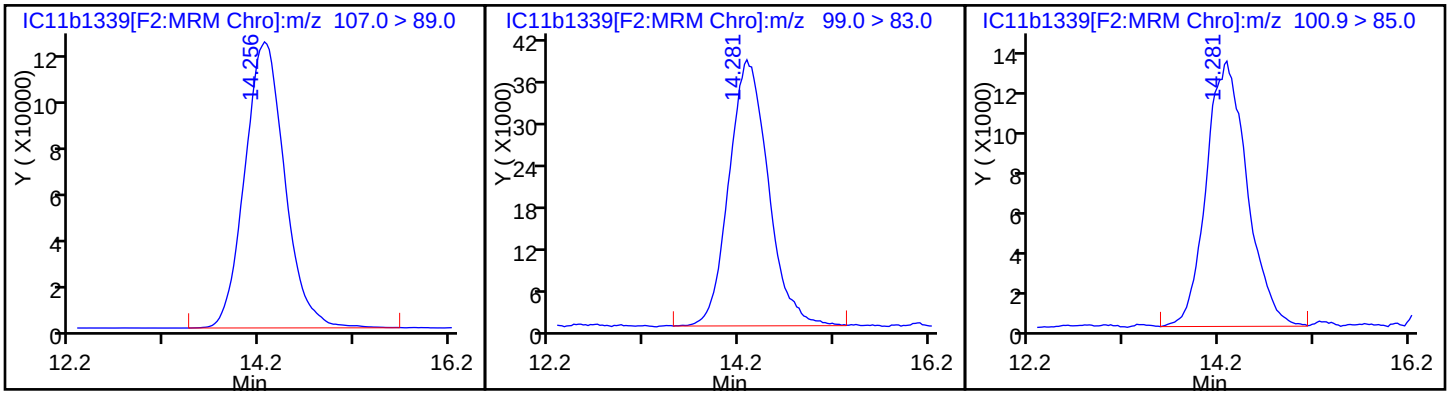
Injection Date: 14-Feb-2011 02:32:38 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

Lims Batch ID: 53050 Lims Sample ID: 29

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID:
Lab Sample ID: DLCK 280-50977/10
Matrix: Water
Lab File ID: IC11A3110.d
Analysis Method: 6860
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 01/31/2011 17:27
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 50977
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.0499	F	0.050	0.0088

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3110.d		
Lims ID:	DLCK	Client ID:	
Inject. Date:	31-Jan-2011 17:27:24	Dil. Factor:	1.0000
Sample Type:	DLCK		
Sample ID:	DLCK 280-0001477-010		
Misc. Info.:	IC11A31		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	50977	Lims Sample ID:	10
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\6860_1.m		
Last Update:	01-Feb-2011 09:14:21	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC102		

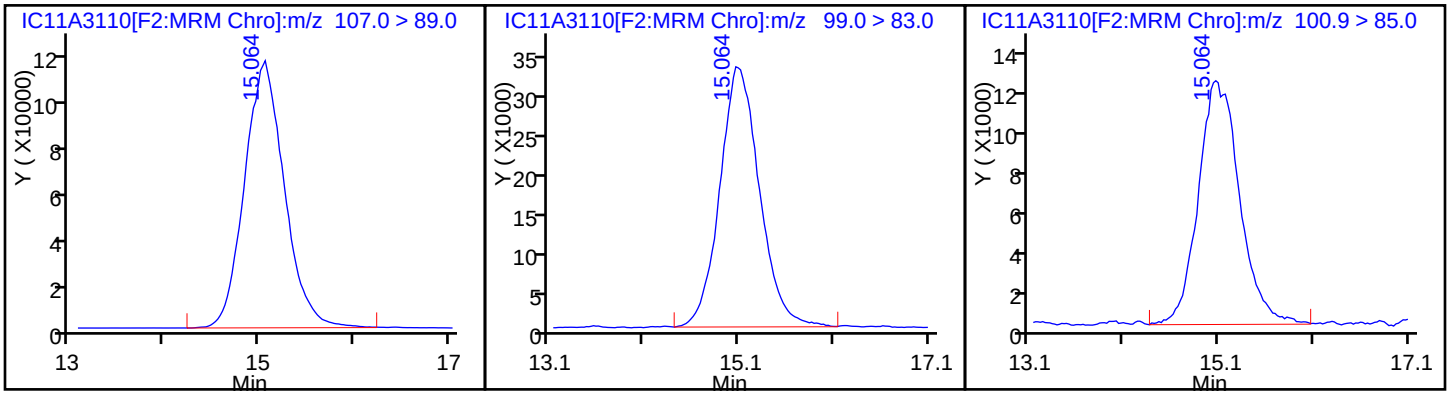
Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.064	15.063	0.001	3316828	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.064	15.114	1.000	958902	49.9	0.70- 1.30	1.00	
2	100.9 > 85.0	15.064	15.114	1.000	377283		2.30- 3.80	2.54	

Report Date: 01-Feb-2011 09:14:23 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3110.d

Injection Date:	31-Jan-2011 17:27:24	Limit Group:	LC - 6860 Perchlorate
Client ID:		Instrument ID:	LC_LCMS1
Lims Batch ID:	50977	Lims Sample ID:	10
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID:
Lab Sample ID: INF 280-53049/6
Matrix: Water
Lab File ID: IC11b1316.d
Analysis Method: 6860
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/13/2011 15:39
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53049
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.0521		0.050	0.0088

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1316.d		
Lims ID:	INF	Client ID:	
Inject. Date:	13-Feb-2011 15:39:30	Dil. Factor:	1.0000
Sample Type:	INF		
Sample ID:	INF 3		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53049	Lims Sample ID:	6
Sublist:			
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:18:00	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.279	14.252	0.027	3014871	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.304	14.303	1.002	908685	52.1	0.70- 1.30	1.00	
2	100.9 > 85.0	14.330	14.303	1.004	311133		2.30- 3.80	2.92	

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:18:05 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File: \\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1316.d

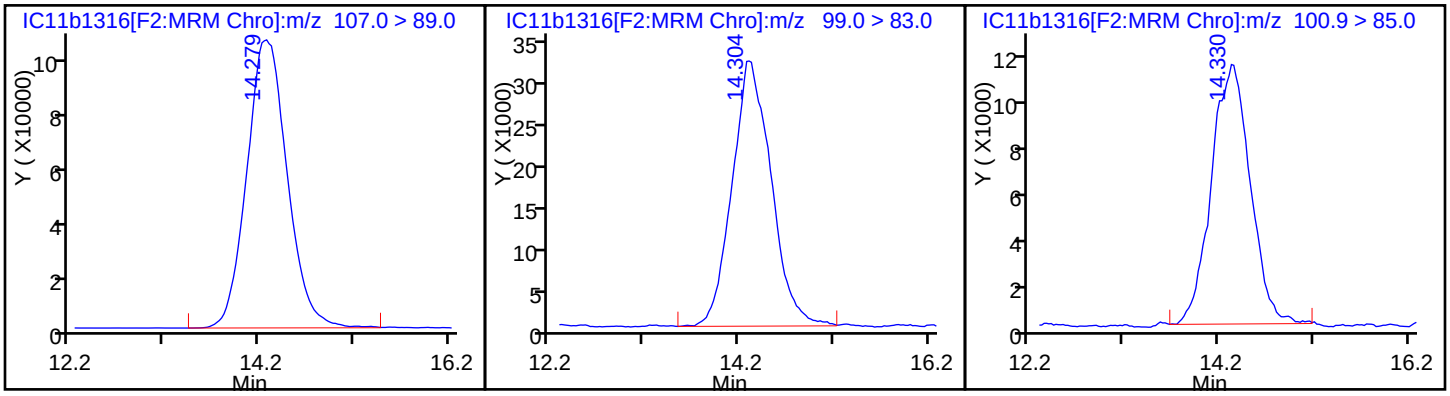
Injection Date: 13-Feb-2011 15:39:30 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

Lims Batch ID: 53049 Lims Sample ID: 6

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID:
Lab Sample ID: INF 280-53050/30
Matrix: Water
Lab File ID: IC11b1340.d
Analysis Method: 6860
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/14/2011 03:01
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53050
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.0484	F	0.050	0.0088

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1340.d		
Lims ID:	INF	Client ID:	
Inject. Date:	14-Feb-2011 03:01:01	Dil. Factor:	1.0000
Sample Type:	INF		
Sample ID:	INF 280-0001541-030		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53050	Lims Sample ID:	30
Sublist:			
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:48	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.257	14.256	0.001	3373048	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.333	14.256	1.005	947754	48.4	0.70- 1.30	1.00	
2	100.9 > 85.0	14.308	14.256	1.004	343146		2.30- 3.80	2.76	

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:17:52 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File: \\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1340.d

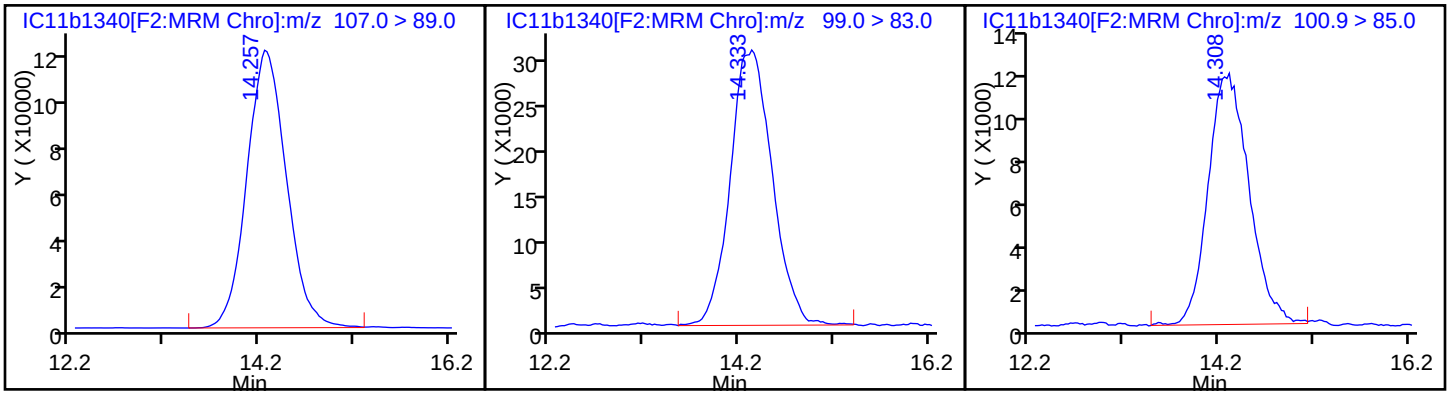
Injection Date: 14-Feb-2011 03:01:01 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

Lims Batch ID: 53050 Lims Sample ID: 30

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID: MW39-07-012811 MS
Lab Sample ID: 280-12097-6 MS
Matrix: Water
Lab File ID: IC11b1329.d
Analysis Method: 6860
Date Collected: 01/28/2011 13:45
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/13/2011 21:48
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 200
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53049
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	72.6	m	10	1.8

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1329.d		
Lims ID:	280-12097-C-6 MS	Client ID:	MW39-07-012811-MS
Inject. Date:	13-Feb-2011 21:48:40	Dil. Factor:	200.0000
Sample Type:	MS		
Sample ID:	280-12097-C-6 MS 200X 280-0001541-019		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53049	Lims Sample ID:	19
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:54	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.202	14.259	-0.057	3551921	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.303	14.284	1.007	7240168	362.8	0.70- 1.30	1.00	
2	100.9 > 85.0	14.278	14.284	1.005	2669611		2.30- 3.80	2.71	

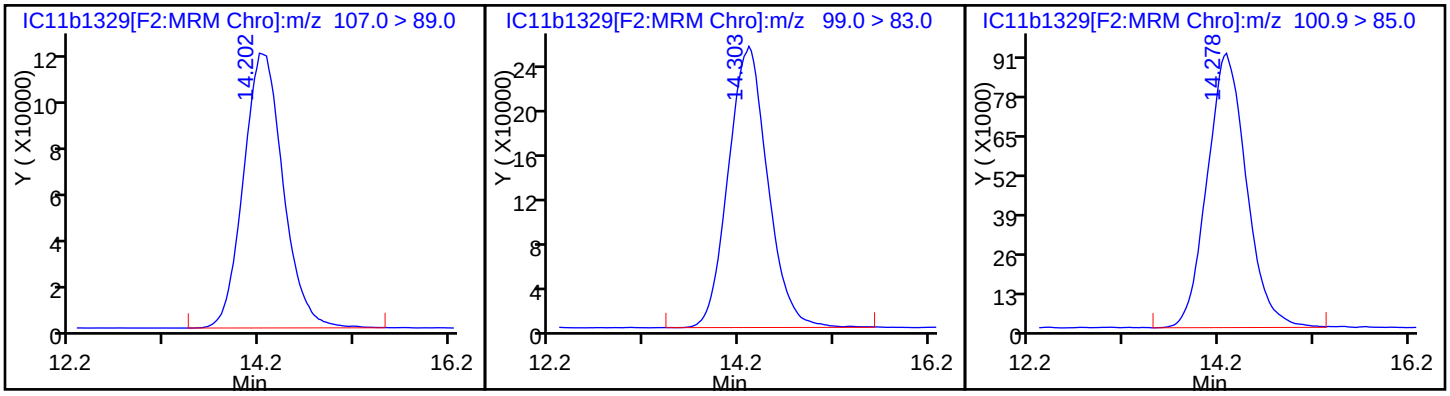
QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:17:57 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1329.d		
Injection Date:	13-Feb-2011 21:48:40	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-07-012811-MS	Instrument ID:	LC_LCMS1
Lims Batch ID:	53049	Lims Sample ID:	19
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID: MW39-15-012811 MS
Lab Sample ID: 280-12097-15 MS
Matrix: Water
Lab File ID: IC11b1346.d
Analysis Method: 6860
Date Collected: 01/28/2011 13:30
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/14/2011 05:51
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 50
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53050
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	9.94		2.5	0.44

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1346.d		
Lims ID:	280-12097-C-15 MS	Client ID:	MW39-15-012811-MS
Inject. Date:	14-Feb-2011 05:51:24	Dil. Factor:	50.0000
Sample Type:	MS		
Sample ID:	280-12097-C-15 MS 50X 280-0001541-036		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53050	Lims Sample ID:	36
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:48	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.234	14.256	-0.022	3460321	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.259	14.256	1.002	3883260	198.9	0.70- 1.30	1.00	
2	100.9 > 85.0	14.234	14.256	1.000	1401634		2.30- 3.80	2.77	

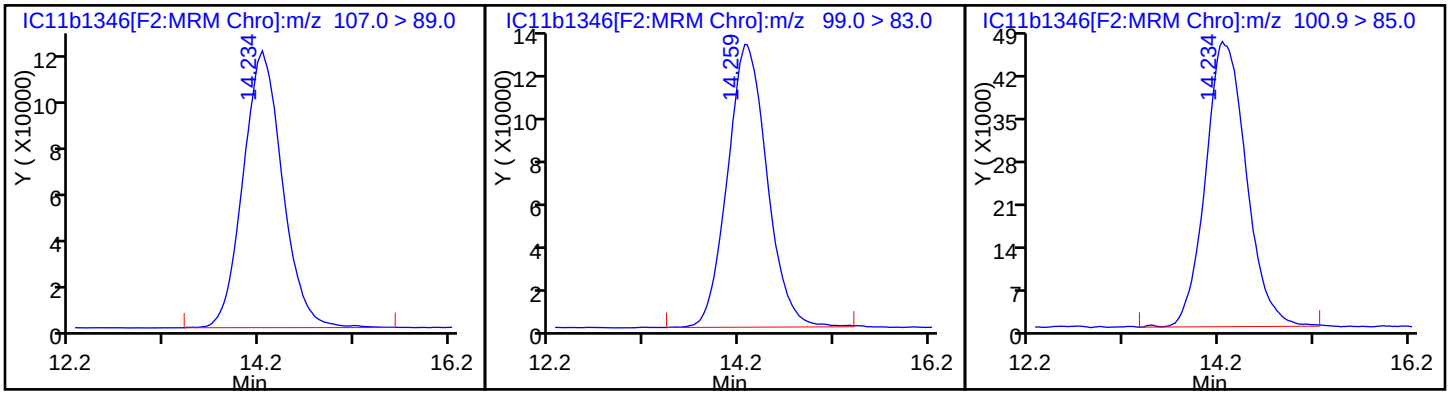
QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:17:49 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1346.d		
Injection Date:	14-Feb-2011 05:51:24	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-15-012811-MS	Instrument ID:	LC_LCMS1
Lims Batch ID:	53050	Lims Sample ID:	36
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-12097-1

SDG No.:

Client Sample ID: MW39-07-012811 MSD | Lab Sample ID: 280-12097-6 MSD

Matrix: Water | Lab File ID: IC11b1330.d

Analysis Method: 6860 | Date Collected: 01/28/2011 13:45

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 02/13/2011 22:17

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 200

Injection Volume: 250(uL) | GC Column: IonPac ID: 2(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 53049 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	74.5	m	10	1.8

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1330.d		
Lims ID:	280-12097-C-6 MSD	Client ID:	MW39-07-012811-MSD
Inject. Date:	13-Feb-2011 22:17:04	Dil. Factor:	200.0000
Sample Type:	MSD		
Sample ID:	280-12097-C-6 MSD 200X 280-0001541-020		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53049	Lims Sample ID:	20
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:54	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.229	14.259	-0.030	3470868	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.305	14.284	1.005	7259626	372.3	0.70- 1.30	1.00	
2	100.9 > 85.0	14.280	14.284	1.004	2667161		2.30- 3.80	2.72	

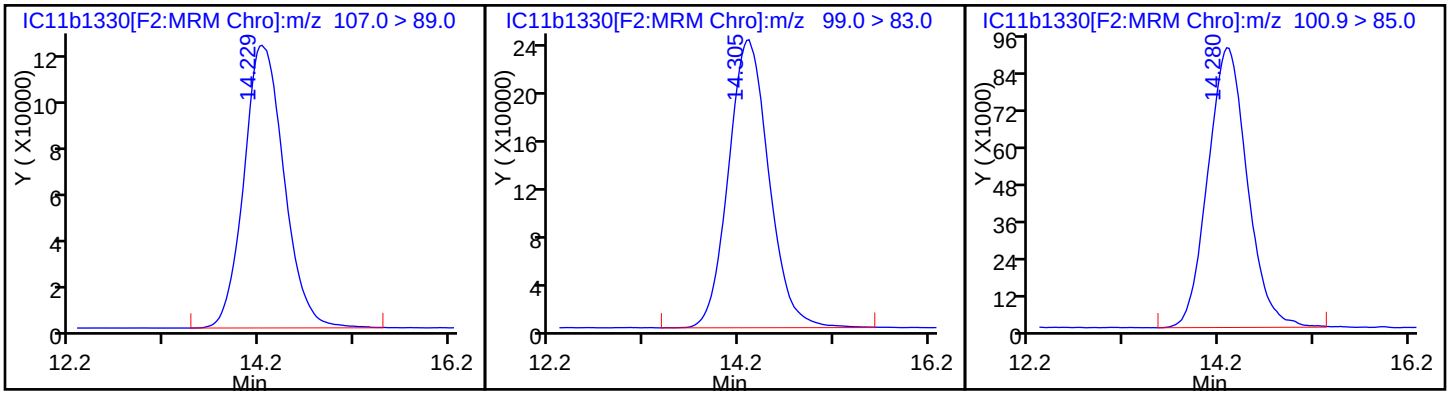
QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:17:57 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1330.d		
Injection Date:	13-Feb-2011 22:17:04	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-07-012811-MSD	Instrument ID:	LC_LCMS1
Lims Batch ID:	53049	Lims Sample ID:	20
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-12097-1
SDG No.:
Client Sample ID: MW39-15-012811 MSD
Lab Sample ID: 280-12097-15 MSD
Matrix: Water
Lab File ID: IC11b1347.d
Analysis Method: 6860
Date Collected: 01/28/2011 13:30
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 02/14/2011 06:19
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 50
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 53050
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	9.80		2.5	0.44

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1347.d		
Lims ID:	280-12097-C-15 MSD	Client ID:	MW39-15-012811-MSD
Inject. Date:	14-Feb-2011 06:19:48	Dil. Factor:	50.0000
Sample Type:	MSD		
Sample ID:	280-12097-C-15 MSD 50X 280-0001541-037		
Misc. Info.:	IC11B13		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	53050	Lims Sample ID:	37
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\6860_1.m		
Last Update:	15-Feb-2011 09:17:48	Calib Date:	31-Jan-2011 16:02:14
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20110128-1477.b\IC11A3107.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									s
2	107.0 > 89.0	14.209	14.256	-0.047	3407711	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.284	14.256	1.005	3767907	195.9	0.70- 1.30	1.00	
2	100.9 > 85.0	14.284	14.256	1.005	1361393		2.30- 3.80	2.77	

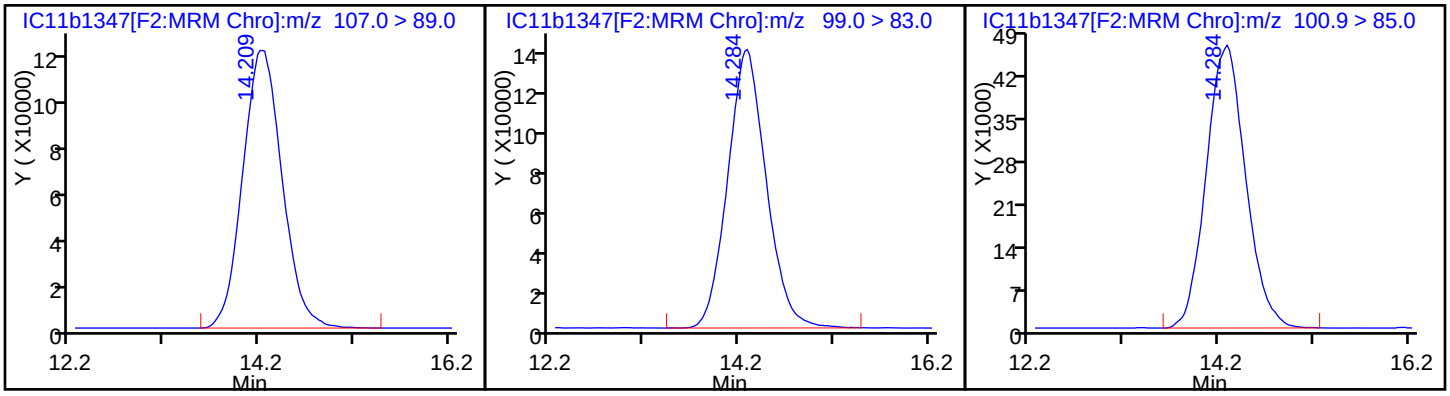
QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 15-Feb-2011 09:17:49 Chrom Revision: 1.2 10-Feb-2011 10:49:26

Data File:	\\denchrom\ChromData\LC_LCMS1\20110213-1541.b\IC11b1347.d		
Injection Date:	14-Feb-2011 06:19:48	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-15-012811-MSD	Instrument ID:	LC_LCMS1
Lims Batch ID:	53050	Lims Sample ID:	37
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Instrument ID: LC_LCMS1 Start Date: 01/31/2011 13:11

Analysis Batch Number: 50977 End Date: 01/31/2011 17:27

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICB 280-50977/1		01/31/2011 13:11	1		IonPac 2(mm)
STD 280-50977/2 IC		01/31/2011 13:40	1	IC11A3102.d	IonPac 2(mm)
STD 280-50977/3 IC		01/31/2011 14:08	1	IC11A3103.d	IonPac 2(mm)
STD 280-50977/4 IC		01/31/2011 14:37	1	IC11A3104.d	IonPac 2(mm)
ICISAV 280-50977/5		01/31/2011 15:05	1	IC11A3105.d	IonPac 2(mm)
STD 280-50977/6 IC		01/31/2011 15:33	1	IC11A3106.d	IonPac 2(mm)
STD 280-50977/7 IC		01/31/2011 16:02	1	IC11A3107.d	IonPac 2(mm)
ICB 280-50977/8		01/31/2011 16:30	1	IC11A3108.d	IonPac 2(mm)
ICV 280-50977/9		01/31/2011 16:59	1	IC11A3109.d	IonPac 2(mm)
DLCK 280-50977/10		01/31/2011 17:27	1	IC11A3110.d	IonPac 2(mm)

6860

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Instrument ID: LC_LCMS1 Start Date: 02/13/2011 11:48

Analysis Batch Number: 53049 End Date: 02/14/2011 01:35

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCB 280-53049/1		02/13/2011 11:48	1	IC11b1311.d	IonPac 2(mm)
CCV 280-53049/2		02/13/2011 12:16	1	IC11b1312.d	IonPac 2(mm)
CCVL 280-53049/3		02/13/2011 12:44	1	IC11b1313.d	IonPac 2(mm)
MB 280-53049/4		02/13/2011 14:40	1	IC11b1314.d	IonPac 2(mm)
LCS 280-53049/5		02/13/2011 15:11	1	IC11b1315.d	IonPac 2(mm)
INF 280-53049/6		02/13/2011 15:39	1	IC11b1316.d	IonPac 2(mm)
ZZZZZ		02/13/2011 16:07	1		IonPac 2(mm)
ZZZZZ		02/13/2011 16:36	1		IonPac 2(mm)
ZZZZZ		02/13/2011 17:04	1		IonPac 2(mm)
280-12097-1	MW39-02-012811	02/13/2011 17:33	100	IC11b1320.d	IonPac 2(mm)
280-12097-2	MW39-05-012811	02/13/2011 18:01	100	IC11b1321.d	IonPac 2(mm)
280-12097-3	MW39-06-012611	02/13/2011 18:29	100	IC11b1322.d	IonPac 2(mm)
CCV 280-53049/13		02/13/2011 18:58	1	IC11b1323.d	IonPac 2(mm)
CCVL 280-53049/14		02/13/2011 19:26	1	IC11b1324.d	IonPac 2(mm)
CCB 280-53049/15		02/13/2011 19:55	1	IC11b1325.d	IonPac 2(mm)
280-12097-4	MW39-06D-012611	02/13/2011 20:23	100	IC11b1326.d	IonPac 2(mm)
280-12097-5	MW39-DUP01-012611	02/13/2011 20:51	100	IC11b1327.d	IonPac 2(mm)
280-12097-6	MW39-07-012811	02/13/2011 21:20	200	IC11b1328.d	IonPac 2(mm)
280-12097-6 MS	MW39-07-012811 MS	02/13/2011 21:48	200	IC11b1329.d	IonPac 2(mm)
280-12097-6 MSD	MW39-07-012811 MSD	02/13/2011 22:17	200	IC11b1330.d	IonPac 2(mm)
280-12097-7	MW39-08-012711	02/13/2011 22:45	200	IC11b1331.d	IonPac 2(mm)
280-12097-8	MW39-09-012711	02/13/2011 23:13	1000	IC11b1332.d	IonPac 2(mm)
280-12097-9	MW39-10-012711	02/13/2011 23:42	200	IC11b1333.d	IonPac 2(mm)
280-12097-10	MW39-11-012711	02/14/2011 00:10	200	IC11b1334.d	IonPac 2(mm)
CCV 280-53049/25		02/14/2011 00:39	1	IC11b1335.d	IonPac 2(mm)
CCVL 280-53049/26		02/14/2011 01:07	1	IC11b1336.d	IonPac 2(mm)
CCB 280-53049/27		02/14/2011 01:35	1	IC11b1337.d	IonPac 2(mm)

6860

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-12097-1

SDG No.:

Instrument ID: LC_LCMS1 Start Date: 02/14/2011 00:39

Analysis Batch Number: 53050 End Date: 02/14/2011 12:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-53050/25		02/14/2011 00:39	1	IC11b1335.d	IonPac 2(mm)
CCVL 280-53050/26		02/14/2011 01:07	1	IC11b1336.d	IonPac 2(mm)
CCB 280-53050/27		02/14/2011 01:35	1	IC11b1337.d	IonPac 2(mm)
MB 280-53050/28		02/14/2011 02:04	1	IC11b1338.d	IonPac 2(mm)
LCS 280-53050/29		02/14/2011 02:32	1	IC11b1339.d	IonPac 2(mm)
INF 280-53050/30		02/14/2011 03:01	1	IC11b1340.d	IonPac 2(mm)
280-12097-11	MW39-12-012711	02/14/2011 03:29	200	IC11b1341.d	IonPac 2(mm)
280-12097-12	MW39-13-012811	02/14/2011 03:57	50	IC11b1342.d	IonPac 2(mm)
280-12097-13	MW39-14-012711	02/14/2011 04:26	50	IC11b1343.d	IonPac 2(mm)
280-12097-14	MW39-DUP02-012711	02/14/2011 04:54	50	IC11b1344.d	IonPac 2(mm)
280-12097-15	MW39-15-012811	02/14/2011 05:23	50	IC11b1345.d	IonPac 2(mm)
280-12097-15 MS	MW39-15-012811 MS	02/14/2011 05:51	50	IC11b1346.d	IonPac 2(mm)
280-12097-15 MSD	MW39-15-012811 MSD	02/14/2011 06:19	50	IC11b1347.d	IonPac 2(mm)
CCV 280-53050/38		02/14/2011 06:48	1	IC11b1348.d	IonPac 2(mm)
CCVL 280-53050/39		02/14/2011 07:16	1	IC11b1349.d	IonPac 2(mm)
CCB 280-53050/40		02/14/2011 07:44	1	IC11b1350.d	IonPac 2(mm)
280-12097-16	MW39-16-012811	02/14/2011 08:13	50	IC11b1351.d	IonPac 2(mm)
ZZZZZ		02/14/2011 08:41	100		IonPac 2(mm)
ZZZZZ		02/14/2011 09:10	100		IonPac 2(mm)
ZZZZZ		02/14/2011 09:38	100		IonPac 2(mm)
ZZZZZ		02/14/2011 10:06	100		IonPac 2(mm)
ZZZZZ		02/14/2011 10:35	1000		IonPac 2(mm)
ZZZZZ		02/14/2011 11:03	1		IonPac 2(mm)
CCV 280-53050/48		02/14/2011 11:32	1	IC11b1358.d	IonPac 2(mm)
CCVL 280-53050/49		02/14/2011 12:00	1	IC11b1359.d	IonPac 2(mm)
CCB 280-53050/50		02/14/2011 12:28	1	IC11b1360.d	IonPac 2(mm)

6860

Shipping and Receiving Documents

2.4°C IRFP
2/1/11

Tetra Tech, Inc.
800 Oak Ridge Turnpike, Ste A-500
Oak Ridge, TN 37830
865/283-9900

CHAIN-OF-CUSTODY

HAFB-SS39-TALDEN

Laboratory Name: Test America Denver
Address: 4955 Yarrow Street, Arvada, CO 80002-4517, (303) 736-0100
Contact: LISA B. URIELL (303) 736-0103

Project Name Holloman AFB
Project Location HAFB, NM
Project No. Holloman AFB
Project Contact Maureen McMyler
Site Telephone No.
Report to: Maureen McMyler 800 Oak Ridge Turnpike 865/220-4762
Bill to: Sheila Hall, 800 Oak Ridge Turnpike 865/283-9900
Project Manager/Supervisor Mike Higgins

Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	Analysis and Method Desired	Notes
1	MW39-02-012811	1/28/2011	1120		X	GW	MW-39-02	1	Perchlorate by SW6860	
2	MW39-05-012811	1/28/2011	1135		X	GW	MW-39-05	1	Perchlorate by SW6860	
3	MW39-06-012611	1/26/2011	1600		X	GW	MW-39-06	1	Perchlorate by SW6860	
4	MW39-06D-012611	1/26/2011	1700		X	GW	MW-39-06D	1	Perchlorate by SW6860	
5	MW39-DUP01-012611	1/26/2011	1700		X	GW	MW-39-06D	1	Perchlorate by SW6860	
6	MW39-07-012811	1/28/2011	1345		X	GW	MW-39-07	1	Perchlorate by SW6860	
7	MW39-07-012811-MS	1/28/2011	1345		X	GW	MW-39-07	1	Perchlorate by SW6860	Matrix Spike
8	MW39-07-012811-MSD	1/28/2011	1345		X	GW	MW-39-07	1	Perchlorate by SW6860	Matrix Spike Duplicate
9	MW39-08-012711	1/27/2011	1200		X	GW	MW-39-08	1	Perchlorate by SW6860	
10	MW39-09-012711	1/27/2011	1050		X	GW	MW-39-09	1	Perchlorate by SW6860	Non-Filtered
11	MW39-10-012711	1/27/2011	1500		X	GW	MW-39-10	1	Perchlorate by SW6860	
12	MW39-11-012711	1/27/2011	1640		X	GW	MW-39-11	1	Perchlorate by SW6860	
13	MW39-12-012711	1/27/2011	1515		X	GW	MW-39-12	1	Perchlorate by SW6860	
14	MW39-13-012811	1/28/2011	1040		X	GW	MW-39-13	1	Perchlorate by SW6860	
15	MW39-14-012711	1/27/2011	1130		X	GW	MW-39-14	1	Perchlorate by SW6860	
16	MW39-DUP02-012711	1/27/2011	1130		X	GW	MW-39-14	1	Perchlorate by SW6860	
17	MW39-15-012811	1/28/2011	1330		X	GW	MW-39-15	1	Perchlorate by SW6860	
18	MW39-15-012811-MS	1/28/2011	1330		X	GW	MW-39-15	1	Perchlorate by SW6860	Matrix Spike
19	MW39-15-012811-MSD	1/28/2011	1330		X	GW	MW-39-15	1	Perchlorate by SW6860	Matrix Spike Duplicate
20	MW39-16-012811	1/28/2011	1300		X	GW	MW-39-16	1	Perchlorate by SW6860	

Transfers Relinquished By (Signature)	Date/Time	Transfers Accepted By (Signature)	Date/Time	Special Instructions:
Raven Tay	1/31/11 1310			
				FedEx Airbill No.:
		Laboratory	2/1/11 0900	Sampler's Signature

TAT: ____ Standard ____ Rush Due: _____ Seals Intact? ____ Y ____ N Received Good Condition ____ Y ____ N ____ Cold

Login Sample Receipt Check List

Client: Tetra Tech, Inc.

Job Number: 280-12097-1

Login Number: 12097

List Source: TestAmerica Denver

Creator: Bindel, Aaron M

List Number: 1

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

ANALYTICAL REPORT

Job Number: 280-5193-1

Job Description: Tetra Tech - Holloman AFB

For:
Tetra Tech, Inc.
800 Oak Ridge Turnpike
Suite A-500
Oak Ridge, TN 37830

Attention: Virginia Mullins

Approved for release.
Lisa B Uriell
Project Manager I
7/30/2010 11:26 AM

Lisa B Uriell
Project Manager I
lisa.uriell@testamericainc.com
07/30/2010

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is E87667.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: Holloman AFB

Report Number: 280-5193-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receiving

Twelve water samples were received under chain of custody on July 9, 2010. The samples were received in good condition at a temperature of 3.1°C.

No anomalies were encountered during sample receipt.

Perchlorate, SW 846 6860

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to elevated levels of Perchlorate present above the linear calibration curve, the following samples had to be analyzed at a dilution. The reporting limits have been adjusted relative to the dilutions required.

MW39-11-070710 (280-5193-1) analyzed at a 100X dilution
MW39-12-070710 (280-5193-2) analyzed at a 100X dilution
MW39-08-070710 (280-5193-3) analyzed at a 100X dilution
MW39-09-070710 (280-5193-4) analyzed at a 200X dilution
MW39-10-070710 (280-5193-5) analyzed at a 200X dilution
MW39-07-070710 (280-5193-6) analyzed at a 100X dilution
MW39-05-070810 (280-5193-7) analyzed at a 20X dilution
MW39-02-070810 (280-5193-8) analyzed at a 100X dilution
MW39-06D-070810 (280-5193-9) analyzed at a 50X dilution
MW39-DUP01-070810 (280-5193-10) analyzed at a 50X dilution
MW39-06-070810 (280-5193-11) analyzed at a 100X dilution
MW39-03-070810 (280-5193-12) analyzed at a 50X dilution

The MS/MSD analyses associated with batch 280-24406 were performed on MW39-07-070710 (280-5193-6), as requested. The Perchlorate MS/MSD recoveries could not be accurately calculated, as the parent sample contained concentrations greater than four times the spike amount. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The associated data in the parent sample has been flagged “m” per the AFCEE QAPP.

Methods 8321/6860/1625

No Manual Integrations Performed

SAMPLE SUMMARY

Client: Tetra Tech, Inc. Job Number: 280-5193-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-5193-1	MW39-11-070710	Water	07/07/2010 1128	07/09/2010 1045
280-5193-2	MW39-12-070710	Water	07/07/2010 1145	07/09/2010 1045
280-5193-3	MW39-08-070710	Water	07/07/2010 1432	07/09/2010 1045
280-5193-4	MW39-09-070710	Water	07/07/2010 1510	07/09/2010 1045
280-5193-5	MW39-10-070710	Water	07/07/2010 1724	07/09/2010 1045
280-5193-6	MW39-07-070710	Water	07/07/2010 1800	07/09/2010 1045
280-5193-6MS	MW39-07-MS-070710	Water	07/07/2010 1800	07/09/2010 1045
280-5193-6MSD	MW39-07-MSD-070710	Water	07/07/2010 1800	07/09/2010 1045
280-5193-7	MW39-05-070810	Water	07/08/2010 1020	07/09/2010 1045
280-5193-8	MW39-02-070810	Water	07/08/2010 1034	07/09/2010 1045
280-5193-9	MW39-06D-070810	Water	07/08/2010 1208	07/09/2010 1045
280-5193-10FD	MW39-DUP01-070810	Water	07/08/2010 0000	07/09/2010 1045
280-5193-11	MW39-06-070810	Water	07/08/2010 1215	07/09/2010 1045
280-5193-12	MW39-03-070810	Water	07/08/2010 1544	07/09/2010 1045

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 280-5193-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
280-5193-1	**MW39-11-070710**					
Perchlorate		78		5.0	ug/L	6860
280-5193-2	**MW39-12-070710**					
Perchlorate		66		5.0	ug/L	6860
280-5193-3	**MW39-08-070710**					
Perchlorate		61		5.0	ug/L	6860
280-5193-4	**MW39-09-070710**					
Perchlorate		160		10	ug/L	6860
280-5193-5	**MW39-10-070710**					
Perchlorate		110		10	ug/L	6860
280-5193-6	**MW39-07-070710**					
Perchlorate		59	m	5.0	ug/L	6860
280-5193-7	**MW39-05-070810**					
Perchlorate		19		1.0	ug/L	6860
280-5193-8	**MW39-02-070810**					
Perchlorate		15		5.0	ug/L	6860
280-5193-9	**MW39-06D-070810**					
Perchlorate		28		2.5	ug/L	6860
280-5193-10FD	**MW39-DUP01-070810**					
Perchlorate		28		2.5	ug/L	6860
280-5193-11	**MW39-06-070810**					
Perchlorate		21		5.0	ug/L	6860

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 280-5193-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
280-5193-12	**MW39-03-070810**				
Perchlorate		31	2.5	ug/L	6860

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 280-5193-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Perchlorate by IC/MS or IC/MS/MS	TAL DEN	EPA 6860	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

EPA = US Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: Tetra Tech, Inc.

Job Number: 280-5193-1

Method	Analyst	Analyst ID
EPA 6860	Bonnett, Jacquelyn C	JCB

Client: Tetra Tech, Inc. Job Number: 280-5193-1

Client Sample ID: **MW39-11-070710**

Lab Sample ID: 280-5193-1 Date Sampled: 07/07/2010 1128
Client Matrix: Water Date Received: 07/09/2010 1045

6860 Perchlorate by IC/MS or IC/MS/MS

Method:	6860	Analysis Batch: 280-24406	Instrument ID:	LC_LCMS1
Preparation:	N/A		Lab File ID:	IC10G2746.d
Dilution:	100		Initial Weight/Volume:	5 mL
Date Analyzed:	07/28/2010 1014		Final Weight/Volume:	1.0 mL
Date Prepared:			Injection Volume:	250 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perchlorate	78		0.88	5.0

Client: Tetra Tech, Inc. Job Number: 280-5193-1

Client Sample ID: **MW39-12-070710**

Lab Sample ID: 280-5193-2 Date Sampled: 07/07/2010 1145
Client Matrix: Water Date Received: 07/09/2010 1045

6860 Perchlorate by IC/MS or IC/MS/MS

Method:	6860	Analysis Batch: 280-24406	Instrument ID:	LC_LCMS1
Preparation:	N/A		Lab File ID:	IC10G2747.d
Dilution:	100		Initial Weight/Volume:	5 mL
Date Analyzed:	07/28/2010 1046		Final Weight/Volume:	1.0 mL
Date Prepared:			Injection Volume:	250 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perchlorate	66		0.88	5.0

Client: Tetra Tech, Inc. Job Number: 280-5193-1

Client Sample ID: **MW39-08-070710**

Lab Sample ID: 280-5193-3 Date Sampled: 07/07/2010 1432
Client Matrix: Water Date Received: 07/09/2010 1045

6860 Perchlorate by IC/MS or IC/MS/MS

Method:	6860	Analysis Batch: 280-24406	Instrument ID:	LC_LCMS1
Preparation:	N/A		Lab File ID:	IC10G2748.d
Dilution:	100		Initial Weight/Volume:	5 mL
Date Analyzed:	07/28/2010 1118		Final Weight/Volume:	1.0 mL
Date Prepared:			Injection Volume:	250 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perchlorate	61		0.88	5.0

Client: Tetra Tech, Inc. Job Number: 280-5193-1

Client Sample ID: **MW39-09-070710**

Lab Sample ID: 280-5193-4 Date Sampled: 07/07/2010 1510
Client Matrix: Water Date Received: 07/09/2010 1045

6860 Perchlorate by IC/MS or IC/MS/MS

Method:	6860	Analysis Batch: 280-24406	Instrument ID:	LC_LCMS1
Preparation:	N/A		Lab File ID:	IC10G2754.d
Dilution:	200		Initial Weight/Volume:	5 mL
Date Analyzed:	07/28/2010 1426		Final Weight/Volume:	1.0 mL
Date Prepared:			Injection Volume:	250 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perchlorate	160		1.8	10

Client: Tetra Tech, Inc. Job Number: 280-5193-1

Client Sample ID: **MW39-10-070710**

Lab Sample ID: 280-5193-5 Date Sampled: 07/07/2010 1724
Client Matrix: Water Date Received: 07/09/2010 1045

6860 Perchlorate by IC/MS or IC/MS/MS

Method:	6860	Analysis Batch: 280-24406	Instrument ID:	LC_LCMS1
Preparation:	N/A		Lab File ID:	IC10G2755.d
Dilution:	200		Initial Weight/Volume:	5 mL
Date Analyzed:	07/28/2010 1458		Final Weight/Volume:	1.0 mL
Date Prepared:			Injection Volume:	250 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perchlorate	110		1.8	10

Client: Tetra Tech, Inc. Job Number: 280-5193-1

Client Sample ID: **MW39-07-070710**

Lab Sample ID: 280-5193-6 Date Sampled: 07/07/2010 1800
Client Matrix: Water Date Received: 07/09/2010 1045

6860 Perchlorate by IC/MS or IC/MS/MS

Method:	6860	Analysis Batch: 280-24406	Instrument ID:	LC_LCMS1
Preparation:	N/A		Lab File ID:	IC10G2751.d
Dilution:	100		Initial Weight/Volume:	5 mL
Date Analyzed:	07/28/2010 1252		Final Weight/Volume:	1.0 mL
Date Prepared:			Injection Volume:	250 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perchlorate	59	m	0.88	5.0

Client: Tetra Tech, Inc. Job Number: 280-5193-1

Client Sample ID: **MW39-05-070810**

Lab Sample ID: 280-5193-7 Date Sampled: 07/08/2010 1020
Client Matrix: Water Date Received: 07/09/2010 1045

6860 Perchlorate by IC/MS or IC/MS/MS

Method:	6860	Analysis Batch: 280-24406	Instrument ID:	LC_LCMS1
Preparation:	N/A		Lab File ID:	IC10G2731.d
Dilution:	20		Initial Weight/Volume:	5 mL
Date Analyzed:	07/28/2010 0203		Final Weight/Volume:	1.0 mL
Date Prepared:			Injection Volume:	250 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perchlorate	19		0.18	1.0

Client: Tetra Tech, Inc. Job Number: 280-5193-1

Client Sample ID: **MW39-02-070810**

Lab Sample ID: 280-5193-8 Date Sampled: 07/08/2010 1034
Client Matrix: Water Date Received: 07/09/2010 1045

6860 Perchlorate by IC/MS or IC/MS/MS

Method:	6860	Analysis Batch: 280-24406	Instrument ID:	LC_LCMS1
Preparation:	N/A		Lab File ID:	IC10G2732.d
Dilution:	100		Initial Weight/Volume:	5 mL
Date Analyzed:	07/28/2010 0234		Final Weight/Volume:	1.0 mL
Date Prepared:			Injection Volume:	250 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perchlorate	15		0.88	5.0

Client: Tetra Tech, Inc. Job Number: 280-5193-1

Client Sample ID: **MW39-06D-070810**

Lab Sample ID: 280-5193-9 Date Sampled: 07/08/2010 1208
Client Matrix: Water Date Received: 07/09/2010 1045

6860 Perchlorate by IC/MS or IC/MS/MS

Method:	6860	Analysis Batch: 280-24406	Instrument ID:	LC_LCMS1
Preparation:	N/A		Lab File ID:	IC10G2733.d
Dilution:	50		Initial Weight/Volume:	5 mL
Date Analyzed:	07/28/2010 0305		Final Weight/Volume:	1.0 mL
Date Prepared:			Injection Volume:	250 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perchlorate	28		0.44	2.5

Client: Tetra Tech, Inc. Job Number: 280-5193-1

Client Sample ID: **MW39-DUP01-070810**

Lab Sample ID: 280-5193-10FD Date Sampled: 07/08/2010 0000
Client Matrix: Water Date Received: 07/09/2010 1045

6860 Perchlorate by IC/MS or IC/MS/MS

Method:	6860	Analysis Batch: 280-24406	Instrument ID:	LC_LCMS1
Preparation:	N/A		Lab File ID:	IC10G2737.d
Dilution:	50		Initial Weight/Volume:	5 mL
Date Analyzed:	07/28/2010 0511		Final Weight/Volume:	1.0 mL
Date Prepared:			Injection Volume:	250 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perchlorate	28		0.44	2.5

Client: Tetra Tech, Inc. Job Number: 280-5193-1

Client Sample ID: **MW39-06-070810**

Lab Sample ID: 280-5193-11 Date Sampled: 07/08/2010 1215
Client Matrix: Water Date Received: 07/09/2010 1045

6860 Perchlorate by IC/MS or IC/MS/MS

Method:	6860	Analysis Batch: 280-24406	Instrument ID:	LC_LCMS1
Preparation:	N/A		Lab File ID:	IC10G2738.d
Dilution:	100		Initial Weight/Volume:	5 mL
Date Analyzed:	07/28/2010 0542		Final Weight/Volume:	1.0 mL
Date Prepared:			Injection Volume:	250 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perchlorate	21		0.88	5.0

Client: Tetra Tech, Inc. Job Number: 280-5193-1

Client Sample ID: **MW39-03-070810**

Lab Sample ID: 280-5193-12 Date Sampled: 07/08/2010 1544
Client Matrix: Water Date Received: 07/09/2010 1045

6860 Perchlorate by IC/MS or IC/MS/MS

Method:	6860	Analysis Batch: 280-24406	Instrument ID:	LC_LCMS1
Preparation:	N/A		Lab File ID:	IC10G2739.d
Dilution:	50		Initial Weight/Volume:	5 mL
Date Analyzed:	07/28/2010 0614		Final Weight/Volume:	1.0 mL
Date Prepared:			Injection Volume:	250 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perchlorate	31		0.44	2.5

Client: Tetra Tech, Inc.

Job Number: 280-5193-1

Detection Limit Check Standard - Batch: 280-22058

Method: 6860
Preparation: N/A

Lab Sample ID:	DLCK 280-22058/10	Analysis Batch:	280-22058	Instrument ID:	LC_LCMS1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	IC10G0710.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	07/07/2010 1901			Final Weight/Volume:	1.0 mL
Date Prepared:	N/A			Injection Volume:	250 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Perchlorate	0.0500	0.0501	100	70 - 130	

Client: Tetra Tech, Inc. Job Number: 280-5193-1

Method Blank - Batch: 280-24406

Method: 6860
Preparation: N/A

Lab Sample ID: MB 280-24406/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/27/2010 1709
Date Prepared: N/A

Analysis Batch: 280-24406
Prep Batch: N/A
Units: ug/L

Instrument ID: LC_LCMS1
Lab File ID: IC10G2714.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 1.0 mL
Injection Volume: 250 uL

Analyte	Result	Qual	MDL	RL
Perchlorate	0.0088	U	0.0088	0.050

Lab Control Sample - Batch: 280-24406

Method: 6860
Preparation: N/A

Lab Sample ID: LCS 280-24406/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/27/2010 1740
Date Prepared: N/A

Analysis Batch: 280-24406
Prep Batch: N/A
Units: ug/L

Instrument ID: LC_LCMS1
Lab File ID: IC10G2715.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 1.0 mL
Injection Volume: 250 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Perchlorate	0.0500	0.0483	97	80 - 120	F

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-24406

Method: 6860
Preparation: N/A

MS Lab Sample ID: 280-5193-6
Client Matrix: Water
Dilution: 100
Date Analyzed: 07/28/2010 1323
Date Prepared: N/A

Analysis Batch: 280-24406
Prep Batch: N/A

Instrument ID: LC_LCMS1
Lab File ID: IC10G2752.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 1.0 mL
Injection Volume: 250 uL

MSD Lab Sample ID: 280-5193-6
Client Matrix: Water
Dilution: 100
Date Analyzed: 07/28/2010 1355
Date Prepared: N/A

Analysis Batch: 280-24406
Prep Batch: N/A

Instrument ID: LC_LCMS1
Lab File ID: IC10G2753.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 1.0 mL
Injection Volume: 250 uL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Perchlorate	61	53	80 - 120	1	15	m	m

Client: Tetra Tech, Inc.

Job Number: 280-5193-1

Matrix Spike/
Matrix Spike Duplicate Data Report - Batch: 280-24406

Method: 6860
Preparation: N/A

MS Lab Sample ID:	280-5193-6	Units: ug/L	MSD Lab Sample ID:	280-5193-6
Client Matrix:	Water		Client Matrix:	Water
Dilution:	100		Dilution:	100
Date Analyzed:	07/28/2010 1323		Date Analyzed:	07/28/2010 1355
Date Prepared:	N/A		Date Prepared:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Perchlorate	59	5.00	5.00	62.2	m	61.8	m

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc. Job Number: 280-5193-1

Lab Section	Qualifier	Description
LCMS		
	m	A matrix effect was present.
	U	The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL
	F	The analyte was positively identified but the associated numerical value is below the RL.

Client: Tetra Tech, Inc.

Job Number: 280-5193-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
LCMS					
Analysis Batch:280-22058					
DLCK 280-22058/10	Detection Limit Check Standard	T	Water	6860	
Analysis Batch:280-24406					
LCS 280-24406/5	Lab Control Sample	T	Water	6860	
MB 280-24406/4	Method Blank	T	Water	6860	
280-5193-1	MW39-11-070710	T	Water	6860	
280-5193-2	MW39-12-070710	T	Water	6860	
280-5193-3	MW39-08-070710	T	Water	6860	
280-5193-4	MW39-09-070710	T	Water	6860	
280-5193-5	MW39-10-070710	T	Water	6860	
280-5193-6	MW39-07-070710	T	Water	6860	
280-5193-6MS	Matrix Spike	T	Water	6860	
280-5193-6MSD	Matrix Spike Duplicate	T	Water	6860	
280-5193-7	MW39-05-070810	T	Water	6860	
280-5193-8	MW39-02-070810	T	Water	6860	
280-5193-9	MW39-06D-070810	T	Water	6860	
280-5193-10FD	MW39-DUP01-070810	T	Water	6860	
280-5193-11	MW39-06-070810	T	Water	6860	
280-5193-12	MW39-03-070810	T	Water	6860	

Report Basis

T = Total

Client: Tetra Tech, Inc. Job Number: 280-5193-1

Laboratory Chronicle

Lab ID: 280-5193-1 **Client ID:** MW39-11-070710

Sample Date/Time: 07/07/2010 11:28 Received Date/Time: 07/09/2010 10:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-5193-A-1		280-24406		07/28/2010 10:14	100	TAL DEN	JCB

Lab ID: 280-5193-2 **Client ID:** MW39-12-070710

Sample Date/Time: 07/07/2010 11:45 Received Date/Time: 07/09/2010 10:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-5193-A-2		280-24406		07/28/2010 10:46	100	TAL DEN	JCB

Lab ID: 280-5193-3 **Client ID:** MW39-08-070710

Sample Date/Time: 07/07/2010 14:32 Received Date/Time: 07/09/2010 10:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-5193-A-3		280-24406		07/28/2010 11:18	100	TAL DEN	JCB

Lab ID: 280-5193-4 **Client ID:** MW39-09-070710

Sample Date/Time: 07/07/2010 15:10 Received Date/Time: 07/09/2010 10:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-5193-A-4		280-24406		07/28/2010 14:26	200	TAL DEN	JCB

Lab ID: 280-5193-5 **Client ID:** MW39-10-070710

Sample Date/Time: 07/07/2010 17:24 Received Date/Time: 07/09/2010 10:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-5193-A-5		280-24406		07/28/2010 14:58	200	TAL DEN	JCB

Lab ID: 280-5193-6 **Client ID:** MW39-07-070710

Sample Date/Time: 07/07/2010 18:00 Received Date/Time: 07/09/2010 10:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-5193-A-6		280-24406		07/28/2010 12:52	100	TAL DEN	JCB

Lab ID: 280-5193-6 **Client ID:** MW39-07-070710

Sample Date/Time: 07/07/2010 18:00 Received Date/Time: 07/09/2010 10:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-5193-A-6 MS		280-24406		07/28/2010 13:23	100	TAL DEN	JCB

Client: Tetra Tech, Inc. Job Number: 280-5193-1

Laboratory Chronicle

Lab ID: 280-5193-6 **Client ID:** MW39-07-070710

Sample Date/Time: 07/07/2010 18:00 Received Date/Time: 07/09/2010 10:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-5193-A-6 MSD		280-24406		07/28/2010 13:55	100	TAL DEN	JCB

Lab ID: 280-5193-7 **Client ID:** MW39-05-070810

Sample Date/Time: 07/08/2010 10:20 Received Date/Time: 07/09/2010 10:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-5193-A-7		280-24406		07/28/2010 02:03	20	TAL DEN	JCB

Lab ID: 280-5193-8 **Client ID:** MW39-02-070810

Sample Date/Time: 07/08/2010 10:34 Received Date/Time: 07/09/2010 10:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-5193-A-8		280-24406		07/28/2010 02:34	100	TAL DEN	JCB

Lab ID: 280-5193-9 **Client ID:** MW39-06D-070810

Sample Date/Time: 07/08/2010 12:08 Received Date/Time: 07/09/2010 10:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-5193-A-9		280-24406		07/28/2010 03:05	50	TAL DEN	JCB

Lab ID: 280-5193-10 **Client ID:** MW39-DUP01-070810

Sample Date/Time: 07/08/2010 00:00 Received Date/Time: 07/09/2010 10:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-5193-A-10		280-24406		07/28/2010 05:11	50	TAL DEN	JCB

Lab ID: 280-5193-11 **Client ID:** MW39-06-070810

Sample Date/Time: 07/08/2010 12:15 Received Date/Time: 07/09/2010 10:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-5193-A-11		280-24406		07/28/2010 05:42	100	TAL DEN	JCB

Lab ID: 280-5193-12 **Client ID:** MW39-03-070810

Sample Date/Time: 07/08/2010 15:44 Received Date/Time: 07/09/2010 10:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	280-5193-A-12		280-24406		07/28/2010 06:14	50	TAL DEN	JCB

Client: Tetra Tech, Inc. Job Number: 280-5193-1

Laboratory Chronicle

Lab ID: **MB** **Client ID:** **N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	MB 280-24406/4		280-24406		07/27/2010 17:09	1	TAL DEN	JCB

Lab ID: **LCS** **Client ID:** **N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	LCS 280-24406/5		280-24406		07/27/2010 17:40	1	TAL DEN	JCB

Lab ID: **DLCK** **Client ID:** **N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:6860	DLCK 280-22058/10		280-22058		07/07/2010 19:01	1	TAL DEN	TNO

Lab References:
TAL DEN = TestAmerica Denver

Method 6860

Perchlorate (IC/MS) by Method 6860

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-5193-1

SDG No.:

Matrix: Water Level: Low Lab File ID: IC10G2715.d

Lab ID: LCS 280-24406/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Perchlorate	0.0500	0.0483 F	97	80-120	

Column to be used to flag recovery and RPD values

FORM III 6860

FORM III
LCMS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-5193-1

SDG No.:

Matrix: Water Level: Low Lab File ID: IC10G2752.d

Lab ID: 280-5193-6 MS Client ID: MW39-07-070710 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Perchlorate	5.00	59	62.2	61	80-120	m

Column to be used to flag recovery and RPD values

FORM III 6860

FORM III
LCMS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-5193-1

SDG No.:

Matrix: Water Level: Low Lab File ID: IC10G2753.d

Lab ID: 280-5193-6 MSD Client ID: MW39-07-070710 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Perchlorate	5.00	61.8	53	1	15	80-120	m

Column to be used to flag recovery and RPD values

FORM III 6860

FORM III
LCMS DETECTION LIMIT CHECK STANDARD RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-5193-1

SDG No.:

Matrix: Water Level: Low Lab File ID: IC10G0710.d

Lab ID: DLCK 280-22058/10 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	DLCK CONCENTRATION (ug/L)	DLCK % REC	QC LIMITS REC	#
Perchlorate	0.0500	0.0501	100	70-130	

Column to be used to flag recovery and RPD values

FORM III 6860

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-5193-1

SDG No.:

Lab File ID: IC10G2714.d Lab Sample ID: MB 280-24406/4

Matrix: Water Date Extracted:

Instrument ID: LC_LCMS1 Date Analyzed: 07/27/2010 17:09

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	CCB 280-24406/1	IC10G2711.d	07/27/2010 14:05
	LCS 280-24406/5	IC10G2715.d	07/27/2010 17:40
	CCB 280-24406/15	IC10G2725.d	07/27/2010 22:54
MW39-05-070810	280-5193-7	IC10G2731.d	07/28/2010 02:03
MW39-02-070810	280-5193-8	IC10G2732.d	07/28/2010 02:34
MW39-06D-070810	280-5193-9	IC10G2733.d	07/28/2010 03:05
	CCB 280-24406/26	IC10G2736.d	07/28/2010 04:40
MW39-DUP01-070810	280-5193-10	IC10G2737.d	07/28/2010 05:11
MW39-06-070810	280-5193-11	IC10G2738.d	07/28/2010 05:42
MW39-03-070810	280-5193-12	IC10G2739.d	07/28/2010 06:14
	CCB 280-24406/35	IC10G2745.d	07/28/2010 09:22
MW39-11-070710	280-5193-1	IC10G2746.d	07/28/2010 10:14
MW39-12-070710	280-5193-2	IC10G2747.d	07/28/2010 10:46
MW39-08-070710	280-5193-3	IC10G2748.d	07/28/2010 11:18
MW39-07-070710	280-5193-6	IC10G2751.d	07/28/2010 12:52
MW39-07-070710 MS	280-5193-6 MS	IC10G2752.d	07/28/2010 13:23
MW39-07-070710 MSD	280-5193-6 MSD	IC10G2753.d	07/28/2010 13:55
MW39-09-070710	280-5193-4	IC10G2754.d	07/28/2010 14:26
MW39-10-070710	280-5193-5	IC10G2755.d	07/28/2010 14:58
	CCB 280-24406/46	IC10G2758.d	07/28/2010 16:32

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-5193-1

SDG No.:

Instrument ID: LC_LCMS1 Calibration Start Date: 07/07/2010 14:55

GC Column: IonPac ID: 2(mm) Calibration End Date: 07/07/2010 17:27

Calibration ID: 2086

		ClO418					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		7389859	14.95				
UPPER LIMIT		11084789	19.95				
LOWER LIMIT		3694930	9.95				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCB 280-22058/8		6694830	14.94				
ICV 280-22058/9		6100894	14.89				
DLCK 280-22058/10		6415503	14.96				
CCV 280-22058/20		7126579	14.99				
CCB 280-22058/22		6711519	14.99				
CCB 280-24406/1		6177759	15.02				
CCV 280-24406/2		5384000	14.99				
CCVL 280-24406/3		5314142	14.99				
MB 280-24406/4		5057877	14.99				
LCS 280-24406/5		5499706	15.04				
INF 280-24406/6		5583286	14.96				
CCV 280-24406/13		5497734	15.01				
CCVL 280-24406/14		5641566	14.99				
CCB 280-24406/15		5712509	14.99				
280-5193-7	MW39-05-070810	4257050	15.01				
280-5193-8	MW39-02-070810	5200015	14.99				
280-5193-9	MW39-06D-070810	4746614	15.04				
CCV 280-24406/24		5498754	15.04				
CCVL 280-24406/25		5950158	15.01				
CCB 280-24406/26		5904283	14.99				
280-5193-10	MW39-DUP01-070810	4593229	15.01				
280-5193-11	MW39-06-070810	5258223	15.04				
280-5193-12	MW39-03-070810	5207531	15.01				
CCV 280-24406/33		6309407	15.01				
CCVL 280-24406/34		6612827	15.06				
CCB 280-24406/35		6505908	15.04				
280-5193-1	MW39-11-070710	5078690	15.04				
280-5193-2	MW39-12-070710	4962080	15.04				
280-5193-3	MW39-08-070710	5173296	15.04				
280-5193-4	MW39-09-070710	4524349	15.01				

ClO418 = Perchlorate-18O

Area Limit = 50%-150% of internal standard area
RT Limit = ± 5.0 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6860

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-5193-1

SDG No.:

Instrument ID: LC_LCMS1 Calibration Start Date: 07/07/2010 14:55

GC Column: IonPac ID: 2(mm) Calibration End Date: 07/07/2010 17:27

Calibration ID: 2086

		ClO418					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		7389859	14.95				
UPPER LIMIT		11084789	19.95				
LOWER LIMIT		3694930	9.95				
LAB SAMPLE ID	CLIENT SAMPLE ID						
280-5193-5	MW39-10-070710	4883858	15.09				
280-5193-6	MW39-07-070710	5492000	15.04				
280-5193-6 MS	MW39-07-070710 MS	5567512	15.01				
280-5193-6 MSD	MW39-07-070710 MSD	5655856	15.11				
280-5193-4	MW39-09-070710	5785607	15.09				
280-5193-5	MW39-10-070710	5999211	15.12				
CCV 280-24406/44		6635189	15.11				
CCVL 280-24406/45		7766397	15.11				
CCB 280-24406/46		8779988	15.09				

ClO418 = Perchlorate-18O

Area Limit = 50%-150% of internal standard area
RT Limit = ± 5.0 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6860

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-5193-1
SDG No.:
Client Sample ID: MW39-11-070710
Lab Sample ID: 280-5193-1
Matrix: Water
Lab File ID: IC10G2746.d
Analysis Method: 6860
Date Collected: 07/07/2010 11:28
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 07/28/2010 10:14
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 100
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 24406
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	78		5.0	0.88

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2746.d		
Lims ID:	280-5193-A-1	Client ID:	MW39-11-070710
Inject. Date:	28-Jul-2010 10:14:59	Dil. Factor:	100.0000
Sample Type:	Client Sample		
Sample ID:	280-5193-a-1 100X 280-0000625-036		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	36
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	28-Jul-2010 15:11:51	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

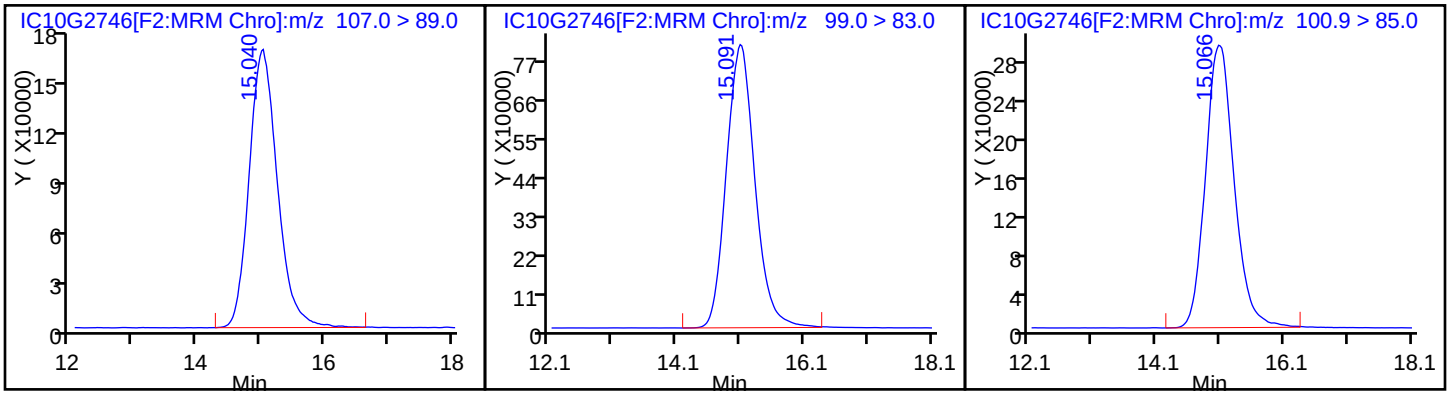
Reviewed By:	bonnettj	Date:	28-Jul-2010 15:11:56

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.040	15.064	-0.024	5078690	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.091	15.114	1.003	25434244	781.6	0.70- 1.30	1.00	
2	100.9 > 85.0	15.066	15.114	1.002	9301876		2.30- 3.80	2.73	

Report Date: 28-Jul-2010 15:11:57 Chrom Revision: 1.2 20-Jul-2010 10:07:34

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2746.d		
Injection Date:	28-Jul-2010 10:14:59	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-11-070710	Instrument ID:	LC_LCMS1
Lims Batch ID:	24406	Lims Sample ID:	36
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-5193-1
SDG No.:
Client Sample ID: MW39-12-070710
Lab Sample ID: 280-5193-2
Matrix: Water
Lab File ID: IC10G2747.d
Analysis Method: 6860
Date Collected: 07/07/2010 11:45
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 07/28/2010 10:46
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 100
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 24406
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	66		5.0	0.88

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2747.d		
Lims ID:	280-5193-A-2	Client ID:	MW39-12-070710
Inject. Date:	28-Jul-2010 10:46:54	Dil. Factor:	100.0000
Sample Type:	Client Sample		
Sample ID:	280-5193-a-2 100X 280-0000625-037		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	37
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	28-Jul-2010 15:11:51	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

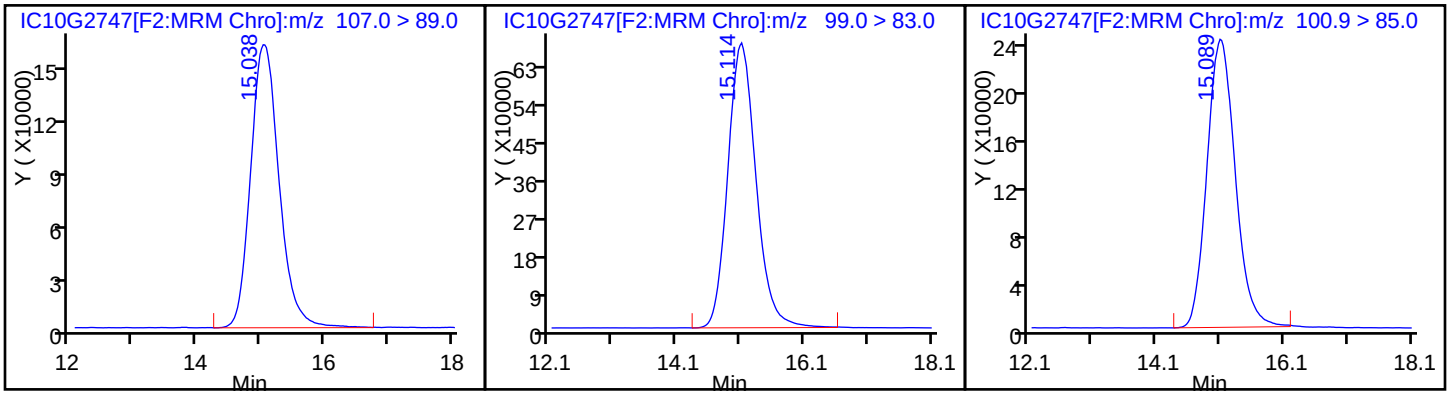
Reviewed By:	bonnettj	Date:	28-Jul-2010 15:11:59

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.038	15.064	-0.026	4962080	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.114	15.114	1.005	21107563	663.7	0.70- 1.30	1.00	
2	100.9 > 85.0	15.089	15.114	1.003	7549070		2.30- 3.80	2.80	

Report Date: 28-Jul-2010 15:11:59 Chrom Revision: 1.2 20-Jul-2010 10:07:34

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2747.d		
Injection Date:	28-Jul-2010 10:46:54	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-12-070710	Instrument ID:	LC_LCMS1
Lims Batch ID:	24406	Lims Sample ID:	37
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-5193-1
SDG No.:
Client Sample ID: MW39-08-070710
Lab Sample ID: 280-5193-3
Matrix: Water
Lab File ID: IC10G2748.d
Analysis Method: 6860
Date Collected: 07/07/2010 14:32
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 07/28/2010 11:18
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 100
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 24406
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	61		5.0	0.88

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2748.d		
Lims ID:	280-5193-A-3	Client ID:	MW39-08-070710
Inject. Date:	28-Jul-2010 11:18:18	Dil. Factor:	100.0000
Sample Type:	Client Sample		
Sample ID:	280-5193-a-3 100X 280-0000625-038		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	38
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	28-Jul-2010 15:11:51	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

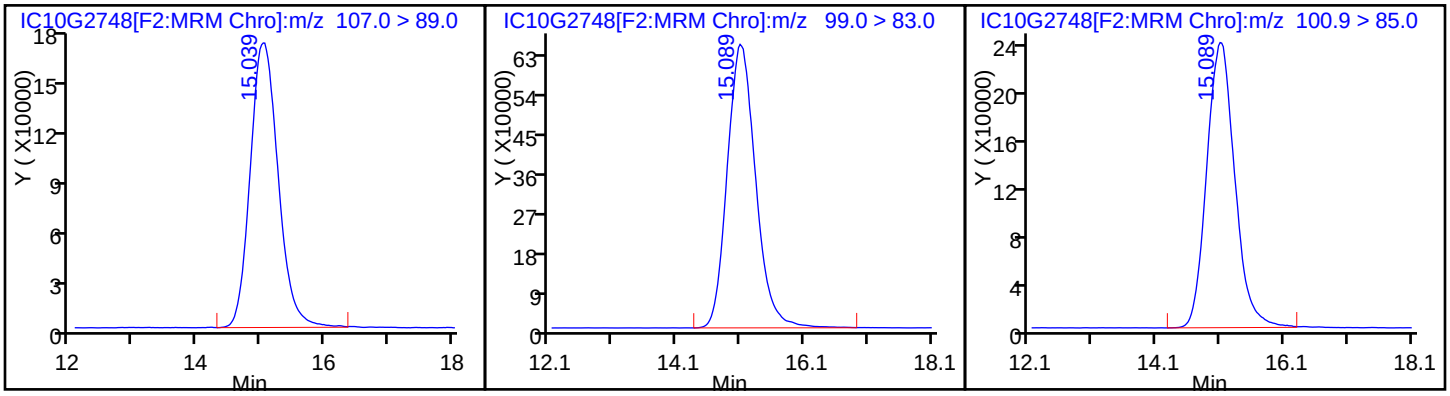
Reviewed By:	bonnettj	Date:	28-Jul-2010 15:12:02

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.039	15.064	-0.025	5173296	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.089	15.114	1.003	20264700	611.1	0.70- 1.30	1.00	
2	100.9 > 85.0	15.089	15.114	1.003	7269348		2.30- 3.80	2.79	

Report Date: 28-Jul-2010 15:12:02 Chrom Revision: 1.2 20-Jul-2010 10:07:34

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2748.d		
Injection Date:	28-Jul-2010 11:18:18	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-08-070710	Instrument ID:	LC_LCMS1
Lims Batch ID:	24406	Lims Sample ID:	38
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-5193-1
SDG No.:
Client Sample ID: MW39-09-070710
Lab Sample ID: 280-5193-4
Matrix: Water
Lab File ID: IC10G2754.d
Analysis Method: 6860
Date Collected: 07/07/2010 15:10
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 07/28/2010 14:26
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 200
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 24406
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	160		10	1.8

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2754.d		
Lims ID:	280-5193-A-4	Client ID:	MW39-09-070710
Inject. Date:	28-Jul-2010 14:26:57	Dil. Factor:	200.0000
Sample Type:	Client Sample		
Sample ID:	280-5193-a-4 200X 280-0000625-047		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	47
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	28-Jul-2010 15:11:51	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

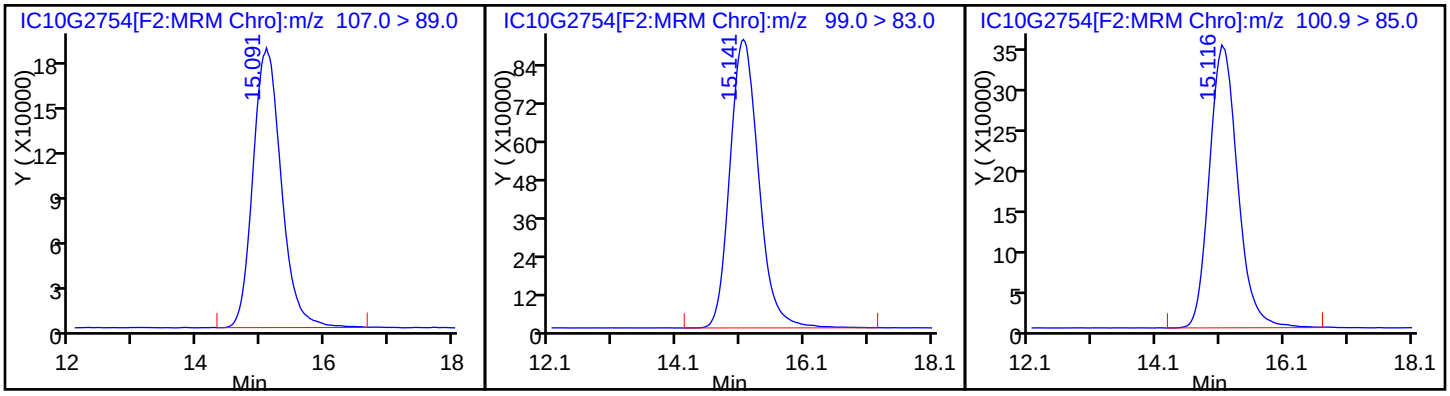
Reviewed By:	bonnettj	Date:	28-Jul-2010 15:58:29

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.091	15.064	0.027	5785607	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.141	15.114	1.003	28951818	781.0	0.70- 1.30	1.00	
2	100.9 > 85.0	15.116	15.114	1.002	11008462		2.30- 3.80	2.63	

Report Date: 28-Jul-2010 15:58:29 Chrom Revision: 1.2 20-Jul-2010 10:07:34

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2754.d		
Injection Date:	28-Jul-2010 14:26:57	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-09-070710	Instrument ID:	LC_LCMS1
Lims Batch ID:	24406	Lims Sample ID:	47
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-5193-1
SDG No.:
Client Sample ID: MW39-10-070710
Lab Sample ID: 280-5193-5
Matrix: Water
Lab File ID: IC10G2755.d
Analysis Method: 6860
Date Collected: 07/07/2010 17:24
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 07/28/2010 14:58
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 200
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 24406
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	110		10	1.8

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2755.d		
Lims ID:	280-5193-A-5	Client ID:	MW39-10-070710
Inject. Date:	28-Jul-2010 14:58:03	Dil. Factor:	200.0000
Sample Type:	Client Sample		
Sample ID:	280-5193-a-5 200X 280-0000625-048		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	48
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	28-Jul-2010 15:11:51	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

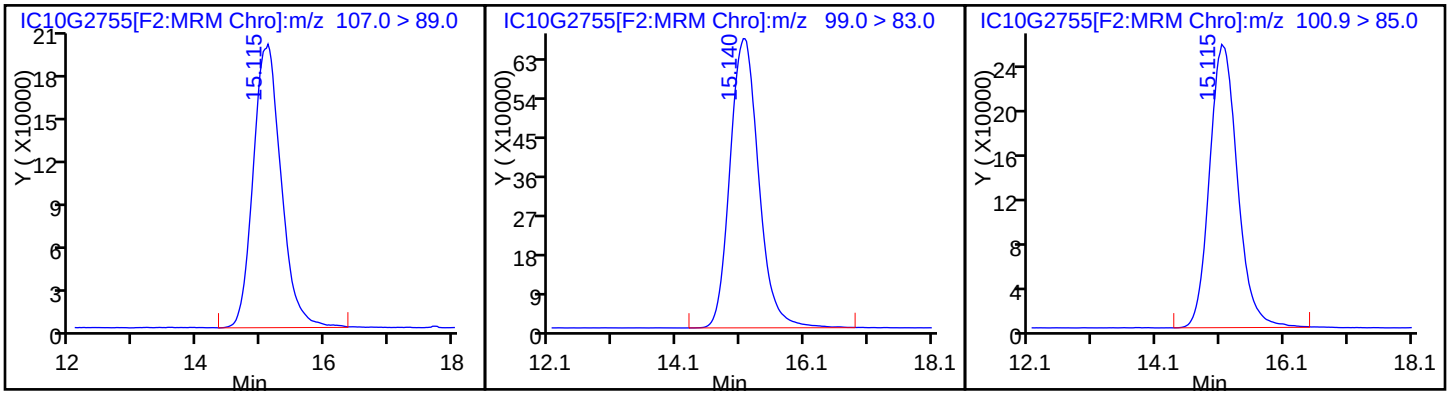
Reviewed By:	bonnettj	Date:	28-Jul-2010 15:58:31

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.115	15.064	0.051	5999211	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.140	15.114	1.002	21290427	553.5	0.70- 1.30	1.00	
2	100.9 > 85.0	15.115	15.114	1.000	7918923		2.30- 3.80	2.69	

Report Date: 28-Jul-2010 15:58:31 Chrom Revision: 1.2 20-Jul-2010 10:07:34

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2755.d		
Injection Date:	28-Jul-2010 14:58:03	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-10-070710	Instrument ID:	LC_LCMS1
Lims Batch ID:	24406	Lims Sample ID:	48
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-5193-1
SDG No.:
Client Sample ID: MW39-07-070710
Lab Sample ID: 280-5193-6
Matrix: Water
Lab File ID: IC10G2751.d
Analysis Method: 6860
Date Collected: 07/07/2010 18:00
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 07/28/2010 12:52
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 100
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 24406
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	59	m	5.0	0.88

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2751.d		
Lims ID:	280-5193-A-6	Client ID:	MW39-07-070710
Inject. Date:	28-Jul-2010 12:52:27	Dil. Factor:	100.0000
Sample Type:	Client Sample		
Sample ID:	280-5193-a-6 100X 280-0000625-041		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	41
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	28-Jul-2010 15:11:51	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

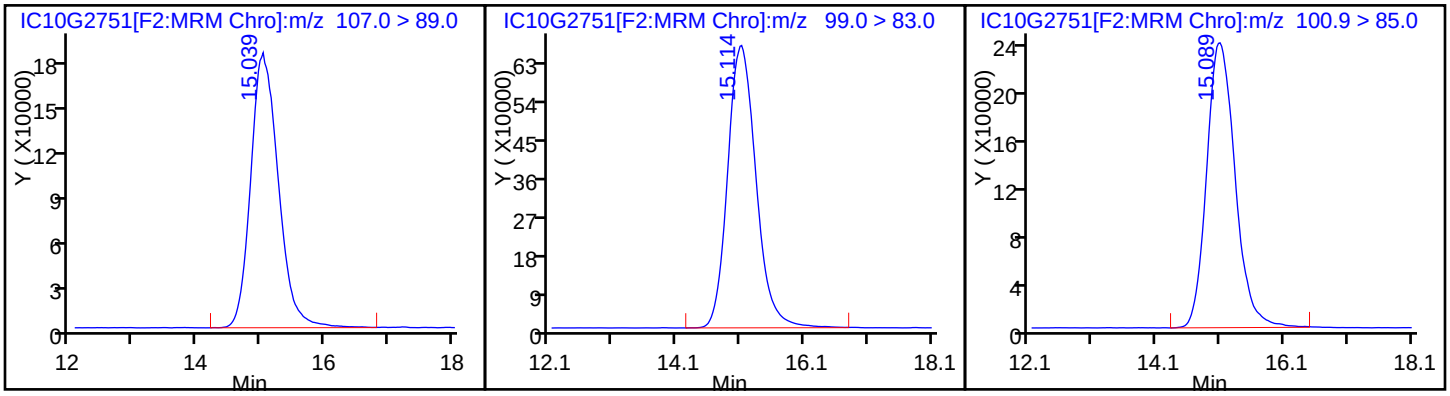
Reviewed By:	bonnettj	Date:	28-Jul-2010 15:12:10

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.039	15.064	-0.025	5492000	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.114	15.114	1.005	20815258	591.2	0.70- 1.30	1.00	
2	100.9 > 85.0	15.089	15.114	1.003	7544811		2.30- 3.80	2.76	

Report Date: 28-Jul-2010 15:12:10 Chrom Revision: 1.2 20-Jul-2010 10:07:34

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2751.d		
Injection Date:	28-Jul-2010 12:52:27	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-07-070710	Instrument ID:	LC_LCMS1
Lims Batch ID:	24406	Lims Sample ID:	41
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-5193-1
SDG No.:
Client Sample ID: MW39-05-070810
Lab Sample ID: 280-5193-7
Matrix: Water
Lab File ID: IC10G2731.d
Analysis Method: 6860
Date Collected: 07/08/2010 10:20
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 07/28/2010 02:03
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 20
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 24406
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	19		1.0	0.18

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2731.d		
Lims ID:	280-5193-A-7	Client ID:	MW39-05-070810
Inject. Date:	28-Jul-2010 02:03:08	Dil. Factor:	20.0000
Sample Type:	Client Sample		
Sample ID:	280-5193-a-7 20X 280-0000625-021		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	21
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	28-Jul-2010 15:10:56	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

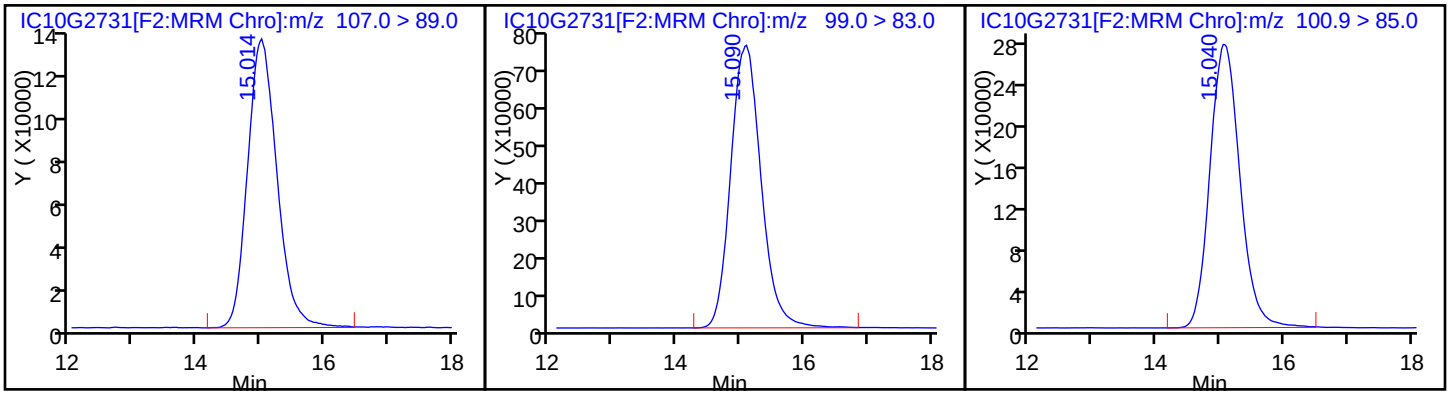
Reviewed By:	bonnettj	Date:	28-Jul-2010 15:11:14

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.014	15.014	0.000	4257050	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.090	15.090	1.005	25589901	938.4	0.70- 1.30	1.00	
2	100.9 > 85.0	15.040	15.090	1.002	9158393		2.30- 3.80	2.79	

Report Date: 28-Jul-2010 15:11:14 Chrom Revision: 1.2 20-Jul-2010 10:07:34

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2731.d		
Injection Date:	28-Jul-2010 02:03:08	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-05-070810	Instrument ID:	LC_LCMS1
Lims Batch ID:	24406	Lims Sample ID:	21
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-5193-1
SDG No.:
Client Sample ID: MW39-02-070810
Lab Sample ID: 280-5193-8
Matrix: Water
Lab File ID: IC10G2732.d
Analysis Method: 6860
Date Collected: 07/08/2010 10:34
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 07/28/2010 02:34
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 100
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 24406
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	15		5.0	0.88

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2732.d		
Lims ID:	280-5193-A-8	Client ID:	MW39-02-070810
Inject. Date:	28-Jul-2010 02:34:32	Dil. Factor:	100.0000
Sample Type:	Client Sample		
Sample ID:	280-5193-a-8 100X 280-0000625-022		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	22
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	28-Jul-2010 15:10:56	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

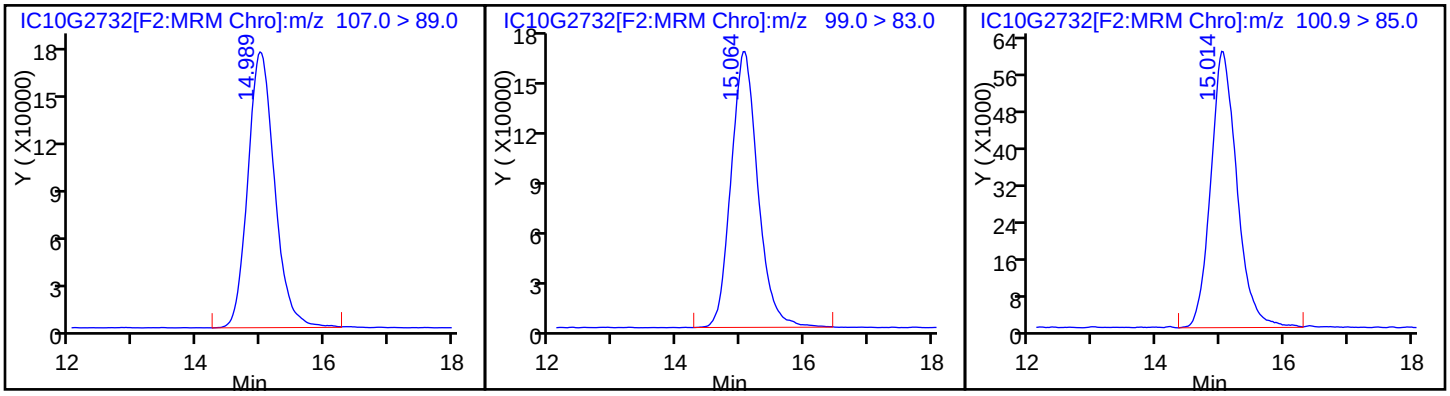
Reviewed By:	bonnettj	Date:	28-Jul-2010 15:11:20

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	14.989	15.014	-0.025	5200015	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.064	15.090	1.005	4918774	146.6	0.70- 1.30	1.00	
2	100.9 > 85.0	15.014	15.090	1.002	1732309		2.30- 3.80	2.84	

Report Date: 28-Jul-2010 15:11:21 Chrom Revision: 1.2 20-Jul-2010 10:07:34

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2732.d		
Injection Date:	28-Jul-2010 02:34:32	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-02-070810	Instrument ID:	LC_LCMS1
Lims Batch ID:	24406	Lims Sample ID:	22
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-5193-1
SDG No.:
Client Sample ID: MW39-06D-070810
Lab Sample ID: 280-5193-9
Matrix: Water
Lab File ID: IC10G2733.d
Analysis Method: 6860
Date Collected: 07/08/2010 12:08
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 07/28/2010 03:05
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 50
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 24406
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	28		2.5	0.44

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2733.d		
Lims ID:	280-5193-A-9	Client ID:	MW39-06D-070810
Inject. Date:	28-Jul-2010 03:05:56	Dil. Factor:	50.0000
Sample Type:	Client Sample		
Sample ID:	280-5193-a-9 50X 280-0000625-023		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	23
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	28-Jul-2010 15:10:56	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

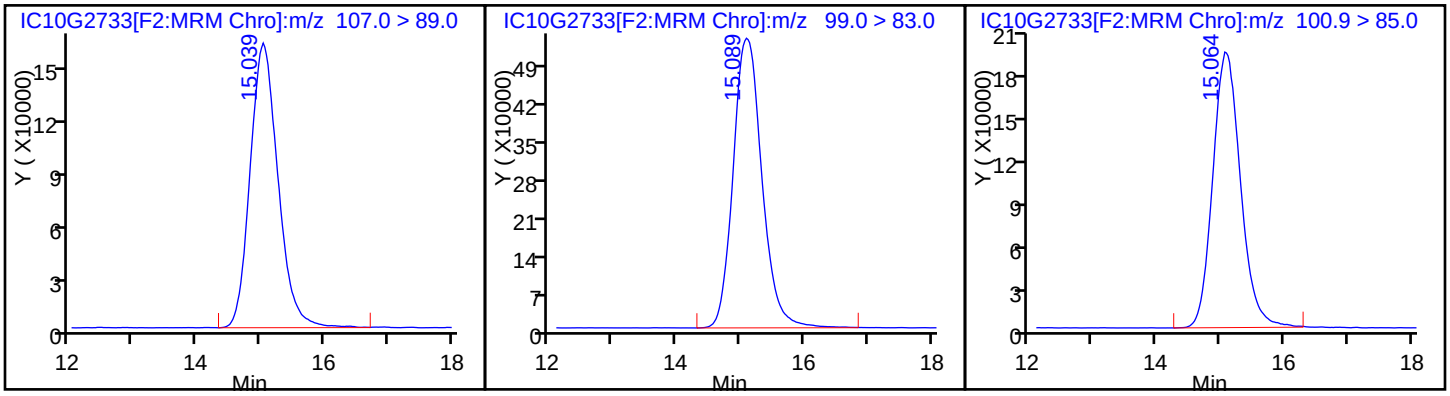
Reviewed By:	bonnettj	Date:	28-Jul-2010 15:11:23

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.039	15.014	0.025	4746614	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.089	15.090	1.003	16863891	554.1	0.70- 1.30	1.00	
2	100.9 > 85.0	15.064	15.090	1.002	5891840		2.30- 3.80	2.86	

Report Date: 28-Jul-2010 15:11:23 Chrom Revision: 1.2 20-Jul-2010 10:07:34

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2733.d		
Injection Date:	28-Jul-2010 03:05:56	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-06D-070810	Instrument ID:	LC_LCMS1
Lims Batch ID:	24406	Lims Sample ID:	23
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-5193-1
SDG No.:
Client Sample ID: MW39-DUP01-070810
Lab Sample ID: 280-5193-10
Matrix: Water
Lab File ID: IC10G2737.d
Analysis Method: 6860
Date Collected: 07/08/2010 00:00
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 07/28/2010 05:11
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 50
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 24406
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	28		2.5	0.44

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2737.d		
Lims ID:	280-5193-A-10	Client ID:	MW39-DUP01-070810
Inject. Date:	28-Jul-2010 05:11:31	Dil. Factor:	50.0000
Sample Type:	Client Sample		
Sample ID:	280-5193-a-10 50X 280-0000625-027		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	27
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	28-Jul-2010 15:11:27	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

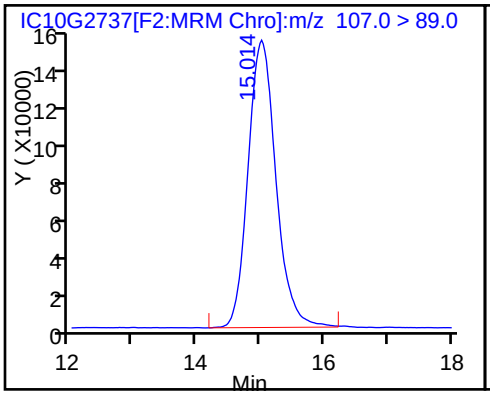
Reviewed By:	bonnettj	Date:	28-Jul-2010 15:11:34

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.014	15.014	0.000	4593229	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.090	15.090	1.005	16316120	554.0	0.70- 1.30	1.00	
2	100.9 > 85.0	15.014	15.090	1.000	5796942		2.30- 3.80	2.81	

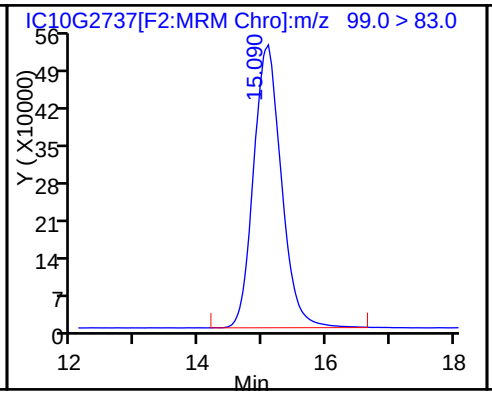
Report Date: 28-Jul-2010 15:11:34 Chrom Revision: 1.2 20-Jul-2010 10:07:34

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2737.d		
Injection Date:	28-Jul-2010 05:11:31	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-DUP01-070810	Instrument ID:	LC_LCMS1
Lims Batch ID:	24406	Lims Sample ID:	27
Operator ID:		Injection Vol:	250.00 ul

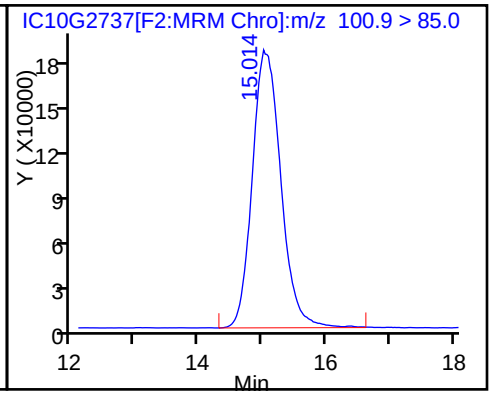
* 1 Perchlorate-18O



2 Perchlorate



2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-5193-1
SDG No.:
Client Sample ID: MW39-06-070810
Lab Sample ID: 280-5193-11
Matrix: Water
Lab File ID: IC10G2738.d
Analysis Method: 6860
Date Collected: 07/08/2010 12:15
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 07/28/2010 05:42
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 100
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 24406
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	21		5.0	0.88

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2738.d		
Lims ID:	280-5193-A-11	Client ID:	MW39-06-070810
Inject. Date:	28-Jul-2010 05:42:54	Dil. Factor:	100.0000
Sample Type:	Client Sample		
Sample ID:	280-5193-a-11 100X 280-0000625-028		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	28
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	28-Jul-2010 15:11:27	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

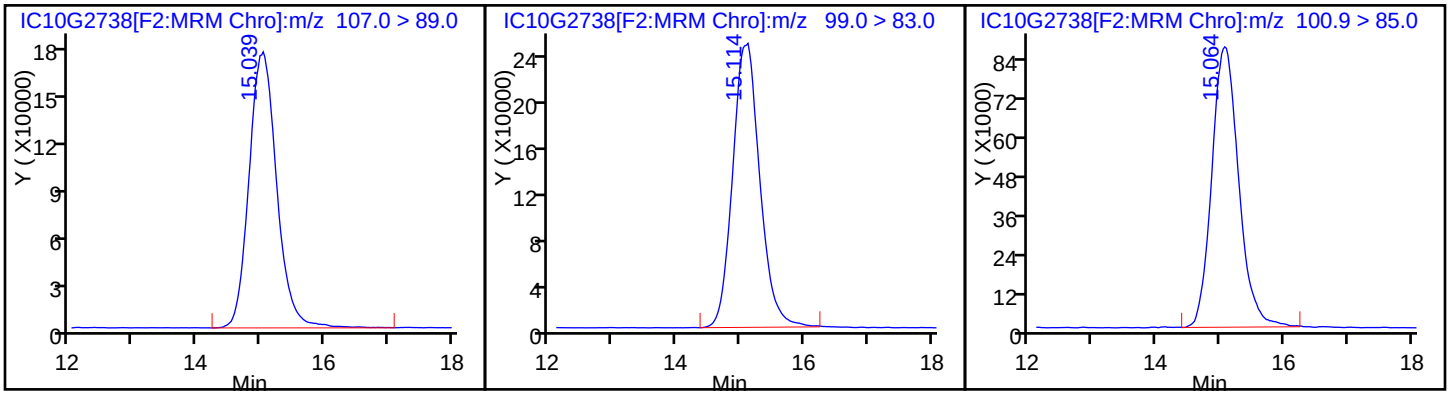
Reviewed By:	bonnettj	Date:	28-Jul-2010 15:11:37

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.039	15.014	0.025	5258223	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.114	15.090	1.005	7244312	214.1	0.70- 1.30	1.00	
2	100.9 > 85.0	15.064	15.090	1.002	2584518		2.30- 3.80	2.80	

Report Date: 28-Jul-2010 15:11:37 Chrom Revision: 1.2 20-Jul-2010 10:07:34

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2738.d		
Injection Date:	28-Jul-2010 05:42:54	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-06-070810	Instrument ID:	LC_LCMS1
Lims Batch ID:	24406	Lims Sample ID:	28
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-5193-1
SDG No.:
Client Sample ID: MW39-03-070810
Lab Sample ID: 280-5193-12
Matrix: Water
Lab File ID: IC10G2739.d
Analysis Method: 6860
Date Collected: 07/08/2010 15:44
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 07/28/2010 06:14
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 50
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 24406
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	31		2.5	0.44

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2739.d		
Lims ID:	280-5193-A-12	Client ID:	MW39-03-070810
Inject. Date:	28-Jul-2010 06:14:18	Dil. Factor:	50.0000
Sample Type:	Client Sample		
Sample ID:	280-5193-a-12 50X 280-0000625-029		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	29
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	28-Jul-2010 15:11:27	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

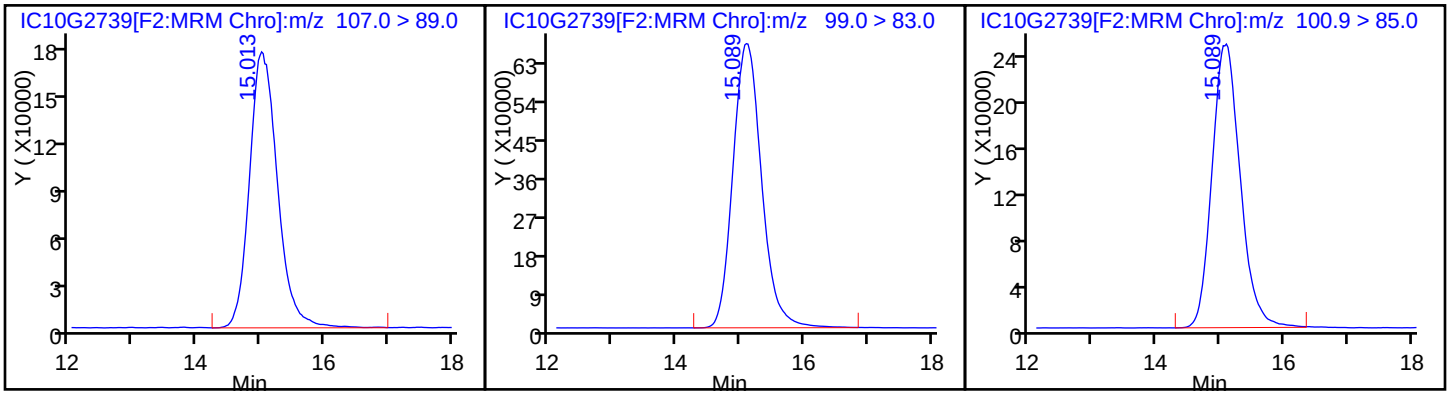
Reviewed By:	bonnettj	Date:	28-Jul-2010 15:11:39

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.013	15.014	-0.001	5207531	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.089	15.090	1.005	21010839	629.5	0.70- 1.30	1.00	
2	100.9 > 85.0	15.089	15.090	1.005	7628039		2.30- 3.80	2.75	

Report Date: 28-Jul-2010 15:11:39 Chrom Revision: 1.2 20-Jul-2010 10:07:34

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2739.d		
Injection Date:	28-Jul-2010 06:14:18	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-03-070810	Instrument ID:	LC_LCMS1
Lims Batch ID:	24406	Lims Sample ID:	29
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM VI
LCMS INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica Denver Job No.: 280-5193-1 Analy Batch No.: 16759

SDG No.:

Instrument ID: LC_LCMS1 GC Column: IonPac ID: 2(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/25/2010 14:06 Calibration End Date: 05/25/2010 16:43 Calibration ID: 1686

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD0020 280-16759/2	IC10e2502.d
Level 2	STD0050 280-16759/3	IC10e2503.d
Level 3	STD0100 280-16759/4	IC10e2504.d
Level 4	ICISAV 280-16759/5	IC10e2505.d
Level 5	STD0500 280-16759/6	IC10e2506.d
Level 6	STD1000 280-16759/7	IC10e2507.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Perchlorate	1.4999 1.3065	1.4347	1.3918	1.3623	1.3498	Lin1	4.9500	1.3182							1.0000		0.9950

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
LCMS INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-5193-1 Analy Batch No.: 16759

SDG No.:

Instrument ID: LC_LCMS1 GC Column: IonPac ID: 2(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/25/2010 14:06 Calibration End Date: 05/25/2010 16:43 Calibration ID: 1686

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD0020 280-16759/2	IC10e2502.d
Level 2	STD0050 280-16759/3	IC10e2503.d
Level 3	STD0100 280-16759/4	IC10e2504.d
Level 4	ICISAV 280-16759/5	IC10e2505.d
Level 5	STD0500 280-16759/6	IC10e2506.d
Level 6	STD1000 280-16759/7	IC10e2507.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Perchlorate	ClO4 18	Lin1	803057 31506996	2015345	3885176	7590801	16611875	20.0 1000	50.0	100	200	500

Curve Type Legend:

Lin1 = Linear 1/conc ISTD

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100524-381.b\IC10e2502.d		
Lims ID:	STD0020	Client ID:	
Inject. Date:	25-May-2010 14:06:51	Dil. Factor:	1.0000
Sample Type:	IC, ICal Standard	Calib Level:	1
Sample ID:	STD0020 280-0000381-002		
Misc. Info.:	IC10E25		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	16759	Lims Sample ID:	2
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100524-381.b\6860_1.m		
Last Update:	26-May-2010 10:23:17	Calib Date:	25-May-2010 16:43:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100524-381.b\IC10e2507.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC090		

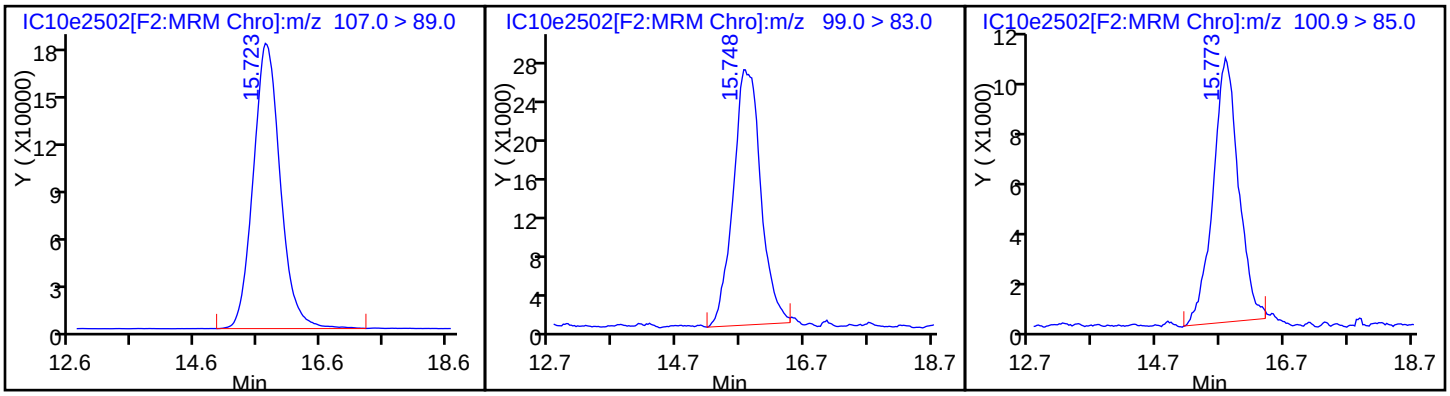
Reviewed By:	odonnellt	Date:	26-May-2010 10:23:17

Det	Signal	RT	EXP RT	DLT RT	Response	Amount ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.723	15.689	0.034	5353985	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.748	15.739	0.009	803057	19.0	0.70- 1.30	1.00	
2	100.9 > 85.0	15.773	15.739	0.034	283812		2.30- 3.80	2.83	

Report Date: 26-May-2010 10:23:18 Chrom Revision: 1.2 24-May-2010 14:44:04

Data File:	\\denchrom\ChromData\LC_LCMS1\20100524-381.b\IC10e2502.d		
Inj Date:	25-May-2010 14:06:51	Limit Group:	LC - 6860 Perchlorate
Lims Batch ID:	16759	Lims Sample ID:	2
Client ID:		Instrument:	LC_LCMS1
Sample Info:	std0020 280-0000257-002		
Sample Amount:	250.00 ul	Operator:	

* 1 Perchlorate-18O	2 Perchlorate	2 Perchlorate



TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100524-381.b\IC10e2503.d		
Lims ID:	STD0050	Client ID:	
Inject. Date:	25-May-2010 14:38:14	Dil. Factor:	1.0000
Sample Type:	IC, ICal Standard	Calib Level:	2
Sample ID:	STD0050 280-0000381-003		
Misc. Info.:	IC10E25		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	16759	Lims Sample ID:	3
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100524-381.b\6860_1.m		
Last Update:	26-May-2010 10:23:26	Calib Date:	25-May-2010 16:43:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100524-381.b\IC10e2507.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC090		

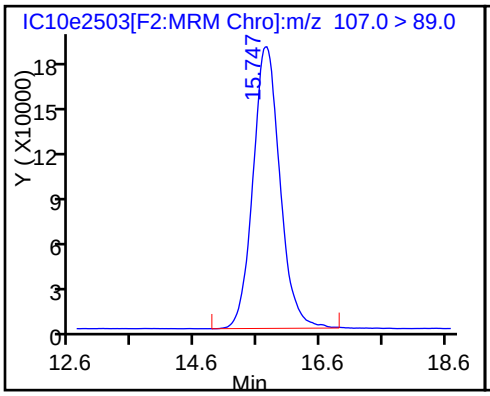
Reviewed By:	odonnellt	Date:	26-May-2010 10:23:26

Det	Signal	RT	EXP RT	DLT RT	Response	Amount ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.747	15.689	0.058	5618888	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.823	15.739	0.084	2015345	50.7	0.70- 1.30	1.00	
2	100.9 > 85.0	15.823	15.739	0.084	726966		2.30- 3.80	2.77	

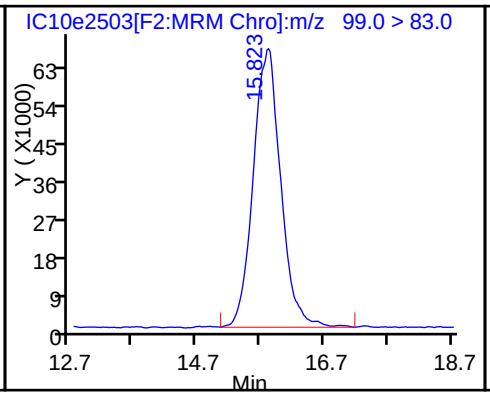
Report Date: 26-May-2010 10:23:26 Chrom Revision: 1.2 24-May-2010 14:44:04

Data File:	\\denchrom\ChromData\LC_LCMS1\20100524-381.b\IC10e2503.d		
Inj Date:	25-May-2010 14:38:14	Limit Group:	LC - 6860 Perchlorate
Lims Batch ID:	16759	Lims Sample ID:	3
Client ID:		Instrument:	LC_LCMS1
Sample Info:	STD0050 280-0000381-003		
Sample Amount:	250.00 ul	Operator:	

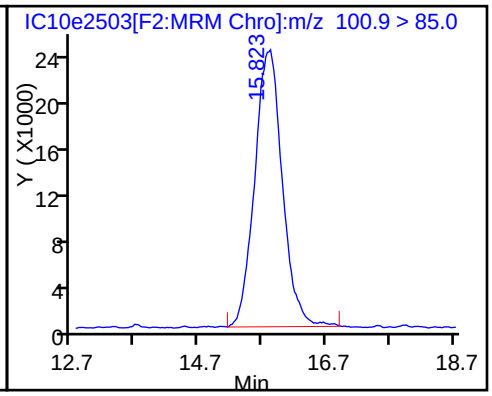
* 1 Perchlorate-18O



2 Perchlorate



2 Perchlorate



TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100524-381.b\IC10e2504.d		
Lims ID:	STD0100	Client ID:	
Inject. Date:	25-May-2010 15:09:37	Dil. Factor:	1.0000
Sample Type:	IC, ICal Standard	Calib Level:	3
Sample ID:	STD0100 280-0000381-004		
Misc. Info.:	IC10E25		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	16759	Lims Sample ID:	4
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100524-381.b\6860_1.m		
Last Update:	26-May-2010 10:23:30	Calib Date:	25-May-2010 16:43:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100524-381.b\IC10e2507.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC090		

Reviewed By:	odonnellt	Date:	26-May-2010 10:23:29

Det	Signal	RT	EXP RT	DLT RT	Response	Amount ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.747	15.613	0.134	5583010	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.798	15.664	0.134	3885176	101.8	0.70- 1.30	1.00	
2	100.9 > 85.0	15.798	15.664	0.134	1427567		2.30- 3.80	2.72	

Report Date: 26-May-2010 10:23:30 Chrom Revision: 1.2 24-May-2010 14:44:04

Data File: \\denchrom\ChromData\LC_LCMS1\20100524-381.b\IC10e2504.d

Inj Date: 25-May-2010 15:09:37 Limit Group: LC - 6860 Perchlorate

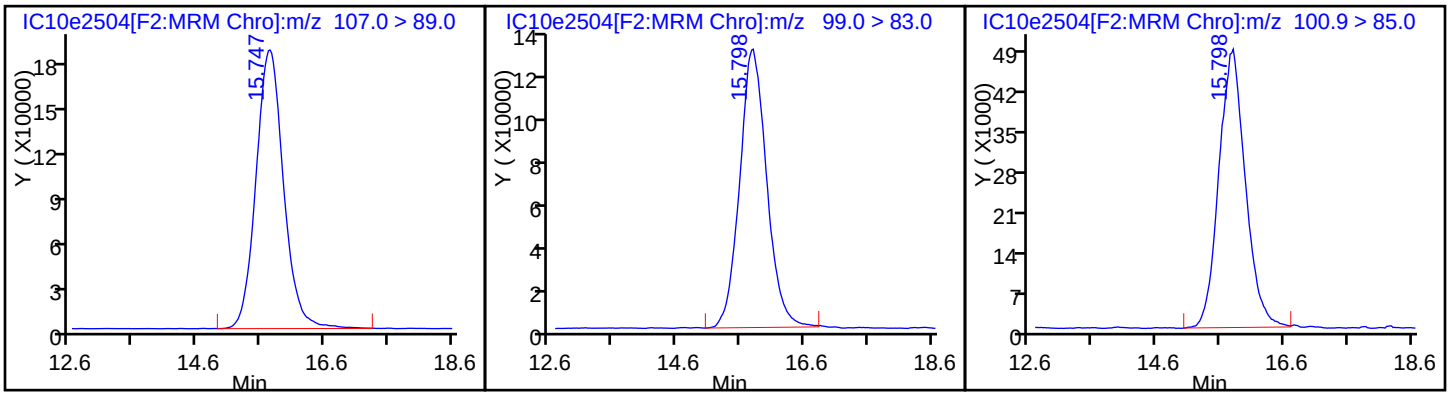
Lims Batch ID: 16759 Lims Sample ID: 4

Client ID: Instrument: LC_LCMS1

Sample Info: std0100 280-0000257-004

Sample Amount: 250.00 ul Operator:

* 1 Perchlorate-18O	2 Perchlorate	2 Perchlorate



TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100524-381.b\IC10e2505.d		
Lims ID:	STD0200	Client ID:	
Inject. Date:	25-May-2010 15:41:00	Dil. Factor:	1.0000
Sample Type:	IC, ICal Standard	Calib Level:	4
Sample ID:	STD0200 280-0000381-005		
Misc. Info.:	IC10E25		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	16759	Lims Sample ID:	5
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100524-381.b\6860_1.m		
Last Update:	26-May-2010 10:23:34	Calib Date:	25-May-2010 16:43:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100524-381.b\IC10e2507.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC090		

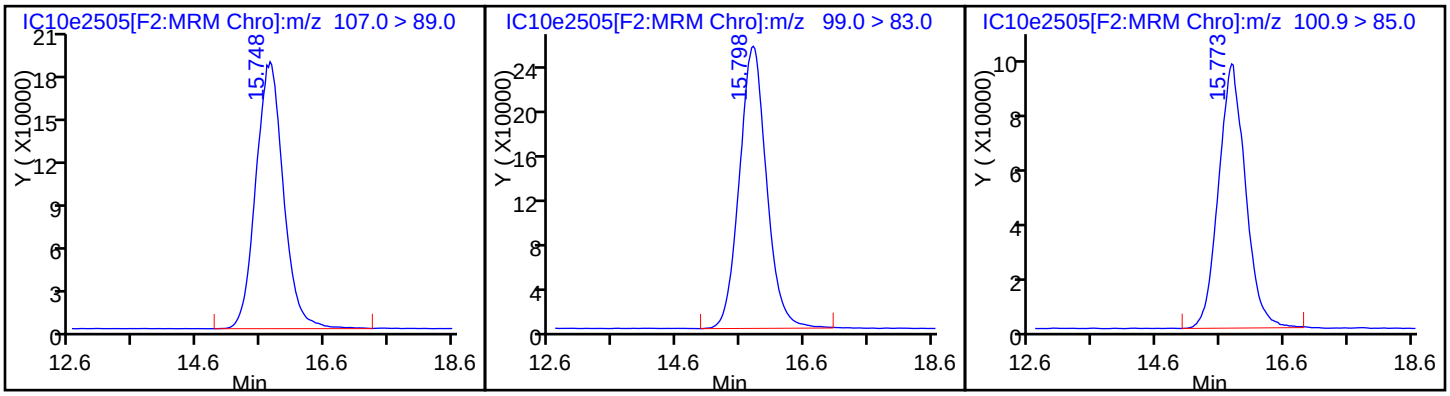
Reviewed By:	odonnellt	Date:	26-May-2010 10:23:34

Det	Signal	RT	EXP RT	DLT RT	Response	Amount ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.748	15.613	0.135	5571862	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.798	15.664	0.134	7590801	202.9	0.70- 1.30	1.00	
2	100.9 > 85.0	15.773	15.664	0.109	2725817		2.30- 3.80	2.78	

Report Date: 26-May-2010 10:23:34 Chrom Revision: 1.2 24-May-2010 14:44:04

Data File:	\\denchrom\ChromData\LC_LCMS1\20100524-381.b\IC10e2505.d		
Inj Date:	25-May-2010 15:41:00	Limit Group:	LC - 6860 Perchlorate
Lims Batch ID:	16759	Lims Sample ID:	5
Client ID:		Instrument:	LC_LCMS1
Sample Info:	std0200 280-0000257-005		
Sample Amount:	250.00 ul	Operator:	

* 1 Perchlorate-18O	2 Perchlorate	2 Perchlorate



TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100524-381.b\IC10e2506.d		
Lims ID:	STD0500	Client ID:	
Inject. Date:	25-May-2010 16:12:24	Dil. Factor:	1.0000
Sample Type:	IC, ICal Standard	Calib Level:	5
Sample ID:	STD0500 280-0000381-006		
Misc. Info.:	IC10E25		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	16759	Lims Sample ID:	6
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100524-381.b\6860_1.m		
Last Update:	26-May-2010 10:25:15	Calib Date:	25-May-2010 16:43:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100524-381.b\IC10e2507.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC090		

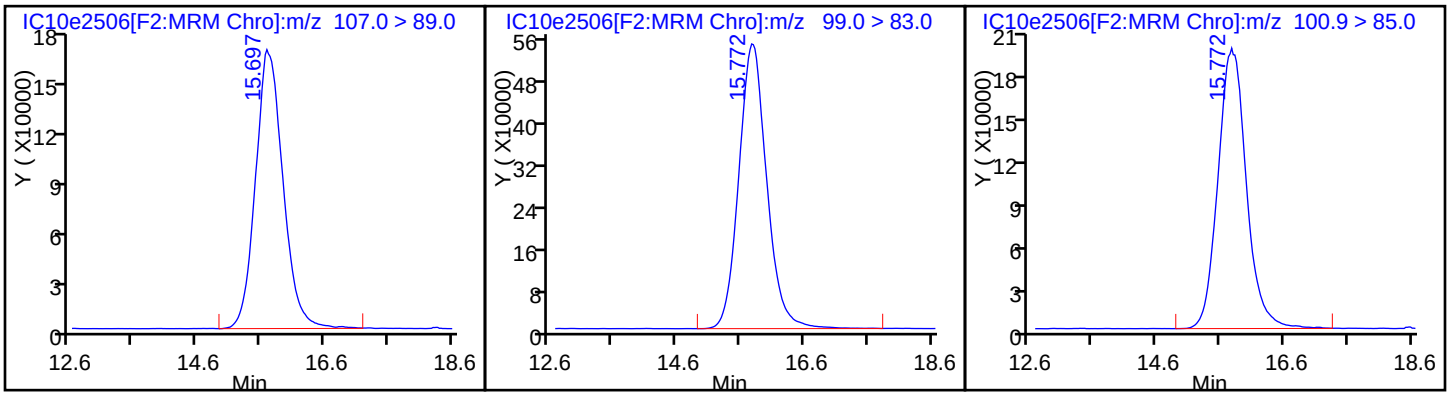
Reviewed By:	odonnellt	Date:	26-May-2010 10:25:15

Det	Signal	RT	EXP RT	DLT RT	Response	Amount ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.697	15.613	0.084	4922812	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.772	15.664	0.108	16611875	508.2	0.70- 1.30	1.00	
2	100.9 > 85.0	15.772	15.664	0.108	6091950		2.30- 3.80	2.73	

Report Date: 26-May-2010 10:25:15 Chrom Revision: 1.2 24-May-2010 14:44:04

Data File:	\\denchrom\ChromData\LC_LCMS1\20100524-381.b\IC10e2506.d		
Inj Date:	25-May-2010 16:12:24	Limit Group:	LC - 6860 Perchlorate
Lims Batch ID:	16759	Lims Sample ID:	6
Client ID:		Instrument:	LC_LCMS1
Sample Info:	std0500 280-0000257-006		
Sample Amount:	250.00 ul	Operator:	

* 1 Perchlorate-18O	2 Perchlorate	2 Perchlorate



TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100524-381.b\IC10e2507.d		
Lims ID:	STD1000	Client ID:	
Inject. Date:	25-May-2010 16:43:47	Dil. Factor:	1.0000
Sample Type:	IC, ICal Standard	Calib Level:	6
Sample ID:	STD1000 280-0000381-007		
Misc. Info.:	IC10E25		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	16759	Lims Sample ID:	7
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100524-381.b\6860_1.m		
Last Update:	26-May-2010 10:25:52	Calib Date:	25-May-2010 16:43:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100524-381.b\IC10e2507.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC090		

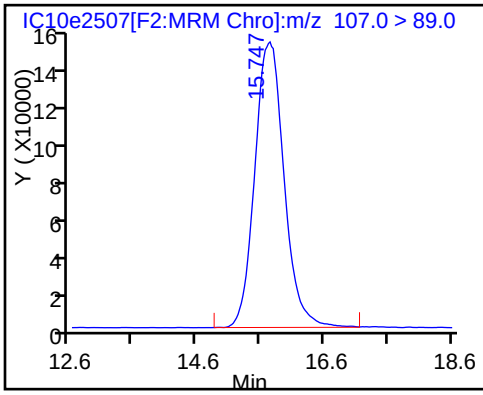
Reviewed By:	odonnellt	Date:	26-May-2010 10:25:52

Det	Signal	RT	EXP RT	DLT RT	Response	Amount ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.747	15.613	0.134	4822939	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.797	15.664	0.133	31506996	987.4	0.70- 1.30	1.00	
2	100.9 > 85.0	15.772	15.664	0.108	11558693		2.30- 3.80	2.73	

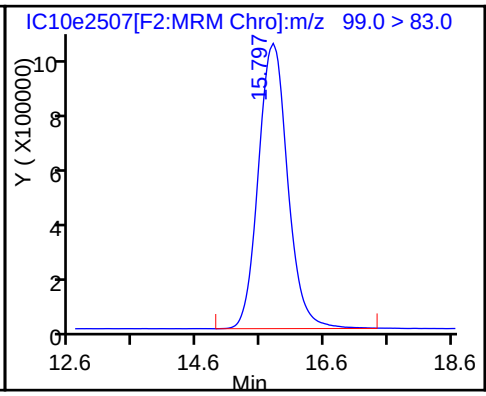
Report Date: 26-May-2010 10:25:52 Chrom Revision: 1.2 24-May-2010 14:44:04

Data File:	\\denchrom\ChromData\LC_LCMS1\20100524-381.b\IC10e2507.d		
Inj Date:	25-May-2010 16:43:47	Limit Group:	LC - 6860 Perchlorate
Lims Batch ID:	16759	Lims Sample ID:	7
Client ID:		Instrument:	LC_LCMS1
Sample Info:	std1000 280-0000257-007		
Sample Amount:	250.00 ul	Operator:	

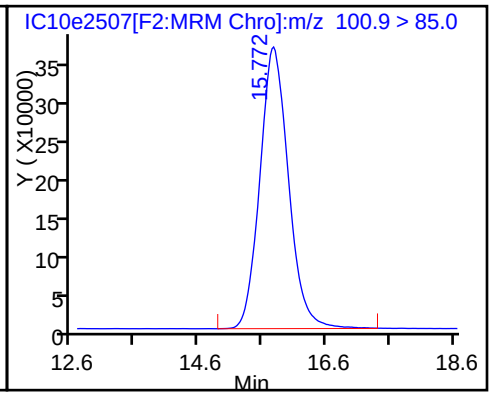
* 1 Perchlorate-18O



2 Perchlorate



2 Perchlorate



FORM VI
LCMS INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica Denver Job No.: 280-5193-1 Analy Batch No.: 22058

SDG No.:

Instrument ID: LC_LCMS1 GC Column: IonPac ID: 2(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/07/2010 14:55 Calibration End Date: 07/07/2010 17:27 Calibration ID: 2086

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD0020 280-22058/2	IC10G0702.d
Level 2	STD0050 280-22058/3	IC10G0703.d
Level 3	STD0100 280-22058/4	IC10G0704.d
Level 4	STD0200 280-22058/5	IC10G0705.d
Level 5	STD0500 280-22058/6	IC10G0706.d
Level 6	STD1000 280-22058/7	IC10G0707.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Perchlorate	1.3635 1.2878	1.3067	1.3020	1.2921	1.2663	Lin1	1.6135	1.2794							1.0000		0.9950

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
LCMS INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-5193-1 Analy Batch No.: 22058

SDG No.:

Instrument ID: LC_LCMS1 GC Column: IonPac ID: 2(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/07/2010 14:55 Calibration End Date: 07/07/2010 17:27 Calibration ID: 2086

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD0020 280-22058/2	IC10G0702.d
Level 2	STD0050 280-22058/3	IC10G0703.d
Level 3	STD0100 280-22058/4	IC10G0704.d
Level 4	STD0200 280-22058/5	IC10G0705.d
Level 5	STD0500 280-22058/6	IC10G0706.d
Level 6	STD1000 280-22058/7	IC10G0707.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Perchlorate	ClO4 18	Lin1	1025130 43477440	2463643	4742197	9509547	22936410	20.0 1000	50.0	100	200	500

Curve Type Legend:

Lin1 = Linear 1/conc ISTD

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0702.d		
Lims ID:	STD0020	Client ID:	
Inject. Date:	07-Jul-2010 14:55:48	Dil. Factor:	1.0000
Sample Type:	IC, ICal Standard	Calib Level:	1
Sample ID:	STD0020 280-0000527-002		
Misc. Info.:	IC10G07		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	22058	Lims Sample ID:	2
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\6860_1.m		
Last Update:	08-Jul-2010 09:40:49	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC128		

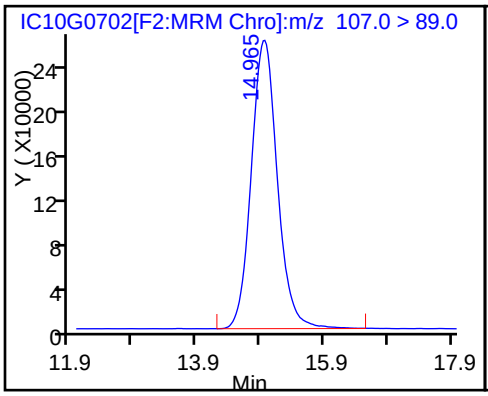
Reviewed By:	odonnellt	Date:	08-Jul-2010 09:40:49

Det	Signal	RT	EXP RT	DLT RT	Response	Amount ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	14.965	14.987	-0.022	7518305	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.965	15.063	-0.098	1025130	20.1	0.70- 1.30	1.00	
2	100.9 > 85.0	15.015	15.063	-0.048	350678		2.30- 3.80	2.92	

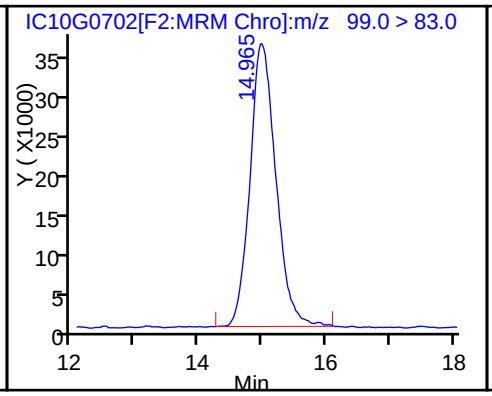
Report Date: 08-Jul-2010 09:40:49 Chrom Revision: 1.2 24-May-2010 14:44:04

Data File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0702.d		
Inj Date:	07-Jul-2010 14:55:48	Limit Group:	LC - 6860 Perchlorate
Lims Batch ID:	22058	Lims Sample ID:	2
Client ID:		Instrument:	LC_LCMS1
Sample Info:	std0020 280-0000257-002		
Sample Amount:	250.00 ul	Operator:	

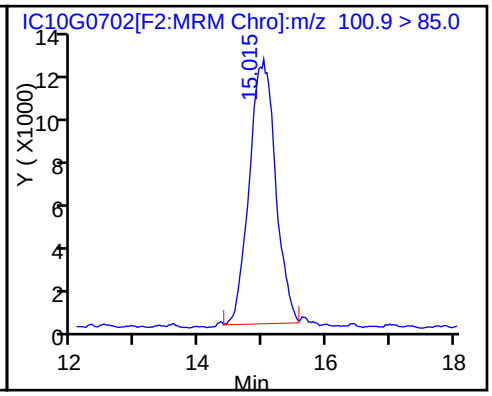
* 1 Perchlorate-18O



2 Perchlorate



2 Perchlorate



TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0703.d		
Lims ID:	STD0050	Client ID:	
Inject. Date:	07-Jul-2010 15:22:13	Dil. Factor:	1.0000
Sample Type:	IC, ICal Standard	Calib Level:	2
Sample ID:	STD0050 280-0000527-003		
Misc. Info.:	IC10G07		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	22058	Lims Sample ID:	3
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\6860_1.m		
Last Update:	08-Jul-2010 09:40:53	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC128		

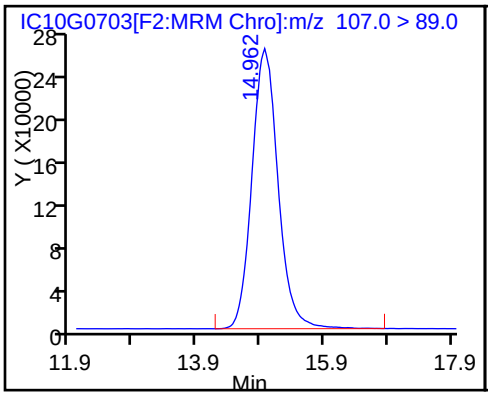
Reviewed By:	odonnellt	Date:	08-Jul-2010 09:40:53

Det	Signal	RT	EXP RT	DLT RT	Response	Amount ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	14.962	14.987	-0.025	7541481	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.013	15.063	-0.050	2463643	49.8	0.70- 1.30	1.00	
2	100.9 > 85.0	14.987	15.063	-0.076	858834		2.30- 3.80	2.87	

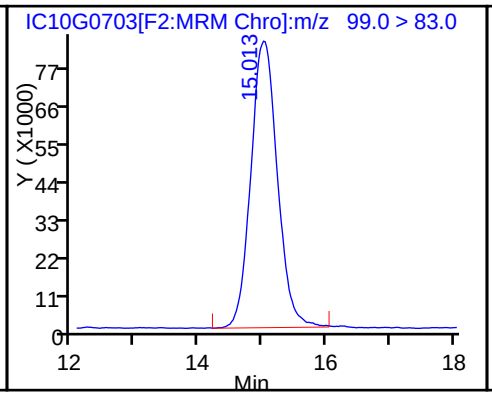
Report Date: 08-Jul-2010 09:40:53 Chrom Revision: 1.2 24-May-2010 14:44:04

Data File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0703.d		
Inj Date:	07-Jul-2010 15:22:13	Limit Group:	LC - 6860 Perchlorate
Lims Batch ID:	22058	Lims Sample ID:	3
Client ID:		Instrument:	LC_LCMS1
Sample Info:	STD0050 280-0000527-003		
Sample Amount:	250.00 ul	Operator:	

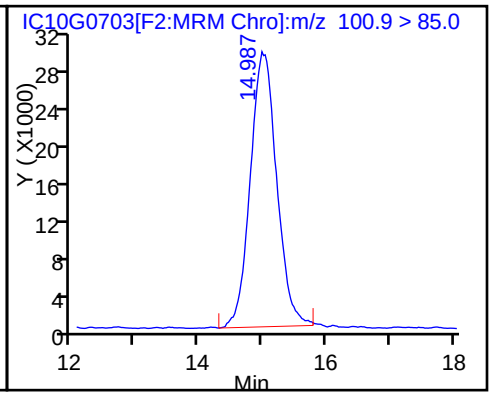
* 1 Perchlorate-18O



2 Perchlorate



2 Perchlorate



TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0704.d		
Lims ID:	STD0100	Client ID:	
Inject. Date:	07-Jul-2010 15:53:37	Dil. Factor:	1.0000
Sample Type:	IC, ICal Standard	Calib Level:	3
Sample ID:	STD0100 280-0000527-004		
Misc. Info.:	IC10G07		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	22058	Lims Sample ID:	4
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\6860_1.m		
Last Update:	08-Jul-2010 09:40:58	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC128		

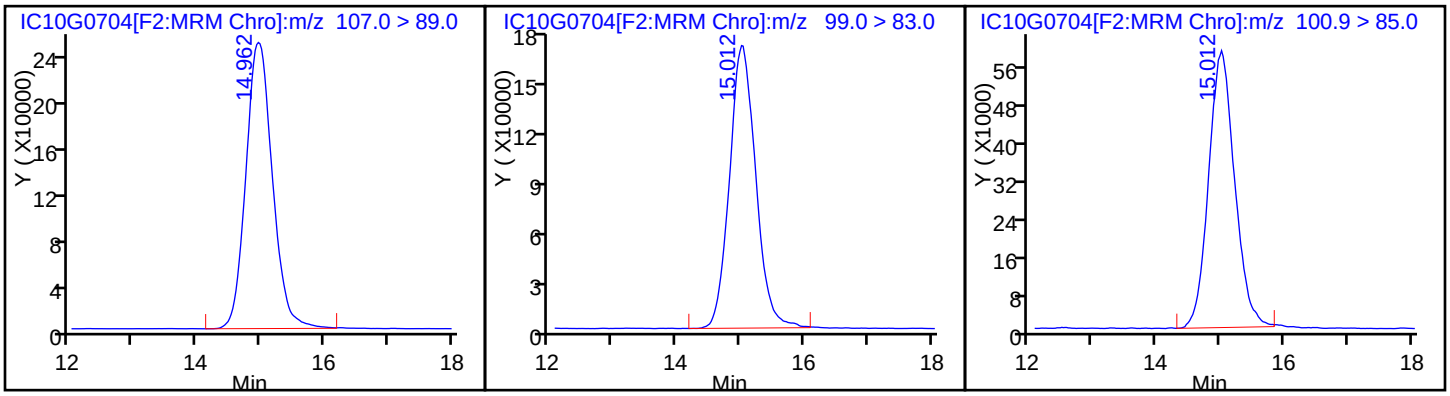
Reviewed By:	odonnellt	Date:	08-Jul-2010 09:40:58

Det	Signal	RT	EXP RT	DLT RT	Response	Amount ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	14.962	15.013	-0.051	7284706	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.012	15.063	-0.051	4742197	100.5	0.70- 1.30	1.00	
2	100.9 > 85.0	15.012	15.063	-0.051	1683056		2.30- 3.80	2.82	

Report Date: 08-Jul-2010 09:40:58 Chrom Revision: 1.2 24-May-2010 14:44:04

Data File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0704.d		
Inj Date:	07-Jul-2010 15:53:37	Limit Group:	LC - 6860 Perchlorate
Lims Batch ID:	22058	Lims Sample ID:	4
Client ID:		Instrument:	LC_LCMS1
Sample Info:	std0100 280-0000257-004		
Sample Amount:	250.00 ul	Operator:	

* 1 Perchlorate-18O	2 Perchlorate	2 Perchlorate



TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0705.d		
Lims ID:	STD0200	Client ID:	
Inject. Date:	07-Jul-2010 16:25:01	Dil. Factor:	1.0000
Sample Type:	ICISAV, ICal ISTD Check, By Averaging ISTDs	Cal Level:	4
Sample ID:	STD0200 280-0000527-005		
Misc. Info.:	IC10G07		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	22058	Lims Sample ID:	5
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\6860_1.m		
Last Update:	08-Jul-2010 09:41:02	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC128		

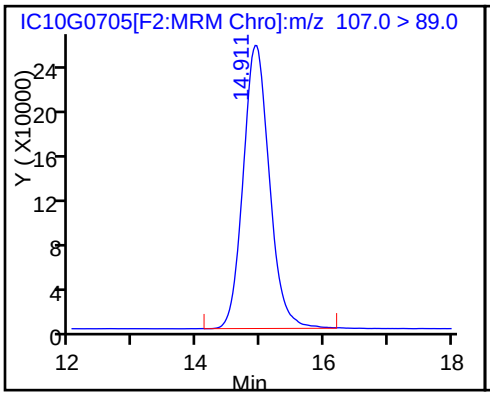
Reviewed By:	odonnellt	Date:	08-Jul-2010 09:41:02

Det	Signal	RT	EXP RT	DLT RT	Response	Amount ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	14.911	15.013	-0.102	7359632	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.987	15.063	-0.076	9509547	200.7	0.70- 1.30	1.00	
2	100.9 > 85.0	14.962	15.063	-0.101	3379547		2.30- 3.80	2.81	

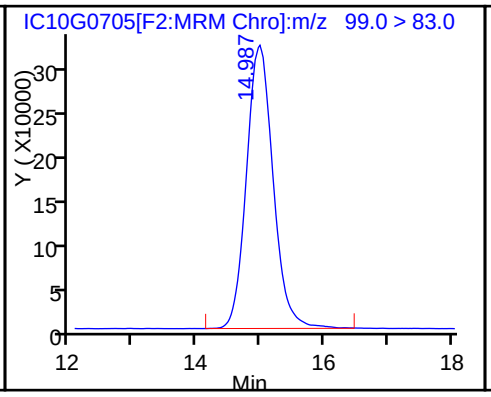
Report Date: 08-Jul-2010 09:41:02 Chrom Revision: 1.2 24-May-2010 14:44:04

Data File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0705.d		
Inj Date:	07-Jul-2010 16:25:01	Limit Group:	LC - 6860 Perchlorate
Lims Batch ID:	22058	Lims Sample ID:	5
Client ID:		Instrument:	LC_LCMS1
Sample Info:	std0200 280-0000257-005		
Sample Amount:	250.00 ul	Operator:	

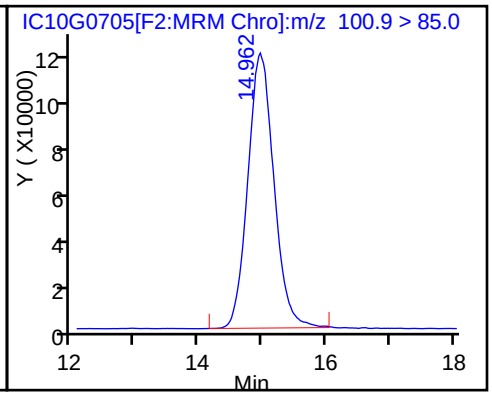
* 1 Perchlorate-18O



2 Perchlorate



2 Perchlorate



TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0706.d		
Lims ID:	STD0500	Client ID:	
Inject. Date:	07-Jul-2010 16:56:24	Dil. Factor:	1.0000
Sample Type:	IC, ICal Standard	Calib Level:	5
Sample ID:	STD0500 280-0000527-006		
Misc. Info.:	IC10G07		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	22058	Lims Sample ID:	6
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\6860_1.m		
Last Update:	08-Jul-2010 09:41:07	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC128		

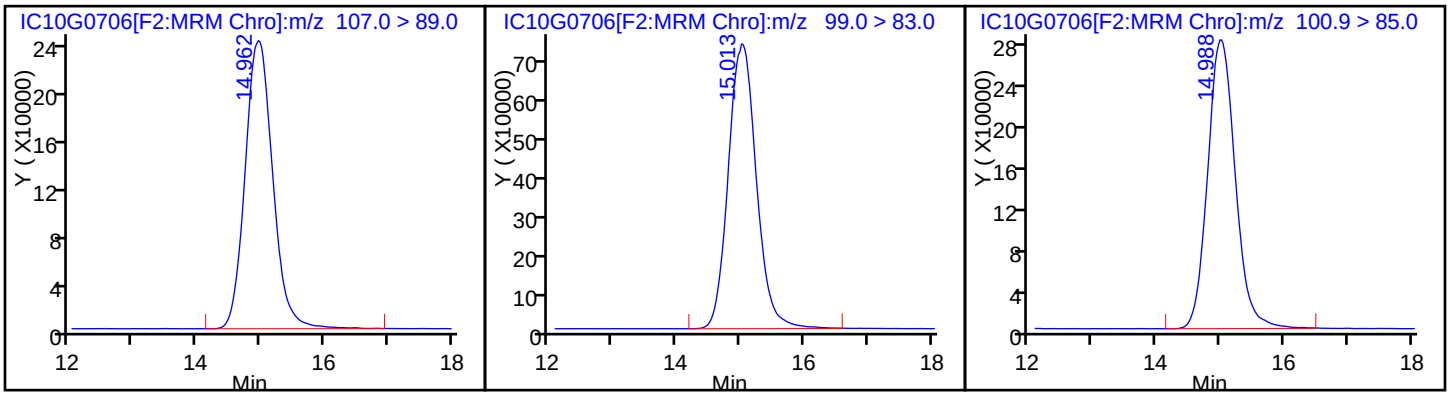
Reviewed By:	odonnellt	Date:	08-Jul-2010 09:41:07

Det	Signal	RT	EXP RT	DLT RT	Response	Amount ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	14.962	15.013	-0.051	7245172	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.013	15.063	-0.050	22936410	493.6	0.70- 1.30	1.00	
2	100.9 > 85.0	14.988	15.063	-0.075	8359593		2.30- 3.80	2.74	

Report Date: 08-Jul-2010 09:41:07 Chrom Revision: 1.2 24-May-2010 14:44:04

Data File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0706.d		
Inj Date:	07-Jul-2010 16:56:24	Limit Group:	LC - 6860 Perchlorate
Lims Batch ID:	22058	Lims Sample ID:	6
Client ID:		Instrument:	LC_LCMS1
Sample Info:	std0500 280-0000257-006		
Sample Amount:	250.00 ul	Operator:	

* 1 Perchlorate-18O	2 Perchlorate	2 Perchlorate



TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Lims ID:	STD1000	Client ID:	
Inject. Date:	07-Jul-2010 17:27:47	Dil. Factor:	1.0000
Sample Type:	IC, ICal Standard	Calib Level:	6
Sample ID:	STD1000 280-0000527-007		
Misc. Info.:	IC10G07		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	22058	Lims Sample ID:	7
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\6860_1.m		
Last Update:	08-Jul-2010 09:41:14	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC128		

Reviewed By:	odonnellt	Date:	08-Jul-2010 09:41:14

Det	Signal	RT	EXP RT	DLT RT	Response	Amount ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	14.962	15.013	-0.051	6752280	200.0			
2 Perchlorate									5
2	99.0 > 83.0	15.013	15.063	-0.050	43477440	1005.3	0.70- 1.30	1.00	5
2	100.9 > 85.0	15.013	15.063	-0.050	15801282		2.30- 3.80	2.75	

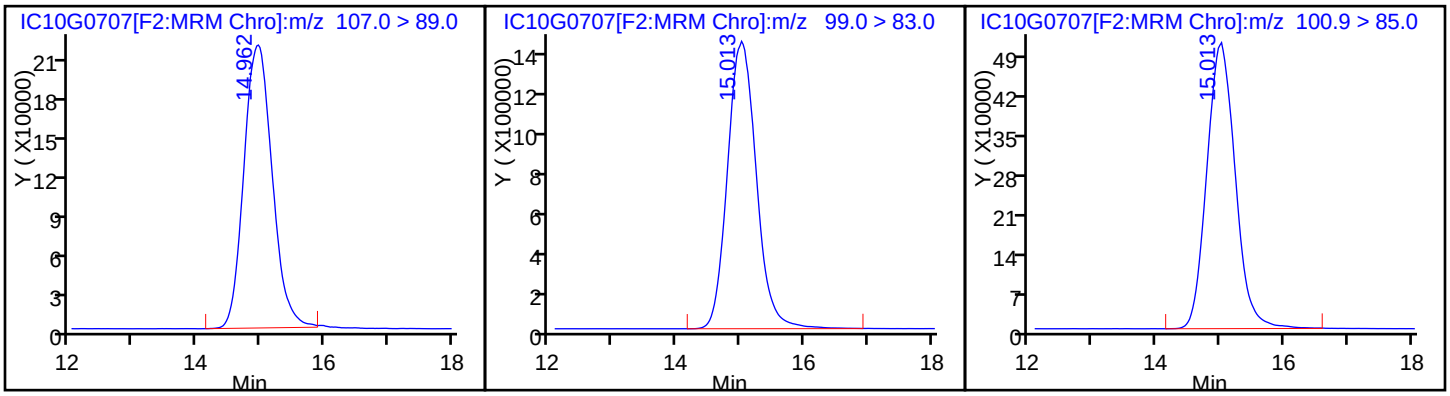
QC Flag Legend

Processing Flags
5 - Exceeded Maximum Amount

Report Date: 08-Jul-2010 09:41:14 Chrom Revision: 1.2 24-May-2010 14:44:04

Data File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Inj Date:	07-Jul-2010 17:27:47	Limit Group:	LC - 6860 Perchlorate
Lims Batch ID:	22058	Lims Sample ID:	7
Client ID:		Instrument:	LC_LCMS1
Sample Info:	std1000 280-0000257-007		
Sample Amount:	250.00 ul	Operator:	

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-5193-1

SDG No.:

Lab Sample ID: ICV 280-22058/9 Calibration Date: 07/07/2010 18:30

Instrument ID: LC_LCMS1 Calib Start Date: 07/07/2010 14:55

GC Column: IonPac ID: 2.00(mm) Calib End Date: 07/07/2010 17:27

Lab File ID: IC10G0709.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		1.238		0.192	0.200	-3.8	10.0

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0709.d		
Lims ID:	ICV	Client ID:	
Inject. Date:	07-Jul-2010 18:30:35	Dil. Factor:	1.0000
Sample Type:	ICV, ICal Verification		
Sample ID:	ICV 280-0000527-009		
Misc. Info.:	IC10G07		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	22058	Lims Sample ID:	9
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\6860_1.m		
Last Update:	08-Jul-2010 09:41:14	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC128		

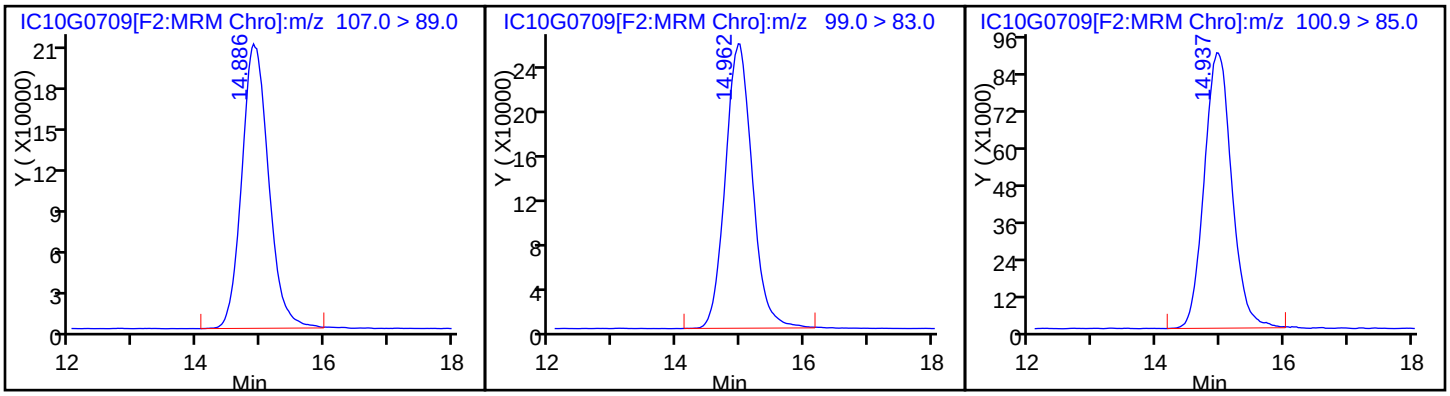
Reviewed By:	odonnellt	Date:	08-Jul-2010 09:41:22

Det	Signal	RT	EXP RT	DLT RT	Response	Amount ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	14.886	15.013	-0.127	6100894	200.0			
2 Perchlorate									
2	99.0 > 83.0	14.962	15.063	-0.101	7555691	192.3	0.70- 1.30	1.00	
2	100.9 > 85.0	14.937	15.063	-0.126	2718907		2.30- 3.80	2.78	

Report Date: 08-Jul-2010 09:41:22 Chrom Revision: 1.2 24-May-2010 14:44:04

Data File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0709.d		
Inj Date:	07-Jul-2010 18:30:35	Limit Group:	LC - 6860 Perchlorate
Lims Batch ID:	22058	Lims Sample ID:	9
Client ID:		Instrument:	LC_LCMS1
Sample Info:	icv 280-0000257-009		
Sample Amount:	250.00 ul	Operator:	

* 1 Perchlorate-18O	2 Perchlorate	2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-5193-1

SDG No.:

Lab Sample ID: CCV 280-22058/20 Calibration Date: 07/08/2010 00:15

Instrument ID: LC_LCMS1 Calib Start Date: 07/07/2010 14:55

GC Column: IonPac ID: 2.00(mm) Calib End Date: 07/07/2010 17:27

Lab File ID: IC10G0720.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		1.258		0.195	0.200	-2.3	15.0

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0720.d		
Lims ID:	CCV	Client ID:	
Inject. Date:	08-Jul-2010 00:15:58	Dil. Factor:	1.0000
Sample Type:	CCV, Cal Verification		
Sample ID:	CCV 280-0000527-020		
Misc. Info.:	IC10G07		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	22058	Lims Sample ID:	20
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\6860_1.m		
Last Update:	08-Jul-2010 09:42:48	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC128		

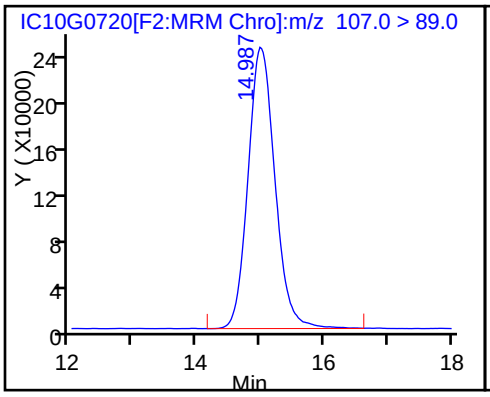
Reviewed By:	odonnellt	Date:	08-Jul-2010 09:42:48

Det	Signal	RT	EXP RT	DLT RT	Response	Amount ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	14.987	15.013	-0.026	7126579	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.063	15.063	0.000	8965762	195.4	0.70- 1.30	1.00	
2	100.9 > 85.0	15.013	15.063	-0.050	3102289		2.30- 3.80	2.89	

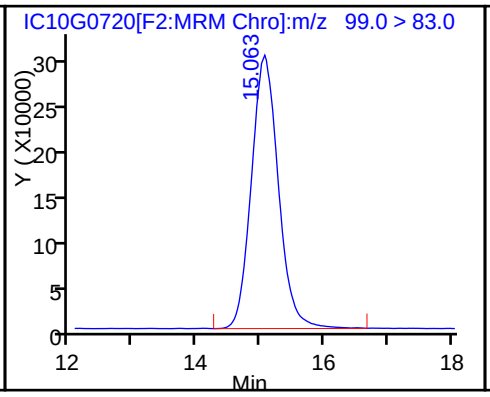
Report Date: 08-Jul-2010 09:42:49 Chrom Revision: 1.2 24-May-2010 14:44:04

Data File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0720.d		
Inj Date:	08-Jul-2010 00:15:58	Limit Group:	LC - 6860 Perchlorate
Lims Batch ID:	22058	Lims Sample ID:	20
Client ID:		Instrument:	LC_LCMS1
Sample Info:	CCV 280-0000527-020		
Sample Amount:	250.00 ul	Operator:	

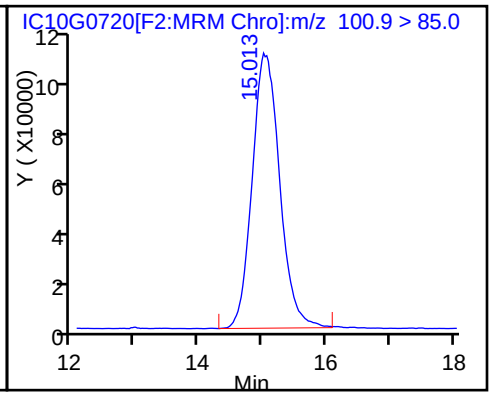
* 1 Perchlorate-18O



2 Perchlorate



2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-5193-1

SDG No.:

Lab Sample ID: CCV 280-24406/2 Calibration Date: 07/27/2010 16:05

Instrument ID: LC_LCMS1 Calib Start Date: 07/07/2010 14:55

GC Column: IonPac ID: 2.00(mm) Calib End Date: 07/07/2010 17:27

Lab File ID: IC10G2712.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		1.293		0.201	0.200	0.4	15.0

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2712.d		
Lims ID:	CCV	Client ID:	
Inject. Date:	27-Jul-2010 16:05:04	Dil. Factor:	1.0000
Sample Type:	CCV, Cal Verification		
Sample ID:	ccv3 280-0000625-002		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	2
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

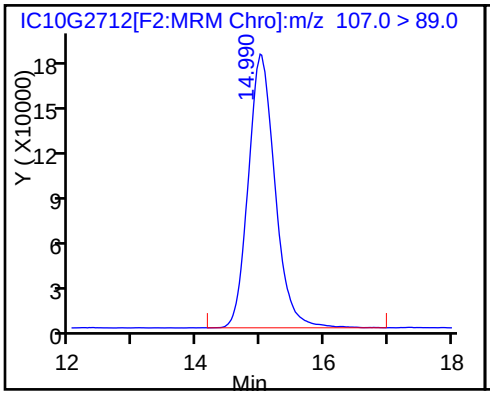
Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	28-Jul-2010 15:10:18	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Reviewed By:	bonnettj	Date:	28-Jul-2010 15:10:18

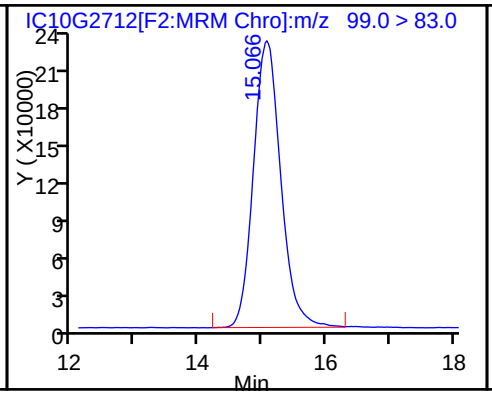
Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	14.990	15.014	-0.024	5384000	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.066	15.090	1.005	6961551	200.9	0.70- 1.30	1.00	
2	100.9 > 85.0	15.066	15.090	1.005	2482285		2.30- 3.80	2.80	

Report Date: 28-Jul-2010 15:10:18 Chrom Revision: 1.2 20-Jul-2010 10:07:34
Data File: \\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2712.d
Injection Date: 27-Jul-2010 16:05:04 Limit Group: LC - 6860 Perchlorate
Client ID: Instrument ID: LC_LCMS1
Lims Batch ID: 24406 Lims Sample ID: 2
Operator ID: Injection Vol: 250.00 ul

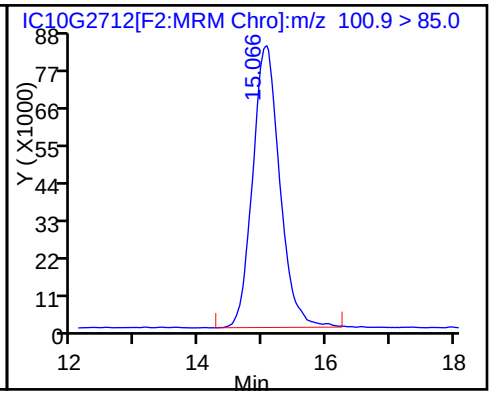
* 1 Perchlorate-18O



2 Perchlorate



2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-5193-1

SDG No.:

Lab Sample ID: CCVL 280-24406/3 Calibration Date: 07/27/2010 16:38

Instrument ID: LC_LCMS1 Calib Start Date: 07/07/2010 14:55

GC Column: IonPac ID: 2.00(mm) Calib End Date: 07/07/2010 17:27

Lab File ID: IC10G2713.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		1.365		0.0201	0.0200	0.4	30.0

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2713.d		
Lims ID:	CCVL	Client ID:	
Inject. Date:	27-Jul-2010 16:38:02	Dil. Factor:	1.0000
Sample Type:	CCVL, Low Level Cal Verify		
Sample ID:	ccvl3 280-0000625-003		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	3
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	28-Jul-2010 15:10:21	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Reviewed By:	bonnettj	Date:	28-Jul-2010 15:10:21

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	14.988	15.039	-0.051	5314142	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.089	15.064	1.007	725620	20.1	0.70- 1.30	1.00	
2	100.9 > 85.0	15.039	15.064	1.003	249159		2.30- 3.80	2.91	

Report Date: 28-Jul-2010 15:10:21 Chrom Revision: 1.2 20-Jul-2010 10:07:34

Data File: \\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2713.d

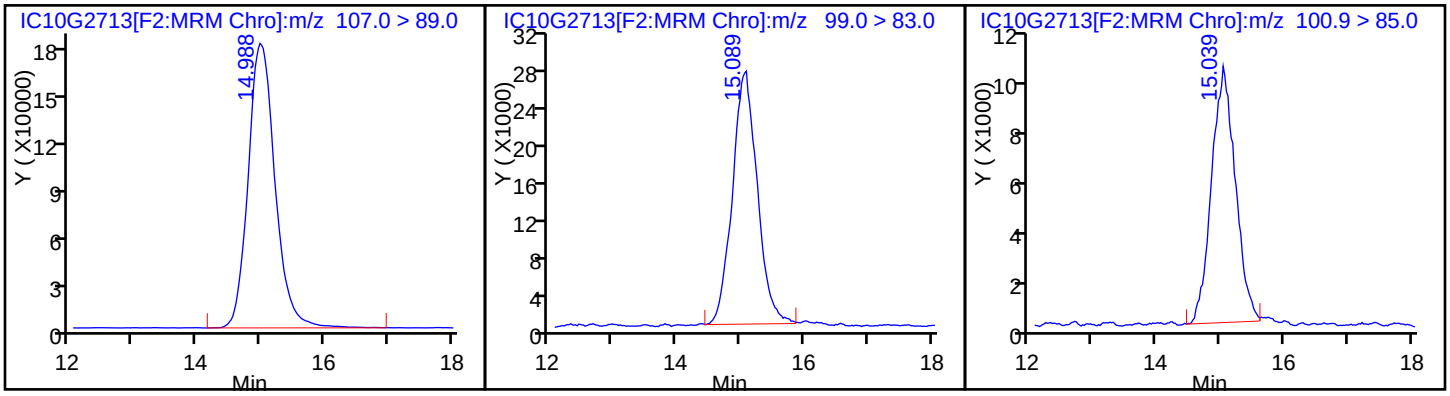
Injection Date: 27-Jul-2010 16:38:02 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

Lims Batch ID: 24406 Lims Sample ID: 3

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-5193-1

SDG No.:

Lab Sample ID: INF 280-24406/6 Calibration Date: 07/27/2010 18:12

Instrument ID: LC_LCMS1 Calib Start Date: 07/07/2010 14:55

GC Column: IonPac ID: 2.00(mm) Calib End Date: 07/07/2010 17:27

Lab File ID: IC10G2716.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		1.399		0.0534	0.0500	6.8	30.0

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2716.d		
Lims ID:	INF	Client ID:	
Inject. Date:	27-Jul-2010 18:12:13	Dil. Factor:	1.0000
Sample Type:	INF, Interference Check		
Sample ID:	inf 280-0000625-006		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	6
Sublist:			
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	28-Jul-2010 15:10:21	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Reviewed By:	bonnettj	Date:	28-Jul-2010 15:10:29

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	14.962	15.014	-0.052	5583286	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.013	15.090	1.003	1952641	53.4	0.70- 1.30	1.00	
2	100.9 > 85.0	15.013	15.090	1.003	707209		2.30- 3.80	2.76	

Report Date: 28-Jul-2010 15:10:29 Chrom Revision: 1.2 20-Jul-2010 10:07:34

Data File: \\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2716.d

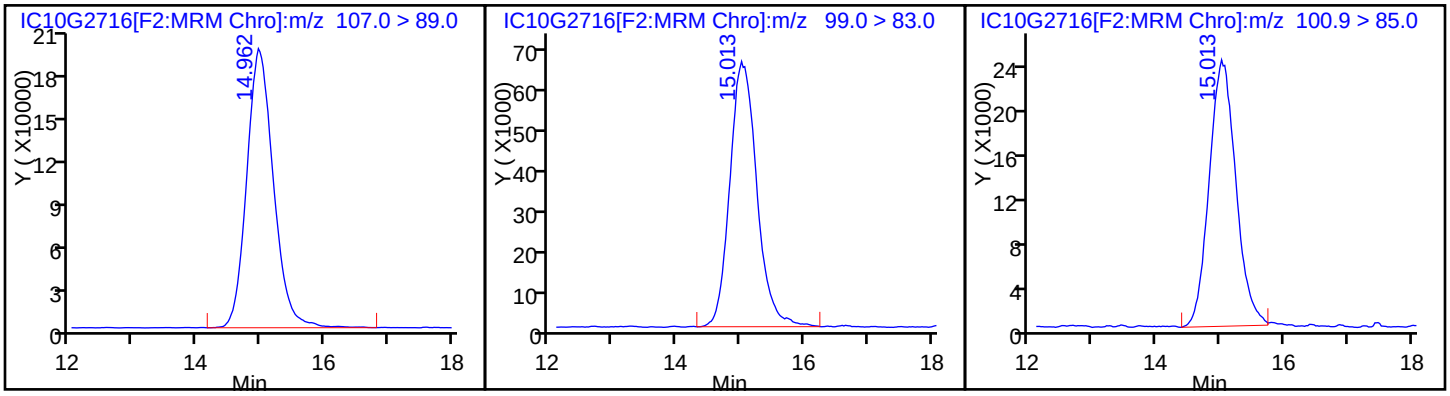
Injection Date: 27-Jul-2010 18:12:13 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

Lims Batch ID: 24406 Lims Sample ID: 6

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-5193-1

SDG No.:

Lab Sample ID: CCV 280-24406/13 Calibration Date: 07/27/2010 21:51

Instrument ID: LC_LCMS1 Calib Start Date: 07/07/2010 14:55

GC Column: IonPac ID: 2.00(mm) Calib End Date: 07/07/2010 17:27

Lab File ID: IC10G2723.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		1.271		0.197	0.200	-1.3	15.0

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2723.d		
Lims ID:	CCV	Client ID:	
Inject. Date:	27-Jul-2010 21:51:59	Dil. Factor:	1.0000
Sample Type:	CCV, Cal Verification		
Sample ID:	ccv 280-0000625-013		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	13
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

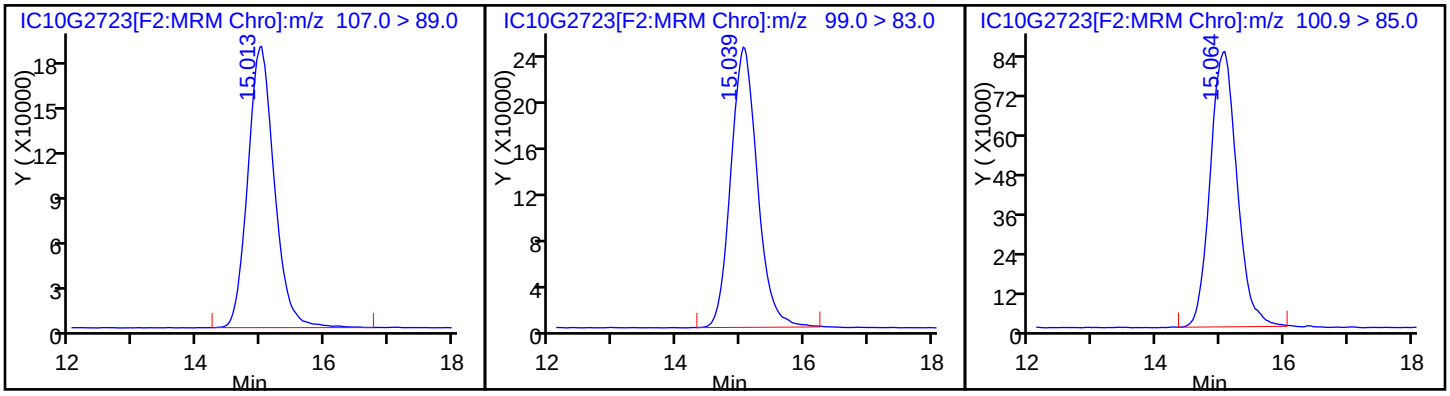
Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	28-Jul-2010 15:10:53	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Reviewed By:	bonnettj	Date:	28-Jul-2010 15:10:53

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.013	15.014	-0.001	5497734	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.039	15.090	1.002	6986819	197.4	0.70- 1.30	1.00	
2	100.9 > 85.0	15.064	15.090	1.003	2494664		2.30- 3.80	2.80	

Report Date: 28-Jul-2010 15:10:53 Chrom Revision: 1.2 20-Jul-2010 10:07:34
Data File: \\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2723.d
Injection Date: 27-Jul-2010 21:51:59 Limit Group: LC - 6860 Perchlorate
Client ID: Instrument ID: LC_LCMS1
Lims Batch ID: 24406 Lims Sample ID: 13
Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-5193-1

SDG No.:

Lab Sample ID: CCVL 280-24406/14 Calibration Date: 07/27/2010 22:23

Instrument ID: LC_LCMS1 Calib Start Date: 07/07/2010 14:55

GC Column: IonPac ID: 2.00(mm) Calib End Date: 07/07/2010 17:27

Lab File ID: IC10G2724.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		1.332		0.0196	0.0200	-2.2	30.0

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2724.d		
Lims ID:	CCVL	Client ID:	
Inject. Date:	27-Jul-2010 22:23:23	Dil. Factor:	1.0000
Sample Type:	CCVL, Low Level Cal Verify		
Sample ID:	ccvl 280-0000625-014		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	14
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	28-Jul-2010 15:10:56	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Reviewed By:	bonnettj	Date:	28-Jul-2010 15:10:56

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	14.988	15.039	-0.051	5641566	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.038	15.064	1.003	751605	19.6	0.70- 1.30	1.00	
2	100.9 > 85.0	15.063	15.064	1.005	266865		2.30- 3.80	2.82	

Report Date: 28-Jul-2010 15:10:56 Chrom Revision: 1.2 20-Jul-2010 10:07:34

Data File: \\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2724.d

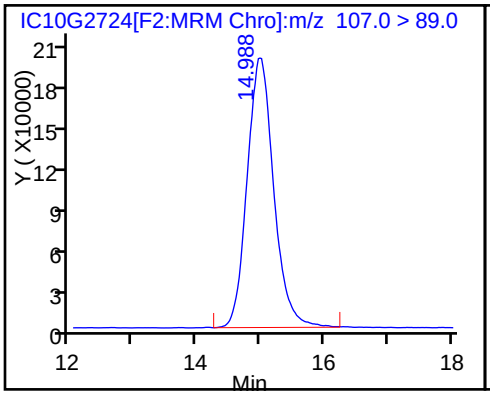
Injection Date: 27-Jul-2010 22:23:23 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

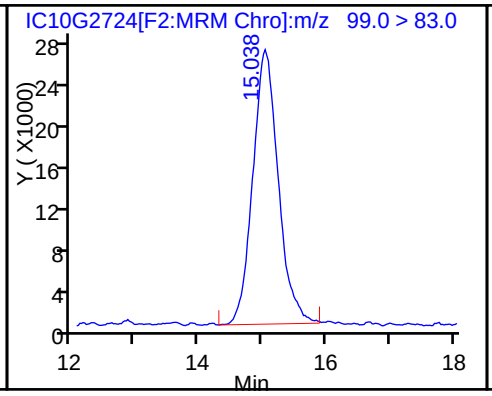
Lims Batch ID: 24406 Lims Sample ID: 14

Operator ID: Injection Vol: 250.00 ul

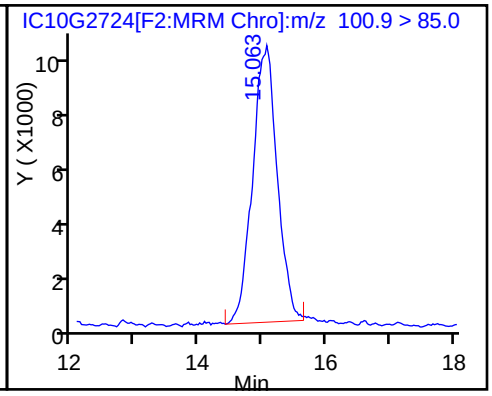
* 1 Perchlorate-18O



2 Perchlorate



2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-5193-1

SDG No.:

Lab Sample ID: CCV 280-24406/24 Calibration Date: 07/28/2010 03:37

Instrument ID: LC_LCMS1 Calib Start Date: 07/07/2010 14:55

GC Column: IonPac ID: 2.00(mm) Calib End Date: 07/07/2010 17:27

Lab File ID: IC10G2734.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		1.277		0.198	0.200	-0.8	15.0

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2734.d		
Lims ID:	CCV	Client ID:	
Inject. Date:	28-Jul-2010 03:37:19	Dil. Factor:	1.0000
Sample Type:	CCV, Cal Verification		
Sample ID:	ccv 280-0000625-024		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	24
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	28-Jul-2010 15:11:25	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Reviewed By:	bonnettj	Date:	28-Jul-2010 15:11:25

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.039	15.014	0.025	5498754	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.064	15.090	1.002	7023139	198.4	0.70- 1.30	1.00	
2	100.9 > 85.0	15.039	15.090	1.000	2439601		2.30- 3.80	2.88	

Report Date: 28-Jul-2010 15:11:25 Chrom Revision: 1.2 20-Jul-2010 10:07:34

Data File: \\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2734.d

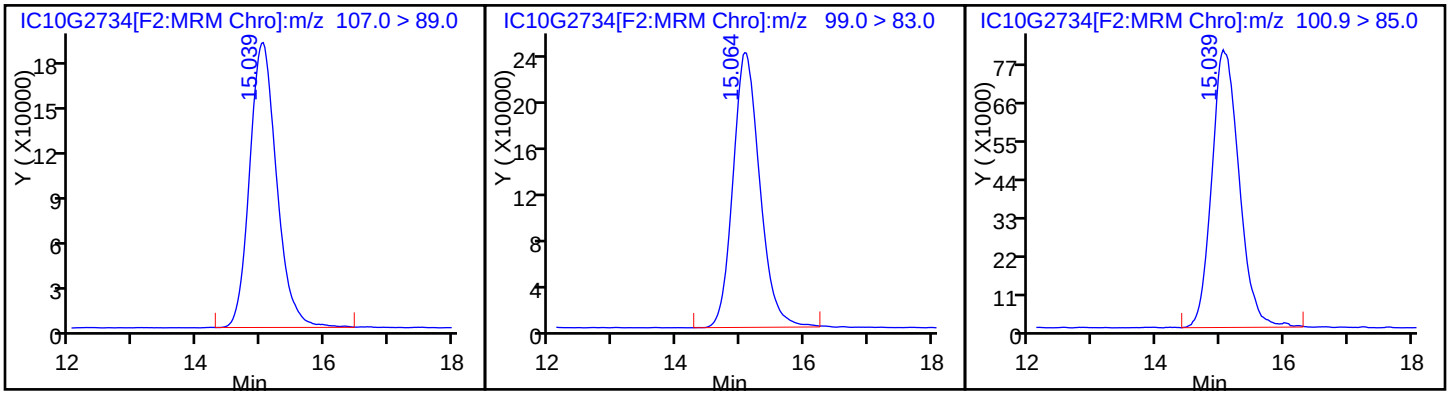
Injection Date: 28-Jul-2010 03:37:19 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

Lims Batch ID: 24406 Lims Sample ID: 24

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-5193-1

SDG No.:

Lab Sample ID: CCVL 280-24406/25 Calibration Date: 07/28/2010 04:08

Instrument ID: LC_LCMS1 Calib Start Date: 07/07/2010 14:55

GC Column: IonPac ID: 2.00(mm) Calib End Date: 07/07/2010 17:27

Lab File ID: IC10G2735.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		1.259		0.0184	0.0200	-7.9	30.0

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2735.d		
Lims ID:	CCVL	Client ID:	
Inject. Date:	28-Jul-2010 04:08:43	Dil. Factor:	1.0000
Sample Type:	CCVL, Low Level Cal Verify		
Sample ID:	ccvl 280-0000625-025		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	25
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

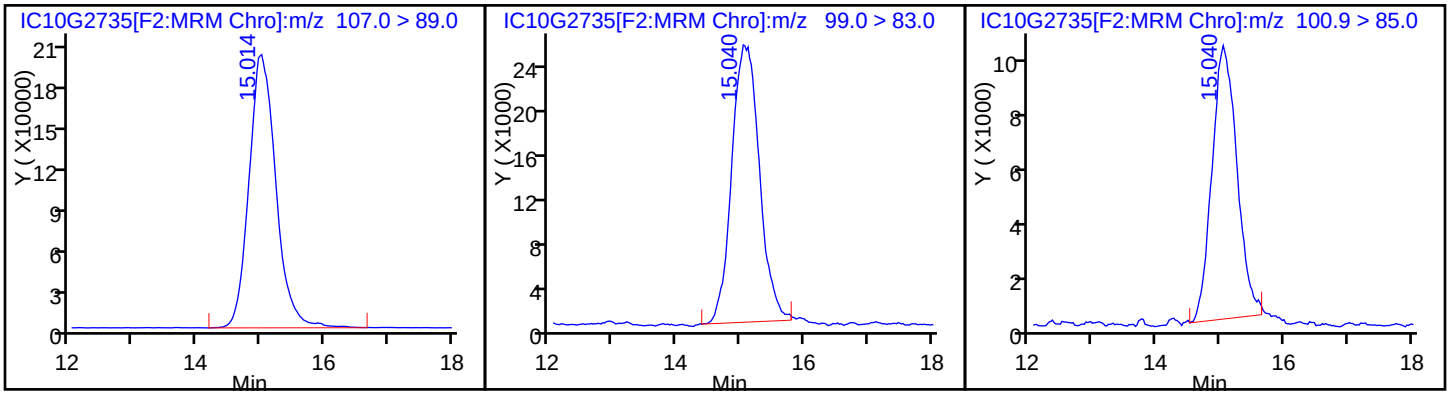
Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	28-Jul-2010 15:11:27	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Reviewed By:	bonnettj	Date:	28-Jul-2010 15:11:27

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.014	15.014	0.000	5950158	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.040	15.040	1.002	749236	18.4	0.70- 1.30	1.00	
2	100.9 > 85.0	15.040	15.040	1.002	257600		2.30- 3.80	2.91	

Report Date: 28-Jul-2010 15:11:28 Chrom Revision: 1.2 20-Jul-2010 10:07:34
Data File: \\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2735.d
Injection Date: 28-Jul-2010 04:08:43 Limit Group: LC - 6860 Perchlorate
Client ID: Instrument ID: LC_LCMS1
Lims Batch ID: 24406 Lims Sample ID: 25
Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-5193-1

SDG No.:

Lab Sample ID: CCV 280-24406/33 Calibration Date: 07/28/2010 08:19

Instrument ID: LC_LCMS1 Calib Start Date: 07/07/2010 14:55

GC Column: IonPac ID: 2.00(mm) Calib End Date: 07/07/2010 17:27

Lab File ID: IC10G2743.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		1.253		0.195	0.200	-2.7	15.0

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2743.d		
Lims ID:	CCV	Client ID:	
Inject. Date:	28-Jul-2010 08:19:51	Dil. Factor:	1.0000
Sample Type:	CCV, Cal Verification		
Sample ID:	ccv 280-0000625-033		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	33
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

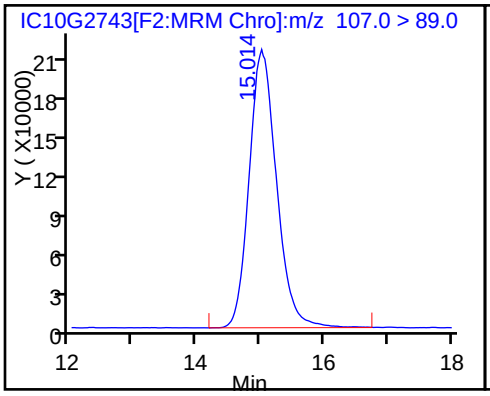
Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	28-Jul-2010 15:11:48	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Reviewed By:	bonnettj	Date:	28-Jul-2010 15:11:48

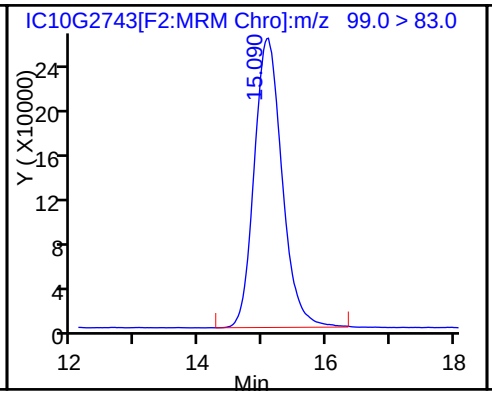
Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.014	15.014	0.000	6309407	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.090	15.090	1.005	7906348	194.6	0.70- 1.30	1.00	
2	100.9 > 85.0	15.039	15.090	1.002	2796370		2.30- 3.80	2.83	

Report Date: 28-Jul-2010 15:11:49 Chrom Revision: 1.2 20-Jul-2010 10:07:34
Data File: \\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2743.d
Injection Date: 28-Jul-2010 08:19:51 Limit Group: LC - 6860 Perchlorate
Client ID: Instrument ID: LC_LCMS1
Lims Batch ID: 24406 Lims Sample ID: 33
Operator ID: Injection Vol: 250.00 ul

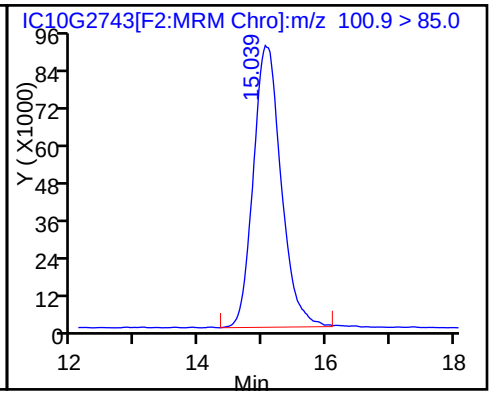
* 1 Perchlorate-18O



2 Perchlorate



2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-5193-1

SDG No.:

Lab Sample ID: CCVL 280-24406/34 Calibration Date: 07/28/2010 08:51

Instrument ID: LC_LCMS1 Calib Start Date: 07/07/2010 14:55

GC Column: IonPac ID: 2.00(mm) Calib End Date: 07/07/2010 17:27

Lab File ID: IC10G2744.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		1.332		0.0196	0.0200	-2.2	30.0

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2744.d		
Lims ID:	CCVL	Client ID:	
Inject. Date:	28-Jul-2010 08:51:15	Dil. Factor:	1.0000
Sample Type:	CCVL, Low Level Cal Verify		
Sample ID:	ccvl 280-0000625-034		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	34
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

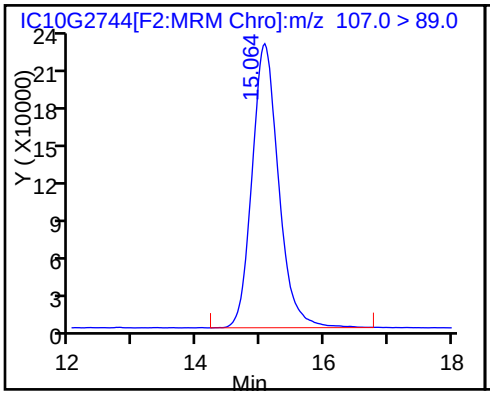
Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	28-Jul-2010 15:11:51	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Reviewed By:	bonnettj	Date:	28-Jul-2010 15:11:51

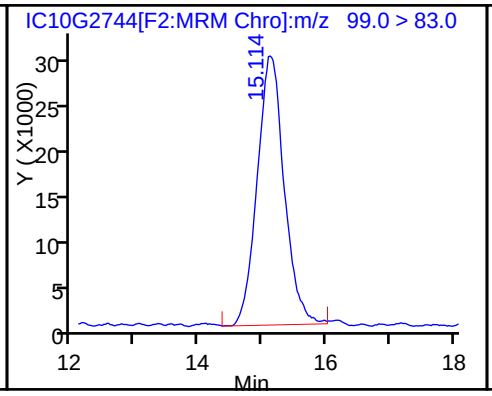
Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.064	15.014	0.050	6612827	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.114	15.090	1.003	880661	19.6	0.70- 1.30	1.00	
2	100.9 > 85.0	15.114	15.090	1.003	304702		2.30- 3.80	2.89	

Report Date: 28-Jul-2010 15:11:51 Chrom Revision: 1.2 20-Jul-2010 10:07:34
Data File: \\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2744.d
Injection Date: 28-Jul-2010 08:51:15 Limit Group: LC - 6860 Perchlorate
Client ID: Instrument ID: LC_LCMS1
Lims Batch ID: 24406 Lims Sample ID: 34
Operator ID: Injection Vol: 250.00 ul

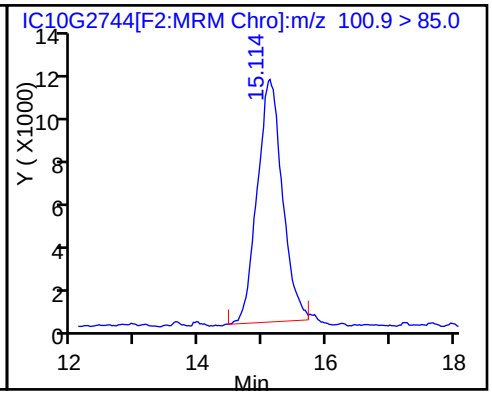
* 1 Perchlorate-18O



2 Perchlorate



2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-5193-1

SDG No.:

Lab Sample ID: CCV 280-24406/44 Calibration Date: 07/28/2010 15:29

Instrument ID: LC_LCMS1 Calib Start Date: 07/07/2010 14:55

GC Column: IonPac ID: 2.00(mm) Calib End Date: 07/07/2010 17:27

Lab File ID: IC10G2756.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		1.268		0.197	0.200	-1.5	15.0

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2756.d		
Lims ID:	CCV	Client ID:	
Inject. Date:	28-Jul-2010 15:29:26	Dil. Factor:	1.0000
Sample Type:	CCV, Cal Verification		
Sample ID:	ccv 280-0000625-044		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	44
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	29-Jul-2010 08:58:47	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Reviewed By:	bonnettj	Date:	29-Jul-2010 08:58:47

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.114	15.114	0.000	6635189	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.165	15.165	1.003	8411186	196.9	0.70- 1.30	1.00	
2	100.9 > 85.0	15.165	15.165	1.003	3080815		2.30- 3.80	2.73	

Report Date: 29-Jul-2010 08:58:47 Chrom Revision: 1.2 20-Jul-2010 10:07:34

Data File: \\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2756.d

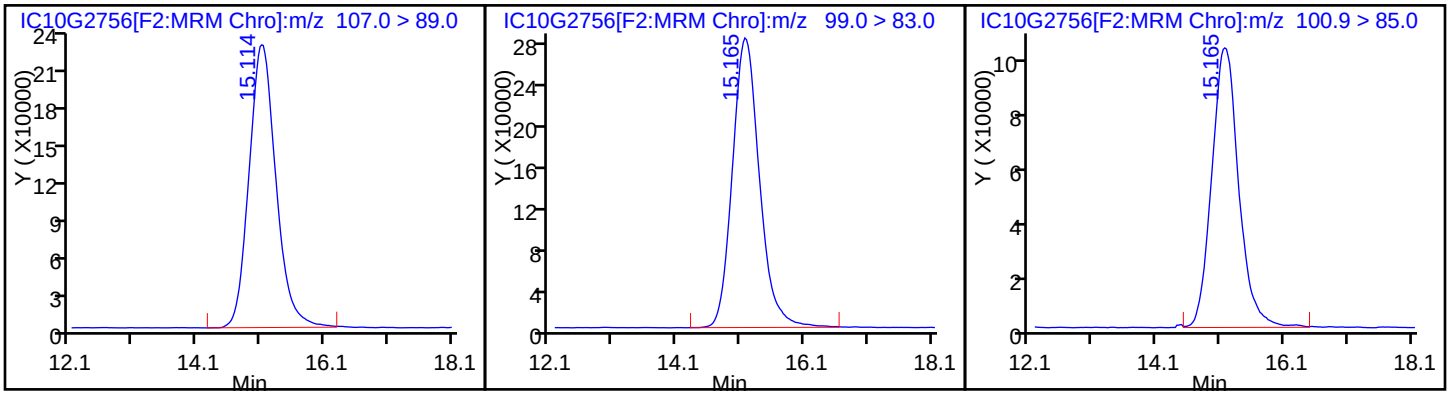
Injection Date: 28-Jul-2010 15:29:26 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

Lims Batch ID: 24406 Lims Sample ID: 44

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-5193-1

SDG No.:

Lab Sample ID: CCVL 280-24406/45 Calibration Date: 07/28/2010 16:00

Instrument ID: LC_LCMS1 Calib Start Date: 07/07/2010 14:55

GC Column: IonPac ID: 2.00(mm) Calib End Date: 07/07/2010 17:27

Lab File ID: IC10G2757.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		1.238		0.0181	0.0200	-9.5	30.0

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2757.d		
Lims ID:	CCVL	Client ID:	
Inject. Date:	28-Jul-2010 16:00:50	Dil. Factor:	1.0000
Sample Type:	CCVL, Low Level Cal Verify		
Sample ID:	ccvl 280-0000625-045		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	45
Sublist:	chrom-6860_1*sub1		
Raw Data:	Smoothed		

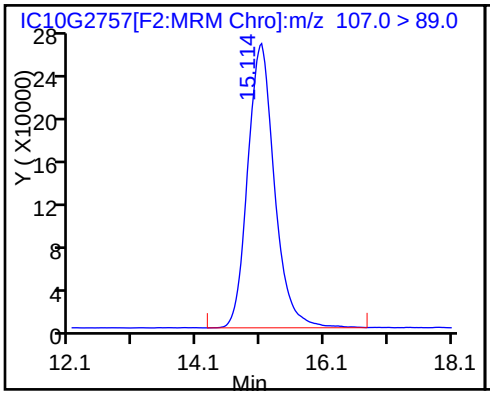
Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	29-Jul-2010 08:58:49	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Reviewed By:	bonnettj	Date:	29-Jul-2010 08:58:49

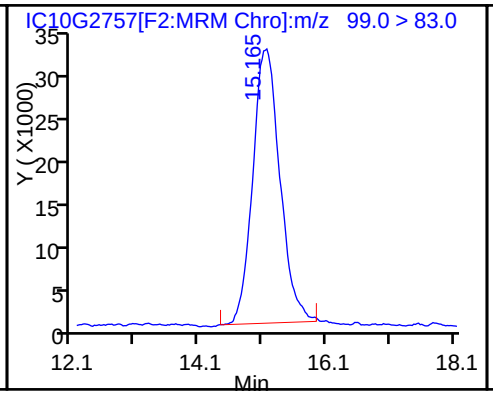
Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.114	15.114	0.000	7766397	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.165	15.165	1.003	961468	18.1	0.70- 1.30	1.00	
2	100.9 > 85.0	15.089	15.165	0.998	339831		2.30- 3.80	2.83	

Report Date: 29-Jul-2010 08:58:49 Chrom Revision: 1.2 20-Jul-2010 10:07:34
Data File: \\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2757.d
Injection Date: 28-Jul-2010 16:00:50 Limit Group: LC - 6860 Perchlorate
Client ID: Instrument ID: LC_LCMS1
Lims Batch ID: 24406 Lims Sample ID: 45
Operator ID: Injection Vol: 250.00 ul

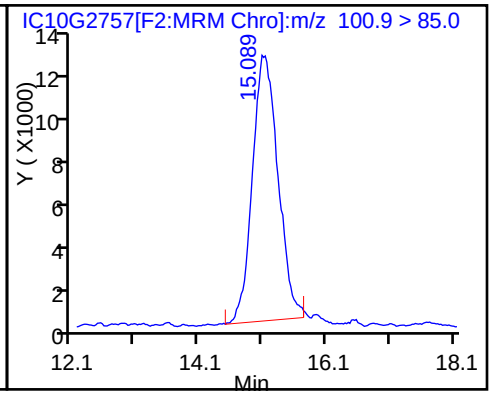
* 1 Perchlorate-18O



2 Perchlorate



2 Perchlorate

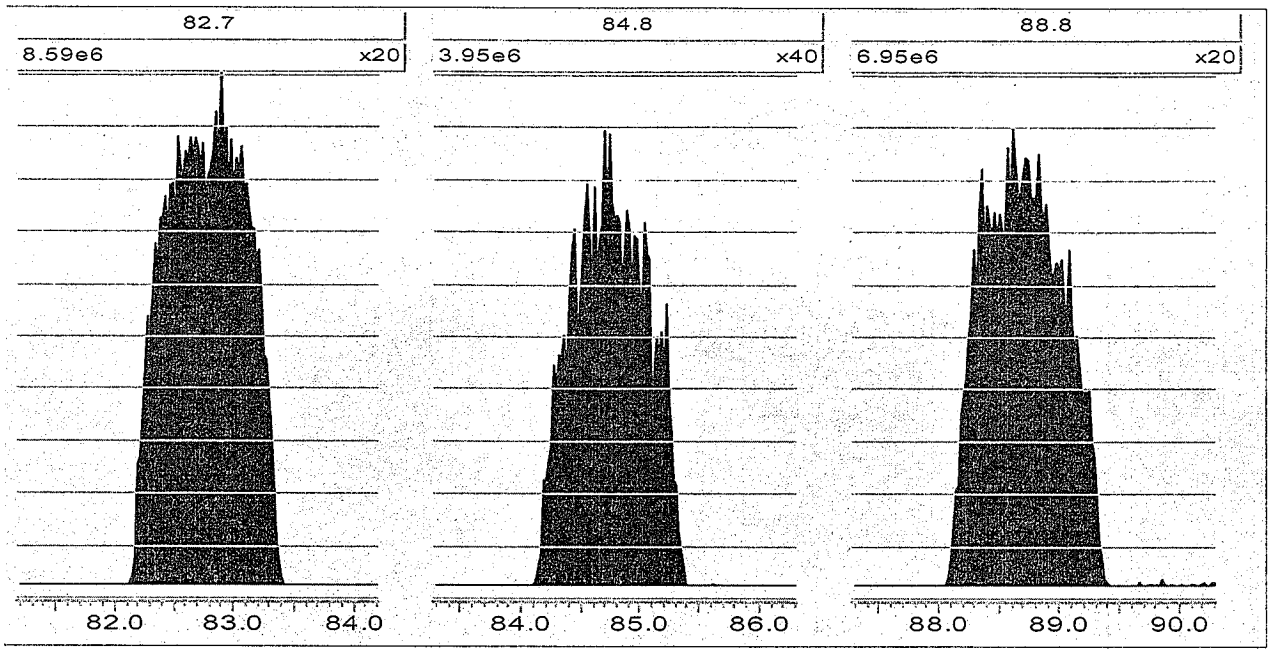


Tune Parameters - MassLynx 4.1 SCN627

File: D:\MassLynx 2010\IC Perchlorate.PRO\ACQUDB\ICPerchlorate_jeff.ipr

Instrument: QUATTROULTIMA

Printed: Tuesday, July 27, 2010 13:54:51 Mountain Daylight Time



Type	Start Mass	End Mass	Set Mass
Daughter Scan	81.20	84.20	99.00
Daughter Scan	83.30	86.30	101.00
Daughter Scan	87.30	90.30	107.00

Source (ES-)	Settings	Readbacks
Capillary (kV)	0.25	-0.21
Cone (V)	90	-92
Hex 1 (V)	0.4	
Aperture (V)	0.2	
Hex 2 (V)	0.4	
Source Temperature (°C)	120	121
Desolvation Temperature (°C)	500	498
Cone Gas Flow (L/Hr)	45	
Desolvation Gas Flow (L/Hr)	631	

Analyser	Settings	Readbacks
LM 1 Resolution	10.0	
HM 1 Resolution	8.0	
Ion Energy 1	1.0	
Entrance	-2	23
Collision	25	24
Exit	1	26
LM 2 Resolution	10.0	
HM 2 Resolution	8.0	
Ion Energy 2	1.0	
Multiplier (V)	650	-644

Pressure Gauges	
Collision Cell Pressure(mbar)	7.85e-3
Analyser Pressure (mbar)	OFF

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-5193-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 280-24406/4
Matrix: Water
Lab File ID: IC10G2714.d
Analysis Method: 6860
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 07/27/2010 17:09
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 24406
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.0088	U	0.050	0.0088

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2714.d		
Lims ID:	MB	Client ID:	
Inject. Date:	27-Jul-2010 17:09:26	Dil. Factor:	1.0000
Sample Type:	MB, Method Blank		
Sample ID:	mb 280-0000625-004		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	4
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	28-Jul-2010 15:10:21	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

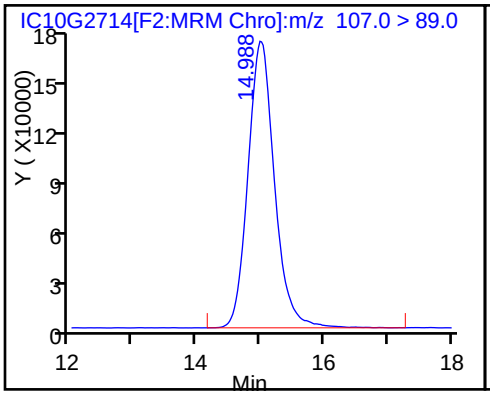
Reviewed By:	bonnettj	Date:	28-Jul-2010 15:10:24

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	14.988	15.014	-0.026	5057877	200.0			

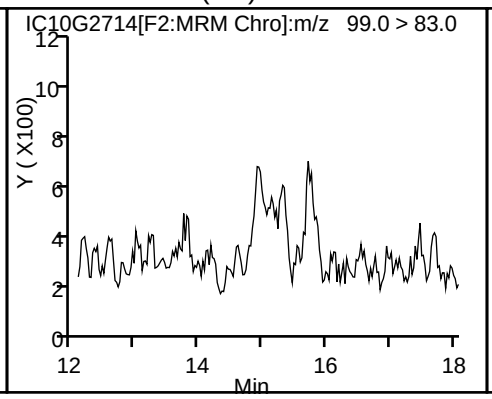
Report Date: 28-Jul-2010 15:10:24 Chrom Revision: 1.2 20-Jul-2010 10:07:34

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2714.d		
Injection Date:	27-Jul-2010 17:09:26	Limit Group:	LC - 6860 Perchlorate
Client ID:		Instrument ID:	LC_LCMS1
Lims Batch ID:	24406	Lims Sample ID:	4
Operator ID:		Injection Vol:	250.00 ul

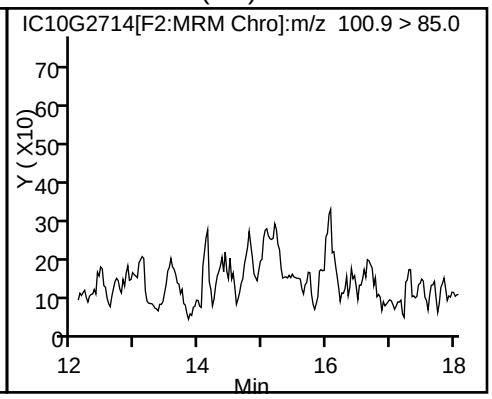
* 1 Perchlorate-18O



2 Perchlorate (ND)



2 Perchlorate (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-5193-1
SDG No.:
Client Sample ID:
Lab Sample ID: CCB 280-22058/8
Matrix: Water
Lab File ID: IC10G0708.d
Analysis Method: 6860
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 07/07/2010 17:59
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 22058
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.0088	U	0.050	0.0088

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0708.d		
Lims ID:	CCB	Client ID:	
Inject. Date:	07-Jul-2010 17:59:11	Dil. Factor:	1.0000
Sample Type:	CCB, CCal Blank		
Sample ID:	CCB 280-0000527-008		
Misc. Info.:	IC10G07		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	22058	Lims Sample ID:	8
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\6860_1.m		
Last Update:	08-Jul-2010 09:41:14	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC128		

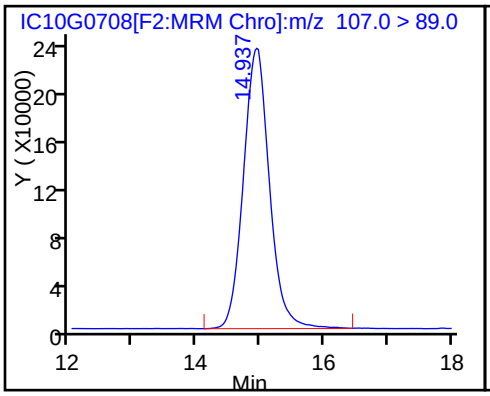
Reviewed By:	odonnellt	Date:	08-Jul-2010 09:41:17

Det	Signal	RT	EXP RT	DLT RT	Response	Amount ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	14.937	15.013	-0.076	6694830	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.038	15.063	-0.025	273805	5.13	0.70- 1.30	1.00	
2	100.9 > 85.0	15.013	15.063	-0.050	91535		2.30- 3.80	2.99	

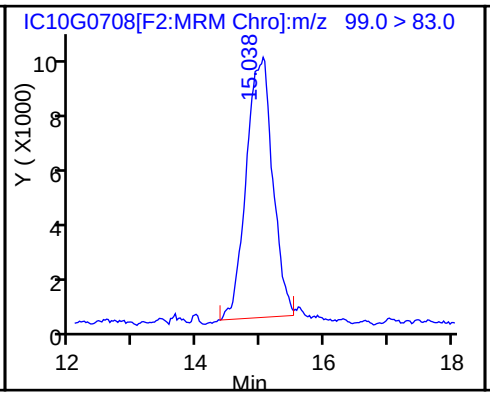
Report Date: 08-Jul-2010 09:41:18 Chrom Revision: 1.2 24-May-2010 14:44:04

Data File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0708.d		
Inj Date:	07-Jul-2010 17:59:11	Limit Group:	LC - 6860 Perchlorate
Lims Batch ID:	22058	Lims Sample ID:	8
Client ID:		Instrument:	LC_LCMS1
Sample Info:	ccb 280-0000257-008		
Sample Amount:	250.00 ul	Operator:	

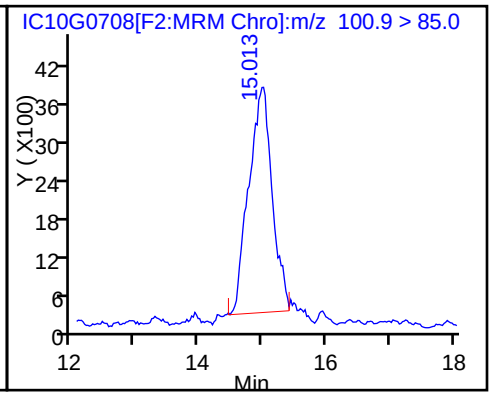
* 1 Perchlorate-18O



2 Perchlorate



2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-5193-1
SDG No.:
Client Sample ID:
Lab Sample ID: CCB 280-22058/22
Matrix: Water
Lab File ID: IC10G0722.d
Analysis Method: 6860
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 07/08/2010 01:18
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 22058
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.0088	U	0.050	0.0088

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0722.d		
Lims ID:	CCB	Client ID:	
Inject. Date:	08-Jul-2010 01:18:45	Dil. Factor:	1.0000
Sample Type:	CCB, CCal Blank		
Sample ID:	CCB 280-0000527-022		
Misc. Info.:	IC10G07		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	22058	Lims Sample ID:	22
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\6860_1.m		
Last Update:	08-Jul-2010 09:42:48	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC128		

Reviewed By:	odonnellt	Date:	08-Jul-2010 09:42:59

Det	Signal	RT	EXP RT	DLT RT	Response	Amount ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	14.988	15.013	-0.025	6711519	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.064	15.063	0.001	284108	5.36	0.70- 1.30	1.00	4
2	100.9 > 85.0	15.013	15.063	-0.050	72751		2.30- 3.80	3.91	

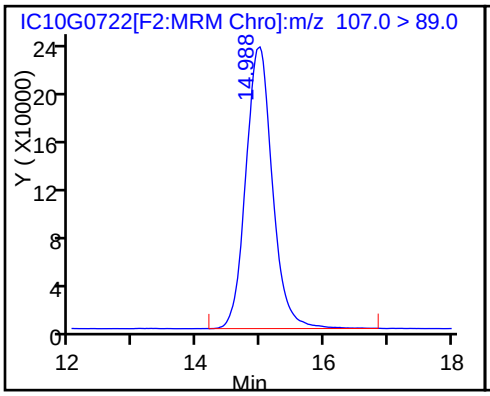
QC Flag Legend

Processing Flags
4 - Failed Signal Ratio Test

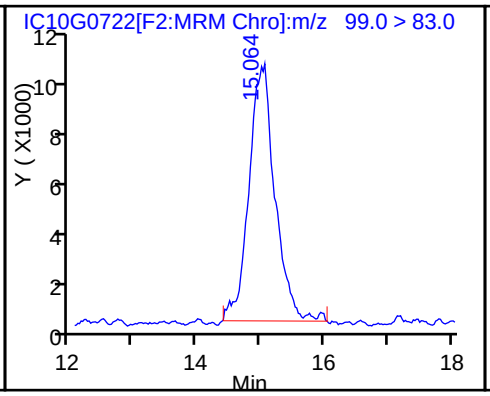
Report Date: 08-Jul-2010 09:42:59 Chrom Revision: 1.2 24-May-2010 14:44:04

Data File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0722.d		
Inj Date:	08-Jul-2010 01:18:45	Limit Group:	LC - 6860 Perchlorate
Lims Batch ID:	22058	Lims Sample ID:	22
Client ID:		Instrument:	LC_LCMS1
Sample Info:	CCB 280-0000527-022		
Sample Amount:	250.00 ul	Operator:	

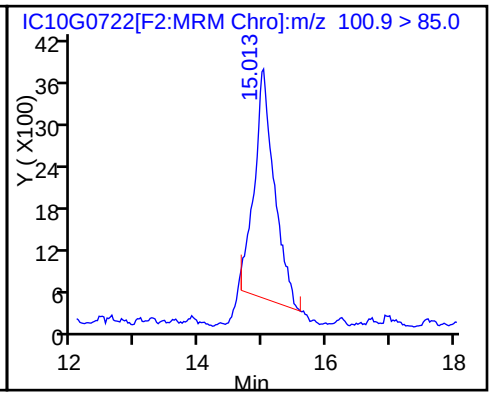
* 1 Perchlorate-18O



2 Perchlorate



2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-5193-1
SDG No.:
Client Sample ID:
Lab Sample ID: CCB 280-24406/1
Matrix: Water
Lab File ID: IC10G2711.d
Analysis Method: 6860
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 07/27/2010 14:05
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 24406
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.0088	U	0.050	0.0088

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2711.d		
Lims ID:	CCB	Client ID:	
Inject. Date:	27-Jul-2010 14:05:05	Dil. Factor:	1.0000
Sample Type:	CCB, CCal Blank		
Sample ID:	ccb2 280-0000611-001		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	1
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	28-Jul-2010 15:10:12	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Reviewed By:	bonnettj	Date:	28-Jul-2010 15:10:15

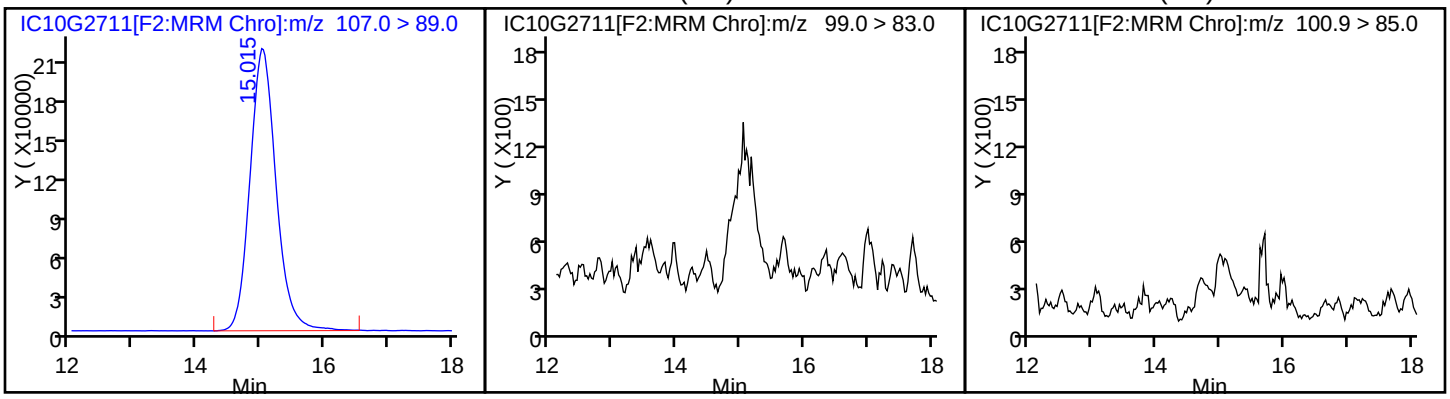
Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.015	15.014	0.001	6177759	200.0			

Report Date: 28-Jul-2010 15:10:15 Chrom Revision: 1.2 20-Jul-2010 10:07:34

Data File: \\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2711.d

Injection Date:	27-Jul-2010 14:05:05	Limit Group:	LC - 6860 Perchlorate
Client ID:		Instrument ID:	LC_LCMS1
Lims Batch ID:	24406	Lims Sample ID:	1
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate (ND) 2 Perchlorate (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-5193-1
SDG No.:
Client Sample ID:
Lab Sample ID: CCB 280-24406/15
Matrix: Water
Lab File ID: IC10G2725.d
Analysis Method: 6860
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 07/27/2010 22:54
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 24406
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.0088	U	0.050	0.0088

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2725.d		
Lims ID:	CCB	Client ID:	
Inject. Date:	27-Jul-2010 22:54:46	Dil. Factor:	1.0000
Sample Type:	CCB, CCal Blank		
Sample ID:	ccb 280-0000625-015		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	15
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	28-Jul-2010 15:10:56	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Reviewed By:	bonnettj	Date:	28-Jul-2010 15:10:58

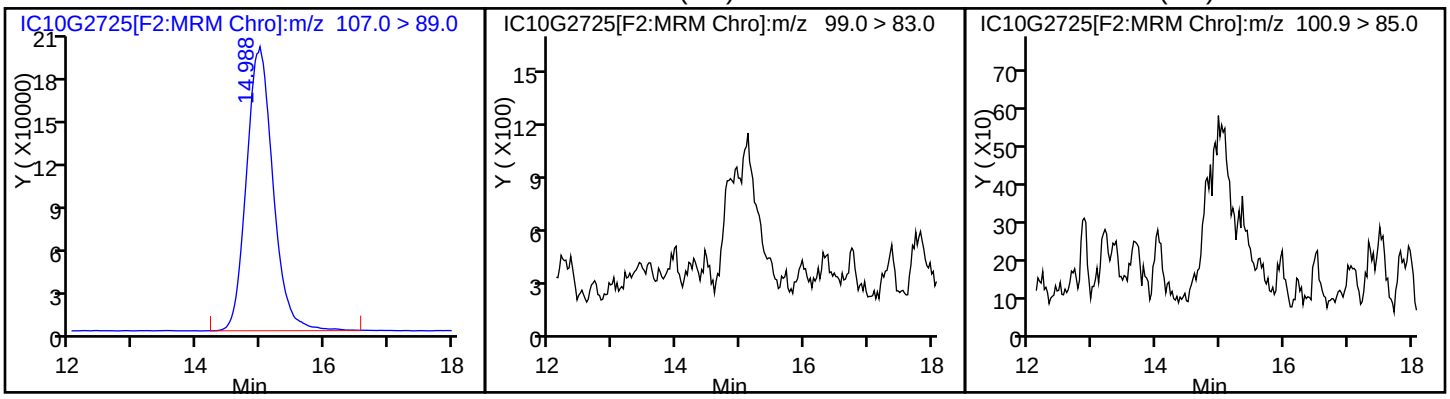
Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	14.988	15.014	-0.026	5712509	200.0			

Report Date: 28-Jul-2010 15:10:58 Chrom Revision: 1.2 20-Jul-2010 10:07:34

Data File: \\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2725.d

Injection Date:	27-Jul-2010 22:54:46	Limit Group:	LC - 6860 Perchlorate
Client ID:		Instrument ID:	LC_LCMS1
Lims Batch ID:	24406	Lims Sample ID:	15
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate (ND) 2 Perchlorate (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-5193-1
SDG No.:
Client Sample ID:
Lab Sample ID: CCB 280-24406/26
Matrix: Water
Lab File ID: IC10G2736.d
Analysis Method: 6860
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 07/28/2010 04:40
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 24406
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.0088	U	0.050	0.0088

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2736.d		
Lims ID:	CCB	Client ID:	
Inject. Date:	28-Jul-2010 04:40:07	Dil. Factor:	1.0000
Sample Type:	CCB, CCal Blank		
Sample ID:	ccb 280-0000625-026		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	26
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	28-Jul-2010 15:11:27	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Reviewed By:	bonnettj	Date:	28-Jul-2010 15:11:31

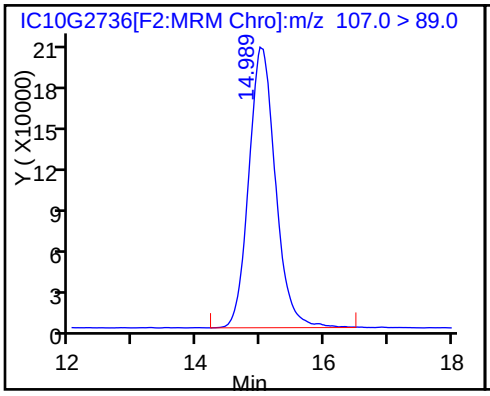
Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	14.989	15.014	-0.025	5904283	200.0			

Report Date: 28-Jul-2010 15:11:31 Chrom Revision: 1.2 20-Jul-2010 10:07:34

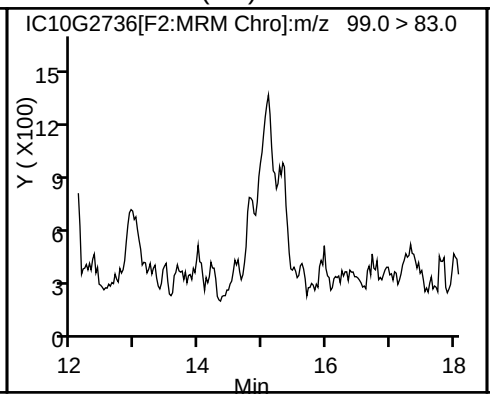
Data File: \\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2736.d

Injection Date:	28-Jul-2010 04:40:07	Limit Group:	LC - 6860 Perchlorate
Client ID:		Instrument ID:	LC_LCMS1
Lims Batch ID:	24406	Lims Sample ID:	26
Operator ID:		Injection Vol:	250.00 ul

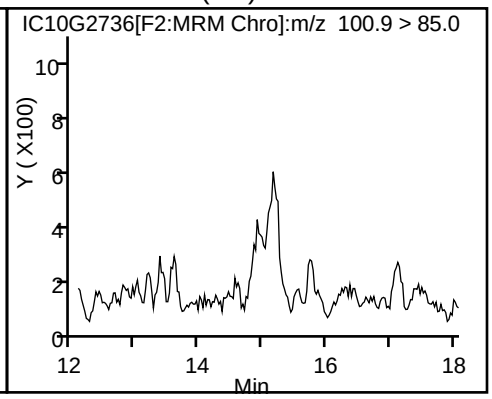
* 1 Perchlorate-18O



2 Perchlorate (ND)



2 Perchlorate (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-5193-1
SDG No.:
Client Sample ID:
Lab Sample ID: CCB 280-24406/35
Matrix: Water
Lab File ID: IC10G2745.d
Analysis Method: 6860
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 07/28/2010 09:22
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 24406
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.0088	U	0.050	0.0088

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2745.d		
Lims ID:	CCB	Client ID:	
Inject. Date:	28-Jul-2010 09:22:38	Dil. Factor:	1.0000
Sample Type:	CCB, CCal Blank		
Sample ID:	ccb 280-0000625-035		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	35
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	28-Jul-2010 15:11:51	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Reviewed By:	bonnettj	Date:	28-Jul-2010 15:11:53

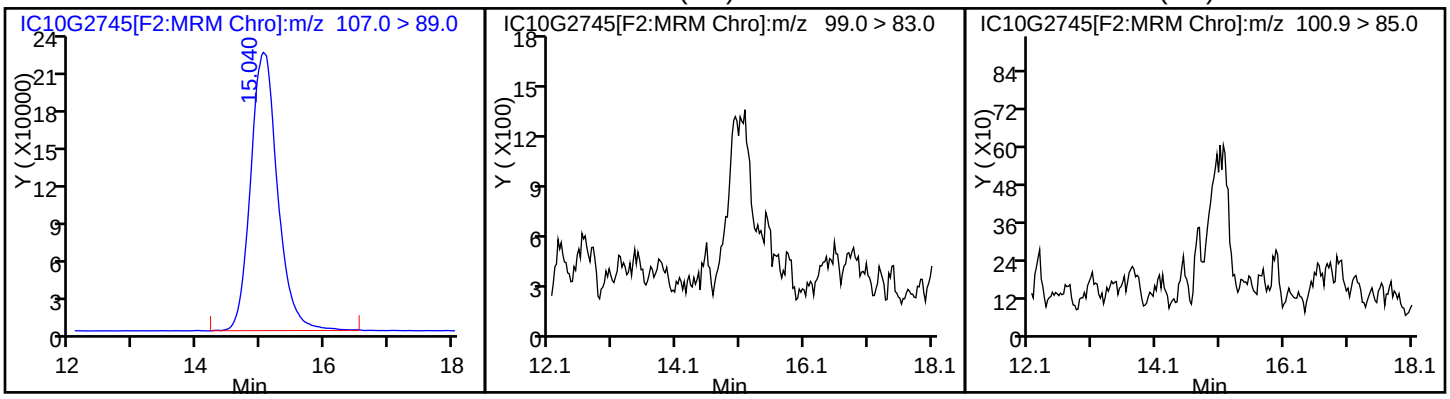
Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.040	15.064	-0.024	6505908	200.0			

Report Date: 28-Jul-2010 15:11:53 Chrom Revision: 1.2 20-Jul-2010 10:07:34

Data File: \\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2745.d

Injection Date:	28-Jul-2010 09:22:38	Limit Group:	LC - 6860 Perchlorate
Client ID:		Instrument ID:	LC_LCMS1
Lims Batch ID:	24406	Lims Sample ID:	35
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate (ND) 2 Perchlorate (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-5193-1
SDG No.:
Client Sample ID:
Lab Sample ID: CCB 280-24406/46
Matrix: Water
Lab File ID: IC10G2758.d
Analysis Method: 6860
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 07/28/2010 16:32
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 24406
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.0088	U	0.050	0.0088

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2758.d		
Lims ID:	CCB	Client ID:	
Inject. Date:	28-Jul-2010 16:32:13	Dil. Factor:	1.0000
Sample Type:	CCB, CCal Blank		
Sample ID:	ccb 280-0000625-046		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	46
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	29-Jul-2010 08:58:49	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Reviewed By:	bonnettj	Date:	29-Jul-2010 08:58:52

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.089	15.114	-0.025	8779988	200.0			

Report Date: 29-Jul-2010 08:58:52 Chrom Revision: 1.2 20-Jul-2010 10:07:34

Data File: \\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2758.d

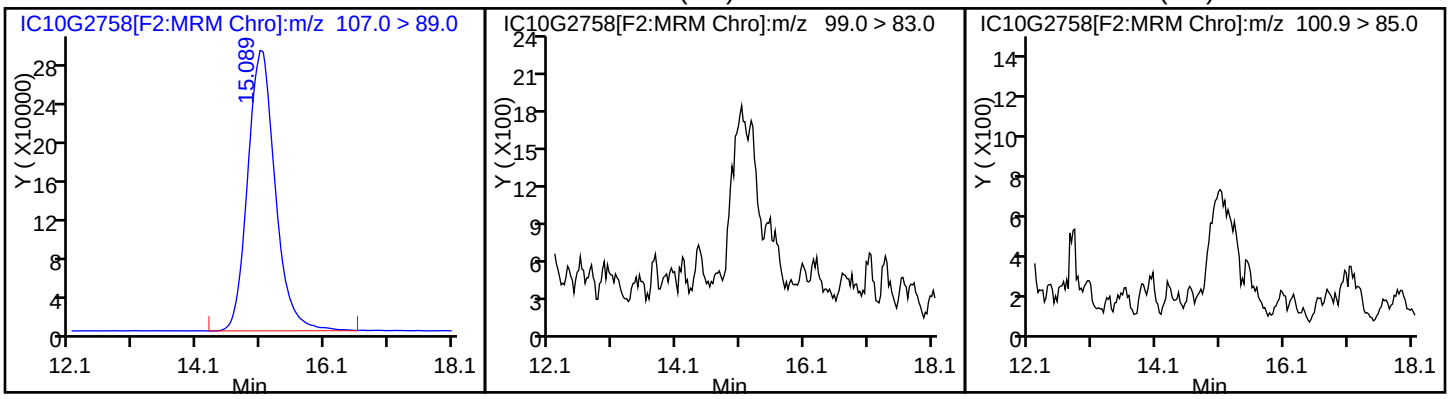
Injection Date: 28-Jul-2010 16:32:13 Limit Group: LC - 6860 Perchlorate

Client ID: Instrument ID: LC_LCMS1

Lims Batch ID: 24406 Lims Sample ID: 46

Operator ID: Injection Vol: 250.00 ul

* 1 Perchlorate-18O 2 Perchlorate (ND) 2 Perchlorate (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-5193-1
SDG No.:
Client Sample ID:
Lab Sample ID: ICB 280-22058/1
Matrix: Water
Lab File ID: IC10G0701.d
Analysis Method: 6860
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 07/07/2010 14:19
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 22058
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.0088	U	0.050	0.0088

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0701.d		
Lims ID:	ICB	Client ID:	
Inject. Date:	07-Jul-2010 14:19:20	Dil. Factor:	1.0000
Sample Type:	ICB, ICal Blank		
Sample ID:	ICB 280-0000524-001		
Misc. Info.:	IC10G07		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	22058	Lims Sample ID:	1
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\6860_1.m		
Last Update:	08-Jul-2010 09:24:23	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC128		

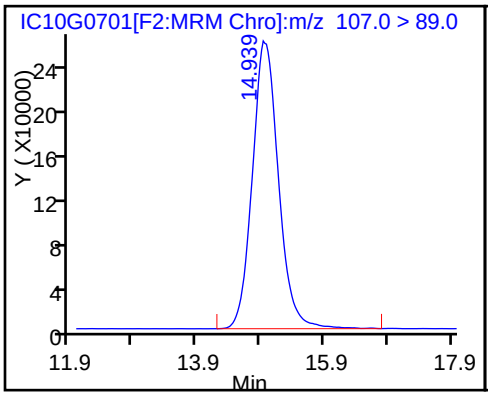
Reviewed By:	odonnellt	Date:	08-Jul-2010 09:40:44

Det	Signal	RT	EXP RT	DLT RT	Response	Amount ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	14.939	14.987	-0.048	7317853	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.040	15.063	-0.023	316607	5.50	0.70- 1.30	1.00	
2	100.9 > 85.0	14.990	15.063	-0.073	108308		2.30- 3.80	2.92	

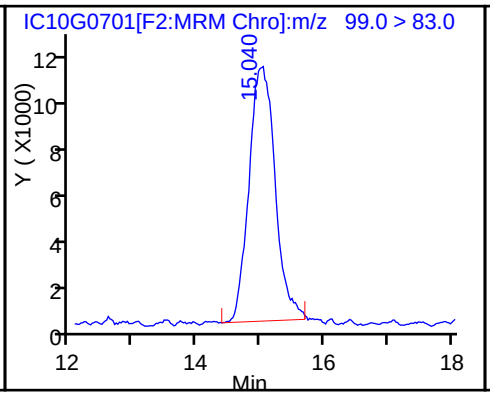
Report Date: 08-Jul-2010 09:40:44 Chrom Revision: 1.2 24-May-2010 14:44:04

Data File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0701.d		
Inj Date:	07-Jul-2010 14:19:20	Limit Group:	LC - 6860 Perchlorate
Lims Batch ID:	22058	Lims Sample ID:	1
Client ID:		Instrument:	LC_LCMS1
Sample Info:	icb 280-0000257-001		
Sample Amount:	250.00 ul	Operator:	

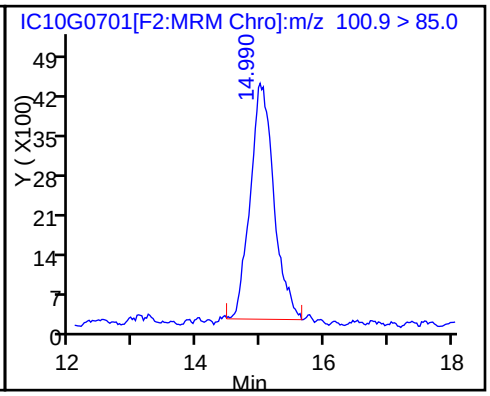
* 1 Perchlorate-18O



2 Perchlorate



2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-5193-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 280-24406/5
Matrix: Water
Lab File ID: IC10G2715.d
Analysis Method: 6860
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 07/27/2010 17:40
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 24406
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.0483	F	0.050	0.0088

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2715.d		
Lims ID:	LCS	Client ID:	
Inject. Date:	27-Jul-2010 17:40:49	Dil. Factor:	1.0000
Sample Type:	LCS, Lab Control Sample		
Sample ID:	lcs 280-0000625-005		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	5
Raw Data:	Smoothed		

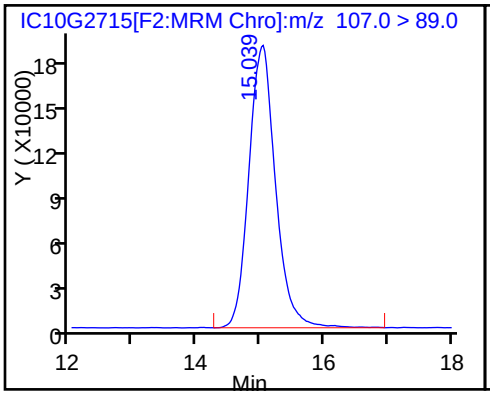
Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	28-Jul-2010 15:10:21	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

Reviewed By:	bonnettj	Date:	28-Jul-2010 15:10:27

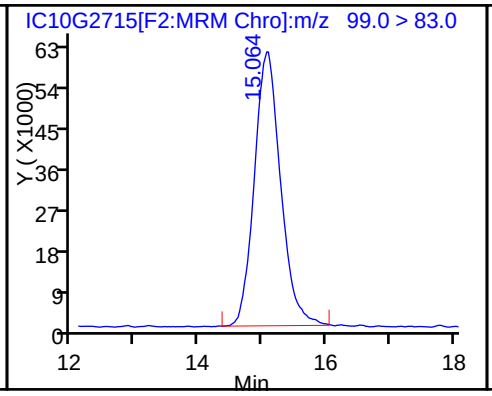
Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.039	15.014	0.025	5499706	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.064	15.090	1.002	1742464	48.3	0.70- 1.30	1.00	
2	100.9 > 85.0	15.064	15.090	1.002	647697		2.30- 3.80	2.69	

Report Date: 28-Jul-2010 15:10:27 Chrom Revision: 1.2 20-Jul-2010 10:07:34
Data File: \\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2715.d
Injection Date: 27-Jul-2010 17:40:49 Limit Group: LC - 6860 Perchlorate
Client ID: Instrument ID: LC_LCMS1
Lims Batch ID: 24406 Lims Sample ID: 5
Operator ID: Injection Vol: 250.00 ul

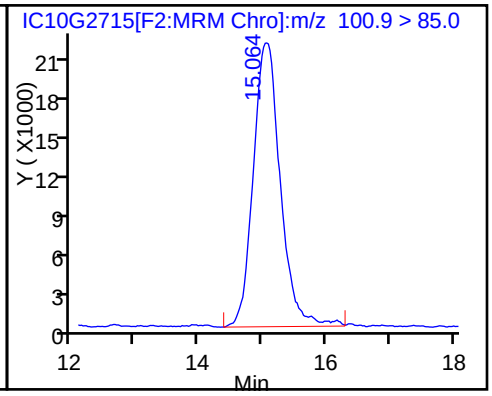
* 1 Perchlorate-18O



2 Perchlorate



2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-5193-1
SDG No.:
Client Sample ID:
Lab Sample ID: DLCK 280-22058/10
Matrix: Water
Lab File ID: IC10G0710.d
Analysis Method: 6860
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 07/07/2010 19:01
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 22058
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.0501		0.050	0.0088

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0710.d		
Lims ID:	DLCK	Client ID:	
Inject. Date:	07-Jul-2010 19:01:59	Dil. Factor:	1.0000
Sample Type:	DLCK, Detection Limit Check		
Sample ID:	DLCK 280-0000527-010		
Misc. Info.:	IC10G07		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	22058	Lims Sample ID:	10
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\6860_1.m		
Last Update:	08-Jul-2010 09:41:14	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC128		

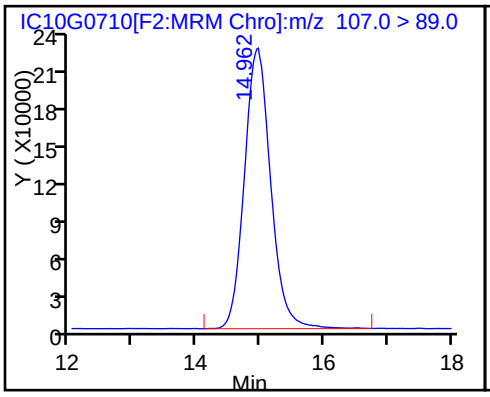
Reviewed By:	odonnellt	Date:	08-Jul-2010 09:41:26

Det	Signal	RT	EXP RT	DLT RT	Response	Amount ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	14.962	15.013	-0.051	6415503	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.013	15.063	-0.050	2108519	50.1	0.70- 1.30	1.00	
2	100.9 > 85.0	14.962	15.063	-0.101	737339		2.30- 3.80	2.86	

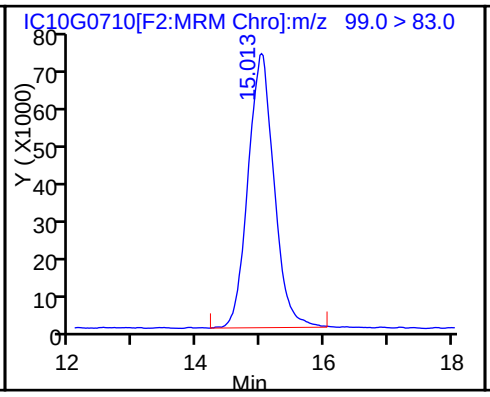
Report Date: 08-Jul-2010 09:41:26 Chrom Revision: 1.2 24-May-2010 14:44:04

Data File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0710.d		
Inj Date:	07-Jul-2010 19:01:59	Limit Group:	LC - 6860 Perchlorate
Lims Batch ID:	22058	Lims Sample ID:	10
Client ID:		Instrument:	LC_LCMS1
Sample Info:	dlck 280-0000257-010		
Sample Amount:	250.00 ul	Operator:	

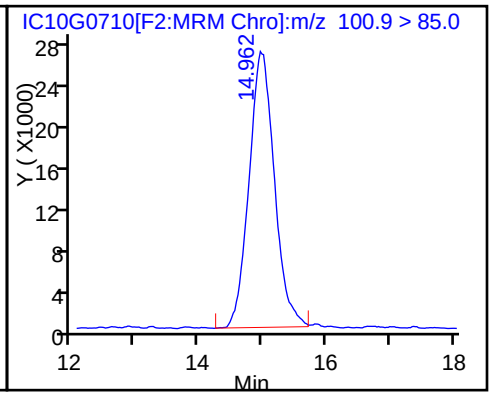
* 1 Perchlorate-18O



2 Perchlorate



2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-5193-1
SDG No.:
Client Sample ID: MW39-07-070710 MS
Lab Sample ID: 280-5193-6 MS
Matrix: Water
Lab File ID: IC10G2752.d
Analysis Method: 6860
Date Collected: 07/07/2010 18:00
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 07/28/2010 13:23
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 100
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 24406
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	62.2	m	5.0	0.88

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2752.d		
Lims ID:	280-5193-A-6 MS	Client ID:	MW39-07-MS-070710
Inject. Date:	28-Jul-2010 13:23:51	Dil. Factor:	100.0000
Sample Type:	MS, Matrix Spike		
Sample ID:	280-5193-a-6 ms 100X 280-0000625-042		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	42
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	28-Jul-2010 15:11:51	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

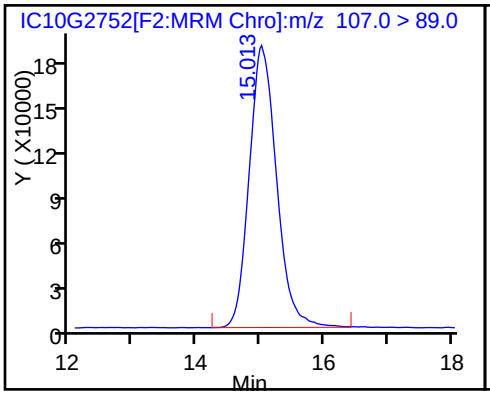
Reviewed By:	bonnettj	Date:	28-Jul-2010 15:12:15

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.013	15.064	-0.051	5567512	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.089	15.114	1.005	22182917	621.6	0.70- 1.30	1.00	
2	100.9 > 85.0	15.089	15.114	1.005	8221590		2.30- 3.80	2.70	

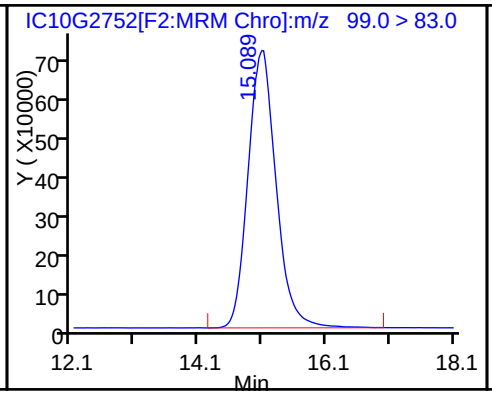
Report Date: 28-Jul-2010 15:12:15 Chrom Revision: 1.2 20-Jul-2010 10:07:34

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2752.d		
Injection Date:	28-Jul-2010 13:23:51	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-07-MS-070710	Instrument ID:	LC_LCMS1
Lims Batch ID:	24406	Lims Sample ID:	42
Operator ID:		Injection Vol:	250.00 ul

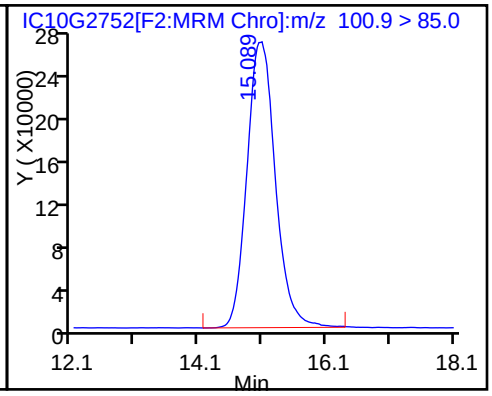
* 1 Perchlorate-18O



2 Perchlorate



2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 280-5193-1
SDG No.:
Client Sample ID: MW39-07-070710 MSD
Lab Sample ID: 280-5193-6 MSD
Matrix: Water
Lab File ID: IC10G2753.d
Analysis Method: 6860
Date Collected: 07/07/2010 18:00
Extraction Method:
Date Extracted:
Sample wt/vol: 5(mL)
Date Analyzed: 07/28/2010 13:55
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 100
Injection Volume: 250(uL)
GC Column: IonPac ID: 2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 24406
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	61.8	m	5.0	0.88

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2753.d		
Lims ID:	280-5193-A-6 MSD	Client ID:	MW39-07-MSD-070710
Inject. Date:	28-Jul-2010 13:55:14	Dil. Factor:	100.0000
Sample Type:	MSD, Matrix Spike Duplicate		
Sample ID:	280-5193-a-6 msd 100X 280-0000625-043		
Misc. Info.:	IC10G27		
Operator:		Instrument ID:	LC_LCMS1
Vol. Injected:	250.0000	ALS Bottle#:	1
Lims Batch ID:	24406	Lims Sample ID:	43
Raw Data:	Smoothed		

Method:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\6860_1.m		
Last Update:	28-Jul-2010 15:11:51	Calib Date:	07-Jul-2010 17:27:47
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\denchrom\ChromData\LC_LCMS1\20100707-527.b\IC10G0707.d		
Limit Group:	LC - 6860 Perchlorate		
Integrator:	Falcon		
Process Host:	DENPC285		

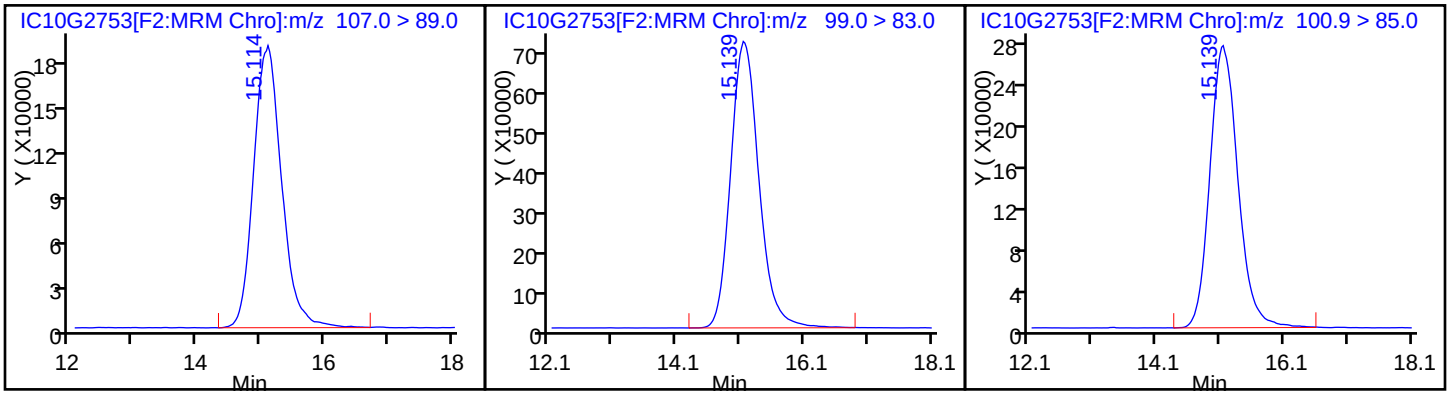
Reviewed By:	bonnettj	Date:	28-Jul-2010 15:58:26

Det	Signal	RT	ADJ RT	REL RT	Response	On-Col Amt ng/L	Ratio Range	Ratio	Flags
* 1 Perchlorate-18O									
2	107.0 > 89.0	15.114	15.064	0.050	5655856	200.0			
2 Perchlorate									
2	99.0 > 83.0	15.139	15.114	1.002	22394102	617.7	0.70- 1.30	1.00	
2	100.9 > 85.0	15.139	15.114	1.002	8468899		2.30- 3.80	2.64	

Report Date: 28-Jul-2010 15:58:27 Chrom Revision: 1.2 20-Jul-2010 10:07:34

Data File:	\\denchrom\ChromData\LC_LCMS1\20100727-625.b\IC10G2753.d		
Injection Date:	28-Jul-2010 13:55:14	Limit Group:	LC - 6860 Perchlorate
Client ID:	MW39-07-MSD-070710	Instrument ID:	LC_LCMS1
Lims Batch ID:	24406	Lims Sample ID:	43
Operator ID:		Injection Vol:	250.00 ul

* 1 Perchlorate-18O 2 Perchlorate 2 Perchlorate



LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-5193-1

SDG No.:

Instrument ID: LC_LCMS1 Start Date: 05/25/2010 13:34

Analysis Batch Number: 16759 End Date: 05/26/2010 21:04

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICB 280-16759/1		05/25/2010 13:34	1		IonPac 2(mm)
STD0020 280-16759/2 IC		05/25/2010 14:06	1	IC10e2502.d	IonPac 2(mm)
STD0050 280-16759/3 IC		05/25/2010 14:38	1	IC10e2503.d	IonPac 2(mm)
STD0100 280-16759/4 IC		05/25/2010 15:09	1	IC10e2504.d	IonPac 2(mm)
ICISAV 280-16759/5		05/25/2010 15:41	1	IC10e2505.d	IonPac 2(mm)
STD0500 280-16759/6 IC		05/25/2010 16:12	1	IC10e2506.d	IonPac 2(mm)
STD1000 280-16759/7 IC		05/25/2010 16:43	1	IC10e2507.d	IonPac 2(mm)
CCB 280-16759/8		05/25/2010 17:15	1		IonPac 2(mm)
ICV 280-16759/9		05/25/2010 17:46	1		IonPac 2(mm)
ZZZZZ		05/25/2010 18:17	1		IonPac 2(mm)
ZZZZZ		05/25/2010 18:49	1		IonPac 2(mm)
ZZZZZ		05/25/2010 19:20	1		IonPac 2(mm)
INF 280-16759/13		05/25/2010 19:52	1		IonPac 2(mm)
CCV 280-16759/19		05/25/2010 23:00	1		IonPac 2(mm)
CCVL 280-16759/20		05/25/2010 23:31	1		IonPac 2(mm)
CCB 280-16759/21		05/26/2010 00:03	1		IonPac 2(mm)
ZZZZZ		05/26/2010 00:34	1		IonPac 2(mm)
ZZZZZ		05/26/2010 01:06	1		IonPac 2(mm)
INF 280-16759/24		05/26/2010 01:37	1		IonPac 2(mm)
ZZZZZ		05/26/2010 02:08	10000		IonPac 2(mm)
ZZZZZ		05/26/2010 03:43	10		IonPac 2(mm)
ZZZZZ		05/26/2010 04:14	10		IonPac 2(mm)
ZZZZZ		05/26/2010 04:45	10		IonPac 2(mm)
CCV 280-16759/31		05/26/2010 05:17	1		IonPac 2(mm)
CCVL 280-16759/32		05/26/2010 05:48	1		IonPac 2(mm)
CCB 280-16759/33		05/26/2010 06:20	1		IonPac 2(mm)
ZZZZZ		05/26/2010 11:08	100000		IonPac 2(mm)
ZZZZZ		05/26/2010 11:40	20000		IonPac 2(mm)
CCV 280-16759/38		05/26/2010 12:10	1		IonPac 2(mm)
CCVL 280-16759/39		05/26/2010 12:41	1		IonPac 2(mm)
ZZZZZ		05/26/2010 13:44	100000		IonPac 2(mm)
ZZZZZ		05/26/2010 14:16	100000		IonPac 2(mm)
ZZZZZ		05/26/2010 14:47	100000		IonPac 2(mm)
ZZZZZ		05/26/2010 15:18	10		IonPac 2(mm)
ZZZZZ		05/26/2010 15:50	50		IonPac 2(mm)
ZZZZZ		05/26/2010 19:03	1		IonPac 2(mm)
CCV 280-16759/46		05/26/2010 20:01	1		IonPac 2(mm)
CCVL 280-16759/47		05/26/2010 20:32	1		IonPac 2(mm)
CCB 280-16759/48		05/26/2010 21:04	1		IonPac 2(mm)

6860

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-5193-1

SDG No.:

Instrument ID: LC_LCMS1 Start Date: 07/07/2010 14:19

Analysis Batch Number: 22058 End Date: 07/08/2010 07:35

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICB 280-22058/1		07/07/2010 14:19	1	IC10G0701.d	IonPac 2(mm)
STD0020 280-22058/2 IC		07/07/2010 14:55	1	IC10G0702.d	IonPac 2(mm)
STD0050 280-22058/3 IC		07/07/2010 15:22	1	IC10G0703.d	IonPac 2(mm)
STD0100 280-22058/4 IC		07/07/2010 15:53	1	IC10G0704.d	IonPac 2(mm)
STD0200 280-22058/5 ICISAV		07/07/2010 16:25	1	IC10G0705.d	IonPac 2(mm)
STD0500 280-22058/6 IC		07/07/2010 16:56	1	IC10G0706.d	IonPac 2(mm)
STD1000 280-22058/7 IC		07/07/2010 17:27	1	IC10G0707.d	IonPac 2(mm)
CCB 280-22058/8		07/07/2010 17:59	1	IC10G0708.d	IonPac 2(mm)
ICV 280-22058/9		07/07/2010 18:30	1	IC10G0709.d	IonPac 2(mm)
DLCK 280-22058/10		07/07/2010 19:01	1	IC10G0710.d	IonPac 2(mm)
ZZZZZ		07/07/2010 19:33	1		IonPac 2(mm)
ZZZZZ		07/07/2010 20:04	1		IonPac 2(mm)
ZZZZZ		07/07/2010 20:36	1		IonPac 2(mm)
INF 280-22058/14		07/07/2010 21:07	1		IonPac 2(mm)
ZZZZZ		07/07/2010 21:38	1		IonPac 2(mm)
ZZZZZ		07/07/2010 22:10	1		IonPac 2(mm)
ZZZZZ		07/07/2010 22:41	1		IonPac 2(mm)
ZZZZZ		07/07/2010 23:13	1		IonPac 2(mm)
ZZZZZ		07/07/2010 23:44	1		IonPac 2(mm)
CCV 280-22058/20		07/08/2010 00:15	1	IC10G0720.d	IonPac 2(mm)
CCVL 280-22058/21		07/08/2010 00:47	1		IonPac 2(mm)
CCB 280-22058/22		07/08/2010 01:18	1	IC10G0722.d	IonPac 2(mm)
ZZZZZ		07/08/2010 01:50	1		IonPac 2(mm)
ZZZZZ		07/08/2010 02:21	10		IonPac 2(mm)
ZZZZZ		07/08/2010 02:52	1		IonPac 2(mm)
ZZZZZ		07/08/2010 03:24	10		IonPac 2(mm)
ZZZZZ		07/08/2010 03:55	1		IonPac 2(mm)
ZZZZZ		07/08/2010 04:27	1		IonPac 2(mm)
ZZZZZ		07/08/2010 04:58	5		IonPac 2(mm)
ZZZZZ		07/08/2010 05:29	1		IonPac 2(mm)
CCV 280-22058/32		07/08/2010 06:32	1		IonPac 2(mm)
CCVL 280-22058/33		07/08/2010 07:04	1		IonPac 2(mm)
CCB 280-22058/34		07/08/2010 07:35	1		IonPac 2(mm)

6860

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-5193-1

SDG No.:

Instrument ID: LC_LCMS1 Start Date: 07/27/2010 14:05

Analysis Batch Number: 24406 End Date: 07/28/2010 16:32

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCB 280-24406/1		07/27/2010 14:05	1	IC10G2711.d	IonPac 2(mm)
CCV 280-24406/2		07/27/2010 16:05	1	IC10G2712.d	IonPac 2(mm)
CCVL 280-24406/3		07/27/2010 16:38	1	IC10G2713.d	IonPac 2(mm)
MB 280-24406/4		07/27/2010 17:09	1	IC10G2714.d	IonPac 2(mm)
LCS 280-24406/5		07/27/2010 17:40	1	IC10G2715.d	IonPac 2(mm)
INF 280-24406/6		07/27/2010 18:12	1	IC10G2716.d	IonPac 2(mm)
ZZZZZ		07/27/2010 18:43	1		IonPac 2(mm)
ZZZZZ		07/27/2010 19:15	1		IonPac 2(mm)
ZZZZZ		07/27/2010 19:46	1		IonPac 2(mm)
ZZZZZ		07/27/2010 20:17	50		IonPac 2(mm)
ZZZZZ		07/27/2010 20:49	50		IonPac 2(mm)
ZZZZZ		07/27/2010 21:20	50		IonPac 2(mm)
CCV 280-24406/13		07/27/2010 21:51	1	IC10G2723.d	IonPac 2(mm)
CCVL 280-24406/14		07/27/2010 22:23	1	IC10G2724.d	IonPac 2(mm)
CCB 280-24406/15		07/27/2010 22:54	1	IC10G2725.d	IonPac 2(mm)
ZZZZZ		07/27/2010 23:26	50		IonPac 2(mm)
ZZZZZ		07/27/2010 23:57	50		IonPac 2(mm)
ZZZZZ		07/28/2010 00:28	50		IonPac 2(mm)
ZZZZZ		07/28/2010 01:00	50		IonPac 2(mm)
ZZZZZ		07/28/2010 01:31	50		IonPac 2(mm)
280-5193-7	MW39-05-070810	07/28/2010 02:03	20	IC10G2731.d	IonPac 2(mm)
280-5193-8	MW39-02-070810	07/28/2010 02:34	100	IC10G2732.d	IonPac 2(mm)
280-5193-9	MW39-06D-070810	07/28/2010 03:05	50	IC10G2733.d	IonPac 2(mm)
CCV 280-24406/24		07/28/2010 03:37	1	IC10G2734.d	IonPac 2(mm)
CCVL 280-24406/25		07/28/2010 04:08	1	IC10G2735.d	IonPac 2(mm)
CCB 280-24406/26		07/28/2010 04:40	1	IC10G2736.d	IonPac 2(mm)
280-5193-10	MW39-DUP01-070810	07/28/2010 05:11	50	IC10G2737.d	IonPac 2(mm)
280-5193-11	MW39-06-070810	07/28/2010 05:42	100	IC10G2738.d	IonPac 2(mm)
280-5193-12	MW39-03-070810	07/28/2010 06:14	50	IC10G2739.d	IonPac 2(mm)
ZZZZZ		07/28/2010 06:45	1		IonPac 2(mm)
ZZZZZ		07/28/2010 07:17	1		IonPac 2(mm)
ZZZZZ		07/28/2010 07:48	1		IonPac 2(mm)
CCV 280-24406/33		07/28/2010 08:19	1	IC10G2743.d	IonPac 2(mm)
CCVL 280-24406/34		07/28/2010 08:51	1	IC10G2744.d	IonPac 2(mm)
CCB 280-24406/35		07/28/2010 09:22	1	IC10G2745.d	IonPac 2(mm)
280-5193-1	MW39-11-070710	07/28/2010 10:14	100	IC10G2746.d	IonPac 2(mm)
280-5193-2	MW39-12-070710	07/28/2010 10:46	100	IC10G2747.d	IonPac 2(mm)
280-5193-3	MW39-08-070710	07/28/2010 11:18	100	IC10G2748.d	IonPac 2(mm)
280-5193-4	MW39-09-070710	07/28/2010 11:49	100	IC10G2749.d	IonPac 2(mm)
280-5193-5	MW39-10-070710	07/28/2010 12:21	100	IC10G2750.d	IonPac 2(mm)
280-5193-6	MW39-07-070710	07/28/2010 12:52	100	IC10G2751.d	IonPac 2(mm)
280-5193-6 MS	MW39-07-070710 MS	07/28/2010 13:23	100	IC10G2752.d	IonPac 2(mm)
280-5193-6 MSD	MW39-07-070710 MSD	07/28/2010 13:55	100	IC10G2753.d	IonPac 2(mm)
280-5193-4	MW39-09-070710	07/28/2010 14:26	200	IC10G2754.d	IonPac 2(mm)
280-5193-5	MW39-10-070710	07/28/2010 14:58	200	IC10G2755.d	IonPac 2(mm)

6860

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-5193-1

SDG No.:

Instrument ID: LC_LCMS1 Start Date: 07/27/2010 14:05

Analysis Batch Number: 24406 End Date: 07/28/2010 16:32

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-24406/44		07/28/2010 15:29	1	IC10G2756.d	IonPac 2(mm)
CCVL 280-24406/45		07/28/2010 16:00	1	IC10G2757.d	IonPac 2(mm)
CCB 280-24406/46		07/28/2010 16:32	1	IC10G2758.d	IonPac 2(mm)

6860

Shipping and Receiving Documents

Chain of Custody Record

TAL-4124-280 (0508)

Sampler ID _____

Temperature on Receipt 3.1°C IR

Drinking Water? Yes ☐ No ☒ 7/9/10

TestAmerica THE LEADER IN ENVIRONMENTAL TESTING

TA-COC-08

Client: TETRA TECH, INC	Project Manager: MIKE.HIGGINS@TRTRATECH.COM	Date: 7/7/10	Chain of Custody Number: 123572
Address: 800 OAK RIDGE TURNPIKE A-600	Telephone Number (Area Code)/Fax Number: 865-705-1290	Lab Number	Page 1 of 2
City: OAK RIDGE; State: TN; Zip Code: 37830	Site Contact: M. HIGGINS	Lab Contact: L. DRIELL	
Project Name and Location (State): HOLLOMAN AFB, NM	Carrier/Waybill Number: 865314123409		
Contract/Purchase Order/Quote No.: 80188 LISA DRIELL			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Perchlorate 6850	Special Instructions/ Conditions of Receipt
MW39-11-070710	07-07-10	1128		X			X						X	
MW39-12-070710	07-07-10	1145		X			X						X	
MW39-08-070710	07-07-10	1432		X			X						X	
MW39-09-070710	07-07-10	1510		X			X						X	
MW39-10-070710	07-07-10	1724		X			X						X	
MW39-07-070710	07-07-10	1800		X			X						X	
MW39-07-MS-070710	07-07-10	1800		X			X						X	MS
MW39-07-MSD-070710	07-07-10	1800		X			X						X	MSD
MW39-05-070810	07-08-10	1020		X			X						X	
MW39-02-070810	07-08-10	1034		X			X						X	
MW39-06D-070810	07-08-10	1208		X			X						X	
MW39-DUP01-070810	07-08-10	—		X			X						X	

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☒ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By	Date 7/8/10	Time 1700	1. Received By FED EX	Date 7/8/10	Time 1900
2. Relinquished By	Date	Time	2. Received By	Date 7-9-10	Time 1045
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

TAL-4124-280 (0508)

Sampler ID _____

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica TA-COC-08

THE LEADER IN ENVIRONMENTAL TESTING

Client: TETRA TECH, INC	Project Manager: MIKE.HIGGINS@TETRATECH.COM	Date: 7/7/10	Chain of Custody Number: 131725
Address: 800 OAK RIDGE TURNPIKE A-600	Telephone Number (Area Code)/Fax Number: 865-705-1290	Lab Number	Page 2 of 2
City: OAK RIDGE; State: TN; Zip Code: 37830	Site Contact: M. HIGGINS	Lab Contact: L. URIELL	
Project Name and Location (State): HOLLOMAN AFB, NM	Carrier/Waybill Number: 865314123409		
Contract/Purchase Order/Quote No.: 80188 LISA URIELL			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): PERCHLORATE 6860	Special Instructions/ Conditions of Receipt
MW39-06-070810	7/8/10	1215		X			X						X	
MW39-03-070810	7/8/10	1544		X			X						X	

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☒ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By: [signature]	Date: 7/8/10	Time: 1700	1. Received By: FED EX	Date: 7/8/10	Time: 1900
2. Relinquished By	Date	Time	2. Received By: [signature]	Date: 7-9-10	Time: 1045
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Login Sample Receipt Check List

Client: Tetra Tech, Inc.

Job Number: 280-5193-1

Login Number: 5193

List Source: TestAmerica Denver

Creator: Harrington, Nicholas

List Number: 1

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

Southeast ACCUTEST LABORATORIES

Reissue #1
05/17/11

Technical Report for

Tetra Tech, Inc

Holloman AFB; Alamogordo, NM

SS-39

Accutest Job Number: F79701

Sampling Dates: 01/27/11 - 01/28/11

Report to:

Tetra Tech, NUS

Maureen.McMyler@tetratech.com

ATTN: Maureen McMyler

Total number of pages in report: **363**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Sue Bell 407-425-6700

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK

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Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

May 9, 2011

Maureen McMyler
Tetra Tech
800 Oak Ridge Turnpike
Suite A 600
Oak Ridge, TN 37838

RE: Accutest job F79701 Reissue

Dear Ms. McMyler,

The final report for job number F79701 has been edited to reflect requested corrections. These edits have been incorporated into the revised report.

The Trip Blank data has been added to the report, F79701-10.

Accutest apologies for any inconvenience this may have caused. Please feel free to contact us if we can be of further assistance.

Sincerely,

Accutest Laboratories, SE

Florida ♦ 4405 Vineland Road ♦ Suite C-15 ♦ Orlando, FL 32811 ♦ tel: 407 425-6700 ♦ fax: 407 425-0707 ♦ htpp:/www.accutest.com

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Accutest Laboratories

Sample Summary

Tetra Tech, Inc

Job No: F79701

Holloman AFB; Alamogordo, NM
Project No: SS-39

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F79701-1	01/27/11	15:00 LT	01/29/11	AQ	Ground Water	MW39-10-012711
F79701-1F	01/27/11	15:00 LT	01/29/11	AQ	Groundwater Filtered	MW39-10-012711
F79701-2	01/27/11	16:40 LT	01/29/11	AQ	Ground Water	MW39-11-012711
F79701-2F	01/27/11	16:40 LT	01/29/11	AQ	Groundwater Filtered	MW39-11-012711
F79701-3	01/27/11	15:15 LT	01/29/11	AQ	Ground Water	MW39-12-012711
F79701-3F	01/27/11	15:15 LT	01/29/11	AQ	Groundwater Filtered	MW39-12-012711
F79701-4	01/28/11	11:20 LT	01/29/11	AQ	Ground Water	MW39-02-012811
F79701-4F	01/28/11	11:20 LT	01/29/11	AQ	Groundwater Filtered	MW39-02-012811
F79701-5	01/28/11	11:35 LT	01/29/11	AQ	Ground Water	MW39-05-012811
F79701-5F	01/28/11	11:35 LT	01/29/11	AQ	Groundwater Filtered	MW39-05-012811
F79701-6	01/28/11	13:45 LT	01/29/11	AQ	Ground Water	MW39-07-012811
F79701-6D	01/28/11	13:45 LT	01/29/11	AQ	Water Dup/MSD	MW39-07-012811
F79701-6F	01/28/11	13:45 LT	01/29/11	AQ	Groundwater Filtered	MW39-07-012811

Sample Summary
(continued)

Tetra Tech, Inc

Job No: F79701

Holloman AFB; Alamogordo, NM
Project No: SS-39

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F79701-6FD	01/28/11	13:45 LT	01/29/11	AQ	Water Dup/MSD	MW39-07-012811
F79701-6FS	01/28/11	13:45 LT	01/29/11	AQ	Water Matrix Spike	MW39-07-012811
F79701-6S	01/28/11	13:45 LT	01/29/11	AQ	Water Matrix Spike	MW39-07-012811
F79701-7	01/28/11	10:40 LT	01/29/11	AQ	Ground Water	MW39-13-012811
F79701-7F	01/28/11	10:40 LT	01/29/11	AQ	Groundwater Filtered	MW39-13-012811
F79701-8	01/28/11	13:30 LT	01/29/11	AQ	Ground Water	MW39-15-012811
F79701-8D	01/28/11	13:30 LT	01/29/11	AQ	Water Dup/MSD	MW39-15-012811
F79701-8F	01/28/11	13:30 LT	01/29/11	AQ	Groundwater Filtered	MW39-15-012811
F79701-8FD	01/28/11	13:30 LT	01/29/11	AQ	Water Dup/MSD	MW39-15-012811
F79701-8FS	01/28/11	13:30 LT	01/29/11	AQ	Water Matrix Spike	MW39-15-012811
F79701-8S	01/28/11	13:30 LT	01/29/11	AQ	Water Matrix Spike	MW39-15-012811
F79701-9	01/28/11	13:00 LT	01/29/11	AQ	Ground Water	MW39-16-012811
F79701-9F	01/28/11	13:00 LT	01/29/11	AQ	Groundwater Filtered	MW39-16-012811

Accutest Laboratories

Sample Summary
(continued)

Tetra Tech, Inc

Job No: F79701

Holloman AFB; Alamogordo, NM
Project No: SS-39

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F79701-10	01/27/11	15:10 LT	01/29/11	AQ	Trip Blank Water	TB01-012811

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Tetra Tech, Inc **Job** F79701

Site: Holloman AFB; Alamogordo, NM **Report Date:** 2/16/2011 2:26:04 PM

9 Samples were collected on 01/27/2011 and 01/28/2011 and were received at Accutest SE on 01/29/2011 properly preserved, at 2.8 Deg. C and intact. These Samples received an Accutest job number of F79701. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS by Method SW846 8260B

Matrix: AQ **Batch ID:** VJ3483

F79701-1, F79701-2, F79701-3: Confirmation run for internal standard areas.

Matrix: AQ **Batch ID:** VJ3486

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F79758-1MS, F79758-1MSD were used as the QC samples indicated.

Matrix Spike Recoverys for 2-Chloroethyl vinyl ether, Acrolein, Allyl chloride, cis-1,4-Dichloro-2-Butene, Trans-1,4-Dichloro-2-Butene, 1,2,4-Trimethylbenzene are outside control limits. Outside control limits due to high level in sample relative to spike amount.

Matrix Spike Duplicate Recoverys for 2-Chloroethyl vinyl ether, Acrolein, Allyl chloride, cis-1,3-Dichloropropene, cis-1,4-Dichloro-2-Butene, Trans-1,4-Dichloro-2-Butene are outside control limits. Probable cause due to matrix interference.

Matrix Spike Recovery for Ethylbenzene is outside control limits. Outside control limits due to high level in sample relative to spike amount.

RPDs for MSD for cis-1,3-Dichloropropene, cis-1,4-Dichloro-2-Butene, trans-1,3-Dichloropropene, Trans-1,4-Dichloro-2-Butene are outside control limits for sample F79758-1MSD. Probable cause due to sample nonhomogeneity.

Matrix: AQ **Batch ID:** VJ3489

All samples were analyzed within the recommended method holding time.

Samples F79701-6MS, F79701-6MSD, F79701-8MS, F79701-8MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Matrix Spike Recoverys for 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloropropene, 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichloropropane, 1,3-Dichloropropane, 2-Chloroethyl vinyl ether, 2-Hexanone, 4-Methyl-2-pentanone, Acetone, Acetonitrile, Acrylonitrile, Benzyl Chloride, Bromochloromethane, Chlorobenzene, cis-1,2-Dichloroethylene, cis-1,3-Dichloropropene, Ethyl methacrylate, m-Dichlorobenzene, Methacrylonitrile, Methyl iodide, Methyl methacrylate, Methyl Tert Butyl Ether, Methylene bromide, Naphthalene, o-Dichlorobenzene, p-Dichlorobenzene, Pentachloroethane, Propionitrile, trans-1,3-Dichloropropene, Trichloroethylene, Trichlorofluoromethane, Vinyl Acetate are outside control limits. Probable cause due to matrix interference.

Matrix Spike Duplicate Recoverys for 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,3-Dichloropropane, 2-Chloroethyl vinyl ether, 2-Hexanone, 4-Methyl-2-pentanone, Acetonitrile, Benzyl Chloride, Chlorobenzene, Ethyl methacrylate, Methacrylonitrile, Methyl methacrylate, Methyl Tert Butyl Ether, Naphthalene, o-Dichlorobenzene, Propionitrile, Trichloroethylene, Vinyl Acetate are outside control limits. Probable cause due to matrix interference.

RPDs for MSD for Allyl chloride, Bromodichloromethane, Bromoform, Carbon disulfide, Carbon tetrachloride, cis-1,3-Dichloropropene, Dibromochloromethane, Pentachloroethane, trans-1,3-Dichloropropene, Allyl chloride are outside control limits for samples F79701-6MSD, F79701-8MSD. Probable cause due to sample non-homogeneity.

Matrix: AQ **Batch ID:** VJ3490

All samples were analyzed within the recommended method holding time.

Samples F79844-4MS, F79844-4MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Blank Spike Recoverys for Chlorobenzene, Pentachloroethane are outside control limits.

Volatiles by GCMS by Method SW846 8260B

Matrix: AQ **Batch ID:** VJ3490

Matrix Spike Recoverys for 1-Chlorohexane, 2-Chloroethyl vinyl ether, Isopropylbenzene, Styrene are outside control limits. Probable cause due to matrix interference.

Matrix Spike Duplicate Recoverys for 2-Chloroethyl vinyl ether, Styrene are outside control limits. Probable cause due to matrix interference.

Matrix Spike Recovery for Chlorobenzene is outside control limits. Outside control limits due to high level in sample relative to spike amount.

RPD for MSD for Carbon disulfide is outside control limits for sample F79844-4MSD. Probable cause due to sample non-homogeneity.

Volatiles by GC by Method SW846 8015C

Matrix: AQ **Batch ID:** GCD4222

All samples were analyzed within the recommended method holding time.

Samples F79701-8MS, F79701-8MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Extractables by GC by Method SW846 8015C

Matrix: AQ **Batch ID:** OP35910

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F79701-8MS, F79701-8MSD were used as the QC samples indicated.

Metals by Method SW846 6010C

Matrix: AQ **Batch ID:** MP19934

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F79701-6FMS, F79701-6FMSD, F79701-6FPS, F79701-6FSDL, F79701-6FDUP were used as the QC samples for metals.

Matrix Spike Recoverys for Selenium, Silver are outside control limits. Spike recovery indicates possible matrix interference.

RPD for Duplicate for Arsenic is outside control limits for sample MP19934-D1. RPD acceptable due to low duplicate and sample concentrations.

RPD for Serial Dilution for Barium is outside control limits for sample MP19934-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

MP19934-PS1 for Arsenic: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP19934-PS1 for Lead: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP19934-PS1 for Silver: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP19934-PS1 for Selenium: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

F79701-6F for Selenium: Elevated reporting limit(s) due to matrix interference.

F79701-6F for Lead: Elevated reporting limit(s) due to matrix interference.

F79701-6F for Arsenic: Elevated reporting limit(s) due to matrix interference.

F79701-6F for Cadmium: Elevated reporting limit(s) due to matrix interference.

F79701-6F for Chromium: Elevated reporting limit(s) due to matrix interference.

F79701-6F for Silver: Elevated reporting limit(s) due to matrix interference.

Matrix: AQ **Batch ID:** MP19938

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Metals by Method SW846 6010C

Matrix: AQ **Batch ID:** MP19938

Samples F79701-6MS, F79701-6MSD, F79701-6PS, F79701-6SDL, F79701-6DUP were used as the QC samples for metals.

Matrix Spike and Matrix Spike Duplicate Recoverys for Arsenic, Selenium, Silver are outside control limits. Spike recovery indicates possible matrix interference.

RPDs for Duplicate for Arsenic, Selenium are outside control limits for sample MP19938-D1. RPD acceptable due to low duplicate and sample concentrations.

RPDs for Serial Dilution for Arsenic, Barium, Selenium are outside control limits for sample MP19938-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

MP19938-PS1 for Arsenic: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP19938-PS1 for Lead: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP19938-PS1 for Silver: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

F79701-2 for Cadmium: Elevated reporting limit(s) due to matrix interference.

F79701-6 for Selenium: Elevated reporting limit(s) due to matrix interference.

F79701-6 for Lead: Elevated reporting limit(s) due to matrix interference.

F79701-6 for Chromium: Elevated reporting limit(s) due to matrix interference.

F79701-6 for Cadmium: Elevated reporting limit(s) due to matrix interference.

F79701-6 for Arsenic: Elevated reporting limit(s) due to matrix interference.

F79701-9 for Selenium: Elevated reporting limit(s) due to matrix interference.

F79701-7 for Selenium: Elevated reporting limit(s) due to matrix interference.

F79701-7 for Chromium: Elevated reporting limit(s) due to matrix interference.

F79701-6 for Silver: Elevated reporting limit(s) due to matrix interference.

F79701-2 for Arsenic: Elevated reporting limit(s) due to matrix interference.

F79701-9 for Chromium: Elevated reporting limit(s) due to matrix interference.

F79701-2 for Selenium: Elevated reporting limit(s) due to matrix interference.

F79701-5 for Lead: Elevated reporting limit(s) due to matrix interference.

F79701-1 for Lead: Elevated reporting limit(s) due to matrix interference.

F79701-2 for Lead: Elevated reporting limit(s) due to matrix interference.

F79701-3 for Lead: Elevated reporting limit(s) due to matrix interference.

F79701-9 for Lead: Elevated reporting limit(s) due to matrix interference.

F79701-1 for Silver: Elevated reporting limit(s) due to matrix interference.

F79701-4 for Selenium: Elevated reporting limit(s) due to matrix interference.

F79701-4 for Chromium: Elevated reporting limit(s) due to matrix interference.

F79701-3 for Silver: Elevated reporting limit(s) due to matrix interference.

F79701-3 for Selenium: Elevated reporting limit(s) due to matrix interference.

F79701-3 for Chromium: Elevated reporting limit(s) due to matrix interference.

F79701-3 for Cadmium: Elevated reporting limit(s) due to matrix interference.

F79701-5 for Cadmium: Elevated reporting limit(s) due to matrix interference.

F79701-5 for Chromium: Elevated reporting limit(s) due to matrix interference.

F79701-5 for Selenium: Elevated reporting limit(s) due to matrix interference.

F79701-5 for Silver: Elevated reporting limit(s) due to matrix interference.

F79701-3 for Arsenic: Elevated reporting limit(s) due to matrix interference.

F79701-5 for Arsenic: Elevated reporting limit(s) due to matrix interference.

F79701-2 for Chromium: Elevated reporting limit(s) due to matrix interference.

F79701-1 for Arsenic: Elevated reporting limit(s) due to matrix interference.

F79701-1 for Cadmium: Elevated reporting limit(s) due to matrix interference.

F79701-1 for Chromium: Elevated reporting limit(s) due to matrix interference.

F79701-1 for Selenium: Elevated reporting limit(s) due to matrix interference.

F79701-2 for Silver: Elevated reporting limit(s) due to matrix interference.

Metals by Method SW846 6010C

Matrix: AQ **Batch ID:** MP19939

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F79701-8MS, F79701-8MSD, F79701-8PS, F79701-8SDL, F79701-8DUP were used as the QC samples for metals.

RPD for Duplicate for Arsenic is outside control limits for sample MP19939-D1. RPD acceptable due to low duplicate and sample concentrations.

RPDs for Serial Dilution for Arsenic, Barium, Selenium are outside control limits for sample MP19939-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

MP19939-PS1 for Selenium: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

F79701-2F for Chromium: Elevated reporting limit(s) due to matrix interference.

F79701-2F for Lead: Elevated reporting limit(s) due to matrix interference.

F79701-1F for Lead: Elevated reporting limit(s) due to matrix interference.

F79701-8 for Selenium: Elevated reporting limit(s) due to matrix interference.

F79701-8 for Chromium: Elevated reporting limit(s) due to matrix interference.

F79701-9F for Chromium: Elevated reporting limit(s) due to matrix interference.

F79701-9F for Selenium: Elevated reporting limit(s) due to matrix interference.

F79701-3F for Chromium: Elevated reporting limit(s) due to matrix interference.

F79701-3F for Lead: Elevated reporting limit(s) due to matrix interference.

F79701-2F for Selenium: Elevated reporting limit(s) due to matrix interference.

F79701-5F for Silver: Elevated reporting limit(s) due to matrix interference.

F79701-3F for Arsenic: Elevated reporting limit(s) due to matrix interference.

F79701-3F for Cadmium: Elevated reporting limit(s) due to matrix interference.

F79701-3F for Selenium: Elevated reporting limit(s) due to matrix interference.

F79701-5F for Lead: Elevated reporting limit(s) due to matrix interference.

F79701-5F for Chromium: Elevated reporting limit(s) due to matrix interference.

F79701-9F for Lead: Elevated reporting limit(s) due to matrix interference.

F79701-2F for Cadmium: Elevated reporting limit(s) due to matrix interference.

F79701-2F for Arsenic: Elevated reporting limit(s) due to matrix interference.

F79701-2F for Silver: Elevated reporting limit(s) due to matrix interference.

F79701-7F for Chromium: Elevated reporting limit(s) due to matrix interference.

F79701-5F for Selenium: Elevated reporting limit(s) due to matrix interference.

F79701-5F for Cadmium: Elevated reporting limit(s) due to matrix interference.

F79701-7F for Selenium: Elevated reporting limit(s) due to matrix interference.

F79701-1F for Selenium: Elevated reporting limit(s) due to matrix interference.

F79701-1F for Chromium: Elevated reporting limit(s) due to matrix interference.

F79701-1F for Cadmium: Elevated reporting limit(s) due to matrix interference.

F79701-5F for Arsenic: Elevated reporting limit(s) due to matrix interference.

F79701-1F for Silver: Elevated reporting limit(s) due to matrix interference.

F79701-4F for Selenium: Elevated reporting limit(s) due to matrix interference.

F79701-4F for Chromium: Elevated reporting limit(s) due to matrix interference.

F79701-3F for Silver: Elevated reporting limit(s) due to matrix interference.

F79701-1F for Arsenic: Elevated reporting limit(s) due to matrix interference.

Matrix: AQ **Batch ID:** MP19949

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F79701-8FMS, F79701-8FMSD, F79701-8FPS, F79701-8FSDL, F79701-8FDUP were used as the QC samples for metals.

Matrix Spike Duplicate Recovery for Silver is outside control limits. Probable cause due to matrix interference.

Metals by Method SW846 6010C

Matrix: AQ **Batch ID:** MP19949

RPDs for Duplicate for Arsenic, Lead are outside control limits for sample MP19949-D1. RPD acceptable due to low duplicate and sample concentrations.

RPDs for Serial Dilution for Arsenic, Barium, Lead, Selenium are outside control limits for sample MP19949-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

MP19949-PS1 for Arsenic: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP19949-PS1 for Silver: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP19949-PS1 for Selenium: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

F79701-8F for Lead: Elevated reporting limit(s) due to matrix interference.

F79701-8F for Chromium: Elevated reporting limit(s) due to matrix interference.

F79701-8F for Selenium: Elevated reporting limit(s) due to matrix interference.

Metals by Method SW846 7470A

Matrix: AQ **Batch ID:** MP19910

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F79701-6DUP, F79701-6MS, F79701-6MSD, F79701-6SDL were used as the QC samples for metals.

Matrix: AQ **Batch ID:** MP19915

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F79701-8DUP, F79701-8MS, F79701-8MSD, F79701-8SDL were used as the QC samples for metals.

Matrix: AQ **Batch ID:** MP19916

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F79701-6FDUP, F79701-6FMS, F79701-6FMSD, F79701-6FSDL were used as the QC samples for metals.

Matrix: AQ **Batch ID:** MP19930

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F79701-8FDUP, F79701-8FMS, F79701-8FMSD, F79701-8FSDL were used as the QC samples for metals.

Wet Chemistry by Method SM19 2540C

Matrix: AQ **Batch ID:** GN43143

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample F79701-6DUP was used as the QC sample for Solids, Total Dissolved.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

_____ Date: February 14, 2011

Ellen Pampel, Inorganic QA (signature on file)

Wednesday, February 16, 2011

Southeast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW39-10-012711		
Lab Sample ID:	F79701-1	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J062939.D	1	02/08/11	MM	n/a	n/a	VJ3486
Run #2 [a]	J062870.D	1	02/04/11	MM	n/a	n/a	VJ3483

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	125	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-10-012711		
Lab Sample ID:	F79701-1	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	27.9	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	8.2	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	1.2	2.0	0.50	ug/l	J
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	14.0	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	1.2	5.0	1.0	ug/l	J
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-10-012711		
Lab Sample ID:	F79701-1	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%	105%	87-116%
17060-07-0	1,2-Dichloroethane-D4	110%	113%	76-127%
2037-26-5	Toluene-D8	95%	94%	86-112%
460-00-4	4-Bromofluorobenzene	96%	97%	84-120%

(a) Confirmation run for internal standard areas.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-10-012711		
Lab Sample ID:	F79701-1	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	10 U	50	10	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [6]
Barium	41.2 B	200	5.0	ug/l	1	02/08/11	02/08/11	RS	SW846 6010C [2]	SW846 3010A [6]
Cadmium [a]	5.0 U	25	5.0	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [6]
Chromium [a]	5.0 U	50	5.0	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [6]
Lead [a]	25.4 B	100	20	ug/l	20	02/08/11	02/11/11	RS	SW846 6010C [4]	SW846 3010A [6]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/03/11	02/03/11	LM	SW846 7470A [1]	SW846 7470A [5]
Selenium [a]	10 U	50	10	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [6]
Silver [a]	5.0 U	50	5.0	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [6]

(1) Instrument QC Batch: MA8690
(2) Instrument QC Batch: MA8700
(3) Instrument QC Batch: MA8704
(4) Instrument QC Batch: MA8710
(5) Prep QC Batch: MP19915
(6) Prep QC Batch: MP19938

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-10-012711		
Lab Sample ID:	F79701-1	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	108000	10000	1000	mg/l	100	02/01/11 11:00	SJL	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-10-012711		
Lab Sample ID:	F79701-1F	**Date Sampled:**	01/27/11
Matrix:	AQ - Groundwater Filtered	**Date Received:**	01/29/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	10 U	50	10	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [6]
Barium	32.7 B	200	5.0	ug/l	1	02/08/11	02/09/11	RS	SW846 6010C [2]	SW846 3010A [6]
Cadmium [a]	5.0 U	25	5.0	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [6]
Chromium [a]	5.0 U	50	5.0	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [6]
Lead [a]	20 U	100	20	ug/l	20	02/08/11	02/11/11	RS	SW846 6010C [4]	SW846 3010A [6]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/03/11	02/03/11	LM	SW846 7470A [1]	SW846 7470A [5]
Selenium [a]	35.5 B	50	10	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [6]
Silver [a]	5.0 U	50	5.0	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [6]

(1) Instrument QC Batch: MA8690
(2) Instrument QC Batch: MA8700
(3) Instrument QC Batch: MA8704
(4) Instrument QC Batch: MA8710
(5) Prep QC Batch: MP19916
(6) Prep QC Batch: MP19939

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-11-012711		
Lab Sample ID:	F79701-2	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J062940.D	1	02/08/11	MM	n/a	n/a	VJ3486
Run #2 [a]	J062871.D	1	02/04/11	MM	n/a	n/a	VJ3483

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	10.6	25	10	ug/l	J
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	0.27	1.0	0.23	ug/l	J
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-11-012711		
Lab Sample ID:	F79701-2	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.27	1.0	0.26	ug/l	J
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	4.5	10	4.0	ug/l	J
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-11-012711		
Lab Sample ID:	F79701-2	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	42.1	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%	107%	87-116%
17060-07-0	1,2-Dichloroethane-D4	111%	113%	76-127%
2037-26-5	Toluene-D8	95%	95%	86-112%
460-00-4	4-Bromofluorobenzene	98%	100%	84-120%

(a) Confirmation run for internal standard areas.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-11-012711		
Lab Sample ID:	F79701-2	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	20 U	100	20	ug/l	10	02/08/11	02/10/11	RS	SW846 6010C [4]	SW846 3010A [7]
Barium	55.9 B	200	5.0	ug/l	1	02/08/11	02/08/11	RS	SW846 6010C [2]	SW846 3010A [7]
Cadmium [a]	10 U	50	10	ug/l	10	02/08/11	02/10/11	RS	SW846 6010C [4]	SW846 3010A [7]
Chromium [a]	33.5 B	50	5.0	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [7]
Lead [a]	20 U	100	20	ug/l	20	02/08/11	02/11/11	RS	SW846 6010C [5]	SW846 3010A [7]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/03/11	02/03/11	LM	SW846 7470A [1]	SW846 7470A [6]
Selenium [a]	126	100	20	ug/l	10	02/08/11	02/10/11	RS	SW846 6010C [4]	SW846 3010A [7]
Silver [a]	5.0 U	50	5.0	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [7]

(1) Instrument QC Batch: MA8690
(2) Instrument QC Batch: MA8700
(3) Instrument QC Batch: MA8704
(4) Instrument QC Batch: MA8706
(5) Instrument QC Batch: MA8710
(6) Prep QC Batch: MP19915
(7) Prep QC Batch: MP19938

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-11-012711		
Lab Sample ID:	F79701-2	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	120000	10000	1000	mg/l	100	02/01/11 11:00	SJL	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-11-012711		
Lab Sample ID:	F79701-2F	**Date Sampled:**	01/27/11
Matrix:	AQ - Groundwater Filtered	**Date Received:**	01/29/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	10 U	50	10	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [6]
Barium	40.3 B	200	5.0	ug/l	1	02/08/11	02/09/11	RS	SW846 6010C [2]	SW846 3010A [6]
Cadmium [a]	7.3 B	25	5.0	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [6]
Chromium [a]	5.0 U	50	5.0	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [6]
Lead [a]	20 U	100	20	ug/l	20	02/08/11	02/11/11	RS	SW846 6010C [4]	SW846 3010A [6]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/03/11	02/03/11	LM	SW846 7470A [1]	SW846 7470A [5]
Selenium [a]	85.1	50	10	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [6]
Silver [a]	5.0 U	50	5.0	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [6]

(1) Instrument QC Batch: MA8690
(2) Instrument QC Batch: MA8700
(3) Instrument QC Batch: MA8704
(4) Instrument QC Batch: MA8710
(5) Prep QC Batch: MP19916
(6) Prep QC Batch: MP19939

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-12-012711		
Lab Sample ID:	F79701-3	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J062941.D	1	02/08/11	MM	n/a	n/a	VJ3486
Run #2 [a]	J062872.D	1	02/04/11	MM	n/a	n/a	VJ3483

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	19.3	25	10	ug/l	J
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-12-012711		
Lab Sample ID:	F79701-3	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	6.1	10	4.0	ug/l	J
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	1.1	2.0	0.50	ug/l	J
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	3.3	5.0	2.0	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-12-012711		
Lab Sample ID:	F79701-3	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	0.60	1.0	0.26	ug/l	J
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%	106%	87-116%
17060-07-0	1,2-Dichloroethane-D4	108%	113%	76-127%
2037-26-5	Toluene-D8	95%	95%	86-112%
460-00-4	4-Bromofluorobenzene	96%	98%	84-120%

(a) Confirmation run for internal standard areas.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-12-012711		
Lab Sample ID:	F79701-3	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	10 U	50	10	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [6]
Barium	59.1 B	200	5.0	ug/l	1	02/08/11	02/08/11	RS	SW846 6010C [2]	SW846 3010A [6]
Cadmium [a]	5.0 U	25	5.0	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [6]
Chromium [a]	97.4	50	5.0	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [6]
Lead [a]	20 U	100	20	ug/l	20	02/08/11	02/11/11	RS	SW846 6010C [4]	SW846 3010A [6]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/03/11	02/03/11	LM	SW846 7470A [1]	SW846 7470A [5]
Selenium [a]	62.9	50	10	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [6]
Silver [a]	5.0 B	50	5.0	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [6]

(1) Instrument QC Batch: MA8690
(2) Instrument QC Batch: MA8700
(3) Instrument QC Batch: MA8704
(4) Instrument QC Batch: MA8710
(5) Prep QC Batch: MP19915
(6) Prep QC Batch: MP19938

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-12-012711		
Lab Sample ID:	F79701-3	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	133000	10000	1000	mg/l	100	02/01/11 11:00	SJL	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-12-012711		
Lab Sample ID:	F79701-3F	**Date Sampled:**	01/27/11
Matrix:	AQ - Groundwater Filtered	**Date Received:**	01/29/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	20 U	100	20	ug/l	10	02/08/11	02/10/11	RS	SW846 6010C [4]	SW846 3010A [7]
Barium	51.4 B	200	5.0	ug/l	1	02/08/11	02/09/11	RS	SW846 6010C [2]	SW846 3010A [7]
Cadmium [a]	10 U	50	10	ug/l	10	02/08/11	02/10/11	RS	SW846 6010C [4]	SW846 3010A [7]
Chromium [a]	7.4 B	50	5.0	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [7]
Lead [a]	26.4 B	100	20	ug/l	20	02/08/11	02/11/11	RS	SW846 6010C [5]	SW846 3010A [7]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/03/11	02/03/11	LM	SW846 7470A [1]	SW846 7470A [6]
Selenium [a]	97.6 B	100	20	ug/l	10	02/08/11	02/10/11	RS	SW846 6010C [4]	SW846 3010A [7]
Silver [a]	5.0 U	50	5.0	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [7]

(1) Instrument QC Batch: MA8690
(2) Instrument QC Batch: MA8700
(3) Instrument QC Batch: MA8704
(4) Instrument QC Batch: MA8706
(5) Instrument QC Batch: MA8710
(6) Prep QC Batch: MP19916
(7) Prep QC Batch: MP19939

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-02-012811		
Lab Sample ID:	F79701-4	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J063008.D	1	02/10/11	MM	n/a	n/a	VJ3489
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	1.2	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	1.3	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-02-012811		
Lab Sample ID:	F79701-4	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-02-012811		
Lab Sample ID:	F79701-4	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	12.4	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		87-116%
17060-07-0	1,2-Dichloroethane-D4	102%		76-127%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	101%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-02-012811		
Lab Sample ID:	F79701-4	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	4.7 B	10	2.0	ug/l	1	02/08/11	02/08/11	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	17.3 B	200	5.0	ug/l	1	02/08/11	02/08/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/08/11	02/08/11	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	2.3 B	20	2.0	ug/l	2	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead	1.0 U	5.0	1.0	ug/l	1	02/08/11	02/08/11	RS	SW846 6010C [2]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/03/11	02/03/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	12.1 B	20	4.0	ug/l	2	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	02/08/11	02/08/11	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8690
(2) Instrument QC Batch: MA8700
(3) Instrument QC Batch: MA8704
(4) Prep QC Batch: MP19915
(5) Prep QC Batch: MP19938

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-02-012811		
Lab Sample ID:	F79701-4	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	12500	10000	1000	mg/l	100	02/01/11 11:00	SJL	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-02-012811		
Lab Sample ID:	F79701-4F	**Date Sampled:**	01/28/11
Matrix:	AQ - Groundwater Filtered	**Date Received:**	01/29/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	5.1 B	10	2.0	ug/l	1	02/08/11	02/09/11	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	16.7 B	200	5.0	ug/l	1	02/08/11	02/09/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/08/11	02/09/11	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	2.4 B	20	2.0	ug/l	2	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead	1.0 U	5.0	1.0	ug/l	1	02/08/11	02/09/11	RS	SW846 6010C [2]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/03/11	02/03/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	16.0 B	20	4.0	ug/l	2	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	02/08/11	02/09/11	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8690
(2) Instrument QC Batch: MA8700
(3) Instrument QC Batch: MA8704
(4) Prep QC Batch: MP19916
(5) Prep QC Batch: MP19939

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-05-012811		
Lab Sample ID:	F79701-5	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J063009.D	1	02/10/11	MM	n/a	n/a	VJ3489
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-05-012811		
Lab Sample ID:	F79701-5	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-05-012811		
Lab Sample ID:	F79701-5	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	18.4	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		87-116%
17060-07-0	1,2-Dichloroethane-D4	110%		76-127%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	99%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-05-012811		
Lab Sample ID:	F79701-5	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	10 U	50	10	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	15.9 B	200	5.0	ug/l	1	02/08/11	02/09/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium [a]	5.0 U	25	5.0	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	5.0 U	50	5.0	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [2]	SW846 3010A [5]
Lead [a]	10 U	50	10	ug/l	10	02/08/11	02/10/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/03/11	02/03/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	54.6	50	10	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [2]	SW846 3010A [5]
Silver [a]	5.0 U	50	5.0	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8690
(2) Instrument QC Batch: MA8704
(3) Instrument QC Batch: MA8706
(4) Prep QC Batch: MP19915
(5) Prep QC Batch: MP19938

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-05-012811		
Lab Sample ID:	F79701-5	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	69800	10000	1000	mg/l	100	02/01/11 11:00	SJL	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-05-012811		
Lab Sample ID:	F79701-5F	**Date Sampled:**	01/28/11
Matrix:	AQ - Groundwater Filtered	**Date Received:**	01/29/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	10 U	50	10	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [6]
Barium	22.2 B	200	5.0	ug/l	1	02/08/11	02/09/11	RS	SW846 6010C [2]	SW846 3010A [6]
Cadmium [a]	5.0 U	25	5.0	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [6]
Chromium [a]	5.0 U	50	5.0	ug/l	5	02/08/11	02/10/11	RS	SW846 6010C [4]	SW846 3010A [6]
Lead [a]	10 U	50	10	ug/l	10	02/08/11	02/10/11	RS	SW846 6010C [4]	SW846 3010A [6]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/03/11	02/03/11	LM	SW846 7470A [1]	SW846 7470A [5]
Selenium [a]	55.5	50	10	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [6]
Silver [a]	5.0 U	50	5.0	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [6]

(1) Instrument QC Batch: MA8690
(2) Instrument QC Batch: MA8700
(3) Instrument QC Batch: MA8704
(4) Instrument QC Batch: MA8706
(5) Prep QC Batch: MP19916
(6) Prep QC Batch: MP19939

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-07-012811		
Lab Sample ID:	F79701-6	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J063006.D	1	02/10/11	MM	n/a	n/a	VJ3489
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-07-012811		
Lab Sample ID:	F79701-6	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-07-012811		
Lab Sample ID:	F79701-6	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	0.91	1.0	0.26	ug/l	J
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		87-116%
17060-07-0	1,2-Dichloroethane-D4	107%		76-127%
2037-26-5	Toluene-D8	95%		86-112%
460-00-4	4-Bromofluorobenzene	101%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-07-012811		
Lab Sample ID:	F79701-6	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	10 U	50	10	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [5]
Barium	18.2 B	200	5.0	ug/l	1	02/08/11	02/08/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium [a]	5.0 U	25	5.0	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [5]
Chromium [a]	5.0 U	50	5.0	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/02/11	02/02/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	12.0 B	50	10	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver [a]	5.0 U	50	5.0	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [5]

(1) Instrument QC Batch: MA8687
(2) Instrument QC Batch: MA8700
(3) Instrument QC Batch: MA8704
(4) Prep QC Batch: MP19910
(5) Prep QC Batch: MP19938

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-07-012811		
Lab Sample ID:	F79701-6	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	47300	10000	1000	mg/l	100	02/01/11 11:00	SJL	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-07-012811		
Lab Sample ID:	F79701-6F	**Date Sampled:**	01/28/11
Matrix:	AQ - Groundwater Filtered	**Date Received:**	01/29/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	10 U	50	10	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [5]
Barium	17.1 B	200	5.0	ug/l	1	02/08/11	02/08/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium [a]	5.0 U	25	5.0	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [5]
Chromium [a]	5.0 U	50	5.0	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	10 U	50	10	ug/l	10	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/03/11	02/03/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	15.1 B	50	10	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver [a]	5.0 U	50	5.0	ug/l	5	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [5]

(1) Instrument QC Batch: MA8690
(2) Instrument QC Batch: MA8700
(3) Instrument QC Batch: MA8704
(4) Prep QC Batch: MP19916
(5) Prep QC Batch: MP19934

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-13-012811		
Lab Sample ID:	F79701-7	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J063032.D	2	02/11/11	MM	n/a	n/a	VJ3490
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	20	ug/l	
75-05-8	Acetonitrile	ND	40	10	ug/l	
107-02-8	Acrolein	ND	40	10	ug/l	
107-13-1	Acrylonitrile	ND	20	6.0	ug/l	
107-05-1	Allyl chloride	ND	4.0	0.60	ug/l	
71-43-2	Benzene	ND	2.0	0.40	ug/l	
100-44-7	Benzyl Chloride	ND	4.0	1.0	ug/l	
108-86-1	Bromobenzene	ND	2.0	0.50	ug/l	
74-97-5	Bromochloromethane	ND	2.0	0.44	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	0.40	ug/l	
75-25-2	Bromoform	ND	2.0	0.40	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.52	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	0.44	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.54	ug/l	
108-90-7	Chlorobenzene	ND	2.0	0.40	ug/l	
75-00-3	Chloroethane	ND	4.0	1.0	ug/l	
67-66-3	Chloroform	3.1	2.0	0.44	ug/l	
544-10-5	1-Chlorohexane	ND	4.0	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.44	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.40	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	10	2.4	ug/l	
75-15-0	Carbon disulfide	ND	4.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	8.0	2.0	0.46	ug/l	
563-58-6	1,1-Dichloropropene	ND	2.0	0.56	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.74	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	2.0	0.40	ug/l	
594-20-7	2,2-Dichloropropane	ND	2.0	0.88	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-13-012811		
Lab Sample ID:	F79701-7	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	2.0	0.40	ug/l	
75-71-8	Dichlorodifluoromethane	ND	4.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	0.52	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.40	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	20	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	2.0	0.40	ug/l	
95-50-1	o-Dichlorobenzene	ND	2.0	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	2.0	0.46	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.70	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.40	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.40	ug/l	
97-63-2	Ethyl methacrylate	ND	10	2.0	ug/l	
76-13-1	Freon 113	ND	2.0	0.94	ug/l	
591-78-6	2-Hexanone	ND	20	8.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.0	1.6	ug/l	
110-54-3	Hexane	ND	4.0	1.2	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.40	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.42	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	4.0	ug/l	
126-98-7	Methacrylonitrile	ND	40	10	ug/l	
74-83-9	Methyl bromide	ND	4.0	1.0	ug/l	
74-87-3	Methyl chloride	ND	4.0	1.0	ug/l	
74-88-4	Methyl iodide	ND	2.0	0.40	ug/l	
80-62-6	Methyl methacrylate	ND	10	2.0	ug/l	
74-95-3	Methylene bromide	ND	4.0	0.50	ug/l	
75-09-2	Methylene chloride	ND	10	4.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	4.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.68	ug/l	
91-20-3	Naphthalene	ND	10	2.0	ug/l	
76-01-7	Pentachloroethane	ND	20	4.0	ug/l	
107-12-0	Propionitrile	ND	40	10	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.40	ug/l	
100-42-5	Styrene	ND	2.0	0.40	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.0	0.40	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.40	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	0.47	2.0	0.44	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	4.0	0.60	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	1.0	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-13-012811		
Lab Sample ID:	F79701-7	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	4.0	0.54	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	4.0	0.42	ug/l	
127-18-4	Tetrachloroethylene	1.6	2.0	0.50	ug/l	J
108-88-3	Toluene	ND	2.0	0.40	ug/l	
79-01-6	Trichloroethylene	132	2.0	0.52	ug/l	
75-69-4	Trichlorofluoromethane	ND	4.0	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	20	4.0	ug/l	
75-01-4	Vinyl chloride	ND	2.0	0.44	ug/l	
108-05-4	Vinyl Acetate	ND	20	4.0	ug/l	
	m,p-Xylene	ND	4.0	0.64	ug/l	
95-47-6	o-Xylene	ND	2.0	0.40	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		87-116%
17060-07-0	1,2-Dichloroethane-D4	102%		76-127%
2037-26-5	Toluene-D8	95%		86-112%
460-00-4	4-Bromofluorobenzene	100%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW39-13-012811		
Lab Sample ID:	F79701-7	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8015C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD102856.D	1	02/03/11	WV	n/a	n/a	GCD4222
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	0.0864	0.10	0.050	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	94%		57-129%
98-08-8	aaa-Trifluorotoluene	95%		58-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-13-012811		
Lab Sample ID:	F79701-7	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF38568.D	1	02/02/11	FEA	02/01/11	OP35910	GZF1608
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	0.24	0.096	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	86%		42-114%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-13-012811		
Lab Sample ID:	F79701-7	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	6.0 B	10	2.0	ug/l	1	02/08/11	02/08/11	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	17.7 B	200	5.0	ug/l	1	02/08/11	02/08/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/08/11	02/08/11	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	2.0 U	20	2.0	ug/l	2	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead	1.0 U	5.0	1.0	ug/l	1	02/08/11	02/08/11	RS	SW846 6010C [2]	SW846 3010A [5]
Mercury	0.056 B	1.0	0.050	ug/l	1	02/03/11	02/03/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	20.0	20	4.0	ug/l	2	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	02/08/11	02/08/11	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8690
(2) Instrument QC Batch: MA8700
(3) Instrument QC Batch: MA8704
(4) Prep QC Batch: MP19915
(5) Prep QC Batch: MP19938

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-13-012811		
Lab Sample ID:	F79701-7	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	12700	10000	1000	mg/l	100	02/01/11 11:00	SJL	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-13-012811		
Lab Sample ID:	F79701-7F	**Date Sampled:**	01/28/11
Matrix:	AQ - Groundwater Filtered	**Date Received:**	01/29/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	7.8 B	10	2.0	ug/l	1	02/08/11	02/09/11	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	11.3 B	200	5.0	ug/l	1	02/08/11	02/09/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/08/11	02/09/11	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	2.0 U	20	2.0	ug/l	2	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead	1.0 U	5.0	1.0	ug/l	1	02/08/11	02/09/11	RS	SW846 6010C [2]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/03/11	02/03/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	13.5 B	20	4.0	ug/l	2	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	02/08/11	02/09/11	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8690
(2) Instrument QC Batch: MA8700
(3) Instrument QC Batch: MA8704
(4) Prep QC Batch: MP19916
(5) Prep QC Batch: MP19939

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-15-012811		
Lab Sample ID:	F79701-8	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J063007.D	1	02/10/11	MM	n/a	n/a	VJ3489
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	0.33	1.0	0.22	ug/l	J
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.33	1.0	0.25	ug/l	J
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-15-012811		
Lab Sample ID:	F79701-8	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-15-012811		
Lab Sample ID:	F79701-8	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	8.3	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		87-116%
17060-07-0	1,2-Dichloroethane-D4	102%		76-127%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	99%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-15-012811		
Lab Sample ID:	F79701-8	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8015C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD102857.D	1	02/03/11	WV	n/a	n/a	GCD4222
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	90%		57-129%
98-08-8	aaa-Trifluorotoluene	80%		58-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-15-012811		
Lab Sample ID:	F79701-8	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF38569.D	1	02/02/11	FEA	02/01/11	OP35910	GZF1608
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	0.24	0.096	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	84%		42-114%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-15-012811		
Lab Sample ID:	F79701-8	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	5.3 B	10	2.0	ug/l	1	02/08/11	02/09/11	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	14.0 B	200	5.0	ug/l	1	02/08/11	02/09/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/08/11	02/09/11	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	2.0 U	20	2.0	ug/l	2	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead	1.0 U	5.0	1.0	ug/l	1	02/08/11	02/09/11	RS	SW846 6010C [2]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/03/11	02/03/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	18.2 B	20	4.0	ug/l	2	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	02/08/11	02/09/11	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8690
(2) Instrument QC Batch: MA8700
(3) Instrument QC Batch: MA8704
(4) Prep QC Batch: MP19915
(5) Prep QC Batch: MP19939

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-15-012811		
Lab Sample ID:	F79701-8	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	13100	10000	1000	mg/l	100	02/01/11 11:00	SJL	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-15-012811		
Lab Sample ID:	F79701-8F	**Date Sampled:**	01/28/11
Matrix:	AQ - Groundwater Filtered	**Date Received:**	01/29/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	4.2 B	10	2.0	ug/l	1	02/09/11	02/10/11	RS	SW846 6010C [2]	SW846 3010A [6]
Barium	12.0 B	200	5.0	ug/l	1	02/09/11	02/10/11	RS	SW846 6010C [2]	SW846 3010A [6]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/09/11	02/10/11	RS	SW846 6010C [2]	SW846 3010A [6]
Chromium [a]	2.0 U	20	2.0	ug/l	2	02/09/11	02/10/11	RS	SW846 6010C [3]	SW846 3010A [6]
Lead [a]	7.6 B	25	5.0	ug/l	5	02/09/11	02/11/11	RS	SW846 6010C [4]	SW846 3010A [6]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/07/11	02/07/11	LM	SW846 7470A [1]	SW846 7470A [5]
Selenium [a]	21.0	20	4.0	ug/l	2	02/09/11	02/10/11	RS	SW846 6010C [3]	SW846 3010A [6]
Silver	1.0 U	10	1.0	ug/l	1	02/09/11	02/10/11	RS	SW846 6010C [2]	SW846 3010A [6]

(1) Instrument QC Batch: MA8695
(2) Instrument QC Batch: MA8704
(3) Instrument QC Batch: MA8706
(4) Instrument QC Batch: MA8710
(5) Prep QC Batch: MP19930
(6) Prep QC Batch: MP19949

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-16-012811		
Lab Sample ID:	F79701-9	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J063010.D	1	02/10/11	MM	n/a	n/a	VJ3489
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	0.72	1.0	0.22	ug/l	J
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.78	1.0	0.25	ug/l	J
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	0.57	1.0	0.23	ug/l	J
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-16-012811		
Lab Sample ID:	F79701-9	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-16-012811		
Lab Sample ID:	F79701-9	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	30.7	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		87-116%
17060-07-0	1,2-Dichloroethane-D4	104%		76-127%
2037-26-5	Toluene-D8	95%		86-112%
460-00-4	4-Bromofluorobenzene	97%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-16-012811		
Lab Sample ID:	F79701-9	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8015C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD102858.D	1	02/03/11	WV	n/a	n/a	GCD4222
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	90%		57-129%
98-08-8	aaa-Trifluorotoluene	82%		58-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-16-012811		
Lab Sample ID:	F79701-9	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF38572.D	1	02/02/11	FEA	02/01/11	OP35910	GZF1608
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	0.24	0.096	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	83%		42-114%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-16-012811		
Lab Sample ID:	F79701-9	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	6.4 B	10	2.0	ug/l	1	02/08/11	02/08/11	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	22.7 B	200	5.0	ug/l	1	02/08/11	02/08/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/08/11	02/08/11	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	2.0 U	20	2.0	ug/l	2	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	2.0 U	10	2.0	ug/l	2	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/03/11	02/03/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	27.3	20	4.0	ug/l	2	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	02/08/11	02/08/11	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8690
(2) Instrument QC Batch: MA8700
(3) Instrument QC Batch: MA8704
(4) Prep QC Batch: MP19916
(5) Prep QC Batch: MP19938

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-16-012811		
Lab Sample ID:	F79701-9	**Date Sampled:**	01/28/11
Matrix:	AQ - Ground Water	**Date Received:**	01/29/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	13600	10000	1000	mg/l	100	02/01/11 11:00	SJL	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-16-012811		
Lab Sample ID:	F79701-9F	**Date Sampled:**	01/28/11
Matrix:	AQ - Groundwater Filtered	**Date Received:**	01/29/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	6.0 B	10	2.0	ug/l	1	02/08/11	02/09/11	RS	SW846 6010C [2]	SW846 3010A [6]
Barium	18.6 B	200	5.0	ug/l	1	02/08/11	02/09/11	RS	SW846 6010C [2]	SW846 3010A [6]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/08/11	02/09/11	RS	SW846 6010C [2]	SW846 3010A [6]
Chromium [a]	2.0 U	20	2.0	ug/l	2	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [6]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/08/11	02/10/11	RS	SW846 6010C [4]	SW846 3010A [6]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/03/11	02/03/11	LM	SW846 7470A [1]	SW846 7470A [5]
Selenium [a]	22.0	20	4.0	ug/l	2	02/08/11	02/09/11	RS	SW846 6010C [3]	SW846 3010A [6]
Silver	1.0 U	10	1.0	ug/l	1	02/08/11	02/09/11	RS	SW846 6010C [2]	SW846 3010A [6]

(1) Instrument QC Batch: MA8690
(2) Instrument QC Batch: MA8700
(3) Instrument QC Batch: MA8704
(4) Instrument QC Batch: MA8706
(5) Prep QC Batch: MP19916
(6) Prep QC Batch: MP19939

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	TB01-012811		
Lab Sample ID:	F79701-10	**Date Sampled:**	01/27/11
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J063022.D	1	02/10/11	MM	n/a	n/a	VJ3489
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

ND = Not detected MDL - Method Detection Limit
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E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB01-012811		
Lab Sample ID:	F79701-10	**Date Sampled:**	01/27/11
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene [a]	2.6	5.0	1.0	ug/l	J
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB01-012811		
Lab Sample ID:	F79701-10	**Date Sampled:**	01/27/11
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/29/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		87-116%
17060-07-0	1,2-Dichloroethane-D4	98%		76-127%
2037-26-5	Toluene-D8	95%		86-112%
460-00-4	4-Bromofluorobenzene	99%		84-120%

(a) Suspected laboratory contaminant.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody

Parameter Certification Exceptions

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

The following parameters included in this report are exceptions to NELAC certification.
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Freon 113	76-13-1	**SW846 8260B**	AQ	Certified by SOP MS005

Tetra Tech, Inc.
800 Oak Ridge Turnpike, Ste A-500
Oak Ridge, TN 37830
865/283-9900

HAFB-SS-39-GW

CHAIN-OF-CUSTODY

F79701

Laboratory Name: **Accutest Laboratories** Address: **4405 Vineland Rd. Suite C-15 Orlando, FL 32811** Contact: **Sue Bell (813/741-3338)**

Project Name: **Holloman AFB** Project Location: **Holloman AFB, New Mexico**
Project No.: **SS-39 (Groundwater)** Project Contact: **Maureen McMyler** Site Telephone No.:
Report to: Maureen McMyler 800 Oak Ridge Turnpike 865/535-2030
Bill to: Sheila Hall, 800 Oak Ridge Turnpike 865/283-9900
Project Manager/Supervisor: **Mike Higgins**

Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	VOCs by SW8260B	TPH-DRO by 8015B/Modified	GRO by SW8015B	RCRA 8 Metals by SW6010B/ SW7471A, TOTAL	RCRA 8 Metals by SW6010B/ SW7471A, DISSOLVED	Total Dissolved Solids by 2540 C		Notes
1	MW39-10-012711 (1)	1/27/2011	1500		X	GW	MW-39-10	6	3	---	---	1	1	1		All VOCs and GRO in Cooler 1
2	MW39-11-012711 (2)	1/27/2011	1640		X	GW	MW-39-11	6	3	---	---	1	1	1		All VOCs and GRO in Cooler 1
3	MW39-12-012711 (3)	1/27/2011	1515		X	GW	MW-39-12	6	3	---	---	1	1	1		All VOCs and GRO in Cooler 1
4	MW39-02-012811 (4)	1/28/2011	1120		X	GW	MW-39-02	6	3	---	---	1	1	1		All VOCs and GRO in Cooler 1
5	MW39-05-012811 (5)	1/28/2011	1135		X	GW	MW-39-05	6	3	---	---	1	1	1		All VOCs and GRO in Cooler 1
6	MW39-07-012811 (6)	1/28/2011	1345		X	GW	MW-39-07	6	3	---	---	1	1	1		All VOCs and GRO in Cooler 1
7	MW39-07-012811-MS (6)	1/28/2011	1345		X	GW	MW-39-07	6	3	---	---	1	1	1		Matrix Spike
8	MW39-07-012811-MSD (6)	1/28/2011	1345		X	GW	MW-39-07	6	3	---	---	1	1	1		Matrix Spike Duplicate
9	MW39-13-012811 (7)	1/28/2011	1040		X	GW	MW-39-13	11	3	2	3	1	1	1		All VOCs and GRO in Cooler 1
10	MW39-15-012811 (8)	1/28/2011	1330		X	GW	MW-39-15	11	3	2	3	1	1	1		All VOCs and GRO in Cooler 1
11	MW39-15-012811-MS (8)	1/28/2011	1330		X	GW	MW-39-15	11	3	2	3	1	1	1		Matrix Spike
12	MW39-15-012811-MSD (8)	1/28/2011	1330		X	GW	MW-39-15	11	3	2	3	1	1	1		Matrix Spike Duplicate
13	MW39-16-012811 (9)	1/28/2011	1300		X	GW	MW-39-16	11	3	2	3	1	1	1		All VOCs and GRO in Cooler 1
14	TB01-012811 (10)	1/28/2011	1510		X	BW	TRIP BLANK	4	2	---	2	---	---	---		All VOCs and GRO in Cooler 1

Transfers Relinquished By (Signature)	Date/Time	Transfers Accepted By (Signature)	Date/Time
David Taylor	1/29/11 1314		
			01.29.11 0930
		Laboratory	

3.6 4.0 2.8

TAT: ____ Standard ____ Rush Due: _____ Seals Intact? ____ Y ____ N Received Good Condition ____ Y ____ N ____ Cold

F79701: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F79701 CLIENT: Tetra Tech PROJECT: Holloman AFB

DATE/TIME RECEIVED: 01-29-11 0930 {MM/DD/YY 24:00} NIMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 8723 6654 6638

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET
- [ ] WET ICE PRESENT

TRIP BLANK INFORMATION

- [X] TRIP BLANK PROVIDED
- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [X] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [X] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? 13

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR -.2
- [ ] OBSERVED TEMPS: 3.8 4.2 2.0
- [ ] CORRECTED TEMPS: 3.6 4.0 2.8

SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE F.T. 01-29-11 REVIEWER SIGNATURE/DATE 1-29-11

NF 12/10 receipt confirmation 122910.xls

4.2

4

F79701: Chain of Custody

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Southeast ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3486-MB	J062938.D	1	02/08/11	MM	n/a	n/a	VJ3486

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-1, F79701-2, F79701-3

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	

Method Blank Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3486-MB	J062938.D	1	02/08/11	MM	n/a	n/a	VJ3486

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-1, F79701-2, F79701-3

CAS No.	Compound	Result	RL	MDL	Units	Q
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

Method Blank Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3486-MB	J062938.D	1	02/08/11	MM	n/a	n/a	VJ3486

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-1, F79701-2, F79701-3

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	104%	87-116%
17060-07-0	1,2-Dichloroethane-D4	100%	76-127%
2037-26-5	Toluene-D8	95%	86-112%
460-00-4	4-Bromofluorobenzene	100%	84-120%

Method Blank Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3489-MB	J063003.D	1	02/10/11	MM	n/a	n/a	VJ3489

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-4, F79701-5, F79701-6, F79701-8, F79701-9, F79701-10

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	

Method Blank Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3489-MB	J063003.D	1	02/10/11	MM	n/a	n/a	VJ3489

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-4, F79701-5, F79701-6, F79701-8, F79701-9, F79701-10

CAS No.	Compound	Result	RL	MDL	Units	Q
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	2.6	5.0	2.0	ug/l	J
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

Method Blank Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3489-MB	J063003.D	1	02/10/11	MM	n/a	n/a	VJ3489

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-4, F79701-5, F79701-6, F79701-8, F79701-9, F79701-10

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	105%	87-116%
17060-07-0	1,2-Dichloroethane-D4	101%	76-127%
2037-26-5	Toluene-D8	98%	86-112%
460-00-4	4-Bromofluorobenzene	102%	84-120%

Method Blank Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3490-MB	J063031.D	1	02/11/11	MM	n/a	n/a	VJ3490

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-7

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	

Method Blank Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3490-MB	J063031.D	1	02/11/11	MM	n/a	n/a	VJ3490

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-7

CAS No.	Compound	Result	RL	MDL	Units	Q
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

Method Blank Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3490-MB	J063031.D	1	02/11/11	MM	n/a	n/a	VJ3490

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-7

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	105%	87-116%
17060-07-0	1,2-Dichloroethane-D4	100%	76-127%
2037-26-5	Toluene-D8	94%	86-112%
460-00-4	4-Bromofluorobenzene	100%	84-120%

Blank Spike Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3486-BS	J062936.D	1	02/08/11	MM	n/a	n/a	VJ3486

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-1, F79701-2, F79701-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	120	96	59-134
75-05-8	Acetonitrile	250	224	90	57-123
107-02-8	Acrolein	125	126	101	33-157
107-13-1	Acrylonitrile	125	130	104	62-124
107-05-1	Allyl chloride	25	25.6	102	48-136
71-43-2	Benzene	25	25.1	100	83-124
100-44-7	Benzyl Chloride	25	24.4	98	61-118
108-86-1	Bromobenzene	25	25.0	100	83-115
74-97-5	Bromochloromethane	25	24.1	96	78-112
75-27-4	Bromodichloromethane	25	24.9	100	76-116
75-25-2	Bromoform	25	24.4	98	68-128
104-51-8	n-Butylbenzene	25	25.3	101	84-124
135-98-8	sec-Butylbenzene	25	26.2	105	86-127
98-06-6	tert-Butylbenzene	25	25.5	102	83-126
108-90-7	Chlorobenzene	25	26.9	108	87-115
75-00-3	Chloroethane	25	24.9	100	54-166
67-66-3	Chloroform	25	25.9	104	85-123
544-10-5	1-Chlorohexane	25	28.9	116	87-128
95-49-8	o-Chlorotoluene	25	25.5	102	84-121
106-43-4	p-Chlorotoluene	25	25.0	100	84-120
110-75-8	2-Chloroethyl vinyl ether	125	123	98	63-125
75-15-0	Carbon disulfide	25	25.9	104	67-147
56-23-5	Carbon tetrachloride	25	28.3	113	74-139
75-34-3	1,1-Dichloroethane	25	26.3	105	82-127
75-35-4	1,1-Dichloroethylene	25	26.5	106	75-133
563-58-6	1,1-Dichloropropene	25	29.5	118	87-127
96-12-8	1,2-Dibromo-3-chloropropane	25	21.6	86	61-118
106-93-4	1,2-Dibromoethane	25	24.7	99	80-115
107-06-2	1,2-Dichloroethane	25	24.5	98	76-122
78-87-5	1,2-Dichloropropane	25	26.0	104	81-120
142-28-9	1,3-Dichloropropane	25	24.6	98	81-113
594-20-7	2,2-Dichloropropane	25	27.6	110	77-138
124-48-1	Dibromochloromethane	25	25.2	101	74-116
75-71-8	Dichlorodifluoromethane	25	32.6	130	34-158
156-59-2	cis-1,2-Dichloroethylene	25	25.8	103	81-114
10061-01-5	cis-1,3-Dichloropropene	25	26.5	106	83-119

Blank Spike Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3486-BS	J062936.D	1	02/08/11	MM	n/a	n/a	VJ3486

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-1, F79701-2, F79701-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
1476-11-5	cis-1,4-Dichloro-2-Butene	25	24.6	98	41-130
541-73-1	m-Dichlorobenzene	25	26.9	108	86-115
95-50-1	o-Dichlorobenzene	25	26.3	105	85-115
106-46-7	p-Dichlorobenzene	25	26.2	105	87-113
156-60-5	trans-1,2-Dichloroethylene	25	26.1	104	82-126
10061-02-6	trans-1,3-Dichloropropene	25	26.9	108	87-123
100-41-4	Ethylbenzene	25	25.3	101	87-118
97-63-2	Ethyl methacrylate	25	22.4	90	68-110
76-13-1	Freon 113	25	28.7	115	74-139
591-78-6	2-Hexanone	125	115	92	58-125
87-68-3	Hexachlorobutadiene	25	30.3	121	71-133
110-54-3	Hexane	25	29.8	119	71-134
98-82-8	Isopropylbenzene	25	29.3	117	87-131
99-87-6	p-Isopropyltoluene	25	26.5	106	83-125
108-10-1	4-Methyl-2-pentanone	125	112	90	62-125
126-98-7	Methacrylonitrile	250	226	90	62-133
74-83-9	Methyl bromide	25	24.2	97	55-151
74-87-3	Methyl chloride	25	27.7	111	55-173
74-88-4	Methyl iodide	25	26.6	106	72-125
80-62-6	Methyl methacrylate	25	24.1	96	63-115
74-95-3	Methylene bromide	25	24.3	97	81-116
75-09-2	Methylene chloride	25	23.3	93	69-125
78-93-3	Methyl ethyl ketone	125	114	91	61-127
1634-04-4	Methyl Tert Butyl Ether	25	24.0	96	75-116
91-20-3	Naphthalene	25	25.7	103	59-125
76-01-7	Pentachloroethane	25	26.0	104	82-111
107-12-0	Propionitrile	250	243	97	69-119
103-65-1	n-Propylbenzene	25	26.0	104	86-125
100-42-5	Styrene	25	24.1	96	78-118
630-20-6	1,1,1,2-Tetrachloroethane	25	26.1	104	81-119
71-55-6	1,1,1-Trichloroethane	25	27.5	110	79-133
79-34-5	1,1,2,2-Tetrachloroethane	25	24.0	96	71-120
79-00-5	1,1,2-Trichloroethane	25	24.0	96	80-114
87-61-6	1,2,3-Trichlorobenzene	25	26.3	105	64-126
96-18-4	1,2,3-Trichloropropane	25	22.8	91	77-115
120-82-1	1,2,4-Trichlorobenzene	25	26.8	107	68-123

Blank Spike Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3486-BS	J062936.D	1	02/08/11	MM	n/a	n/a	VJ3486

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-1, F79701-2, F79701-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-63-6	1,2,4-Trimethylbenzene	25	24.4	98	82-120
108-67-8	1,3,5-Trimethylbenzene	25	24.6	98	83-123
127-18-4	Tetrachloroethylene	25	29.1	116	80-131
108-88-3	Toluene	25	25.4	102	86-116
79-01-6	Trichloroethylene	25	27.8	111	85-124
75-69-4	Trichlorofluoromethane	25	32.0	128	66-156
110-57-6	Trans-1,4-Dichloro-2-Butene	25	23.6	94	51-137
75-01-4	Vinyl chloride	25	26.7	107	57-153
108-05-4	Vinyl Acetate	125	143	114	38-159
	m,p-Xylene	50	50.9	102	86-121
95-47-6	o-Xylene	25	24.9	100	83-121

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	87-116%
17060-07-0	1,2-Dichloroethane-D4	99%	76-127%
2037-26-5	Toluene-D8	99%	86-112%
460-00-4	4-Bromofluorobenzene	99%	84-120%

Blank Spike Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3489-BS	J063000.D	1	02/10/11	MM	n/a	n/a	VJ3489

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-4, F79701-5, F79701-6, F79701-8, F79701-9, F79701-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	124	99	59-134
75-05-8	Acetonitrile	250	261	104	57-123
107-02-8	Acrolein	125	122	98	33-157
107-13-1	Acrylonitrile	125	137	110	62-124
107-05-1	Allyl chloride	25	27.6	110	48-136
71-43-2	Benzene	25	25.2	101	83-124
100-44-7	Benzyl Chloride	25	25.2	101	61-118
108-86-1	Bromobenzene	25	23.9	96	83-115
74-97-5	Bromochloromethane	25	23.8	95	78-112
75-27-4	Bromodichloromethane	25	25.0	100	76-116
75-25-2	Bromoform	25	24.4	98	68-128
104-51-8	n-Butylbenzene	25	25.7	103	84-124
135-98-8	sec-Butylbenzene	25	26.1	104	86-127
98-06-6	tert-Butylbenzene	25	25.3	101	83-126
108-90-7	Chlorobenzene	25	26.7	107	87-115
75-00-3	Chloroethane	25	25.4	102	54-166
67-66-3	Chloroform	25	25.7	103	85-123
544-10-5	1-Chlorohexane	25	28.4	114	87-128
95-49-8	o-Chlorotoluene	25	25.4	102	84-121
106-43-4	p-Chlorotoluene	25	24.8	99	84-120
110-75-8	2-Chloroethyl vinyl ether	125	135	108	63-125
75-15-0	Carbon disulfide	25	26.9	108	67-147
56-23-5	Carbon tetrachloride	25	28.2	113	74-139
75-34-3	1,1-Dichloroethane	25	26.8	107	82-127
75-35-4	1,1-Dichloroethylene	25	28.3	113	75-133
563-58-6	1,1-Dichloropropene	25	29.1	116	87-127
96-12-8	1,2-Dibromo-3-chloropropane	25	23.3	93	61-118
106-93-4	1,2-Dibromoethane	25	24.1	96	80-115
107-06-2	1,2-Dichloroethane	25	24.9	100	76-122
78-87-5	1,2-Dichloropropane	25	26.6	106	81-120
142-28-9	1,3-Dichloropropane	25	24.3	97	81-113
594-20-7	2,2-Dichloropropane	25	27.1	108	77-138
124-48-1	Dibromochloromethane	25	24.3	97	74-116
75-71-8	Dichlorodifluoromethane	25	30.3	121	34-158
156-59-2	cis-1,2-Dichloroethylene	25	24.8	99	81-114
10061-01-5	cis-1,3-Dichloropropene	25	26.1	104	83-119

Blank Spike Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3489-BS	J063000.D	1	02/10/11	MM	n/a	n/a	VJ3489

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-4, F79701-5, F79701-6, F79701-8, F79701-9, F79701-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
1476-11-5	cis-1,4-Dichloro-2-Butene	25	24.1	96	41-130
541-73-1	m-Dichlorobenzene	25	26.0	104	86-115
95-50-1	o-Dichlorobenzene	25	25.7	103	85-115
106-46-7	p-Dichlorobenzene	25	25.8	103	87-113
156-60-5	trans-1,2-Dichloroethylene	25	26.5	106	82-126
10061-02-6	trans-1,3-Dichloropropene	25	26.7	107	87-123
100-41-4	Ethylbenzene	25	25.3	101	87-118
97-63-2	Ethyl methacrylate	25	24.0	96	68-110
76-13-1	Freon 113	25	29.1	116	74-139
591-78-6	2-Hexanone	125	123	98	58-125
87-68-3	Hexachlorobutadiene	25	26.8	107	71-133
110-54-3	Hexane	25	30.0	120	71-134
98-82-8	Isopropylbenzene	25	28.5	114	87-131
99-87-6	p-Isopropyltoluene	25	25.6	102	83-125
108-10-1	4-Methyl-2-pentanone	125	120	96	62-125
126-98-7	Methacrylonitrile	250	255	102	62-133
74-83-9	Methyl bromide	25	25.3	101	55-151
74-87-3	Methyl chloride	25	26.3	105	55-173
74-88-4	Methyl iodide	25	27.5	110	72-125
80-62-6	Methyl methacrylate	25	26.3	105	63-115
74-95-3	Methylene bromide	25	24.6	98	81-116
75-09-2	Methylene chloride	25	25.1	100	69-125
78-93-3	Methyl ethyl ketone	125	120	96	61-127
1634-04-4	Methyl Tert Butyl Ether	25	24.0	96	75-116
91-20-3	Naphthalene	25	24.1	96	59-125
76-01-7	Pentachloroethane	25	24.9	100	82-111
107-12-0	Propionitrile	250	266	106	69-119
103-65-1	n-Propylbenzene	25	26.5	106	86-125
100-42-5	Styrene	25	23.6	94	78-118
630-20-6	1,1,1,2-Tetrachloroethane	25	25.8	103	81-119
71-55-6	1,1,1-Trichloroethane	25	27.1	108	79-133
79-34-5	1,1,2,2-Tetrachloroethane	25	24.9	100	71-120
79-00-5	1,1,2-Trichloroethane	25	24.3	97	80-114
87-61-6	1,2,3-Trichlorobenzene	25	24.2	97	64-126
96-18-4	1,2,3-Trichloropropane	25	22.9	92	77-115
120-82-1	1,2,4-Trichlorobenzene	25	25.4	102	68-123

Blank Spike Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3489-BS	J063000.D	1	02/10/11	MM	n/a	n/a	VJ3489

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-4, F79701-5, F79701-6, F79701-8, F79701-9, F79701-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-63-6	1,2,4-Trimethylbenzene	25	24.0	96	82-120
108-67-8	1,3,5-Trimethylbenzene	25	24.5	98	83-123
127-18-4	Tetrachloroethylene	25	28.3	113	80-131
108-88-3	Toluene	25	24.6	98	86-116
79-01-6	Trichloroethylene	25	27.7	111	85-124
75-69-4	Trichlorofluoromethane	25	35.3	141	66-156
110-57-6	Trans-1,4-Dichloro-2-Butene	25	23.6	94	51-137
75-01-4	Vinyl chloride	25	26.9	108	57-153
108-05-4	Vinyl Acetate	125	151	121	38-159
	m,p-Xylene	50	50.8	102	86-121
95-47-6	o-Xylene	25	24.4	98	83-121

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	87-116%
17060-07-0	1,2-Dichloroethane-D4	103%	76-127%
2037-26-5	Toluene-D8	97%	86-112%
460-00-4	4-Bromofluorobenzene	100%	84-120%

Blank Spike Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3490-BS	J063029.D	1	02/11/11	MM	n/a	n/a	VJ3490

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	118	94	59-134
75-05-8	Acetonitrile	250	268	107	57-123
107-02-8	Acrolein	125	121	97	33-157
107-13-1	Acrylonitrile	125	141	113	62-124
107-05-1	Allyl chloride	25	25.2	101	48-136
71-43-2	Benzene	25	26.9	108	83-124
100-44-7	Benzyl Chloride	25	27.3	109	61-118
108-86-1	Bromobenzene	25	26.7	107	83-115
74-97-5	Bromochloromethane	25	26.3	105	78-112
75-27-4	Bromodichloromethane	25	27.0	108	76-116
75-25-2	Bromoform	25	25.6	102	68-128
104-51-8	n-Butylbenzene	25	28.0	112	84-124
135-98-8	sec-Butylbenzene	25	28.3	113	86-127
98-06-6	tert-Butylbenzene	25	27.8	111	83-126
108-90-7	Chlorobenzene	25	29.0	116*	87-115
75-00-3	Chloroethane	25	25.5	102	54-166
67-66-3	Chloroform	25	28.1	112	85-123
544-10-5	1-Chlorohexane	25	31.1	124	87-128
95-49-8	o-Chlorotoluene	25	27.5	110	84-121
106-43-4	p-Chlorotoluene	25	27.2	109	84-120
110-75-8	2-Chloroethyl vinyl ether	125	132	106	63-125
75-15-0	Carbon disulfide	25	26.0	104	67-147
56-23-5	Carbon tetrachloride	25	30.3	121	74-139
75-34-3	1,1-Dichloroethane	25	28.8	115	82-127
75-35-4	1,1-Dichloroethylene	25	27.8	111	75-133
563-58-6	1,1-Dichloropropene	25	31.7	127	87-127
96-12-8	1,2-Dibromo-3-chloropropane	25	24.2	97	61-118
106-93-4	1,2-Dibromoethane	25	26.1	104	80-115
107-06-2	1,2-Dichloroethane	25	26.0	104	76-122
78-87-5	1,2-Dichloropropane	25	28.4	114	81-120
142-28-9	1,3-Dichloropropane	25	26.2	105	81-113
594-20-7	2,2-Dichloropropane	25	30.0	120	77-138
124-48-1	Dibromochloromethane	25	26.6	106	74-116
75-71-8	Dichlorodifluoromethane	25	28.9	116	34-158
156-59-2	cis-1,2-Dichloroethylene	25	27.8	111	81-114
10061-01-5	cis-1,3-Dichloropropene	25	28.1	112	83-119

Blank Spike Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3490-BS	J063029.D	1	02/11/11	MM	n/a	n/a	VJ3490

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
1476-11-5	cis-1,4-Dichloro-2-Butene	25	24.2	97	41-130
541-73-1	m-Dichlorobenzene	25	28.5	114	86-115
95-50-1	o-Dichlorobenzene	25	28.5	114	85-115
106-46-7	p-Dichlorobenzene	25	27.9	112	87-113
156-60-5	trans-1,2-Dichloroethylene	25	28.4	114	82-126
10061-02-6	trans-1,3-Dichloropropene	25	29.3	117	87-123
100-41-4	Ethylbenzene	25	27.1	108	87-118
97-63-2	Ethyl methacrylate	25	24.8	99	68-110
76-13-1	Freon 113	25	29.9	120	74-139
591-78-6	2-Hexanone	125	121	97	58-125
87-68-3	Hexachlorobutadiene	25	31.5	126	71-133
110-54-3	Hexane	25	32.1	128	71-134
98-82-8	Isopropylbenzene	25	31.2	125	87-131
99-87-6	p-Isopropyltoluene	25	28.3	113	83-125
108-10-1	4-Methyl-2-pentanone	125	120	96	62-125
126-98-7	Methacrylonitrile	250	246	98	62-133
74-83-9	Methyl bromide	25	23.7	95	55-151
74-87-3	Methyl chloride	25	27.4	110	55-173
74-88-4	Methyl iodide	25	27.5	110	72-125
80-62-6	Methyl methacrylate	25	26.4	106	63-115
74-95-3	Methylene bromide	25	26.1	104	81-116
75-09-2	Methylene chloride	25	25.0	100	69-125
78-93-3	Methyl ethyl ketone	125	117	94	61-127
1634-04-4	Methyl Tert Butyl Ether	25	25.4	102	75-116
91-20-3	Naphthalene	25	26.5	106	59-125
76-01-7	Pentachloroethane	25	28.8	115*	82-111
107-12-0	Propionitrile	250	258	103	69-119
103-65-1	n-Propylbenzene	25	28.4	114	86-125
100-42-5	Styrene	25	25.9	104	78-118
630-20-6	1,1,1,2-Tetrachloroethane	25	28.2	113	81-119
71-55-6	1,1,1-Trichloroethane	25	29.2	117	79-133
79-34-5	1,1,2,2-Tetrachloroethane	25	25.9	104	71-120
79-00-5	1,1,2-Trichloroethane	25	26.2	105	80-114
87-61-6	1,2,3-Trichlorobenzene	25	27.5	110	64-126
96-18-4	1,2,3-Trichloropropane	25	24.4	98	77-115
120-82-1	1,2,4-Trichlorobenzene	25	28.3	113	68-123

Blank Spike Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3490-BS	J063029.D	1	02/11/11	MM	n/a	n/a	VJ3490

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-63-6	1,2,4-Trimethylbenzene	25	26.3	105	82-120
108-67-8	1,3,5-Trimethylbenzene	25	26.8	107	83-123
127-18-4	Tetrachloroethylene	25	30.7	123	80-131
108-88-3	Toluene	25	27.2	109	86-116
79-01-6	Trichloroethylene	25	29.7	119	85-124
75-69-4	Trichlorofluoromethane	25	34.0	136	66-156
110-57-6	Trans-1,4-Dichloro-2-Butene	25	23.0	92	51-137
75-01-4	Vinyl chloride	25	26.4	106	57-153
108-05-4	Vinyl Acetate	125	150	120	38-159
	m,p-Xylene	50	54.0	108	86-121
95-47-6	o-Xylene	25	25.7	103	83-121

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	87-116%
17060-07-0	1,2-Dichloroethane-D4	100%	76-127%
2037-26-5	Toluene-D8	99%	86-112%
460-00-4	4-Bromofluorobenzene	103%	84-120%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79758-1MS	J062947.D	5	02/08/11	MM	n/a	n/a	VJ3486
F79758-1MSD	J062948.D	5	02/08/11	MM	n/a	n/a	VJ3486
F79758-1 [a]	J062946.D	5	02/08/11	MM	n/a	n/a	VJ3486

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-1, F79701-2, F79701-3

CAS No.	Compound	F79758-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	130 U		625	449	72	463	74	3	59-134/14
75-05-8	Acetonitrile	100 U		1250	1070	86	1110	89	4	57-123/15
107-02-8	Acrolein	100 U		625	1030	165*	985	158*	4	33-157/21
107-13-1	Acrylonitrile	50 U		625	643	103	623	100	3	62-124/13
107-05-1	Allyl chloride	10 U		125	57.2	46*	58.1	46*	2	48-136/13
71-43-2	Benzene	93.1		125	232	111	222	103	4	83-124/11
100-44-7	Benzyl Chloride	10 U		125	103	82	98.3	79	5	61-118/12
108-86-1	Bromobenzene	5.0 U		125	127	102	124	99	2	83-115/10
74-97-5	Bromochloromethane	5.0 U		125	126	101	123	98	2	78-112/10
75-27-4	Bromodichloromethane	5.0 U		125	124	99	114	91	8	76-116/10
75-25-2	Bromoform	5.0 U		125	92.9	74	94.0	75	1	68-128/11
104-51-8	n-Butylbenzene	5.7		125	136	104	132	101	3	84-124/10
135-98-8	sec-Butylbenzene	3.6	I	125	142	111	136	106	4	86-127/10
98-06-6	tert-Butylbenzene	8.2		125	146	110	138	104	6	83-126/10
108-90-7	Chlorobenzene	5.0 U		125	131	105	128	102	2	87-115/9
75-00-3	Chloroethane	10 U		125	133	106	125	100	6	54-166/20
67-66-3	Chloroform	5.0 U		125	147	118	142	114	3	85-123/10
544-10-5	1-Chlorohexane	10 U		125	154	123	147	118	5	87-128/10
95-49-8	o-Chlorotoluene	5.0 U		125	144	115	137	110	5	84-121/10
106-43-4	p-Chlorotoluene	5.0 U		125	134	107	128	102	5	84-120/10
110-75-8	2-Chloroethyl vinyl ether	25 U		625	ND	0*	ND	0*	nc	63-125/24
75-15-0	Carbon disulfide	10 U		125	109	87	96.7	77	12	67-147/12
56-23-5	Carbon tetrachloride	5.0 U		125	148	118	130	104	13	74-139/13
75-34-3	1,1-Dichloroethane	5.0 U		125	140	112	135	108	4	82-127/10
75-35-4	1,1-Dichloroethylene	5.0 U		125	143	114	139	111	3	75-133/13
563-58-6	1,1-Dichloropropene	5.0 U		125	155	124	147	118	5	87-127/10
96-12-8	1,2-Dibromo-3-chloropropane	10 U		125	111	89	108	86	3	61-118/15
106-93-4	1,2-Dibromoethane	5.0 U		125	128	102	125	100	2	80-115/10
107-06-2	1,2-Dichloroethane	5.0 U		125	128	102	125	100	2	76-122/11
78-87-5	1,2-Dichloropropane	5.0 U		125	140	112	135	108	4	81-120/11
142-28-9	1,3-Dichloropropane	5.0 U		125	130	104	128	102	2	81-113/11
594-20-7	2,2-Dichloropropane	5.0 U		125	140	112	129	103	8	77-138/12
124-48-1	Dibromochloromethane	5.0 U		125	112	90	105	84	6	74-116/11
75-71-8	Dichlorodifluoromethane	10 U		125	159	127	153	122	4	34-158/22
156-59-2	cis-1,2-Dichloroethylene	5.0 U		125	138	110	134	107	3	81-114/10
10061-01-5	cis-1,3-Dichloropropene	5.0 U		125	123	98	103	82*	18*	83-119/10

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79758-1MS	J062947.D	5	02/08/11	MM	n/a	n/a	VJ3486
F79758-1MSD	J062948.D	5	02/08/11	MM	n/a	n/a	VJ3486
F79758-1 [a]	J062946.D	5	02/08/11	MM	n/a	n/a	VJ3486

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-1, F79701-2, F79701-3

CAS No.	Compound	F79758-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1476-11-5	cis-1,4-Dichloro-2-Butene	50 U		125	43.8	35*	24.8	20*	55*	41-130/33
541-73-1	m-Dichlorobenzene	5.0 U		125	142	114	138	110	3	86-115/9
95-50-1	o-Dichlorobenzene	5.0 U		125	138	110	136	109	1	85-115/9
106-46-7	p-Dichlorobenzene	5.0 U		125	138	110	133	106	4	87-113/10
156-60-5	trans-1,2-Dichloroethylene	5.0 U		125	139	111	132	106	5	82-126/10
10061-02-6	trans-1,3-Dichloropropene	5.0 U		125	125	100	109	87	14*	87-123/10
100-41-4	Ethylbenzene	513	L	125	767	203* [b]	703	152* [b]	9	87-118/10
97-63-2	Ethyl methacrylate	25 U		125	117	94	118	94	1	68-110/11
76-13-1	Freon 113	5.0 U		125	147	118	146	117	1	74-139/13
591-78-6	2-Hexanone	50 U		625	530	85	541	87	2	58-125/14
87-68-3	Hexachlorobutadiene	10 U		125	143	114	149	119	4	71-133/12
110-54-3	Hexane	79.9		125	224	115	205	100	9	71-134/11
98-82-8	Isopropylbenzene	29.8		125	190	128	184	123	3	87-131/10
99-87-6	p-Isopropyltoluene	3.1	I	125	143	112	137	107	4	83-125/9
108-10-1	4-Methyl-2-pentanone	25 U		625	599	96	607	97	1	62-125/13
126-98-7	Methacrylonitrile	100 U		1250	1010	81	1040	83	3	62-133/17
74-83-9	Methyl bromide	10 U		125	123	98	114	91	8	55-151/21
74-87-3	Methyl chloride	10 U		125	141	113	144	115	2	55-173/22
74-88-4	Methyl iodide	5.0 U		125	139	111	136	109	2	72-125/11
80-62-6	Methyl methacrylate	25 U		125	126	101	124	99	2	63-115/10
74-95-3	Methylene bromide	10 U		125	127	102	122	98	4	81-116/10
75-09-2	Methylene chloride	25 U		125	120	96	118	94	2	69-125/11
78-93-3	Methyl ethyl ketone	25 U		625	484	77	490	78	1	61-127/13
1634-04-4	Methyl Tert Butyl Ether	35.2		125	156	97	157	97	1	75-116/10
91-20-3	Naphthalene	106		125	221	92	239	106	8	59-125/15
76-01-7	Pentachloroethane	50 U		125	134	107	124	99	8	82-111/8
107-12-0	Propionitrile	100 U		1250	1140	91	1200	96	5	69-119/12
103-65-1	n-Propylbenzene	84.2		125	223	111	210	101	6	86-125/10
100-42-5	Styrene	5.0 U		125	123	98	119	95	3	78-118/11
630-20-6	1,1,1,2-Tetrachloroethane	5.0 U		125	138	110	131	105	5	81-119/10
71-55-6	1,1,1-Trichloroethane	5.0 U		125	145	116	141	113	3	79-133/11
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U		125	127	102	124	99	2	71-120/11
79-00-5	1,1,2-Trichloroethane	5.0 U		125	130	104	128	102	2	80-114/11
87-61-6	1,2,3-Trichlorobenzene	5.0 U		125	120	96	133	106	10	64-126/16
96-18-4	1,2,3-Trichloropropane	10 U		125	111	89	111	89	0	77-115/12
120-82-1	1,2,4-Trichlorobenzene	5.0 U		125	132	106	139	111	5	68-123/11

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79758-1MS	J062947.D	5	02/08/11	MM	n/a	n/a	VJ3486
F79758-1MSD	J062948.D	5	02/08/11	MM	n/a	n/a	VJ3486
F79758-1 [a]	J062946.D	5	02/08/11	MM	n/a	n/a	VJ3486

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-1, F79701-2, F79701-3

CAS No.	Compound	F79758-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-63-6	1,2,4-Trimethylbenzene	401		125	574	138* [b]	532	105	8	82-120/10
108-67-8	1,3,5-Trimethylbenzene	152		125	287	108	271	95	6	83-123/10
127-18-4	Tetrachloroethylene	5.0 U		125	153	122	146	117	5	80-131/12
108-88-3	Toluene	91.7		125	231	111	223	105	4	86-116/10
79-01-6	Trichloroethylene	5.0 U		125	149	119	147	118	1	85-124/10
75-69-4	Trichlorofluoromethane	10 U		125	165	132	156	125	6	66-156/15
110-57-6	Trans-1,4-Dichloro-2-Butene	50 U		125	40.5	32*	22.1	18*	59*	51-137/24
75-01-4	Vinyl chloride	5.0 U		125	133	106	128	102	4	57-153/22
108-05-4	Vinyl Acetate	50 U		625	732	117	726	116	1	38-159/11
	m,p-Xylene	393		250	665	109	634	96	5	86-121/10
95-47-6	o-Xylene	135		125	273	110	265	104	3	83-121/10

CAS No.	Surrogate Recoveries	MS	MSD	F79758-1	Limits
1868-53-7	Dibromofluoromethane	98%	98%	102%	87-116%
17060-07-0	1,2-Dichloroethane-D4	100%	98%	96%	76-127%
2037-26-5	Toluene-D8	101%	101%	97%	86-112%
460-00-4	4-Bromofluorobenzene	101%	99%	98%	84-120%

(a) Confirmation run.
(b) Outside control limits due to high level in sample relative to spike amount.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79701-6MS	J063014.D	1	02/10/11	MM	n/a	n/a	VJ3489
F79701-6MSD	J063015.D	1	02/10/11	MM	n/a	n/a	VJ3489
F79701-6	J063006.D	1	02/10/11	MM	n/a	n/a	VJ3489

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-4, F79701-5, F79701-6, F79701-9, F79701-10

CAS No.	Compound	F79701-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		125	97.7	78	98.2	79	1	59-134/14
75-05-8	Acetonitrile	ND		250	327	131*	337	135*	3	57-123/15
107-02-8	Acrolein	ND		125	98.7	79	85.3	68	15	33-157/21
107-13-1	Acrylonitrile	ND		125	162	130*	152	122	6	62-124/13
107-05-1	Allyl chloride	ND		25	28.6	114	22.6	90	23*	48-136/13
71-43-2	Benzene	ND		25	29.8	119	27.6	110	8	83-124/11
100-44-7	Benzyl Chloride	ND		25	33.3	133*	30.7	123*	8	61-118/12
108-86-1	Bromobenzene	ND		25	28.1	112	26.3	105	7	83-115/10
74-97-5	Bromochloromethane	ND		25	28.5	114*	26.7	107	7	78-112/10
75-27-4	Bromodichloromethane	ND		25	29.1	116	24.9	100	16*	76-116/10
75-25-2	Bromoform	ND		25	29.3	117	25.8	103	13*	68-128/11
104-51-8	n-Butylbenzene	ND		25	27.4	110	26.8	107	2	84-124/10
135-98-8	sec-Butylbenzene	ND		25	28.4	114	27.2	109	4	86-127/10
98-06-6	tert-Butylbenzene	ND		25	28.0	112	26.9	108	4	83-126/10
108-90-7	Chlorobenzene	ND		25	31.0	124*	29.0	116*	7	87-115/9
75-00-3	Chloroethane	ND		25	29.4	118	26.0	104	12	54-166/20
67-66-3	Chloroform	ND		25	29.6	118	27.6	110	7	85-123/10
544-10-5	1-Chlorohexane	ND		25	31.4	126	29.2	117	7	87-128/10
95-49-8	o-Chlorotoluene	ND		25	29.2	117	26.9	108	8	84-121/10
106-43-4	p-Chlorotoluene	ND		25	28.3	113	26.2	105	8	84-120/10
110-75-8	2-Chloroethyl vinyl ether	ND		125	ND	0*	ND	0*	nc	63-125/24
75-15-0	Carbon disulfide	ND		25	25.2	101	22.0	88	14*	67-147/12
56-23-5	Carbon tetrachloride	ND		25	30.6	122	26.3	105	15*	74-139/13
75-34-3	1,1-Dichloroethane	ND		25	30.7	123	28.2	113	8	82-127/10
75-35-4	1,1-Dichloroethylene	ND		25	32.4	130	29.8	119	8	75-133/13
563-58-6	1,1-Dichloropropene	ND		25	33.4	134*	30.4	122	9	87-127/10
96-12-8	1,2-Dibromo-3-chloropropane	ND		25	34.3	137*	34.1	136*	1	61-118/15
106-93-4	1,2-Dibromoethane	ND		25	31.4	126*	30.4	122*	3	80-115/10
107-06-2	1,2-Dichloroethane	ND		25	30.1	120	28.2	113	7	76-122/11
78-87-5	1,2-Dichloropropane	ND		25	31.1	124*	29.5	118	5	81-120/11
142-28-9	1,3-Dichloropropane	ND		25	31.2	125*	30.2	121*	3	81-113/11
594-20-7	2,2-Dichloropropane	ND		25	28.5	114	27.3	109	4	77-138/12
124-48-1	Dibromochloromethane	ND		25	28.6	114	25.4	102	12*	74-116/11
75-71-8	Dichlorodifluoromethane	ND		25	31.9	128	28.6	114	11	34-158/22
156-59-2	cis-1,2-Dichloroethylene	ND		25	29.0	116*	26.8	107	8	81-114/10
10061-01-5	cis-1,3-Dichloropropene	ND		25	30.0	120*	24.8	99	19*	83-119/10

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79701-6MS	J063014.D	1	02/10/11	MM	n/a	n/a	VJ3489
F79701-6MSD	J063015.D	1	02/10/11	MM	n/a	n/a	VJ3489
F79701-6	J063006.D	1	02/10/11	MM	n/a	n/a	VJ3489

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-4, F79701-5, F79701-6, F79701-9, F79701-10

CAS No.	Compound	F79701-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1476-11-5	cis-1,4-Dichloro-2-Butene	ND		25	24.9	100	20.1	80	21	41-130/33
541-73-1	m-Dichlorobenzene	ND		25	29.2	117*	27.7	111	5	86-115/9
95-50-1	o-Dichlorobenzene	ND		25	29.7	119*	28.9	116*	3	85-115/9
106-46-7	p-Dichlorobenzene	ND		25	29.6	118*	27.8	111	6	87-113/10
156-60-5	trans-1,2-Dichloroethylene	ND		25	30.3	121	27.6	110	9	82-126/10
10061-02-6	trans-1,3-Dichloropropene	ND		25	31.5	126*	26.6	106	17*	87-123/10
100-41-4	Ethylbenzene	ND		25	29.1	116	27.4	110	6	87-118/10
97-63-2	Ethyl methacrylate	ND		25	36.3	145*	34.9	140*	4	68-110/11
76-13-1	Freon 113	ND		25	33.1	132	31.1	124	6	74-139/13
591-78-6	2-Hexanone	ND		125	204	163*	207	166*	1	58-125/14
87-68-3	Hexachlorobutadiene	ND		25	27.8	111	27.3	109	2	71-133/12
110-54-3	Hexane	ND		25	33.6	134	30.9	124	8	71-134/11
98-82-8	Isopropylbenzene	ND		25	32.7	131	30.9	124	6	87-131/10
99-87-6	p-Isopropyltoluene	ND		25	28.4	114	26.8	107	6	83-125/9
108-10-1	4-Methyl-2-pentanone	ND		125	214	171*	217	174*	1	62-125/13
126-98-7	Methacrylonitrile	ND		250	365	146*	352	141*	4	62-133/17
74-83-9	Methyl bromide	ND		25	26.9	108	24.0	96	11	55-151/21
74-87-3	Methyl chloride	ND		25	31.6	126	29.3	117	8	55-173/22
74-88-4	Methyl iodide	ND		25	31.6	126*	28.9	116	9	72-125/11
80-62-6	Methyl methacrylate	ND		25	39.9	160*	38.1	152*	5	63-115/10
74-95-3	Methylene bromide	ND		25	30.7	123*	29.0	116	6	81-116/10
75-09-2	Methylene chloride	ND		25	27.9	112	26.1	104	7	69-125/11
78-93-3	Methyl ethyl ketone	ND		125	149	119	149	119	0	61-127/13
1634-04-4	Methyl Tert Butyl Ether	ND		25	31.5	126*	30.6	122*	3	75-116/10
91-20-3	Naphthalene	ND		25	35.3	141*	37.0	148*	5	59-125/15
76-01-7	Pentachloroethane	ND		25	29.6	118*	26.1	104	13*	82-111/8
107-12-0	Propionitrile	ND		250	353	141*	356	142*	1	69-119/12
103-65-1	n-Propylbenzene	ND		25	29.6	118	27.8	111	6	86-125/10
100-42-5	Styrene	ND		25	26.7	107	24.5	98	9	78-118/11
630-20-6	1,1,1,2-Tetrachloroethane	ND		25	29.3	117	27.0	108	8	81-119/10
71-55-6	1,1,1-Trichloroethane	ND		25	30.0	120	28.7	115	4	79-133/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		25	35.1	140*	33.8	135*	4	71-120/11
79-00-5	1,1,2-Trichloroethane	ND		25	30.8	123*	30.0	120*	3	80-114/11
87-61-6	1,2,3-Trichlorobenzene	ND		25	28.9	116	30.0	120	4	64-126/16
96-18-4	1,2,3-Trichloropropane	ND		25	32.6	130*	31.1	124*	5	77-115/12
120-82-1	1,2,4-Trichlorobenzene	ND		25	27.6	110	28.7	115	4	68-123/11

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79701-6MS	J063014.D	1	02/10/11	MM	n/a	n/a	VJ3489
F79701-6MSD	J063015.D	1	02/10/11	MM	n/a	n/a	VJ3489
F79701-6	J063006.D	1	02/10/11	MM	n/a	n/a	VJ3489

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-4, F79701-5, F79701-6, F79701-9, F79701-10

CAS No.	Compound	F79701-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-63-6	1,2,4-Trimethylbenzene	ND		25	26.9	108	25.1	100	7	82-120/10
108-67-8	1,3,5-Trimethylbenzene	ND		25	27.4	110	25.7	103	6	83-123/10
127-18-4	Tetrachloroethylene	ND		25	30.7	123	28.4	114	8	80-131/12
108-88-3	Toluene	ND		25	28.6	114	27.1	108	5	86-116/10
79-01-6	Trichloroethylene	0.91	J	25	32.9	128*	32.3	126*	2	85-124/10
75-69-4	Trichlorofluoromethane	ND		25	39.2	157*	35.4	142	10	66-156/15
110-57-6	Trans-1,4-Dichloro-2-Butene	ND		25	24.8	99	19.6	78	23	51-137/24
75-01-4	Vinyl chloride	ND		25	31.7	127	29.0	116	9	57-153/22
108-05-4	Vinyl Acetate	ND		125	212	170*	200	160*	6	38-159/11
	m,p-Xylene	ND		50	58.2	116	54.5	109	7	86-121/10
95-47-6	o-Xylene	ND		25	27.8	111	26.9	108	3	83-121/10

CAS No.	Surrogate Recoveries	MS	MSD	F79701-6	Limits
1868-53-7	Dibromofluoromethane	100%	99%	103%	87-116%
17060-07-0	1,2-Dichloroethane-D4	107%	105%	107%	76-127%
2037-26-5	Toluene-D8	97%	98%	95%	86-112%
460-00-4	4-Bromofluorobenzene	97%	99%	101%	84-120%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79701-8MS	J063016.D	1	02/10/11	MM	n/a	n/a	VJ3489
F79701-8MSD	J063017.D	1	02/10/11	MM	n/a	n/a	VJ3489
F79701-8	J063007.D	1	02/10/11	MM	n/a	n/a	VJ3489

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-8

CAS No.	Compound	F79701-8 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		125	71.8	57*	74.4	60	4	59-134/14
75-05-8	Acetonitrile	ND		250	259	104	267	107	3	57-123/15
107-02-8	Acrolein	ND		125	103	82	98.0	78	5	33-157/21
107-13-1	Acrylonitrile	ND		125	138	110	132	106	4	62-124/13
107-05-1	Allyl chloride	ND		25	24.8	99	21.3	85	15*	48-136/13
71-43-2	Benzene	ND		25	25.8	103	26.5	106	3	83-124/11
100-44-7	Benzyl Chloride	ND		25	23.5	94	23.0	92	2	61-118/12
108-86-1	Bromobenzene	ND		25	24.6	98	24.9	100	1	83-115/10
74-97-5	Bromochloromethane	ND		25	24.5	98	24.1	96	2	78-112/10
75-27-4	Bromodichloromethane	ND		25	25.2	101	23.2	93	8	76-116/10
75-25-2	Bromoform	ND		25	22.6	90	21.1	84	7	68-128/11
104-51-8	n-Butylbenzene	ND		25	24.4	98	25.9	104	6	84-124/10
135-98-8	sec-Butylbenzene	ND		25	25.9	104	26.6	106	3	86-127/10
98-06-6	tert-Butylbenzene	ND		25	25.5	102	26.4	106	3	83-126/10
108-90-7	Chlorobenzene	ND		25	27.1	108	27.6	110	2	87-115/9
75-00-3	Chloroethane	ND		25	27.4	110	28.0	112	2	54-166/20
67-66-3	Chloroform	0.33	J	25	26.1	103	26.9	106	3	85-123/10
544-10-5	1-Chlorohexane	ND		25	28.3	113	28.5	114	1	87-128/10
95-49-8	o-Chlorotoluene	ND		25	25.5	102	26.1	104	2	84-121/10
106-43-4	p-Chlorotoluene	ND		25	25.0	100	25.5	102	2	84-120/10
110-75-8	2-Chloroethyl vinyl ether	ND		125	ND	0*	ND	0*	nc	63-125/24
75-15-0	Carbon disulfide	ND		25	20.8	83	20.5	82	1	67-147/12
56-23-5	Carbon tetrachloride	0.33	J	25	27.1	107	26.1	103	4	74-139/13
75-34-3	1,1-Dichloroethane	ND		25	26.6	106	27.3	109	3	82-127/10
75-35-4	1,1-Dichloroethylene	ND		25	27.7	111	29.0	116	5	75-133/13
563-58-6	1,1-Dichloropropene	ND		25	29.0	116	29.1	116	0	87-127/10
96-12-8	1,2-Dibromo-3-chloropropane	ND		25	24.2	97	24.5	98	1	61-118/15
106-93-4	1,2-Dibromoethane	ND		25	25.1	100	25.2	101	0	80-115/10
107-06-2	1,2-Dichloroethane	ND		25	25.0	100	25.4	102	2	76-122/11
78-87-5	1,2-Dichloropropane	ND		25	27.4	110	28.1	112	3	81-120/11
142-28-9	1,3-Dichloropropane	ND		25	25.5	102	25.8	103	1	81-113/11
594-20-7	2,2-Dichloropropane	ND		25	25.2	101	26.1	104	4	77-138/12
124-48-1	Dibromochloromethane	ND		25	23.8	95	22.3	89	7	74-116/11
75-71-8	Dichlorodifluoromethane	ND		25	30.3	121	30.4	122	0	34-158/22
156-59-2	cis-1,2-Dichloroethylene	ND		25	25.1	100	25.8	103	3	81-114/10
10061-01-5	cis-1,3-Dichloropropene	ND		25	25.5	102	23.3	93	9	83-119/10

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79701-8MS	J063016.D	1	02/10/11	MM	n/a	n/a	VJ3489
F79701-8MSD	J063017.D	1	02/10/11	MM	n/a	n/a	VJ3489
F79701-8	J063007.D	1	02/10/11	MM	n/a	n/a	VJ3489

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-8

CAS No.	Compound	F79701-8 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1476-11-5	cis-1,4-Dichloro-2-Butene	ND		25	18.0	72	16.0	64	12	41-130/33
541-73-1	m-Dichlorobenzene	ND		25	26.4	106	26.7	107	1	86-115/9
95-50-1	o-Dichlorobenzene	ND		25	26.4	106	27.0	108	2	85-115/9
106-46-7	p-Dichlorobenzene	ND		25	26.0	104	26.9	108	3	87-113/10
156-60-5	trans-1,2-Dichloroethylene	ND		25	26.3	105	26.4	106	0	82-126/10
10061-02-6	trans-1,3-Dichloropropene	ND		25	25.9	104	24.2	97	7	87-123/10
100-41-4	Ethylbenzene	ND		25	25.7	103	26.0	104	1	87-118/10
97-63-2	Ethyl methacrylate	ND		25	27.4	110	27.0	108	1	68-110/11
76-13-1	Freon 113	ND		25	29.2	117	29.5	118	1	74-139/13
591-78-6	2-Hexanone	ND		125	127	102	130	104	2	58-125/14
87-68-3	Hexachlorobutadiene	ND		25	25.5	102	27.6	110	8	71-133/12
110-54-3	Hexane	ND		25	28.5	114	28.9	116	1	71-134/11
98-82-8	Isopropylbenzene	ND		25	29.3	117	29.9	120	2	87-131/10
99-87-6	p-Isopropyltoluene	ND		25	25.6	102	26.2	105	2	83-125/9
108-10-1	4-Methyl-2-pentanone	ND		125	141	113	145	116	3	62-125/13
126-98-7	Methacrylonitrile	ND		250	274	110	276	110	1	62-133/17
74-83-9	Methyl bromide	ND		25	25.0	100	25.9	104	4	55-151/21
74-87-3	Methyl chloride	ND		25	28.7	115	30.5	122	6	55-173/22
74-88-4	Methyl iodide	ND		25	27.4	110	27.6	110	1	72-125/11
80-62-6	Methyl methacrylate	ND		25	29.1	116*	28.7	115	1	63-115/10
74-95-3	Methylene bromide	ND		25	25.5	102	25.2	101	1	81-116/10
75-09-2	Methylene chloride	ND		25	23.6	94	25.3	101	7	69-125/11
78-93-3	Methyl ethyl ketone	ND		125	104	83	106	85	2	61-127/13
1634-04-4	Methyl Tert Butyl Ether	ND		25	24.7	99	25.7	103	4	75-116/10
91-20-3	Naphthalene	ND		25	25.6	102	27.4	110	7	59-125/15
76-01-7	Pentachloroethane	ND		25	27.7	111	25.4	102	9*	82-111/8
107-12-0	Propionitrile	ND		250	275	110	284	114	3	69-119/12
103-65-1	n-Propylbenzene	ND		25	26.4	106	26.8	107	2	86-125/10
100-42-5	Styrene	ND		25	23.0	92	21.5	86	7	78-118/11
630-20-6	1,1,1,2-Tetrachloroethane	ND		25	25.7	103	25.1	100	2	81-119/10
71-55-6	1,1,1-Trichloroethane	ND		25	26.6	106	27.4	110	3	79-133/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		25	26.1	104	26.5	106	2	71-120/11
79-00-5	1,1,2-Trichloroethane	ND		25	24.9	100	25.7	103	3	80-114/11
87-61-6	1,2,3-Trichlorobenzene	ND		25	24.1	96	26.5	106	9	64-126/16
96-18-4	1,2,3-Trichloropropane	ND		25	24.9	100	24.8	99	0	77-115/12
120-82-1	1,2,4-Trichlorobenzene	ND		25	24.5	98	27.3	109	11	68-123/11

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79701-8MS	J063016.D	1	02/10/11	MM	n/a	n/a	VJ3489
F79701-8MSD	J063017.D	1	02/10/11	MM	n/a	n/a	VJ3489
F79701-8	J063007.D	1	02/10/11	MM	n/a	n/a	VJ3489

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-8

CAS No.	Compound	F79701-8 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-63-6	1,2,4-Trimethylbenzene	ND		25	23.6	94	23.8	95	1	82-120/10
108-67-8	1,3,5-Trimethylbenzene	ND		25	24.6	98	25.0	100	2	83-123/10
127-18-4	Tetrachloroethylene	ND		25	26.8	107	27.3	109	2	80-131/12
108-88-3	Toluene	ND		25	25.3	101	25.9	104	2	86-116/10
79-01-6	Trichloroethylene	8.3		25	36.5	113	38.7	122	6	85-124/10
75-69-4	Trichlorofluoromethane	ND		25	35.6	142	35.8	143	1	66-156/15
110-57-6	Trans-1,4-Dichloro-2-Butene	ND		25	16.9	68	15.8	63	7	51-137/24
75-01-4	Vinyl chloride	ND		25	28.9	116	30.1	120	4	57-153/22
108-05-4	Vinyl Acetate	ND		125	156	125	155	124	1	38-159/11
	m,p-Xylene	ND		50	51.8	104	51.7	103	0	86-121/10
95-47-6	o-Xylene	ND		25	24.5	98	25.5	102	4	83-121/10

CAS No.	Surrogate Recoveries	MS	MSD	F79701-8	Limits
1868-53-7	Dibromofluoromethane	99%	98%	103%	87-116%
17060-07-0	1,2-Dichloroethane-D4	102%	100%	102%	76-127%
2037-26-5	Toluene-D8	98%	98%	96%	86-112%
460-00-4	4-Bromofluorobenzene	100%	99%	99%	84-120%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79844-4MS	J063052.D	1	02/11/11	MM	n/a	n/a	VJ3490
F79844-4MSD	J063053.D	1	02/11/11	MM	n/a	n/a	VJ3490
F79844-4	J063047.D	1	02/11/11	MM	n/a	n/a	VJ3490

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-7

CAS No.	Compound	F79844-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		125	74.2	59	76.1	61	3	59-134/14
75-05-8	Acetonitrile	ND		250	255	102	251	100	2	57-123/15
107-02-8	Acrolein	ND		125	105	84	102	82	3	33-157/21
107-13-1	Acrylonitrile	ND		125	102	82	98.3	79	4	62-124/13
107-05-1	Allyl chloride	ND		25	25.0	100	22.3	89	11	48-136/13
71-43-2	Benzene	5.3		25	32.9	110	32.0	107	3	83-124/11
100-44-7	Benzyl Chloride	ND		25	23.1	92	22.9	92	1	61-118/12
108-86-1	Bromobenzene	ND		25	23.9	96	23.9	96	0	83-115/10
74-97-5	Bromochloromethane	ND		25	24.4	98	24.7	99	1	78-112/10
75-27-4	Bromodichloromethane	ND		25	25.2	101	23.9	96	5	76-116/10
75-25-2	Bromoform	ND		25	23.8	95	21.9	88	8	68-128/11
104-51-8	n-Butylbenzene	0.59	J	25	26.7	104	25.4	99	5	84-124/10
135-98-8	sec-Butylbenzene	0.37	J	25	26.6	105	25.8	102	3	86-127/10
98-06-6	tert-Butylbenzene	ND		25	25.9	104	26.0	104	0	83-126/10
108-90-7	Chlorobenzene	181	E	25	198	68* [a]	187	24* [a]	6	87-115/9
75-00-3	Chloroethane	1.3	J	25	28.0	107	26.6	101	5	54-166/20
67-66-3	Chloroform	ND		25	26.8	107	26.2	105	2	85-123/10
544-10-5	1-Chlorohexane	ND		25	32.4	130*	31.0	124	4	87-128/10
95-49-8	o-Chlorotoluene	ND		25	25.7	103	25.1	100	2	84-121/10
106-43-4	p-Chlorotoluene	ND		25	25.0	100	24.4	98	2	84-120/10
110-75-8	2-Chloroethyl vinyl ether	ND		125	ND	0*	ND	0*	nc	63-125/24
75-15-0	Carbon disulfide	ND		25	24.6	98	21.6	86	13*	67-147/12
56-23-5	Carbon tetrachloride	ND		25	27.7	111	25.3	101	9	74-139/13
75-34-3	1,1-Dichloroethane	ND		25	28.1	112	27.2	109	3	82-127/10
75-35-4	1,1-Dichloroethylene	ND		25	25.8	103	24.2	97	6	75-133/13
563-58-6	1,1-Dichloropropene	ND		25	29.4	118	27.8	111	6	87-127/10
96-12-8	1,2-Dibromo-3-chloropropane	ND		25	23.8	95	25.3	101	6	61-118/15
106-93-4	1,2-Dibromoethane	ND		25	26.9	108	27.4	110	2	80-115/10
107-06-2	1,2-Dichloroethane	ND		25	25.1	100	25.4	102	1	76-122/11
78-87-5	1,2-Dichloropropane	ND		25	28.9	116	28.0	112	3	81-120/11
142-28-9	1,3-Dichloropropane	ND		25	28.1	112	27.9	112	1	81-113/11
594-20-7	2,2-Dichloropropane	ND		25	26.4	106	26.0	104	2	77-138/12
124-48-1	Dibromochloromethane	ND		25	25.1	100	23.5	94	7	74-116/11
75-71-8	Dichlorodifluoromethane	ND		25	27.0	108	26.4	106	2	34-158/22
156-59-2	cis-1,2-Dichloroethylene	ND		25	25.7	103	25.5	102	1	81-114/10
10061-01-5	cis-1,3-Dichloropropene	ND		25	26.8	107	24.8	99	8	83-119/10

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79844-4MS	J063052.D	1	02/11/11	MM	n/a	n/a	VJ3490
F79844-4MSD	J063053.D	1	02/11/11	MM	n/a	n/a	VJ3490
F79844-4	J063047.D	1	02/11/11	MM	n/a	n/a	VJ3490

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-7

CAS No.	Compound	F79844-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1476-11-5	cis-1,4-Dichloro-2-Butene	ND		25	18.4	74	16.4	66	11	41-130/33
541-73-1	m-Dichlorobenzene	0.47	J	25	27.0	106	26.4	104	2	86-115/9
95-50-1	o-Dichlorobenzene	0.85	J	25	27.2	105	27.1	105	0	85-115/9
106-46-7	p-Dichlorobenzene	6.0		25	32.2	105	31.6	102	2	87-113/10
156-60-5	trans-1,2-Dichloroethylene	ND		25	27.3	109	25.9	104	5	82-126/10
10061-02-6	trans-1,3-Dichloropropene	ND		25	29.1	116	28.1	112	3	87-123/10
100-41-4	Ethylbenzene	0.31	J	25	24.3	96	22.7	90	7	87-118/10
97-63-2	Ethyl methacrylate	ND		25	20.6	82	20.8	83	1	68-110/11
76-13-1	Freon 113	ND		25	29.6	118	28.1	112	5	74-139/13
591-78-6	2-Hexanone	ND		125	131	105	130	104	1	58-125/14
87-68-3	Hexachlorobutadiene	ND		25	26.8	107	28.7	115	7	71-133/12
110-54-3	Hexane	ND		25	30.0	120	27.9	112	7	71-134/11
98-82-8	Isopropylbenzene	1.1		25	35.1	136*	33.6	130	4	87-131/10
99-87-6	p-Isopropyltoluene	0.21	J	25	26.0	103	25.2	100	3	83-125/9
108-10-1	4-Methyl-2-pentanone	ND		125	145	116	146	117	1	62-125/13
126-98-7	Methacrylonitrile	ND		250	238	95	230	92	3	62-133/17
74-83-9	Methyl bromide	ND		25	25.0	100	23.6	94	6	55-151/21
74-87-3	Methyl chloride	ND		25	27.8	111	25.7	103	8	55-173/22
74-88-4	Methyl iodide	ND		25	28.3	113	27.0	108	5	72-125/11
80-62-6	Methyl methacrylate	ND		25	21.2	85	21.0	84	1	63-115/10
74-95-3	Methylene bromide	ND		25	25.4	102	25.3	101	0	81-116/10
75-09-2	Methylene chloride	ND		25	25.7	103	24.4	98	5	69-125/11
78-93-3	Methyl ethyl ketone	ND		125	104	83	104	83	0	61-127/13
1634-04-4	Methyl Tert Butyl Ether	ND		25	24.0	96	24.3	97	1	75-116/10
91-20-3	Naphthalene	4.1	J	25	29.9	103	33.2	116	10	59-125/15
76-01-7	Pentachloroethane	ND		25	26.1	104	25.4	102	3	82-111/8
107-12-0	Propionitrile	ND		250	266	106	267	107	0	69-119/12
103-65-1	n-Propylbenzene	1.0		25	27.1	104	26.3	101	3	86-125/10
100-42-5	Styrene	ND		25	14.1	56*	13.2	53*	7	78-118/11
630-20-6	1,1,1,2-Tetrachloroethane	ND		25	29.5	118	29.6	118	0	81-119/10
71-55-6	1,1,1-Trichloroethane	ND		25	27.5	110	27.0	108	2	79-133/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		25	25.2	101	26.5	106	5	71-120/11
79-00-5	1,1,2-Trichloroethane	ND		25	28.0	112	28.0	112	0	80-114/11
87-61-6	1,2,3-Trichlorobenzene	1.3		25	25.7	98	28.1	107	9	64-126/16
96-18-4	1,2,3-Trichloropropane	ND		25	22.2	89	24.1	96	8	77-115/12
120-82-1	1,2,4-Trichlorobenzene	0.76	J	25	26.6	103	27.8	108	4	68-123/11

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79844-4MS	J063052.D	1	02/11/11	MM	n/a	n/a	VJ3490
F79844-4MSD	J063053.D	1	02/11/11	MM	n/a	n/a	VJ3490
F79844-4	J063047.D	1	02/11/11	MM	n/a	n/a	VJ3490

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79701-7

CAS No.	Compound	F79844-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-63-6	1,2,4-Trimethylbenzene	0.33	J	25	24.5	97	23.9	94	2	82-120/10
108-67-8	1,3,5-Trimethylbenzene	ND		25	23.9	96	23.2	93	3	83-123/10
127-18-4	Tetrachloroethylene	ND		25	30.8	123	29.5	118	4	80-131/12
108-88-3	Toluene	0.62	J	25	28.3	111	28.2	110	0	86-116/10
79-01-6	Trichloroethylene	ND		25	28.5	114	28.8	115	1	85-124/10
75-69-4	Trichlorofluoromethane	ND		25	36.9	148	35.1	140	5	66-156/15
110-57-6	Trans-1,4-Dichloro-2-Butene	ND		25	17.7	71	16.8	67	5	51-137/24
75-01-4	Vinyl chloride	ND		25	27.0	108	26.0	104	4	57-153/22
108-05-4	Vinyl Acetate	ND		125	149	119	144	115	3	38-159/11
	m,p-Xylene	0.51	J	50	58.8	117	55.9	111	5	86-121/10
95-47-6	o-Xylene	0.31	J	25	28.4	112	27.4	108	4	83-121/10

CAS No.	Surrogate Recoveries	MS	MSD	F79844-4	Limits
1868-53-7	Dibromofluoromethane	99%	99%	102%	87-116%
17060-07-0	1,2-Dichloroethane-D4	100%	99%	98%	76-127%
2037-26-5	Toluene-D8	104%	108%	100%	86-112%
460-00-4	4-Bromofluorobenzene	95%	96%	95%	84-120%

(a) Outside control limits due to high level in sample relative to spike amount.

Instrument Performance Check (BFB)

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-BFB
Lab File ID: J062642.D
Instrument ID: GCMSJ
Injection Date: 01/27/11
Injection Time: 08:59

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	31360	27.0		Pass
75	30.0 - 60.0% of mass 95	52645	45.3		Pass
95	Base peak, 100% relative abundance	116250	100.0		Pass
96	5.0 - 9.0% of mass 95	8597	7.40		Pass
173	Less than 2.0% of mass 174	268	0.23	(0.27) [a]	Pass
174	50.0 - 100.0% of mass 95	100946	86.8		Pass
175	5.0 - 9.0% of mass 174	7136	6.14	(7.07) [a]	Pass
176	95.0 - 101.0% of mass 174	97904	84.2	(97.0) [a]	Pass
177	5.0 - 9.0% of mass 176	6666	5.73	(6.81) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VJ3475-IC3475	J062646.D	01/27/11	11:38	02:39	Initial cal 1
VJ3475-IC3475	J062647.D	01/27/11	12:02	03:03	Initial cal 2
VJ3475-IC3475	J062648.D	01/27/11	12:25	03:26	Initial cal 3
VJ3475-ICC3475	J062649.D	01/27/11	13:01	04:02	Initial cal 4
VJ3475-IC3475	J062650.D	01/27/11	13:28	04:29	Initial cal 5
VJ3475-IC3475	J062651.D	01/27/11	13:59	05:00	Initial cal 6
VJ3475-ICV3475	J062652.D	01/27/11	14:31	05:32	Initial cal verification 4

Instrument Performance Check (BFB)

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3483-BFB
Lab File ID: J062847.D
Instrument ID: GCMSJ
Injection Date: 02/04/11
Injection Time: 09:14

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	27613	22.7		Pass
75	30.0 - 60.0% of mass 95	52930	43.6		Pass
95	Base peak, 100% relative abundance	121434	100.0		Pass
96	5.0 - 9.0% of mass 95	8276	6.82		Pass
173	Less than 2.0% of mass 174	468	0.39	(0.46) [a]	Pass
174	50.0 - 100.0% of mass 95	102512	84.4		Pass
175	5.0 - 9.0% of mass 174	7093	5.84	(6.92) [a]	Pass
176	95.0 - 101.0% of mass 174	99016	81.5	(96.6) [a]	Pass
177	5.0 - 9.0% of mass 176	6914	5.69	(6.98) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VJ3483-CC3475	J062848.D	02/04/11	09:37	00:23	Continuing cal 4
VJ3483-BS	J062849.D	02/04/11	10:11	00:57	Blank Spike
VJ3483-MB	J062850.D	02/04/11	10:34	01:20	Method Blank
ZZZZZZ	J062851.D	02/04/11	10:59	01:45	(unrelated sample)
ZZZZZZ	J062852.D	02/04/11	11:21	02:07	(unrelated sample)
ZZZZZZ	J062853.D	02/04/11	11:44	02:30	(unrelated sample)
ZZZZZZ	J062854.D	02/04/11	12:07	02:53	(unrelated sample)
F79653-5	J062855.D	02/04/11	12:30	03:16	(used for QC only; not part of job F79701)
ZZZZZZ	J062856.D	02/04/11	12:53	03:39	(unrelated sample)
ZZZZZZ	J062857.D	02/04/11	13:16	04:02	(unrelated sample)
ZZZZZZ	J062858.D	02/04/11	13:39	04:25	(unrelated sample)
ZZZZZZ	J062859.D	02/04/11	14:02	04:48	(unrelated sample)
ZZZZZZ	J062860.D	02/04/11	14:25	05:11	(unrelated sample)
ZZZZZZ	J062861.D	02/04/11	14:48	05:34	(unrelated sample)
ZZZZZZ	J062862.D	02/04/11	15:11	05:57	(unrelated sample)
ZZZZZZ	J062863.D	02/04/11	15:34	06:20	(unrelated sample)
F79653-5MS	J062864.D	02/04/11	15:57	06:43	Matrix Spike
F79653-5MSD	J062865.D	02/04/11	16:20	07:06	Matrix Spike Duplicate
ZZZZZZ	J062866.D	02/04/11	16:43	07:29	(unrelated sample)
F79701-1	J062870.D	02/04/11	18:15	09:01	MW39-10-012711
F79701-2	J062871.D	02/04/11	18:37	09:23	MW39-11-012711
F79701-3	J062872.D	02/04/11	19:01	09:47	MW39-12-012711

Instrument Performance Check (BFB)

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3486-BFB
Lab File ID: J062928.D
Instrument ID: GCMSJ
Injection Date: 02/08/11
Injection Time: 13:52

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	22653	19.4		Pass
75	30.0 - 60.0% of mass 95	54019	46.2		Pass
95	Base peak, 100% relative abundance	117008	100.0		Pass
96	5.0 - 9.0% of mass 95	8208	7.01		Pass
173	Less than 2.0% of mass 174	289	0.25	(0.31) [a]	Pass
174	50.0 - 100.0% of mass 95	92605	79.1		Pass
175	5.0 - 9.0% of mass 174	7095	6.06	(7.66) [a]	Pass
176	95.0 - 101.0% of mass 174	89219	76.3	(96.3) [a]	Pass
177	5.0 - 9.0% of mass 176	5701	4.87	(6.39) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VJ3486-IC3486	J062929.D	02/08/11	14:10	00:18	Initial cal 1
VJ3486-IC3486	J062930.D	02/08/11	14:33	00:41	Initial cal 2
VJ3486-IC3486	J062931.D	02/08/11	14:56	01:04	Initial cal 3
VJ3486-ICC3486	J062932.D	02/08/11	15:23	01:31	Initial cal 4
VJ3486-IC3486	J062933.D	02/08/11	15:46	01:54	Initial cal 5
VJ3486-IC3486	J062934.D	02/08/11	16:09	02:17	Initial cal 6
VJ3486-ICV3486	J062935.D	02/08/11	16:33	02:41	Initial cal verification 4
VJ3486-BS	J062936.D	02/08/11	17:17	03:25	Blank Spike
VJ3486-MB	J062938.D	02/08/11	18:03	04:11	Method Blank
F79701-1	J062939.D	02/08/11	18:25	04:33	MW39-10-012711
F79701-2	J062940.D	02/08/11	18:48	04:56	MW39-11-012711
F79701-3	J062941.D	02/08/11	19:11	05:19	MW39-12-012711
ZZZZZZ	J062942.D	02/08/11	19:34	05:42	(unrelated sample)
ZZZZZZ	J062943.D	02/08/11	19:57	06:05	(unrelated sample)
ZZZZZZ	J062944.D	02/08/11	20:20	06:28	(unrelated sample)
ZZZZZZ	J062945.D	02/08/11	20:43	06:51	(unrelated sample)
F79758-1	J062946.D	02/08/11	21:06	07:14	(used for QC only; not part of job F79701)
F79758-1MS	J062947.D	02/08/11	21:29	07:37	Matrix Spike
F79758-1MSD	J062948.D	02/08/11	21:52	08:00	Matrix Spike Duplicate
ZZZZZZ	J062949.D	02/08/11	22:15	08:23	(unrelated sample)
ZZZZZZ	J062950.D	02/08/11	22:39	08:47	(unrelated sample)
ZZZZZZ	J062951.D	02/08/11	23:02	09:10	(unrelated sample)
ZZZZZZ	J062952.D	02/08/11	23:25	09:33	(unrelated sample)
ZZZZZZ	J062953.D	02/08/11	23:48	09:56	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3486-BFB
Lab File ID: J062928.D
Instrument ID: GCMSJ
Injection Date: 02/08/11
Injection Time: 13:52

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	J062954.D	02/09/11	00:12	10:20	(unrelated sample)
ZZZZZZ	J062955.D	02/09/11	00:35	10:43	(unrelated sample)
ZZZZZZ	J062956.D	02/09/11	00:58	11:06	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3487-BFB
Lab File ID: J062960.D
Instrument ID: GCMSJ
Injection Date: 02/09/11
Injection Time: 08:44

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	37019	18.6		Pass
75	30.0 - 60.0% of mass 95	84743	42.6		Pass
95	Base peak, 100% relative abundance	198741	100.0		Pass
96	5.0 - 9.0% of mass 95	13095	6.59		Pass
173	Less than 2.0% of mass 174	945	0.48	(0.62) [a]	Pass
174	50.0 - 100.0% of mass 95	152704	76.8		Pass
175	5.0 - 9.0% of mass 174	11034	5.55	(7.23) [a]	Pass
176	95.0 - 101.0% of mass 174	148800	74.9	(97.4) [a]	Pass
177	5.0 - 9.0% of mass 176	9513	4.79	(6.39) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VJ3487-IC3487	J062961.D	02/09/11	09:06	00:22	Initial cal 1
VJ3487-IC3487	J062962.D	02/09/11	09:29	00:45	Initial cal 2
VJ3487-IC3487	J062963.D	02/09/11	09:52	01:08	Initial cal 3
VJ3487-ICC3487	J062964.D	02/09/11	10:15	01:31	Initial cal 4
VJ3487-IC3487	J062965.D	02/09/11	10:38	01:54	Initial cal 5
VJ3487-IC3487	J062966.D	02/09/11	11:01	02:17	Initial cal 6
VJ3487-ICV3487	J062967.D	02/09/11	11:25	02:41	Initial cal verification 4

Instrument Performance Check (BFB)

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3488-BFB
Lab File ID: J062997.D
Instrument ID: GCMSJ
Injection Date: 02/10/11
Injection Time: 11:08

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	32464	22.2		Pass
75	30.0 - 60.0% of mass 95	68153	46.6		Pass
95	Base peak, 100% relative abundance	146112	100.0		Pass
96	5.0 - 9.0% of mass 95	10898	7.46		Pass
173	Less than 2.0% of mass 174	673	0.46	(0.60) [a]	Pass
174	50.0 - 100.0% of mass 95	111707	76.5		Pass
175	5.0 - 9.0% of mass 174	8223	5.63	(7.36) [a]	Pass
176	95.0 - 101.0% of mass 174	108648	74.4	(97.3) [a]	Pass
177	5.0 - 9.0% of mass 176	6925	4.74	(6.37) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VJ3488-CC3486	J062998.D	02/10/11	11:38	00:30	Continuing cal 4
VJ3488-CC3487	J062999.D	02/10/11	12:04	00:56	Continuing cal 4
VJ3488-BS	J063000.D	02/10/11	12:35	01:27	Blank Spike
VJ3489-BS	J063000.D	02/10/11	12:35	01:27	Blank Spike
VJ3488-BS	J063001.D	02/10/11	12:58	01:50	Blank Spike
VJ3488-MB	J063002.D	02/10/11	13:21	02:13	Method Blank
VJ3489-MB	J063003.D	02/10/11	14:08	03:00	Method Blank
ZZZZZZ	J063004.D	02/10/11	14:31	03:23	(unrelated sample)
F79780-10	J063005.D	02/10/11	14:54	03:46	(used for QC only; not part of job F79701)
F79701-6	J063006.D	02/10/11	15:17	04:09	MW39-07-012811
F79701-8	J063007.D	02/10/11	15:40	04:32	MW39-15-012811
F79701-4	J063008.D	02/10/11	16:04	04:56	MW39-02-012811
F79701-5	J063009.D	02/10/11	16:27	05:19	MW39-05-012811
F79701-9	J063010.D	02/10/11	16:50	05:42	MW39-16-012811
F79780-10MS	J063012.D	02/10/11	17:37	06:29	Matrix Spike
F79780-10MSD	J063013.D	02/10/11	18:00	06:52	Matrix Spike Duplicate
F79701-6MS	J063014.D	02/10/11	18:23	07:15	Matrix Spike
F79701-6MSD	J063015.D	02/10/11	18:46	07:38	Matrix Spike Duplicate
F79701-8MS	J063016.D	02/10/11	19:09	08:01	Matrix Spike
F79701-8MSD	J063017.D	02/10/11	19:32	08:24	Matrix Spike Duplicate
ZZZZZZ	J063018.D	02/10/11	19:55	08:47	(unrelated sample)
ZZZZZZ	J063019.D	02/10/11	20:17	09:09	(unrelated sample)
ZZZZZZ	J063020.D	02/10/11	20:41	09:33	(unrelated sample)
ZZZZZZ	J063021.D	02/10/11	21:04	09:56	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample:	VJ3488-BFB	**Injection Date:**	02/10/11
Lab File ID:	J062997.D	**Injection Time:**	11:08
Instrument ID:	GCMSJ		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
F79701-10	J063022.D	02/10/11	21:27	10:19	TB01-012811

Instrument Performance Check (BFB)

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3490-BFB
Lab File ID: J063026.D
Instrument ID: GCMSJ
Injection Date: 02/11/11
Injection Time: 08:52

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	36539	18.9		Pass
75	30.0 - 60.0% of mass 95	82438	42.7		Pass
95	Base peak, 100% relative abundance	193088	100.0		Pass
96	5.0 - 9.0% of mass 95	14359	7.44		Pass
173	Less than 2.0% of mass 174	656	0.34	(0.44) [a]	Pass
174	50.0 - 100.0% of mass 95	149603	77.5		Pass
175	5.0 - 9.0% of mass 174	10234	5.30	(6.84) [a]	Pass
176	95.0 - 101.0% of mass 174	145131	75.2	(97.0) [a]	Pass
177	5.0 - 9.0% of mass 176	9831	5.09	(6.77) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VJ3490-CC3486	J063028.D	02/11/11	09:55	01:03	Continuing cal 4
VJ3490-BS	J063029.D	02/11/11	10:31	01:39	Blank Spike
VJ3490-MB	J063031.D	02/11/11	11:18	02:26	Method Blank
F79701-7	J063032.D	02/11/11	11:48	02:56	MW39-13-012811
ZZZZZZ	J063033.D	02/11/11	12:11	03:19	(unrelated sample)
ZZZZZZ	J063034.D	02/11/11	12:34	03:42	(unrelated sample)
F79893-1	J063035.D	02/11/11	12:57	04:05	(used for QC only; not part of job F79701)
ZZZZZZ	J063036.D	02/11/11	13:20	04:28	(unrelated sample)
ZZZZZZ	J063037.D	02/11/11	13:43	04:51	(unrelated sample)
ZZZZZZ	J063038.D	02/11/11	14:06	05:14	(unrelated sample)
ZZZZZZ	J063039.D	02/11/11	14:29	05:37	(unrelated sample)
ZZZZZZ	J063040.D	02/11/11	14:52	06:00	(unrelated sample)
ZZZZZZ	J063041.D	02/11/11	15:15	06:23	(unrelated sample)
ZZZZZZ	J063042.D	02/11/11	15:37	06:45	(unrelated sample)
ZZZZZZ	J063043.D	02/11/11	16:00	07:08	(unrelated sample)
ZZZZZZ	J063044.D	02/11/11	16:23	07:31	(unrelated sample)
F79893-1MS	J063045.D	02/11/11	16:46	07:54	Matrix Spike
F79893-1MSD	J063046.D	02/11/11	17:09	08:17	Matrix Spike Duplicate
F79844-4	J063047.D	02/11/11	17:31	08:39	(used for QC only; not part of job F79701)
ZZZZZZ	J063048.D	02/11/11	17:54	09:02	(unrelated sample)
ZZZZZZ	J063049.D	02/11/11	18:17	09:25	(unrelated sample)
ZZZZZZ	J063050.D	02/11/11	18:39	09:47	(unrelated sample)
ZZZZZZ	J063051.D	02/11/11	19:03	10:11	(unrelated sample)
F79844-4MS	J063052.D	02/11/11	19:26	10:34	Matrix Spike

Instrument Performance Check (BFB)

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3490-BFB
Lab File ID: J063026.D
Instrument ID: GCMSJ
Injection Date: 02/11/11
Injection Time: 08:52

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
F79844-4MSD	J063053.D	02/11/11	19:49	10:57	Matrix Spike Duplicate

Volatile Internal Standard Area Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	VJ3483-CC3475	**Injection Date:**	02/04/11
Lab File ID:	J062848.D	**Injection Time:**	09:37
Instrument ID:	GCMSJ	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Initial Cal [a]	1889885	7.43	1301966	10.50	707616	12.87	169868	5.08
Check Std [b]	2009132	7.43	1350584	10.50	722610	12.86	176961	5.08
Upper Limit [c]	4018264	7.93	2701168	11.00	1445220	13.36	353922	5.58
Lower Limit [d]	1004566	6.93	675292	10.00	361305	12.36	88481	4.58

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
VJ3483-BS	2045735	7.43	1410470	10.50	742003	12.86	182539	5.09
VJ3483-MB	1974151	7.43	1410125	10.50	717338	12.86	170879	5.07
ZZZZZZ	1934226	7.43	1395727	10.50	704810	12.86	207504	5.08
ZZZZZZ	1900523	7.43	1371660	10.50	689322	12.86	140659	5.07
ZZZZZZ	1712893	7.43	1234593	10.50	645336	12.86	322659	5.07
ZZZZZZ	1824469	7.43	1335412	10.50	677444	12.86	390281*	5.08
F79653-5	1840916	7.43	1341499	10.50	680316	12.86	179949	5.08
ZZZZZZ	1683902	7.42	1218563	10.50	610310	12.86	154672	5.08
ZZZZZZ	1767185	7.43	1275311	10.50	629702	12.86	129306	5.08
ZZZZZZ	1653695	7.43	1189725	10.50	586588	12.86	127166	5.08
ZZZZZZ	1616955	7.43	1184500	10.50	591019	12.86	162579	5.09
ZZZZZZ	1568315	7.43	1150940	10.50	590867	12.86	166514	5.09
ZZZZZZ	1894760	7.43	1034054	10.51	533722	12.87	143897	5.09
ZZZZZZ	2040543	7.43	1433430	10.50	763324	12.86	194972	5.08
ZZZZZZ	2054927	7.43	1436275	10.50	770138	12.86	182448	5.08
F79653-5MS	2100130	7.42	1448267	10.50	774566	12.86	207006	5.08
F79653-5MSD	2049847	7.42	1405684	10.50	745805	12.86	197992	5.07
ZZZZZZ	1931262	7.42	1375879	10.50	702972	12.86	163154	5.07
F79701-1 [e]	1542316	7.43	1142787	10.50	599624	12.86	358953*	5.07
F79701-2 [e]	1638728	7.43	1203873	10.50	616717	12.86	358618*	5.07
F79701-3 [e]	1517907	7.43	1099427	10.50	572624	12.86	373136*	5.08

IS 1 = Fluorobenzene
IS 2 = Chlorobenzene-D5
IS 3 = 1,4-Dichlorobenzene-d4
IS 4 = Tert Butyl Alcohol-D10

(a) Initial Cal is: VJ3475-ICC3475 J062649.D 01/27/11 13:01
(b) Check Std Limit = -50 to + 100% of initial cal area.
(c) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(d) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(e) Confirmation run for internal standard areas.

Volatile Internal Standard Area Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	VJ3486-ICC3486	**Injection Date:**	02/08/11
Lab File ID:	J062932.D	**Injection Time:**	15:23
Instrument ID:	GCMSJ	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Initial Cal [a]	1801065	7.43	1233474	10.50	636944	12.86	145962	5.08
Check Std [b]	1801065	7.43	1233474	10.50	636944	12.86	145962	5.08
Upper Limit [c]	3602130	7.93	2466948	11.00	1273888	13.36	291924	5.58
Lower Limit [d]	900533	6.93	616737	10.00	318472	12.36	72981	4.58

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
VJ3486-BS	2075411	7.43	1445272	10.50	736090	12.86	173067	5.07
VJ3486-MB	1931743	7.43	1390658	10.50	669720	12.86	153224	5.08
F79701-1	1636198	7.43	1174038	10.50	600473	12.86	373788*	5.08
F79701-2	1626538	7.43	1188134	10.50	602285	12.86	355902*	5.07
F79701-3	1514371	7.43	1091377	10.50	553568	12.86	363537*	5.08
ZZZZZZ	1769740	7.43	1288928	10.50	629495	12.86	171415	5.08
ZZZZZZ	1882607	7.43	1359302	10.50	688709	12.86	187303	5.08
ZZZZZZ	1633451	7.43	1181437	10.50	583919	12.86	390691*	5.08
ZZZZZZ	1887622	7.43	1347902	10.50	674526	12.86	166387	5.08
F79758-1	1896630	7.43	1359006	10.50	691507	12.86	144022	5.08
F79758-1MS	1941814	7.43	1323658	10.50	683582	12.86	154491	5.06
F79758-1MSD	2006085	7.43	1350174	10.50	709324	12.86	167102	5.08
ZZZZZZ	1895492	7.43	1352916	10.50	657221	12.86	206573	5.08
ZZZZZZ	1834573	7.43	1318376	10.50	651466	12.86	191686	5.08
ZZZZZZ	1855811	7.43	1362029	10.50	668841	12.86	149766	5.08
ZZZZZZ	1845182	7.43	1314262	10.50	659309	12.86	155039	5.06
ZZZZZZ	1797724	7.43	1275841	10.50	626935	12.86	145374	5.08
ZZZZZZ	1833516	7.43	1294135	10.50	665183	12.86	143321	5.07
ZZZZZZ	1877947	7.43	1354695	10.50	673824	12.86	150605	5.08
ZZZZZZ	1852379	7.43	1319201	10.50	649335	12.86	150983	5.09

IS 1 = Fluorobenzene
IS 2 = Chlorobenzene-D5
IS 3 = 1,4-Dichlorobenzene-d4
IS 4 = Tert Butyl Alcohol-D10

(a) Initial Cal is: VJ3486-ICC3486 J062932.D 02/08/11 15:23
(b) Check Std Limit = -50 to + 100% of initial cal area.
(c) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(d) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	VJ3488-CC3486	**Injection Date:**	02/10/11
Lab File ID:	J062998.D	**Injection Time:**	11:38
Instrument ID:	GCMSJ	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Initial Cal [a]	1801065	7.43	1233474	10.50	636944	12.86	145962	5.08
Check Std [b]	1826095	7.43	1281742	10.50	660084	12.86	153441	5.09
Upper Limit [c]	3652190	7.93	2563484	11.00	1320168	13.36	306882	5.59
Lower Limit [d]	913048	6.93	640871	10.00	330042	12.36	76721	4.59

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
VJ3488-BS	1998790	7.43	1422203	10.50	721273	12.86	181780	5.08
VJ3489-BS	1998790	7.43	1422203	10.50	721273	12.86	181780	5.08
VJ3488-BS	2060180	7.42	1480904	10.50	716148	12.86	176541	5.07
VJ3488-MB	1926885	7.43	1403821	10.50	671873	12.86	163885	5.09
VJ3489-MB	1927141	7.43	1374706	10.50	655046	12.86	171089	5.07
ZZZZZZ	1816971	7.43	1299062	10.50	614754	12.86	153218	5.08
F79780-10	1845933	7.43	1325482	10.50	655824	12.86	152682	5.07
F79701-6	1794860	7.43	1308626	10.50	621922	12.86	261343	5.08
F79701-8	1783037	7.43	1304186	10.50	632447	12.86	178940	5.08
F79701-4	1754328	7.43	1256347	10.50	600937	12.86	179077	5.07
F79701-5	1642608	7.43	1195045	10.50	576732	12.86	269586	5.08
F79701-9	1604437	7.43	1171777	10.50	573730	12.86	173515	5.08
F79780-10MS	1670774	7.43	1237102	10.50	629070	12.86	142577	5.09
F79780-10MSD	1926245	7.43	1354782	10.50	684321	12.86	157831	5.08
F79701-6MS	1850637	7.43	1333124	10.50	680984	12.86	260613	5.08
F79701-6MSD	1987495	7.43	1372273	10.50	714741	12.86	291333	5.08
F79701-8MS	2080896	7.43	1470470	10.50	752699	12.86	209791	5.08
F79701-8MSD	1972365	7.43	1372957	10.50	705169	12.86	193998	5.08
ZZZZZZ	2061341	7.43	1493272	10.50	738120	12.86	165111	5.07
ZZZZZZ	2055084	7.43	1476598	10.50	729764	12.86	174321	5.09
ZZZZZZ	2268792	7.43	1559834	10.50	791239	12.86	172026	5.08
ZZZZZZ	2311246	7.43	1670769	10.50	828326	12.86	197880	5.08
F79701-10	2319736	7.43	1664013	10.50	816938	12.86	196692	5.09

IS 1 = Fluorobenzene
IS 2 = Chlorobenzene-D5
IS 3 = 1,4-Dichlorobenzene-d4
IS 4 = Tert Butyl Alcohol-D10

(a) Initial Cal is: VJ3486-ICC3486 J062932.D 02/08/11 15:23
(b) Check Std Limit = -50 to + 100% of initial cal area.
(c) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(d) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	VJ3490-CC3486	**Injection Date:**	02/11/11
Lab File ID:	J063028.D	**Injection Time:**	09:55
Instrument ID:	GCMSJ	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Initial Cal [a]	1801065	7.43	1233474	10.50	636944	12.86	145962	5.08
Check Std [b]	2410352	7.43	1661101	10.50	853577	12.86	211608	5.07
Upper Limit [c]	4820704	7.93	3322202	11.00	1707154	13.36	423216	5.57
Lower Limit [d]	1205176	6.93	830551	10.00	426789	12.36	105804	4.57

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
VJ3490-BS	2502520	7.43	1724072	10.50	865581	12.86	209493	5.08
VJ3490-MB	2268348	7.43	1662714	10.50	807835	12.86	189305	5.07
F79701-7	2230186	7.43	1614872	10.50	787801	12.86	200541	5.08
ZZZZZZ	2116392	7.43	1530983	10.50	763851	12.86	166860	5.08
ZZZZZZ	2077403	7.43	1490211	10.50	723781	12.86	156461	5.08
F79893-1	1954745	7.43	1404954	10.50	672994	12.86	151571	5.08
ZZZZZZ	1886186	7.42	1359220	10.50	647752	12.86	146191	5.08
ZZZZZZ	1870276	7.43	1359483	10.50	655133	12.86	147585	5.08
ZZZZZZ	1783406	7.43	1293608	10.50	629965	12.86	137712	5.07
ZZZZZZ	1767740	7.43	1290428	10.50	615559	12.86	138861	5.09
ZZZZZZ	1748718	7.43	1274085	10.50	606323	12.86	132969	5.07
ZZZZZZ	1659642	7.43	1212124	10.50	577309	12.86	134971	5.08
ZZZZZZ	1697433	7.43	1246314	10.50	599948	12.86	138783	5.08
ZZZZZZ	1694715	7.43	1237822	10.50	593481	12.86	135592	5.08
ZZZZZZ	1661246	7.43	1243457	10.50	590704	12.86	131549	5.08
F79893-1MS	1830411	7.43	1322734	10.50	717664	12.86	143726	5.07
F79893-1MSD	1884842	7.43	1364021	10.50	700321	12.86	157469	5.07
F79844-4	1961975	7.43	1339662	10.50	722735	12.86	188331	5.08
ZZZZZZ	1870971	7.43	1332186	10.50	666655	12.86	159689	5.08
ZZZZZZ	1866384	7.43	1322125	10.50	653470	12.86	160923	5.08
ZZZZZZ	1878842	7.43	1327519	10.50	693387	12.86	166070	5.07
ZZZZZZ	1913700	7.43	1382615	10.50	684369	12.86	162694	5.09
F79844-4MS	1978308	7.42	1312879	10.50	779340	12.86	187204	5.08
F79844-4MSD	2241937	7.43	1434457	10.50	823759	12.86	209856	5.09

IS 1 = Fluorobenzene
IS 2 = Chlorobenzene-D5
IS 3 = 1,4-Dichlorobenzene-d4
IS 4 = Tert Butyl Alcohol-D10

(a) Initial Cal is: VJ3486-ICC3486 J062932.D 02/08/11 15:23
(b) Check Std Limit = -50 to + 100% of initial cal area.
(c) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	VJ3490-CC3486	**Injection Date:**	02/11/11
Lab File ID:	J063028.D	**Injection Time:**	09:55
Instrument ID:	GCMSJ	**Method:**	SW846 8260B

Lab	IS 1		IS 2		IS 3		IS 4	
Sample ID	**AREA**	**RT**	**AREA**	**RT**	**AREA**	**RT**	**AREA**	**RT**

(d) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Method: SW846 8260B **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
F79701-1	J062939.D	104.0	110.0	95.0	96.0
F79701-1	J062870.D	105.0	113.0	94.0	97.0
F79701-2	J062940.D	106.0	111.0	95.0	98.0
F79701-2	J062871.D	107.0	113.0	95.0	100.0
F79701-3	J062872.D	106.0	113.0	95.0	98.0
F79701-3	J062941.D	103.0	108.0	95.0	96.0
F79701-4	J063008.D	104.0	102.0	96.0	101.0
F79701-5	J063009.D	103.0	110.0	96.0	99.0
F79701-6	J063006.D	103.0	107.0	95.0	101.0
F79701-7	J063032.D	104.0	102.0	95.0	100.0
F79701-8	J063007.D	103.0	102.0	96.0	99.0
F79701-9	J063010.D	102.0	104.0	95.0	97.0
F79701-10	J063022.D	102.0	98.0	95.0	99.0
F79701-6MS	J063014.D	100.0	107.0	97.0	97.0
F79701-6MSD	J063015.D	99.0	105.0	98.0	99.0
F79701-8MS	J063016.D	99.0	102.0	98.0	100.0
F79701-8MSD	J063017.D	98.0	100.0	98.0	99.0
F79758-1MS	J062947.D	98.0	100.0	101.0	101.0
F79758-1MSD	J062948.D	98.0	98.0	101.0	99.0
F79844-4MS	J063052.D	99.0	100.0	104.0	95.0
F79844-4MSD	J063053.D	99.0	99.0	108.0	96.0
VJ3486-BS	J062936.D	100.0	99.0	99.0	99.0
VJ3486-MB	J062938.D	104.0	100.0	95.0	100.0
VJ3489-BS	J063000.D	101.0	103.0	97.0	100.0
VJ3489-MB	J063003.D	105.0	101.0	98.0	102.0
VJ3490-BS	J063029.D	100.0	100.0	99.0	103.0
VJ3490-MB	J063031.D	105.0	100.0	94.0	100.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	87-116%
S2 = 1,2-Dichloroethane-D4	76-127%
S3 = Toluene-D8	86-112%
S4 = 4-Bromofluorobenzene	84-120%

Initial Calibration Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICC3475
Lab FileID: J062649.D

Response Factor Report MSVOA6

```
Method       : C:\MSDCHEM\1\METHODS\8260-JAPP9.M (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Fri Jan 28 10:52:13 2011
Response via : Initial Calibration

Calibration Files
1   =J062646.D   2   =J062647.D   3   =J062648.D   4   =J062649.D
5      =J062650.D    6      =J062651.D

      Compound              1     2     3     4     5     6     Avg    %RSD
-------------------------------------------------------------------------------

1) I   Fluorobenzene         ----------------ISTD---------------------
2)     Dichlorodifluoromet 0.222 0.194 0.249 0.253 0.234 0.234 0.231   9.16
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9992
             Response Ratio = 0.00000 + 0.25217 *A + -0.00967 *A^2

3) P   Chloromethane       0.650 0.479 0.545 0.525 0.460 0.456 0.519  14.15
4) C   Vinyl Chloride      0.344 0.309 0.403 0.394 0.339 0.341 0.355  10.16
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9973
             Response Ratio = 0.00000 + 0.39787 *A + -0.03035 *A^2

5)     Bromomethane        0.259 0.191 0.180 0.156 0.131 0.127 0.174  28.10
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9964
             Response Ratio = 0.00000 + 0.17024 *A + -0.02279 *A^2

6)     Chloroethane        0.177 0.161 0.181 0.163 0.129 0.124 0.156  15.42
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9941
             Response Ratio = 0.00000 + 0.17510 *A + -0.02667 *A^2

7)     Trichlorofluorometh 0.398 0.380 0.462 0.464 0.403 0.390 0.416   8.92
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9985
             Response Ratio = 0.00000 + 0.48043 *A + -0.04661 *A^2

8)     Ethyl Ether         0.262 0.281 0.280 0.281 0.246 0.253 0.267   5.76
9)     1,2-Dichlorotrifluo 0.276 0.252 0.316 0.306 0.273 0.273 0.283   8.40
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9984
             Response Ratio = 0.00000 + 0.30995 *A + -0.01959 *A^2

10) C  1,1-Dichloroethene  0.420 0.419 0.505 0.506 0.461 0.458 0.461   8.36
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9992
             Response Ratio = 0.00000 + 0.51107 *A + -0.02803 *A^2

11)    Freon 113           0.224 0.223 0.269 0.268 0.242 0.238 0.244   8.32
12)    Carbon Disulfide    0.867 0.762 0.893 0.874 0.759 0.748 0.817   8.22
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9982
             Response Ratio = 0.00000 + 0.89802 *A + -0.07863 *A^2

13)    Iodomethane         0.427 0.415 0.476 0.492 0.433 0.445 0.448   6.70
14)    Allyl chloride      0.590 0.659 0.823 0.756 0.727 0.666 0.703  11.67
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9996
             Response Ratio = 0.00000 + 0.83839 *A + -0.08519 *A^2

15)    Methylene Chloride  1.900 0.982 0.763 0.742 0.664 0.661 0.952  50.29
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9987
             Response Ratio = 0.00000 + 0.76414 *A + -0.05472 *A^2

16)    Acetone             0.061 0.047 0.052 0.063 0.051 0.055 0.055  11.45
```

Initial Calibration Summary

Job Number: F79701 **Sample:** VJ3475-ICC3475
Account: TETTNOAK Tetra Tech, Inc **Lab FileID:** J062649.D
Project: Holloman AFB; Alamogordo, NM

17)		Methyl acetate	0.053	0.050	0.047	0.049	0.045	0.047	0.049	5.56
18)		trans-1,2-Dichloroe	0.601	0.558	0.659	0.668	0.618	0.613	0.620	6.46
19)		Hexane	0.403	0.368	0.446	0.442	0.399	0.394	0.409	7.34
20)		Methyl Tert Butyl E	0.914	0.847	0.838	0.880	0.839	0.886	0.867	3.58
21)		Acetonitrile	0.031	0.029	0.030	0.030	0.026	0.027	0.029	6.25
22)		Di-isopropyl ether	1.641	1.657	1.804	1.803	1.641	1.614	1.693	5.10
23)		Chloroprene	1.259	1.322	1.412	1.480	1.332	1.335	1.357	5.74
24)	P	1,1-Dichloroethane	0.746	0.696	0.795	0.818	0.741	0.726	0.754	6.01
25)		Acrylonitrile	0.252	0.264	0.282	0.296	0.266	0.267	0.271	5.74
26)		ETBE	1.345	1.346	1.391	1.411	1.270	1.274	1.340	4.36
27)		Vinyl acetate	0.672	0.713	0.706	0.692	0.583	0.545	0.652	10.84
28)		cis-1,2-Dichloroeth	0.380	0.353	0.401	0.432	0.398	0.403	0.395	6.63
29)		2,2-Dichloropropane	0.413	0.385	0.468	0.514	0.487	0.505	0.462	11.28
30)		Bromochloromethane	0.183	0.185	0.199	0.210	0.194	0.202	0.196	5.16
31)		Cyclohexane	0.694	0.641	0.843	0.827	0.752	0.727	0.747	10.38
32)	C	Chloroform	0.601	0.564	0.627	0.651	0.594	0.593	0.605	4.98
33)		Ethyl acetate	0.494	0.530	0.500	0.484	0.410	0.415	0.472	10.33
34)		Tetrahydrofuran	0.160	0.112	0.099	0.101	0.093	0.094	0.110	23.24

---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9992
Response Ratio = 0.00000 + 0.10092 *A + -0.00401 *A^2

35)	S	Dibromofluoromethan	0.264	0.260	0.252	0.249	0.248	0.247	0.253	2.77
36)		Carbon Tetrachlorid	0.392	0.365	0.462	0.505	0.491	0.510	0.454	13.54
37)		1,1,1-Trichloroetha	0.404	0.380	0.460	0.488	0.470	0.486	0.448	10.14
38)		2-Butanone	0.243	0.218	0.232	0.262	0.211	0.218	0.231	8.31
39)		1,1-Dichloropropene	0.423	0.381	0.492	0.526	0.490	0.492	0.467	11.52
40)		Propionitrile	0.052	0.054	0.051	0.052	0.045	0.045	0.050	7.98
41)		Methacrylonitrile	0.245	0.267	0.258	0.241	0.194	0.178	0.231	15.56

---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9973
Response Ratio = 0.00000 + 0.26682 *A + -0.00454 *A^2

42)		Benzene	1.477	1.328	1.468	1.447	1.202	1.093	1.336	11.91

---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9986
Response Ratio = 0.00000 + 1.58489 *A + -0.24965 *A^2

43)		TAME	0.865	0.845	0.911	0.953	0.858	0.863	0.882	4.66
44)	S	1,2-Dichloroethane-	0.291	0.292	0.296	0.278	0.281	0.292	0.288	2.41
45)		1,2-Dichloroethane	0.507	0.487	0.518	0.541	0.507	0.516	0.513	3.43
46)		Trichloroethene	0.306	0.304	0.368	0.388	0.353	0.345	0.344	9.74
47)		Methylcyclohexane	0.481	0.464	0.621	0.611	0.552	0.529	0.543	12.00

---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9993
Response Ratio = 0.00000 + 0.63959 *A + -0.05628 *A^2

48)		Dibromomethane	0.202	0.206	0.214	0.225	0.208	0.211	0.211	3.77
49)	C	1,2-Dichloropropane	0.442	0.427	0.482	0.488	0.438	0.421	0.449	6.32
50)		Bromodichloromethan	0.412	0.398	0.458	0.491	0.457	0.457	0.445	7.68
51)		Methyl methacrylate	0.314	0.342	0.392	0.402	0.369	0.373	0.365	8.94
52)		2-Chloroethyl vinyl	0.205	0.243	0.251	0.250	0.202	0.189	0.223	12.51
53)		cis-1,3-Dichloropro	0.529	0.543	0.609	0.648	0.585	0.572	0.581	7.55
54)	I	Chlorobenzene-d5	----------ISTD----------							
55)	S	Toluene-d8	1.253	1.254	1.274	1.309	1.363	1.413	1.311	4.95
56)	C	Toluene	1.859	1.796	2.081	2.186	1.986	1.887	1.966	7.50

---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9994
Response Ratio = 0.00000 + 2.26874 *A + -0.19167 *A^2

57)		2-Nitropropane	0.105	0.119	0.136	0.148	0.142	0.147	0.133	13.09
58)		4-Methyl-2-pentanon	0.491	0.543	0.549	0.549	0.466	0.444	0.507	9.20
59)		trans-1,3-Dichlorop	0.617	0.604	0.697	0.756	0.718	0.738	0.688	9.21
60)		Tetrachloroethene	0.485	0.432	0.541	0.573	0.542	0.561	0.522	10.25

Initial Calibration Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICC3475
Lab FileID: J062649.D

```
61)      Ethyl methacrylate  0.396 0.487 0.583 0.646 0.608 0.638 0.560  17.58
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9989
               Response Ratio = 0.00000 + 0.59704 *A + 0.01866 *A^2

62)      1,1,2-Trichloroetha 0.374 0.363 0.386 0.409 0.376 0.382 0.382   4.02
63)      Dibromochloromethan 0.428 0.405 0.476 0.537 0.522 0.551 0.486  12.36
64)      1,3-Dichloropropane 0.717 0.726 0.785 0.834 0.775 0.785 0.770   5.59
65)      1,2-Dibromoethane   0.421 0.422 0.452 0.497 0.471 0.490 0.459   7.18
66)      2-hexanone          0.394 0.393 0.448 0.497 0.398 0.388 0.420  10.40
67)      1-Chlorohexane      0.586 0.586 0.802 0.829 0.760 0.737 0.717  14.82
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9993
               Response Ratio = 0.00000 + 0.84643 *A + -0.05540 *A^2

68) C    Ethylbenzene        2.084 1.930 2.246 2.219 1.887 1.731 2.016  10.03
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9990
               Response Ratio = 0.00000 + 2.41122 *A + -0.34492 *A^2

69) P    Chlorobenzene       1.331 1.182 1.362 1.394 1.195 1.130 1.266   8.68
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9986
               Response Ratio = 0.00000 + 1.46506 *A + -0.17071 *A^2

70)      1,1,1,2-Tetrachloro 0.351 0.403 0.483 0.522 0.504 0.507 0.462  14.84
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9996
               Response Ratio = 0.00000 + 0.50671 *A

71)      m,p-Xylene          1.469 1.446 1.681 1.617 1.301 1.161 1.446  13.39
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9979
               Response Ratio = 0.00000 + 1.80374 *A + -0.16335 *A^2

72)      o-Xylene            1.354 1.458 1.806 1.847 1.646 1.551 1.610  12.03
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9993
               Response Ratio = 0.00000 + 1.94248 *A + -0.19753 *A^2

73)      Styrene             1.075 1.222 1.506 1.583 1.408 1.338 1.355  13.76
74) P    Bromoform           0.236 0.269 0.308 0.357 0.340 0.367 0.313  16.63
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9986
               Response Ratio = 0.00000 + 0.31546 *A + 0.02462 *A^2

75)      Isopropylbenzene    1.459 1.507 1.971 1.989 1.766 1.653 1.724  13.12
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9993
               Response Ratio = 0.00000 + 2.11041 *A + -0.23065 *A^2


76) I    1,4-Dichlorobenzene-d ----------------ISTD---------------------
77) S    4-Bromofluorobenzen 0.946 0.959 0.939 0.939 0.988 1.004 0.962   2.85
78)      cis-1,4-Dichloro-2- 0.081 0.153 0.198 0.297 0.288 0.320 0.223  42.45
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9968
               Response Ratio = 0.00000 + 0.23374 *A + 0.04281 *A^2

79)      n-Propylbenzene     4.189 4.180 4.874 4.528 3.708 3.352 4.139  13.24
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9981
               Response Ratio = 0.00000 + 5.05675 *A + -0.86922 *A^2

80)      Bromobenzene        1.175 1.072 1.159 1.165 1.011 0.991 1.096   7.52
81) P    1,1,2,2-Tetrachloro 1.039 1.030 1.012 1.056 0.952 0.966 1.009   4.14
82)      1,3,5-Trimethylbenz 2.875 3.043 3.536 3.318 2.779 2.552 3.017  11.98
83)      2-Chlorotoluene     2.919 2.961 3.310 3.170 2.702 2.527 2.931   9.85
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9987
               Response Ratio = 0.00000 + 3.42544 *A + -0.45906 *A^2
```

Initial Calibration Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICC3475
Lab FileID: J062649.D

```
 84)     trans-1,4-Dichloro- 0.121 0.177 0.205 0.323 0.302 0.339 0.245  36.48
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9953
               Response Ratio = 0.00000 + 0.25049 *A + 0.04372 *A^2

 85)     1,2,3-Trichloroprop 0.293 0.257 0.254 0.263 0.239 0.246 0.259   7.34
 86)     Cyclohexanone       0.019 0.024 0.025 0.028 0.028 0.029 0.026  13.97
 87)     4-Chlorotoluene     2.688 2.677 3.135 3.093 2.740 2.593 2.821   8.24
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9993
               Response Ratio = 0.00000 + 3.27863 *A + -0.34869 *A^2

 88)     tert-Butylbenzene   1.495 1.568 1.917 1.896 1.729 1.679 1.714   9.92
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9995
               Response Ratio = 0.00000 + 1.96139 *A + -0.14461 *A^2

 89)     1,2,4-Trimethylbenz 2.870 3.095 3.590 3.488 3.037 2.858 3.156   9.89
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9991
               Response Ratio = 0.00000 + 3.73194 *A + -0.44542 *A^2

 90)     Pentachloroethane   0.534 0.590 0.656 0.721 0.685 0.701 0.648  11.09
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9992
               Response Ratio = 0.00000 + 0.69303 *A

 91)     sec-Butylbenzene    3.712 3.789 4.659 4.368 3.719 3.380 3.938  12.11
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9990
               Response Ratio = 0.00000 + 4.84322 *A + -0.74224 *A^2

 92)     4-Isopropyltoluene  2.552 2.786 3.554 3.405 2.933 2.731 2.994  13.31
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9989
               Response Ratio = 0.00000 + 3.68274 *A + -0.48445 *A^2

 93)     1,3-Dichlorobenzene 2.152 1.973 2.185 2.191 1.950 1.871 2.054   6.76
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9993
               Response Ratio = 0.00000 + 2.28732 *A + -0.21279 *A^2

 94)     1,4-Dichlorobenzene 2.107 1.934 2.164 2.179 1.905 1.844 2.022   7.17
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9988
               Response Ratio = 0.00000 + 2.25694 *A + -0.21286 *A^2

 95)     n-Butylbenzene      1.635 1.766 2.246 2.130 1.833 1.705 1.886  13.03
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9989
               Response Ratio = 0.00000 + 2.31234 *A + -0.30918 *A^2

 96)     Benzyl Chloride     0.283 0.350 0.380 0.437 0.385 0.383 0.370  13.83
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9978
               Response Ratio = 0.00000 + 0.42564 *A + -0.02221 *A^2

 97)     1,2-Dichlorobenzene 1.967 1.909 2.068 2.077 1.850 1.775 1.941   6.18
 98)     1,2-Dibromo-3-Chlor 0.124 0.148 0.141 0.154 0.152 0.165 0.147   9.39
 99)     Hexachlorobutadiene 0.719 0.570 0.755 0.734 0.692 0.713 0.697   9.46
100)     1,2,4-Trichlorobenz 1.311 1.230 1.438 1.437 1.259 1.240 1.319   7.27
101)     Naphthalene         2.157 2.180 2.557 2.684 2.393 2.329 2.383   8.73
102)     1,2,3-Trichlorobenz 1.312 1.082 1.258 1.262 1.143 1.138 1.199   7.54

103) I   Tert Butyl Alcohol-d1 ----------------ISTD---------------------
104)     Ethanol             0.191 0.222 0.157 0.153 0.136 0.134 0.166  20.81
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9985
               Response Ratio = 0.00000 + 0.15898 *A + -0.00328 *A^2

105)     acrolein            2.487 2.271 2.197 2.112 2.033 2.088 2.198   7.49
106)     Tert Butyl Alcohol  1.853 1.830 1.689 1.615 1.622 1.632 1.707   6.31
```

Initial Calibration Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICC3475
Lab FileID: J062649.D

107)	tert Amyl alcohol	1.108	1.288	1.371	1.432	1.370	1.380	1.325	8.74
108)	Isobutyl alcohol	0.721	0.720	0.745	0.722	0.676	0.641	0.704	5.44
109)	1,4-Dioxane	0.130	0.147	0.155	0.164	0.162	0.158	0.153	8.25

(#) = Out of Range

8260-JAPP9.M Fri Jan 28 11:35:47 2011

Initial Calibration Verification

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICV3475
Lab FileID: J062652.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\012711\J062652.D          Vial: 10
Acq On    : 27 Jan 2011   2:31 pm                   Operator: MelissaM
Sample    : icv3475-4                               Inst    : MSVOA6
Misc      : ms16326,vj3475,,,,,                     Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\MSDCHEM\1\METHODS\8260-JAPP9.M (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Fri Jan 28 10:52:13 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.001  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	114	0.00	7.43
		Amount	Calc.	%Drift			
2	Dichlorodifluoromethane	40.000	47.582	-19.0	130	0.00	2.77
		AvgRF	CCRF	%Dev			
3 P	Chloromethane	0.519	0.521	-0.4	113	0.00	2.93
		Amount	Calc.	%Drift			
4 C	Vinyl Chloride	40.000	38.110	4.7	103	0.00	3.06
5	Bromomethane	40.000	42.215	-5.5	116	0.00	3.43
6	Chloroethane	40.000	38.656	3.4	104	0.01	3.57
7	Trichlorofluoromethane	40.000	40.957	-2.4	111	0.00	3.76
		AvgRF	CCRF	%Dev			
8	Ethyl Ether	0.267	0.267	0.0	108	0.00	4.00
		Amount	Calc.	%Drift			
9	1,2-Dichlorotrifluoroetha	40.000	42.180	-5.4	115	0.00	4.22
10 C	1,1-Dichloroethene	40.000	37.708	5.7	104	0.00	4.25
		AvgRF	CCRF	%Dev			
11	Freon 113	0.244	0.253	-3.7	107	0.00	4.33
		Amount	Calc.	%Drift			
12	Carbon Disulfide	40.000	37.919	5.2	103	0.00	4.32
		AvgRF	CCRF	%Dev			
13	Iodomethane	0.448	0.472	-5.4	109	0.00	4.42
		Amount	Calc.	%Drift			
14	Allyl chloride	40.000	36.954	7.6	108	0.00	4.73
15	Methylene Chloride	40.000	39.838	0.4	110	0.00	4.84
		AvgRF	CCRF	%Dev			
16	Acetone	0.055	0.048	12.7	86	0.00	4.86
17	Methyl acetate	0.049	0.048	2.0	112	0.01	4.98
18	trans-1,2-Dichloroethene	0.620	0.621	-0.2	106	0.00	5.01
19	Hexane	0.409	0.430	-5.1	111	0.00	5.07
20	Methyl Tert Butyl Ether	0.867	0.929	-7.2	120	0.00	5.12
21	Acetonitrile	0.029	0.027	6.9	105	0.00	5.33
22	Di-isopropyl ether	1.693	1.780	-5.1	112	0.00	5.48

Initial Calibration Verification

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICV3475
Lab FileID: J062652.D

23		Chloroprene	1.357	1.374	-1.3	106	0.00	5.61
24	P	1,1-Dichloroethane	0.754	0.766	-1.6	106	0.00	5.63
25		Acrylonitrile	0.271	0.275	-1.5	106	0.00	5.61
26		ETBE	1.340	1.345	-0.4	108	0.00	5.85
27		Vinyl acetate	0.652	0.772	-18.4	127	0.00	5.82
28		cis-1,2-Dichloroethene	0.395	0.413	-4.6	109	0.00	6.17
29		2,2-Dichloropropane	0.462	0.533	-15.4	118	0.00	6.30
30		Bromochloromethane	0.196	0.202	-3.1	110	0.00	6.37
31		Cyclohexane	0.747	0.777	-4.0	107	0.00	6.44
32	C	Chloroform	0.605	0.647	-6.9	113	0.00	6.42
33		Ethyl acetate	0.472	0.529	-12.1	124	0.00	6.50
		----------	Amount	Calc.	%Drift	----------		
34		Tetrahydrofuran	40.000	38.480	3.8	106	0.00	6.60
		----------	AvgRF	CCRF	%Dev	----------		
35	S	Dibromofluoromethane	0.253	0.254	-0.4	116	0.00	6.61
36		Carbon Tetrachloride	0.454	0.523	-15.2	118	0.00	6.63
37		1,1,1-Trichloroethane	0.448	0.507	-13.2	118	0.00	6.69
38		2-Butanone	0.231	0.206	10.8	90	0.00	6.70
39		1,1-Dichloropropene	0.467	0.515	-10.3	111	0.00	6.78
40		Propionitrile	0.050	0.048	4.0	107	0.00	7.00
		----------	Amount	Calc.	%Drift	----------		
41		Methacrylonitrile	400.000	371.459	7.1	102	0.00	7.03
42		Benzene	40.000	38.020	4.9	104	0.00	7.03
		----------	AvgRF	CCRF	%Dev	----------		
43		TAME	0.882	0.920	-4.3	110	0.00	7.12
44	S	1,2-Dichloroethane-d4	0.288	0.309	-7.3	126	0.00	7.15
45		1,2-Dichloroethane	0.513	0.535	-4.3	113	0.00	7.22
46		Trichloroethene	0.344	0.377	-9.6	111	0.00	7.61
		----------	Amount	Calc.	%Drift	----------		
47		Methylcyclohexane	40.000	41.016	-2.5	113	0.00	7.64
		----------	AvgRF	CCRF	%Dev	----------		
48		Dibromomethane	0.211	0.221	-4.7	111	0.00	8.01
49	C	1,2-Dichloropropane	0.449	0.458	-2.0	107	0.00	8.10
50		Bromodichloromethane	0.445	0.479	-7.6	111	0.00	8.15
51		Methyl methacrylate	0.365	0.376	-3.0	107	0.00	8.26
52		2-Chloroethyl vinyl ether	0.223	0.228	-2.2	104	0.00	8.68
53		cis-1,3-Dichloropropene	0.581	0.637	-9.6	112	0.00	8.77
54	I	Chlorobenzene-d5	1.000	1.000	0.0	111	0.00	10.50
55	S	Toluene-d8	1.311	1.326	-1.1	113	0.00	8.96
		----------	Amount	Calc.	%Drift	----------		
56	C	Toluene	40.000	39.829	0.4	107	0.00	9.02
		----------	AvgRF	CCRF	%Dev	----------		
57		2-Nitropropane	0.133	0.134	-0.8	100	0.00	9.21
58		4-Methyl-2-pentanone	0.507	0.481	5.1	97	0.00	9.34
59		trans-1,3-Dichloropropene	0.688	0.807	-17.3	119	0.00	9.39
60		Tetrachloroethene	0.522	0.594	-13.8	115	0.00	9.42
		----------	Amount	Calc.	%Drift	----------		
61		Ethyl methacrylate	40.000	41.522	-3.8	110	0.00	9.52
		----------	AvgRF	CCRF	%Dev	----------		

Initial Calibration Verification

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICV3475
Lab FileID: J062652.D

62		1,1,2-Trichloroethane	0.382	0.396	-3.7	108	0.00	9.56
63		Dibromochloromethane	0.486	0.545	-12.1	113	0.00	9.75
64		1,3-Dichloropropane	0.770	0.804	-4.4	107	0.00	9.84
65		1,2-Dibromoethane	0.459	0.494	-7.6	111	0.00	10.01
66		2-hexanone	0.420	0.395	6.0	88	0.00	10.15
		----------	Amount	Calc.	%Drift		----------	
67		1-Chlorohexane	40.000	38.626	3.4	104	0.00	10.47
68	C	Ethylbenzene	40.000	39.570	1.1	106	0.00	10.53
69	P	Chlorobenzene	40.000	40.494	-1.2	107	0.00	10.52
70		1,1,1,2-Tetrachloroethane	40.000	41.572	-3.9	112	0.00	10.57
71		m,p-Xylene	80.000	79.090	1.1	105	0.00	10.67
72		o-Xylene	40.000	40.446	-1.1	109	0.00	11.11
		----------	AvgRF	CCRF	%Dev		----------	
73		Styrene	1.355	1.506	-11.1	106	0.00	11.15
		----------	Amount	Calc.	%Drift		----------	
74	P	Bromoform	40.000	41.634	-4.1	109	0.00	11.19
75		Isopropylbenzene	40.000	45.989	-15.0	122	0.00	11.42
		----------	AvgRF	CCRF	%Dev		----------	
76	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	109	0.00	12.87
77	S	4-Bromofluorobenzene	0.962	0.978	-1.7	114	0.00	11.71
		----------	Amount	Calc.	%Drift		----------	
78		cis-1,4-Dichloro-2-butene	40.000	41.837	-4.6	104	0.00	11.75
79		n-Propylbenzene	40.000	40.160	-0.4	106	0.00	11.84
		----------	AvgRF	CCRF	%Dev		----------	
80		Bromobenzene	1.096	1.157	-5.6	109	0.00	11.84
81	P	1,1,2,2-Tetrachloroethane	1.009	1.016	-0.7	105	0.00	11.88
82		1,3,5-Trimethylbenzene	3.017	3.182	-5.5	105	0.00	12.03
		----------	Amount	Calc.	%Drift		----------	
83		2-Chlorotoluene	40.000	40.939	-2.3	108	0.00	12.02
84		trans-1,4-Dichloro-2-Bute	40.000	39.191	2.0	95	0.00	12.06
		----------	AvgRF	CCRF	%Dev		----------	
85		1,2,3-Trichloropropane	0.259	0.248	4.2	103	0.00	12.04
86		Cyclohexanone	0.026	0.030	-15.4	116	0.00	12.09
		----------	Amount	Calc.	%Drift		----------	
87		4-Chlorotoluene	40.000	41.594	-4.0	110	0.00	12.18
88		tert-Butylbenzene	40.000	41.230	-3.1	110	0.00	12.36
89		1,2,4-Trimethylbenzene	40.000	40.575	-1.4	107	0.00	12.43
90		Pentachloroethane	40.000	42.879	-7.2	113	0.00	12.40
91		sec-Butylbenzene	40.000	39.980	0.1	106	0.00	12.55
92		4-Isopropyltoluene	40.000	41.859	-4.6	110	0.00	12.68
93		1,3-Dichlorobenzene	40.000	41.896	-4.7	110	0.00	12.79
94		1,4-Dichlorobenzene	40.000	41.688	-4.2	109	0.00	12.88
95		n-Butylbenzene	40.000	39.463	1.3	105	0.00	13.12
96		Benzyl Chloride	40.000	40.155	-0.4	102	0.00	13.12
		----------	AvgRF	CCRF	%Dev		----------	
97		1,2-Dichlorobenzene	1.941	2.103	-8.3	111	0.00	13.32
98		1,2-Dibromo-3-Chloropropa	0.147	0.157	-6.8	111	0.00	14.07
99		Hexachlorobutadiene	0.697	0.798	-14.5	119	0.00	14.66
100		1,2,4-Trichlorobenzene	1.319	1.473	-11.7	112	0.00	14.69

Initial Calibration Verification

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICV3475
Lab FileID: J062652.D

101		Naphthalene	2.383	2.701	-13.3	110	0.00	14.96
102		1,2,3-Trichlorobenzene	1.199	1.324	-10.4	115	0.00	15.12
103	I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	115	0.01	5.09
		----------	Amount	Calc.	%Drift		----------	
104		Ethanol	800.000	838.068	-4.8	117	0.01	4.16
		----------	AvgRF	CCRF	%Dev		----------	
105		acrolein	2.198	2.391	-8.8	131	0.00	4.57
106		Tert Butyl Alcohol	1.707	1.549	9.3	111	0.01	5.17
107		tert Amyl alcohol	1.325	1.342	-1.3	108	0.00	7.26
108		Isobutyl alcohol	0.704	0.647	8.1	103	0.00	7.14
109		1,4-Dioxane	0.153	0.164	-7.2	115	0.00	8.34

(#) = Out of Range SPCC's out = 0 CCC's out = 0
J062649.D 8260-JAPP9.M Fri Jan 28 11:34:22 2011

Continuing Calibration Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3483-CC3475
Lab FileID: J062848.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\020411\J062848.D          Vial: 1
Acq On    :  4 Feb 2011   9:37 am                   Operator: MelissaM
Sample    : cc3475-4                                Inst    : MSVOA6
Misc      : ms16326,vj3483,,,,,                     Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\MSDCHEM\1\METHODS\8260-JAPP9.M (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Fri Jan 28 10:52:13 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.001  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	106	0.00	7.43
	----------	Amount	Calc.	%Drift	----------		
2	Dichlorodifluoromethane	40.000	35.778	10.6	92	0.00	2.77
	----------	AvgRF	CCRF	%Dev	----------		
3 P	Chloromethane	0.519	0.514	1.0	104	0.00	2.93
	----------	Amount	Calc.	%Drift	----------		
4 C	Vinyl Chloride	40.000	38.842	2.9	98	0.00	3.05
5	Bromomethane	40.000	40.563	-1.4	105	0.00	3.43
6	Chloroethane	40.000	43.756	-9.4	109	0.01	3.57
7	Trichlorofluoromethane	40.000	37.602	6.0	96	0.01	3.77
	----------	AvgRF	CCRF	%Dev	----------		
8	Ethyl Ether	0.267	0.294	-10.1	111	0.00	4.00
	----------	Amount	Calc.	%Drift	----------		
9	1,2-Dichlorotrifluoroetha	40.000	40.842	-2.1	104	0.00	4.22
10 C	1,1-Dichloroethene	40.000	39.866	0.3	102	0.00	4.26
	----------	AvgRF	CCRF	%Dev	----------		
11	Freon 113	0.244	0.258	-5.7	102	0.00	4.33
	----------	Amount	Calc.	%Drift	----------		
12	Carbon Disulfide	40.000	41.094	-2.7	104	0.00	4.33
	----------	AvgRF	CCRF	%Dev	----------		
13	Iodomethane	0.448	0.481	-7.4	104	0.00	4.42
	----------	Amount	Calc.	%Drift	----------		
14	Allyl chloride	40.000	38.405	4.0	104	0.00	4.73
15	Methylene Chloride	40.000	39.712	0.7	102	0.00	4.84
	----------	AvgRF	CCRF	%Dev	----------		
16	Acetone	0.055	0.051	7.3	85	0.00	4.86
17	Methyl acetate	0.049	0.049	0.0	107	0.01	4.98
18	trans-1,2-Dichloroethene	0.620	0.668	-7.7	106	0.00	5.01
19	Hexane	0.409	0.438	-7.1	106	0.00	5.08
20	Methyl Tert Butyl Ether	0.867	0.938	-8.2	113	0.00	5.12
21	Acetonitrile	0.029	0.027	6.9	99	0.00	5.33
22	Di-isopropyl ether	1.693	1.791	-5.8	106	0.00	5.48

Continuing Calibration Summary

Job Number: F79701 **Sample:** VJ3483-CC3475
Account: TETTNOAK Tetra Tech, Inc **Lab FileID:** J062848.D
Project: Holloman AFB; Alamogordo, NM

23		Chloroprene	1.357	1.433	-5.6	103	0.01	5.62
24	P	1,1-Dichloroethane	0.754	0.825	-9.4	107	0.00	5.63
25		Acrylonitrile	0.271	0.287	-5.9	103	0.01	5.62
26		ETBE	1.340	1.414	-5.5	107	0.00	5.85
27		Vinyl acetate	0.652	0.652	0.0	100	0.00	5.83
28		cis-1,2-Dichloroethene	0.395	0.452	-14.4	111	0.00	6.17
29		2,2-Dichloropropane	0.462	0.527	-14.1	109	0.00	6.32
30		Bromochloromethane	0.196	0.223	-13.8	113	0.00	6.38
31		Cyclohexane	0.747	0.815	-9.1	105	0.00	6.44
32	C	Chloroform	0.605	0.689	-13.9	112	0.00	6.43
33		Ethyl acetate	0.472	0.453	4.0	100	0.00	6.50
		----------	Amount	Calc.	%Drift		----------	
34		Tetrahydrofuran	40.000	44.190	-10.5	113	0.00	6.60
		----------	AvgRF	CCRF	%Dev		----------	
35	S	Dibromofluoromethane	0.253	0.253	0.0	108	0.00	6.61
36		Carbon Tetrachloride	0.454	0.534	-17.6	112	0.00	6.63
37		1,1,1-Trichloroethane	0.448	0.517	-15.4	113	0.00	6.69
38		2-Butanone	0.231	0.219	5.2	89	0.00	6.70
39		1,1-Dichloropropene	0.467	0.540	-15.6	109	0.00	6.79
40		Propionitrile	0.050	0.051	-2.0	105	0.00	7.00
		----------	Amount	Calc.	%Drift		----------	
41		Methacrylonitrile	400.000	387.403	3.1	99	0.00	7.03
42		Benzene	40.000	42.708	-6.8	108	0.00	7.04
		----------	AvgRF	CCRF	%Dev		----------	
43		TAME	0.882	0.969	-9.9	108	0.00	7.12
44	S	1,2-Dichloroethane-d4	0.288	0.301	-4.5	115	0.00	7.15
45		1,2-Dichloroethane	0.513	0.561	-9.4	110	0.00	7.22
46		Trichloroethene	0.344	0.400	-16.3	110	0.00	7.60
		----------	Amount	Calc.	%Drift		----------	
47		Methylcyclohexane	40.000	42.574	-6.4	110	0.00	7.64
		----------	AvgRF	CCRF	%Dev		----------	
48		Dibromomethane	0.211	0.233	-10.4	110	0.00	8.02
49	C	1,2-Dichloropropane	0.449	0.492	-9.6	107	0.00	8.10
50		Bromodichloromethane	0.445	0.517	-16.2	112	0.00	8.15
51		Methyl methacrylate	0.365	0.387	-6.0	103	0.00	8.27
52		2-Chloroethyl vinyl ether	0.223	0.210	5.8	89	0.00	8.68
53		cis-1,3-Dichloropropene	0.581	0.658	-13.3	108	0.00	8.77
54	I	Chlorobenzene-d5	1.000	1.000	0.0	104	0.00	10.50
55	S	Toluene-d8	1.311	1.321	-0.8	105	0.00	8.97
		----------	Amount	Calc.	%Drift		----------	
56	C	Toluene	40.000	42.646	-6.6	107	0.00	9.02
		----------	AvgRF	CCRF	%Dev		----------	
57		2-Nitropropane	0.133	0.142	-6.8	100	0.00	9.20
58		4-Methyl-2-pentanone	0.507	0.509	-0.4	96	0.00	9.34
59		trans-1,3-Dichloropropene	0.688	0.781	-13.5	107	0.00	9.39
60		Tetrachloroethene	0.522	0.582	-11.5	106	0.00	9.42
		----------	Amount	Calc.	%Drift		----------	
61		Ethyl methacrylate	40.000	43.092	-7.7	106	0.00	9.52
		----------	AvgRF	CCRF	%Dev		----------	

Continuing Calibration Summary

Job Number: F79701 **Sample:** VJ3483-CC3475
Account: TETTNOAK Tetra Tech, Inc **Lab FileID:** J062848.D
Project: Holloman AFB; Alamogordo, NM

62		1,1,2-Trichloroethane	0.382	0.417	-9.2	106	0.00	9.56
63		Dibromochloromethane	0.486	0.562	-15.6	109	0.00	9.75
64		1,3-Dichloropropane	0.770	0.855	-11.0	106	0.00	9.84
65		1,2-Dibromoethane	0.459	0.506	-10.2	106	0.00	10.01
66		2-hexanone	0.420	0.420	0.0	88	0.00	10.15
		----------	Amount	Calc.	%Drift	----------		
67		1-Chlorohexane	40.000	42.517	-6.3	106	0.00	10.47
68	C	Ethylbenzene	40.000	42.133	-5.3	104	0.00	10.53
69	P	Chlorobenzene	40.000	42.092	-5.2	103	0.00	10.52
70		1,1,1,2-Tetrachloroethane	40.000	42.880	-7.2	108	0.00	10.57
71		m,p-Xylene	80.000	84.836	-6.0	104	0.00	10.67
72		o-Xylene	40.000	42.565	-6.4	106	0.00	11.10
		----------	AvgRF	CCRF	%Dev	----------		
73		Styrene	1.355	1.594	-17.6	104	0.00	11.15
		----------	Amount	Calc.	%Drift	----------		
74	P	Bromoform	40.000	40.316	-0.8	98	0.00	11.20
75		Isopropylbenzene	40.000	42.239	-5.6	105	0.00	11.42
		----------	AvgRF	CCRF	%Dev	----------		
76	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	102	0.00	12.86
77	S	4-Bromofluorobenzene	0.962	0.978	-1.7	106	0.00	11.71
		----------	Amount	Calc.	%Drift	----------		
78		cis-1,4-Dichloro-2-butene	40.000	33.753	15.6	76	0.00	11.75
79		n-Propylbenzene	40.000	42.519	-6.3	104	0.00	11.84
		----------	AvgRF	CCRF	%Dev	----------		
80		Bromobenzene	1.096	1.167	-6.5	102	0.00	11.84
81	P	1,1,2,2-Tetrachloroethane	1.009	1.037	-2.8	100	0.00	11.88
82		1,3,5-Trimethylbenzene	3.017	3.403	-12.8	105	0.00	12.02
		----------	Amount	Calc.	%Drift	----------		
83		2-Chlorotoluene	40.000	43.047	-7.6	105	0.00	12.02
84		trans-1,4-Dichloro-2-Bute	40.000	35.831	10.4	80	0.00	12.06
		----------	AvgRF	CCRF	%Dev	----------		
85		1,2,3-Trichloropropane	0.259	0.267	-3.1	104	0.00	12.04
86		Cyclohexanone	0.026	0.027	-3.8	97	0.00	12.09
		----------	Amount	Calc.	%Drift	----------		
87		4-Chlorotoluene	40.000	43.453	-8.6	107	0.00	12.18
88		tert-Butylbenzene	40.000	43.472	-8.7	107	0.00	12.36
89		1,2,4-Trimethylbenzene	40.000	43.676	-9.2	107	0.00	12.43
90		Pentachloroethane	40.000	42.679	-6.7	105	0.00	12.40
91		sec-Butylbenzene	40.000	42.719	-6.8	105	0.00	12.54
92		4-Isopropyltoluene	40.000	43.002	-7.5	105	0.00	12.68
93		1,3-Dichlorobenzene	40.000	40.815	-2.0	101	0.00	12.79
94		1,4-Dichlorobenzene	40.000	41.219	-3.0	101	0.00	12.88
95		n-Butylbenzene	40.000	42.593	-6.5	105	0.00	13.12
96		Benzyl Chloride	40.000	39.088	2.3	93	0.00	13.12
		----------	AvgRF	CCRF	%Dev	----------		
97		1,2-Dichlorobenzene	1.941	2.038	-5.0	100	0.00	13.32
98		1,2-Dibromo-3-Chloropropa	0.147	0.152	-3.4	100	0.00	14.07
99		Hexachlorobutadiene	0.697	0.698	-0.1	97	0.00	14.66
100		1,2,4-Trichlorobenzene	1.319	1.403	-6.4	100	0.00	14.69

Continuing Calibration Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3483-CC3475
Lab FileID: J062848.D

101	Naphthalene	2.383	2.539	-6.5	97	0.00	14.96
102	1,2,3-Trichlorobenzene	1.199	1.200	-0.1	97	0.00	15.12
103 I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	104	0.00	5.08
	----------	Amount	Calc.	%Drift		----------	
104	Ethanol	800.000	995.395	-24.4#	124	0.01	4.16
	----------	AvgRF	CCRF	%Dev		----------	
105	acrolein	2.198	2.170	1.3	107	0.00	4.57
106	Tert Butyl Alcohol	1.707	1.755	-2.8	113	0.00	5.15
107	tert Amyl alcohol	1.325	1.405	-6.0	102	0.00	7.26
108	Isobutyl alcohol	0.704	0.698	0.9	101	0.00	7.14
109	1,4-Dioxane	0.153	0.175	-14.4	111	0.00	8.34

(#) = Out of Range SPCC's out = 0 CCC's out = 0
J062649.D 8260-JAPP9.M Fri Feb 04 15:23:59 2011

Initial Calibration Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3486-ICC3486
Lab FileID: J062932.D

Response Factor Report MSVOA6

Method : C:\MSDchem\1\METHODS\8260-japp9.m (RTE Integrator)
Title : SW-846 Method 5030B/8260B & EPA 624
Last Update : Wed Feb 09 08:49:47 2011
Response via : Initial Calibration

Calibration Files
1 =J062929.D 2 =J062930.D 3 =J062931.D 4 =J062932.D
5 =J062933.D 6 =J062934.D

	Compound	1	2	3	4	5	6	Avg	%RSD
1) I	Fluorobenzene	----------ISTD----------							
2)	Dichlorodifluoromet	0.322	0.313	0.412	0.377	0.373	0.355	0.359	10.30
3) P	Chloromethane	0.645	0.465	0.529	0.540	0.484	0.456	0.520	13.49
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9994								
	Response Ratio = 0.00000 + 0.56936 *A + -0.05730 *A^2								
4) C	Vinyl Chloride	0.367	0.340	0.432	0.406	0.392	0.376	0.385	8.33
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9998								
	Response Ratio = 0.00000 + 0.42995 *A + -0.02720 *A^2								
5)	Bromomethane	0.344	0.230	0.232	0.209	0.179	0.164	0.226	28.22
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9990								
	Response Ratio = 0.00000 + 0.23354 *A + -0.03542 *A^2								
6)	Chloroethane	0.197	0.177	0.211	0.189	0.167	0.150	0.182	12.14
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9995								
	Response Ratio = 0.00000 + 0.21453 *A + -0.03272 *A^2								
7)	Trichlorofluorometh	0.437	0.400	0.517	0.459	0.447	0.416	0.446	9.14
8)	Ethyl Ether	0.285	0.263	0.287	0.274	0.267	0.259	0.273	4.24
9)	1,2-Dichlorotrifluo	0.296	0.280	0.341	0.305	0.297	0.283	0.300	7.25
10) C	1,1-Dichloroethene	0.449	0.415	0.527	0.481	0.462	0.439	0.462	8.38
11)	Freon 113	0.248	0.233	0.288	0.259	0.252	0.244	0.254	7.44
12)	Carbon Disulfide	1.052	0.815	0.998	0.902	0.851	0.803	0.903	11.24
13)	Iodomethane	0.462	0.423	0.509	0.467	0.440	0.431	0.455	6.93
14)	Allyl chloride	0.608	0.599	0.689	0.726	0.639	0.636	0.650	7.55
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9984								
	Response Ratio = 0.00000 + 0.72385 *A + -0.04611 *A^2								
15)	Methylene Chloride	1.724	0.760	0.672	0.644	0.601	0.575	0.829	53.40
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9997								
	Response Ratio = 0.00000 + 0.68553 *A + -0.05618 *A^2								
16)	Acetone	0.054	0.035	0.044	0.048	0.041	0.044	0.044	13.86
17)	Methyl acetate	0.052	0.051	0.052	0.050	0.048	0.047	0.050	4.51
18)	trans-1,2-Dichloroe	0.596	0.548	0.669	0.632	0.611	0.589	0.607	6.72
19)	Hexane	0.389	0.323	0.409	0.388	0.381	0.368	0.377	7.85
20)	Methyl Tert Butyl E	0.960	0.981	1.031	0.993	0.945	0.930	0.973	3.73
21)	Acetonitrile	0.025	0.023	0.024	0.023	0.023	0.021	0.023	5.02
22)	Di-isopropyl ether	1.483	1.460	1.650	1.620	1.527	1.470	1.535	5.29
23)	Chloroprene	1.158	1.165	1.352	1.298	1.238	1.208	1.237	6.17
24) P	1,1-Dichloroethane	0.751	0.699	0.818	0.785	0.749	0.713	0.753	5.87
25)	Acrylonitrile	0.232	0.233	0.270	0.260	0.248	0.242	0.247	6.17
26)	ETBE	1.262	1.302	1.414	1.343	1.279	1.226	1.304	5.08
27)	Vinyl acetate	0.577	0.587	0.596	0.589	0.538	0.492	0.563	7.20
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9998								

Initial Calibration Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3486-ICC3486
Lab FileID: J062932.D

```
                Response Ratio = 0.00000 + 0.63110 *A + -0.01363 *A^2

28)      cis-1,2-Dichloroeth 0.450 0.405 0.483 0.468 0.447 0.445 0.450   5.87
29)      2,2-Dichloropropane 0.484 0.467 0.577 0.559 0.542 0.536 0.528   8.19
30)      Bromochloromethane  0.207 0.220 0.239 0.225 0.215 0.210 0.219   5.39
31)      Cyclohexane         0.660 0.590 0.786 0.731 0.703 0.672 0.690   9.67
32)  C   Chloroform          0.756 0.672 0.765 0.724 0.689 0.665 0.712   6.03
33)      Ethyl acetate       0.426 0.414 0.411 0.423 0.403 0.373 0.408   4.70
34)      Tetrahydrofuran     0.156 0.085 0.085 0.092 0.083 0.083 0.097  29.62
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9989
                Response Ratio = 0.00000 + 0.09056 *A + -0.00394 *A^2

35)  S   Dibromofluoromethan 0.264 0.262 0.258 0.251 0.246 0.246 0.255   3.11
36)      Carbon Tetrachlorid 0.494 0.447 0.582 0.548 0.528 0.526 0.521   8.90
37)      1,1,1-Trichloroetha 0.505 0.469 0.596 0.559 0.542 0.530 0.534   8.20
38)      2-Butanone          0.195 0.165 0.181 0.189 0.170 0.170 0.178   6.83
39)      1,1-Dichloropropene 0.459 0.457 0.570 0.547 0.536 0.520 0.515   9.07
40)      Propionitrile       0.046 0.045 0.046 0.046 0.043 0.041 0.044   4.86
41)      Methacrylonitrile   0.225 0.229 0.219 0.209 0.184 0.165 0.205  12.36
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9999
                Response Ratio = 0.00000 + 0.23449 *A + -0.00349 *A^2

42)      Benzene             1.567 1.486 1.671 1.521 1.351 1.226 1.471  10.81
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9997
                Response Ratio = 0.00000 + 1.70603 *A + -0.24204 *A^2

43)      TAME                0.986 1.009 1.080 1.020 0.968 0.920 0.997   5.39
44)  S   1,2-Dichloroethane- 0.296 0.290 0.294 0.297 0.273 0.271 0.287   4.01
45)      1,2-Dichloroethane  0.534 0.503 0.544 0.540 0.514 0.503 0.523   3.52
46)      Trichloroethene     0.395 0.362 0.436 0.412 0.390 0.374 0.395   6.73
47)      Methylcyclohexane   0.541 0.529 0.708 0.650 0.612 0.579 0.603  11.31
48)      Dibromomethane      0.246 0.236 0.250 0.245 0.229 0.225 0.238   4.33
49)  C   1,2-Dichloropropane 0.440 0.413 0.477 0.468 0.437 0.423 0.443   5.64
50)      Bromodichloromethan 0.496 0.505 0.556 0.551 0.518 0.512 0.523   4.76
51)      Methyl methacrylate 0.314 0.306 0.339 0.357 0.337 0.331 0.331   5.56
52)      2-Chloroethyl vinyl 0.178 0.205 0.222 0.207 0.193 0.178 0.197   8.78
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9999
                Response Ratio = 0.00000 + 0.22806 *A + -0.00498 *A^2

53)      cis-1,3-Dichloropro 0.645 0.622 0.697 0.697 0.643 0.625 0.655   5.15

54)  I   Chlorobenzene-d5      ----------------ISTD---------------------
55)  S   Toluene-d8          1.317 1.322 1.338 1.360 1.383 1.434 1.359   3.24
56)  C   Toluene             2.473 2.140 2.464 2.341 2.164 2.033 2.269   8.08
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
                Response Ratio = 0.00000 + 2.52191 *A + -0.24631 *A^2

57)      2-Nitropropane      0.112 0.117 0.126 0.130 0.129 0.127 0.124   5.88
58)      4-Methyl-2-pentanon 0.457 0.469 0.474 0.464 0.420 0.392 0.446   7.33
59)      trans-1,3-Dichlorop 0.747 0.736 0.800 0.823 0.789 0.771 0.778   4.19
60)      Tetrachloroethene   0.498 0.482 0.600 0.549 0.530 0.524 0.531   7.83
61)      Ethyl methacrylate  0.502 0.575 0.659 0.705 0.680 0.665 0.631  12.20
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9997
                Response Ratio = 0.00000 + 0.70669 *A + -0.02014 *A^2

62)      1,1,2-Trichloroetha 0.437 0.411 0.428 0.432 0.407 0.404 0.420   3.34
63)      Dibromochloromethan 0.485 0.512 0.567 0.584 0.564 0.563 0.546   7.10
64)      1,3-Dichloropropane 0.872 0.809 0.860 0.878 0.831 0.812 0.844   3.59
65)      1,2-Dibromoethane   0.464 0.471 0.500 0.514 0.486 0.490 0.487   3.79
66)      2-hexanone          0.311 0.316 0.358 0.378 0.332 0.321 0.336   7.94
```

Initial Calibration Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3486-ICC3486
Lab FileID: J062932.D

```
67)      1-Chlorohexane       0.689 0.703 0.892 0.852 0.823 0.790 0.792  10.28
68) C    Ethylbenzene         2.437 2.305 2.601 2.406 2.097 1.906 2.292  10.99
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9995
               Response Ratio = 0.00000 + 2.68236 *A + -0.39283 *A^2

69) P    Chlorobenzene        1.451 1.393 1.519 1.426 1.266 1.192 1.375   8.89
70)      1,1,1,2-Tetrachloro 0.517 0.451 0.534 0.521 0.506 0.493 0.504   5.83
71)      m,p-Xylene           1.802 1.751 1.947 1.759 1.471 1.282 1.669  14.64
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9992
               Response Ratio = 0.00000 + 2.03130 *A + -0.18924 *A^2

72)      o-Xylene             1.794 1.825 2.098 2.043 1.820 1.697 1.879   8.29
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9996
               Response Ratio = 0.00000 + 2.19936 *A + -0.25370 *A^2

73)      Styrene              1.235 1.428 1.697 1.642 1.499 1.400 1.484  11.39
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
               Response Ratio = 0.00000 + 1.76756 *A + -0.18488 *A^2

74) P    Bromoform            0.281 0.285 0.325 0.340 0.333 0.332 0.316   8.24
75)      Isopropylbenzene     1.831 1.794 2.224 2.094 1.892 1.751 1.931   9.70
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9997
               Response Ratio = 0.00000 + 2.28647 *A + -0.26965 *A^2


76) I    1,4-Dichlorobenzene-d ----------------ISTD---------------------
77) S    4-Bromofluorobenzen 1.034 1.012 1.013 1.053 1.071 1.072 1.042   2.60
78)      cis-1,4-Dichloro-2- 0.163 0.110 0.176 0.271 0.259 0.269 0.208  32.59
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9957
               Response Ratio = 0.00000 + 0.23183 *A + 0.01938 *A^2

79)      n-Propylbenzene      5.245 5.006 5.687 5.209 4.474 3.878 4.917  13.09
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9997
               Response Ratio = 0.00000 + 6.01855 *A + -1.07517 *A^2

80)      Bromobenzene         1.179 1.152 1.234 1.191 1.065 1.000 1.137   7.72
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9996
               Response Ratio = 0.00000 + 1.28052 *A + -0.14250 *A^2

81) P    1,1,2,2-Tetrachloro 1.123 1.062 1.095 1.146 1.067 1.026 1.086   4.01
82)      1,3,5-Trimethylbenz 3.648 3.488 3.960 3.708 3.267 2.896 3.494  10.68
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
               Response Ratio = 0.00000 + 4.19612 *A + -0.65193 *A^2

83)      2-Chlorotoluene      3.446 3.571 3.911 3.701 3.294 2.989 3.485   9.25
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
               Response Ratio = 0.00000 + 4.10823 *A + -0.56273 *A^2

84)      trans-1,4-Dichloro- 0.181 0.129 0.196 0.272 0.271 0.281 0.222  28.08
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9977
               Response Ratio = 0.00000 + 0.23819 *A + 0.02194 *A^2

85)      1,2,3-Trichloroprop 0.262 0.281 0.278 0.278 0.270 0.254 0.270   3.89
86)      Cyclohexanone        0.019 0.019 0.021 0.023 0.023 0.023 0.021  10.34
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9996
               Response Ratio = 0.00000 + 0.02287 *A + 0.00004 *A^2

87)      4-Chlorotoluene      3.488 3.287 3.680 3.604 3.251 3.004 3.386   7.45
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
               Response Ratio = 0.00000 + 3.90526 *A + -0.45244 *A^2
```

Initial Calibration Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3486-ICC3486
Lab FileID: J062932.D

```
 88)     tert-Butylbenzene   1.891 1.923 2.291 2.222 2.095 1.942 2.061   8.19
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9999
               Response Ratio = 0.00000 + 2.40508 *A + -0.22974 *A^2

 89)     1,2,4-Trimethylbenz 3.708 3.613 4.087 3.904 3.497 3.136 3.658   9.04
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9999
               Response Ratio = 0.00000 + 4.35755 *A + -0.61062 *A^2

 90)     Pentachloroethane   0.709 0.699 0.732 0.795 0.745 0.739 0.736   4.58
 91)     sec-Butylbenzene    4.312 4.320 5.190 4.807 4.300 3.768 4.449  11.00
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
               Response Ratio = 0.00000 + 5.49701 *A + -0.86246 *A^2

 92)     4-Isopropyltoluene  3.345 3.270 4.009 3.800 3.418 3.070 3.485  10.07
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
               Response Ratio = 0.00000 + 4.23999 *A + -0.58460 *A^2

 93)     1,3-Dichlorobenzene 2.255 2.032 2.285 2.238 2.024 1.897 2.122   7.49
 94)     1,4-Dichlorobenzene 2.243 2.019 2.234 2.213 2.006 1.859 2.096   7.52
 95)     n-Butylbenzene      1.976 2.074 2.563 2.426 2.224 2.030 2.216  10.61
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
               Response Ratio = 0.00000 + 2.67470 *A + -0.32180 *A^2

 96)     Benzyl Chloride     0.378 0.360 0.424 0.439 0.412 0.392 0.401   7.36
 97)     1,2-Dichlorobenzene 2.024 2.006 2.087 2.072 1.894 1.776 1.977   6.04
 98)     1,2-Dibromo-3-Chlor 0.186 0.151 0.160 0.172 0.167 0.167 0.167   7.07
 99)     Hexachlorobutadiene 0.721 0.620 0.777 0.712 0.714 0.705 0.708   7.14
100)     1,2,4-Trichlorobenz 1.431 1.292 1.453 1.435 1.317 1.250 1.363   6.40
101)     Naphthalene         2.958 2.413 2.728 2.774 2.557 2.407 2.640   8.30
102)     1,2,3-Trichlorobenz 1.466 1.078 1.253 1.220 1.152 1.103 1.212  11.65

103) I   Tert Butyl Alcohol-d1 ----------------ISTD---------------------
104)     Ethanol             0.218 0.172 0.154 0.157 0.148 0.145 0.166  16.47
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
               Response Ratio = 0.00000 + 0.16097 *A + -0.00208 *A^2

105)     acrolein            2.190 2.232 2.036 2.076 2.049 1.981 2.094   4.62
106)     Tert Butyl Alcohol  1.696 1.737 1.607 1.716 1.635 1.654 1.674   2.99
107)     tert Amyl alcohol   1.132 1.278 1.338 1.400 1.353 1.361 1.310   7.32
108)     Isobutyl alcohol    0.649 0.662 0.630 0.652 0.634 0.610 0.639   2.92
109)     1,4-Dioxane         0.159 0.168 0.161 0.163 0.155 0.163 0.161   2.71
 ---------------------------------------------------------------------------
 (#) = Out of Range

           8260-japp9.m        Wed Feb 09 11:04:37 2011
```

Initial Calibration Verification

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3486-ICV3486
Lab FileID: J062935.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDchem\1\DATA\020811\J062935.D          Vial: 7
Acq On    :  8 Feb 2011   4:33 pm                   Operator: MelissaM
Sample    : ICV3486-4                               Inst    : MSVOA6
Misc      : MS16464,VJ3486,,,,,                     Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\MSDchem\1\METHODS\8260-japp9.m (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Wed Feb 09 08:49:47 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.001  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	112	0.00	7.43
2		Dichlorodifluoromethane	0.359	0.410	-14.2	121	0.00	2.78
		----------	Amount	Calc.	%Drift		----------	
3	P	Chloromethane	40.000	41.491	-3.7	112	0.00	2.94
4	C	Vinyl Chloride	40.000	39.946	0.1	112	0.00	3.06
5		Bromomethane	40.000	37.092	7.3	103	0.00	3.43
6		Chloroethane	40.000	37.789	5.5	106	0.00	3.57
		----------	AvgRF	CCRF	%Dev		----------	
7		Trichlorofluoromethane	0.446	0.522	-17.0	127	0.00	3.76
8		Ethyl Ether	0.273	0.272	0.4	111	0.00	4.00
9		1,2-Dichlorotrifluoroetha	0.300	0.310	-3.3	113	0.00	4.22
10	C	1,1-Dichloroethene	0.462	0.438	5.2	102	0.00	4.26
11		Freon 113	0.254	0.251	1.2	108	0.00	4.33
12		Carbon Disulfide	0.903	0.820	9.2	101	0.00	4.32
13		Iodomethane	0.455	0.449	1.3	107	0.00	4.42
		----------	Amount	Calc.	%Drift		----------	
14		Allyl chloride	40.000	40.690	-1.7	107	0.00	4.73
15		Methylene Chloride	40.000	35.790	10.5	100	0.00	4.83
		----------	AvgRF	CCRF	%Dev		----------	
16		Acetone	0.044	0.041	6.8	96	0.00	4.85
17		Methyl acetate	0.050	0.049	2.0	108	0.00	4.97
18		trans-1,2-Dichloroethene	0.607	0.586	3.5	104	0.00	5.00
19		Hexane	0.377	0.399	-5.8	115	0.00	5.08
20		Methyl Tert Butyl Ether	0.973	0.944	3.0	106	0.00	5.11
21		Acetonitrile	0.023	0.024	-4.3	118	0.00	5.33
22		Di-isopropyl ether	1.535	1.606	-4.6	111	0.00	5.47
23		Chloroprene	1.237	1.262	-2.0	109	0.00	5.61
24	P	1,1-Dichloroethane	0.753	0.744	1.2	106	0.00	5.62
25		Acrylonitrile	0.247	0.252	-2.0	109	0.00	5.61
26		ETBE	1.304	1.258	3.5	105	0.00	5.86
		----------	Amount	Calc.	%Drift		----------	
27		Vinyl acetate	200.000	250.540	-25.3#	133	0.00	5.83
		----------	AvgRF	CCRF	%Dev		----------	
28		cis-1,2-Dichloroethene	0.450	0.437	2.9	104	0.00	6.17
29		2,2-Dichloropropane	0.528	0.544	-3.0	109	0.00	6.31
30		Bromochloromethane	0.219	0.210	4.1	104	0.00	6.37

Initial Calibration Verification

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3486-ICV3486
Lab FileID: J062935.D

31		Cyclohexane	0.690	0.712	-3.2	109	0.00	6.43
32	C	Chloroform	0.712	0.708	0.6	109	0.00	6.43
33		Ethyl acetate	0.408	0.470	-15.2	124	0.00	6.51
		----------	Amount	Calc.	%Drift	----------		
34		Tetrahydrofuran	40.000	40.484	-1.2	108	0.00	6.60
		----------	AvgRF	CCRF	%Dev	----------		
35	S	Dibromofluoromethane	0.255	0.251	1.6	111	0.00	6.61
36		Carbon Tetrachloride	0.521	0.527	-1.2	107	0.00	6.63
37		1,1,1-Trichloroethane	0.534	0.532	0.4	106	0.00	6.68
38		2-Butanone	0.178	0.167	6.2	99	0.00	6.71
39		1,1-Dichloropropene	0.515	0.538	-4.5	110	0.00	6.79
40		Propionitrile	0.044	0.045	-2.3	109	0.00	6.99
		----------	Amount	Calc.	%Drift	----------		
41		Methacrylonitrile	400.000	393.669	1.6	109	0.00	7.03
42		Benzene	40.000	37.770	5.6	106	0.00	7.04
		----------	AvgRF	CCRF	%Dev	----------		
43		TAME	0.997	0.968	2.9	106	0.00	7.12
44	S	1,2-Dichloroethane-d4	0.287	0.291	-1.4	109	0.00	7.15
45		1,2-Dichloroethane	0.523	0.510	2.5	105	0.00	7.22
46		Trichloroethene	0.395	0.402	-1.8	109	0.00	7.61
47		Methylcyclohexane	0.603	0.656	-8.8	113	0.00	7.64
48		Dibromomethane	0.238	0.234	1.7	106	0.00	8.02
49	C	1,2-Dichloropropane	0.443	0.447	-0.9	107	0.00	8.11
50		Bromodichloromethane	0.523	0.513	1.9	104	0.00	8.16
51		Methyl methacrylate	0.331	0.349	-5.4	109	0.00	8.26
		----------	Amount	Calc.	%Drift	----------		
52		2-Chloroethyl vinyl ether	200.000	209.990	-5.0	117	0.00	8.67
		----------	AvgRF	CCRF	%Dev	----------		
53		cis-1,3-Dichloropropene	0.655	0.685	-4.6	110	0.00	8.77
54	I	Chlorobenzene-d5	1.000	1.000	0.0	110	0.00	10.50
55	S	Toluene-d8	1.359	1.375	-1.2	111	0.00	8.96
		----------	Amount	Calc.	%Drift	----------		
56	C	Toluene	40.000	38.950	2.6	107	0.00	9.02
		----------	AvgRF	CCRF	%Dev	----------		
57		2-Nitropropane	0.124	0.121	2.4	102	0.00	9.20
58		4-Methyl-2-pentanone	0.446	0.424	4.9	101	0.00	9.34
59		trans-1,3-Dichloropropene	0.778	0.863	-10.9	116	0.00	9.39
60		Tetrachloroethene	0.531	0.556	-4.7	112	0.00	9.42
		----------	Amount	Calc.	%Drift	----------		
61		Ethyl methacrylate	40.000	40.395	-1.0	109	0.00	9.52
		----------	AvgRF	CCRF	%Dev	----------		
62		1,1,2-Trichloroethane	0.420	0.421	-0.2	108	0.00	9.55
63		Dibromochloromethane	0.546	0.564	-3.3	106	0.00	9.76
64		1,3-Dichloropropane	0.844	0.847	-0.4	106	0.00	9.83
65		1,2-Dibromoethane	0.487	0.501	-2.9	107	0.00	10.00
66		2-hexanone	0.336	0.324	3.6	94	0.00	10.16
67		1-Chlorohexane	0.792	0.824	-4.0	107	0.00	10.47
		----------	Amount	Calc.	%Drift	----------		

Initial Calibration Verification

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3486-ICV3486
Lab FileID: J062935.D

68	C	Ethylbenzene	40.000	38.838	2.9	106	0.00	10.53
		----------	AvgRF	CCRF	%Dev	----------		
69	P	Chlorobenzene	1.375	1.393	-1.3	108	0.00	10.52
70		1,1,1,2-Tetrachloroethane	0.504	0.531	-5.4	112	0.00	10.57
		----------	Amount	Calc.	%Drift	----------		
71		m,p-Xylene	80.000	77.488	3.1	106	0.00	10.67
72		o-Xylene	40.000	39.578	1.1	107	0.00	11.11
73		Styrene	40.000	38.930	2.7	106	0.00	11.15
		----------	AvgRF	CCRF	%Dev	----------		
74	P	Bromoform	0.316	0.334	-5.7	108	0.00	11.20
		----------	Amount	Calc.	%Drift	----------		
75		Isopropylbenzene	40.000	44.500	-11.3	120	0.00	11.42
		----------	AvgRF	CCRF	%Dev	----------		
76	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	111	0.00	12.86
77	S	4-Bromofluorobenzene	1.042	1.015	2.6	107	0.00	11.71
		----------	Amount	Calc.	%Drift	----------		
78		cis-1,4-Dichloro-2-butene	40.000	43.375	-8.4	110	0.00	11.74
79		n-Propylbenzene	40.000	38.350	4.1	106	0.00	11.84
80		Bromobenzene	40.000	38.574	3.6	105	0.00	11.84
		----------	AvgRF	CCRF	%Dev	----------		
81	P	1,1,2,2-Tetrachloroethane	1.086	1.091	-0.5	105	0.00	11.88
		----------	Amount	Calc.	%Drift	----------		
82		1,3,5-Trimethylbenzene	40.000	37.235	6.9	103	0.00	12.02
83		2-Chlorotoluene	40.000	38.194	4.5	105	0.00	12.01
84		trans-1,4-Dichloro-2-Bute	40.000	40.542	-1.4	106	0.00	12.06
		----------	AvgRF	CCRF	%Dev	----------		
85		1,2,3-Trichloropropane	0.270	0.249	7.8	99	0.00	12.04
		----------	Amount	Calc.	%Drift	----------		
86		Cyclohexanone	200.000	220.514	-10.3	120	0.00	12.09
87		4-Chlorotoluene	40.000	39.205	2.0	107	0.00	12.18
88		tert-Butylbenzene	40.000	39.222	1.9	109	0.00	12.36
89		1,2,4-Trimethylbenzene	40.000	37.871	5.3	105	0.00	12.43
		----------	AvgRF	CCRF	%Dev	----------		
90		Pentachloroethane	0.736	0.798	-8.4	111	0.00	12.40
		----------	Amount	Calc.	%Drift	----------		
91		sec-Butylbenzene	40.000	39.047	2.4	108	0.00	12.55
92		4-Isopropyltoluene	40.000	39.714	0.7	109	0.00	12.68
		----------	AvgRF	CCRF	%Dev	----------		
93		1,3-Dichlorobenzene	2.122	2.173	-2.4	107	0.00	12.79
94		1,4-Dichlorobenzene	2.096	2.142	-2.2	107	0.00	12.88
		----------	Amount	Calc.	%Drift	----------		
95		n-Butylbenzene	40.000	38.867	2.8	107	0.00	13.12
		----------	AvgRF	CCRF	%Dev	----------		
96		Benzyl Chloride	0.401	0.415	-3.5	105	0.00	13.11

Initial Calibration Verification

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3486-ICV3486
Lab FileID: J062935.D

97		1,2-Dichlorobenzene	1.977	2.022	-2.3	108	0.00	13.31
98		1,2-Dibromo-3-Chloropropa	0.167	0.162	3.0	105	0.00	14.07
99		Hexachlorobutadiene	0.708	0.757	-6.9	118	0.00	14.66
100		1,2,4-Trichlorobenzene	1.363	1.416	-3.9	109	0.00	14.69
101		Naphthalene	2.640	2.755	-4.4	110	0.00	14.96
102		1,2,3-Trichlorobenzene	1.212	1.246	-2.8	113	0.00	15.13
103	I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	110	0.01	5.09
		----------	Amount	Calc.	%Drift		----------	
104		Ethanol	800.000	840.774	-5.1	113	0.03	4.17
		----------	AvgRF	CCRF	%Dev		----------	
105		acrolein	2.094	2.354	-12.4	125	0.00	4.57
106		Tert Butyl Alcohol	1.674	1.607	4.0	103	0.00	5.16
107		tert Amyl alcohol	1.310	1.352	-3.2	107	0.00	7.26
108		Isobutyl alcohol	0.639	0.624	2.3	106	0.00	7.14
109		1,4-Dioxane	0.161	0.175	-8.7	119	0.00	8.33

(#) = Out of Range SPCC's out = 0 CCC's out = 0
J062932.D 8260-japp9.m Wed Feb 09 11:04:05 2011

Initial Calibration Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3487-ICC3487
Lab FileID: J062964.D

```
                         Response Factor Report  MSVOA6

 Method       : C:\MSDchem\1\METHODS\scoxyj.m (RTE Integrator)
 Title        : EPA 624 & SWA 5030B/8260B
 Last Update  : Wed Feb 09 12:47:28 2011
 Response via : Initial Calibration

 Calibration Files
 1   =J062961.D   2   =J062962.D   3   =J062963.D   4   =J062964.D
 5      =J062965.D    6      =J062966.D

       Compound              1     2     3     4     5     6     Avg    %RSD
 ---------------------------------------------------------------------------

 1) I   Fluorobenzene         ----------------ISTD---------------------
 2)     tert-Butyl Formate  0.200 0.212 0.245 0.241 0.230 0.221 0.225   7.69
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9999
              Response Ratio = 0.00000 + 0.25122 *A + -0.00149 *A^2

 3) S   Dibromofluoromethan 0.260 0.262 0.263 0.256 0.261 0.261 0.261   0.90
 4) S   1,2-Dichloroethane- 0.287 0.285 0.285 0.281 0.289 0.287 0.286   1.01

 5) I   Chlorobenzene-d5      ----------------ISTD---------------------
 6) S   Toluene-d8          1.299 1.303 1.298 1.293 1.291 1.294 1.296   0.34

 7) I   1,4-Dichlorobenzene-d ----------------ISTD---------------------
 8) S   4-Bromofluorobenzen 1.058 1.013 1.035 1.031 1.016 1.039 1.032   1.58

 9) I   Tert Butyl alcohol-d1 ----------------ISTD---------------------
10)     Ethanol             0.383 0.182 0.179 0.175 0.167 0.165 0.208  41.09
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
              Response Ratio = 0.00000 + 0.17944 *A + -0.00188 *A^2

11)     3,3-Dimethyl-1-buta 0.945 1.086 1.323 1.368 1.276 1.246 1.207  13.29
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9996
              Response Ratio = 0.00000 + 1.38756 *A + -0.00716 *A^2

---------------------------------------------------------------------------
(#) = Out of Range

          scoxyj.m          Wed Feb 09 15:59:35 2011
```

Initial Calibration Verification

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3487-ICV3487
Lab FileID: J062967.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDchem\1\DATA\020911\J062967.D          Vial: 7
Acq On    :  9 Feb 2011  11:25 am                   Operator: MelissaM
Sample    : ICV3487-4                               Inst    : MSVOA6
Misc      : MS16501,VJ3487,,,,,                     Multiplr: 1.00
MS Integration Params: small.p

Method       : C:\MSDchem\1\METHODS\scoxyj.m (RTE Integrator)
Title        : EPA 624 & SWA 5030B/8260B
Last Update  : Wed Feb 09 12:47:28 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.001  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	96	0.00	7.43
		----------	Amount	Calc.	%Drift	----------		
2		tert-Butyl Formate	400.000	570.093	-42.5#	133	0.00	6.87
		----------	AvgRF	CCRF	%Dev	----------		
3	S	Dibromofluoromethane	0.261	0.258	1.1	97	0.00	6.61
4	S	1,2-Dichloroethane-d4	0.286	0.278	2.8	95	0.00	7.15
5	I	Chlorobenzene-d5	1.000	1.000	0.0	96	0.00	10.50
6	S	Toluene-d8	1.296	1.306	-0.8	97	0.00	8.96
7	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	95	0.00	12.86
8	S	4-Bromofluorobenzene	1.032	1.027	0.5	95	0.00	11.71
9	I	Tert Butyl alcohol-d10	1.000	1.000	0.0	93	-0.01	5.07
		----------	Amount	Calc.	%Drift	----------		
10		Ethanol	800.000	1065.119	-33.1#	121	0.00	4.16
11		3,3-Dimethyl-1-butanol	2000.000	2140.380	-7.0	97	0.00	10.11

(#) = Out of Range SPCC's out = 0 CCC's out = 0
J062964.D scoxyj.m Wed Feb 09 14:04:13 2011

Continuing Calibration Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3488-CC3486
Lab FileID: J062998.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDchem\1\DATA\021011\J062998.D          Vial: 1
Acq On    : 10 Feb 2011  11:38 am                   Operator: MelissaM
Sample    : cc3486-4                                Inst    : MSVOA6
Misc      : MS16464,VJ3488,,,,,                     Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\MSDchem\1\METHODS\8260-japp9.m (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Wed Feb 09 08:49:47 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.001  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	101	0.00	7.43
2		Dichlorodifluoromethane	0.359	0.354	1.4	95	0.00	2.77
		----------	Amount	Calc.	%Drift		----------	
3	P	Chloromethane	40.000	38.650	3.4	95	0.00	2.94
4	C	Vinyl Chloride	40.000	38.423	3.9	98	0.00	3.06
5		Bromomethane	40.000	39.851	0.4	99	0.00	3.43
6		Chloroethane	40.000	40.311	-0.8	102	0.00	3.57
		----------	AvgRF	CCRF	%Dev		----------	
7		Trichlorofluoromethane	0.446	0.501	-12.3	111	0.00	3.76
8		Ethyl Ether	0.273	0.288	-5.5	106	0.00	4.00
9		1,2-Dichlorotrifluoroetha	0.300	0.339	-13.0	113	0.00	4.23
10	C	1,1-Dichloroethene	0.462	0.530	-14.7	112	0.00	4.26
11		Freon 113	0.254	0.295	-16.1	115	0.00	4.32
12		Carbon Disulfide	0.903	0.961	-6.4	108	0.00	4.32
13		Iodomethane	0.455	0.499	-9.7	108	0.00	4.42
		----------	Amount	Calc.	%Drift		----------	
14		Allyl chloride	40.000	39.171	2.1	94	0.00	4.72
15		Methylene Chloride	40.000	41.875	-4.7	105	0.00	4.84
		----------	AvgRF	CCRF	%Dev		----------	
16		Acetone	0.044	0.046	-4.5	97	0.00	4.86
17		Methyl acetate	0.050	0.050	0.0	101	0.00	4.97
18		trans-1,2-Dichloroethene	0.607	0.661	-8.9	106	0.00	5.01
19		Hexane	0.377	0.405	-7.4	106	0.00	5.08
20		Methyl Tert Butyl Ether	0.973	0.987	-1.4	101	0.00	5.11
21		Acetonitrile	0.023	0.025	-8.7	110	0.00	5.33
22		Di-isopropyl ether	1.535	1.616	-5.3	101	0.00	5.47
23		Chloroprene	1.237	1.283	-3.7	100	0.00	5.61
24	P	1,1-Dichloroethane	0.753	0.804	-6.8	104	0.00	5.62
25		Acrylonitrile	0.247	0.257	-4.0	100	0.00	5.61
26		ETBE	1.304	1.345	-3.1	102	0.00	5.86
		----------	Amount	Calc.	%Drift		----------	
27		Vinyl acetate	200.000	187.641	6.2	94	0.00	5.83
		----------	AvgRF	CCRF	%Dev		----------	
28		cis-1,2-Dichloroethene	0.450	0.462	-2.7	100	0.00	6.17
29		2,2-Dichloropropane	0.528	0.548	-3.8	99	0.00	6.31
30		Bromochloromethane	0.219	0.227	-3.7	102	0.00	6.37

Continuing Calibration Summary

Job Number: F79701 **Sample:** VJ3488-CC3486
Account: TETTNOAK Tetra Tech, Inc **Lab FileID:** J062998.D
Project: Holloman AFB; Alamogordo, NM

31		Cyclohexane	0.690	0.760	-10.1	105	0.00	6.43
32	C	Chloroform	0.712	0.746	-4.8	105	0.00	6.43
33		Ethyl acetate	0.408	0.433	-6.1	104	0.00	6.50
		----------	Amount	Calc.	%Drift	----------		
34		Tetrahydrofuran	40.000	41.068	-2.7	99	0.00	6.60
		----------	AvgRF	CCRF	%Dev	----------		
35	S	Dibromofluoromethane	0.255	0.256	-0.4	103	0.00	6.61
36		Carbon Tetrachloride	0.521	0.578	-10.9	107	0.00	6.63
37		1,1,1-Trichloroethane	0.534	0.586	-9.7	106	0.00	6.68
38		2-Butanone	0.178	0.191	-7.3	102	0.00	6.70
39		1,1-Dichloropropene	0.515	0.583	-13.2	108	0.00	6.79
40		Propionitrile	0.044	0.047	-6.8	103	0.00	7.00
		----------	Amount	Calc.	%Drift	----------		
41		Methacrylonitrile	400.000	419.582	-4.9	104	0.00	7.02
42		Benzene	40.000	41.765	-4.4	105	0.00	7.04
		----------	AvgRF	CCRF	%Dev	----------		
43		TAME	0.997	1.028	-3.1	102	0.00	7.12
44	S	1,2-Dichloroethane-d4	0.287	0.290	-1.0	99	0.00	7.15
45		1,2-Dichloroethane	0.523	0.569	-8.8	107	0.00	7.21
46		Trichloroethene	0.395	0.435	-10.1	107	0.00	7.60
47		Methylcyclohexane	0.603	0.686	-13.8	107	0.00	7.63
48		Dibromomethane	0.238	0.258	-8.4	107	0.00	8.02
49	C	1,2-Dichloropropane	0.443	0.489	-10.4	106	0.00	8.11
50		Bromodichloromethane	0.523	0.580	-10.9	107	0.00	8.16
51		Methyl methacrylate	0.331	0.351	-6.0	100	0.00	8.26
		----------	Amount	Calc.	%Drift	----------		
52		2-Chloroethyl vinyl ether	200.000	220.084	-10.0	111	0.00	8.67
		----------	AvgRF	CCRF	%Dev	----------		
53		cis-1,3-Dichloropropene	0.655	0.722	-10.2	105	0.00	8.77
54	I	Chlorobenzene-d5	1.000	1.000	0.0	104	0.00	10.50
55	S	Toluene-d8	1.359	1.343	1.2	103	0.00	8.96
		----------	Amount	Calc.	%Drift	----------		
56	C	Toluene	40.000	40.887	-2.2	105	0.00	9.01
		----------	AvgRF	CCRF	%Dev	----------		
57		2-Nitropropane	0.124	0.137	-10.5	109	0.00	9.20
58		4-Methyl-2-pentanone	0.446	0.481	-7.8	108	0.00	9.34
59		trans-1,3-Dichloropropene	0.778	0.836	-7.5	106	0.00	9.39
60		Tetrachloroethene	0.531	0.553	-4.1	105	0.00	9.42
		----------	Amount	Calc.	%Drift	----------		
61		Ethyl methacrylate	40.000	39.952	0.1	102	0.00	9.52
		----------	AvgRF	CCRF	%Dev	----------		
62		1,1,2-Trichloroethane	0.420	0.428	-1.9	103	0.00	9.55
63		Dibromochloromethane	0.546	0.589	-7.9	105	0.00	9.75
64		1,3-Dichloropropane	0.844	0.888	-5.2	105	0.00	9.83
65		1,2-Dibromoethane	0.487	0.515	-5.7	104	0.00	10.00
66		2-hexanone	0.336	0.385	-14.6	106	0.00	10.16
67		1-Chlorohexane	0.792	0.897	-13.3	109	0.00	10.47
		----------	Amount	Calc.	%Drift	----------		

Continuing Calibration Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3488-CC3486
Lab FileID: J062998.D

68	C	Ethylbenzene	40.000	42.095	-5.2	107	0.00	10.53
		----------	AvgRF	CCRF	%Dev	----------		
69	P	Chlorobenzene	1.375	1.466	-6.6	107	0.00	10.52
70		1,1,1,2-Tetrachloroethane	0.504	0.541	-7.3	108	0.00	10.57
		----------	Amount	Calc.	%Drift	----------		
71		m,p-Xylene	80.000	84.564	-5.7	107	0.00	10.67
72		o-Xylene	40.000	41.924	-4.8	106	0.00	11.11
73		Styrene	40.000	41.480	-3.7	106	0.00	11.15
		----------	AvgRF	CCRF	%Dev	----------		
74	P	Bromoform	0.316	0.342	-8.2	104	0.00	11.20
		----------	Amount	Calc.	%Drift	----------		
75		Isopropylbenzene	40.000	41.439	-3.6	106	0.00	11.42
		----------	AvgRF	CCRF	%Dev	----------		
76	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	104	0.00	12.86
77	S	4-Bromofluorobenzene	1.042	1.049	-0.7	103	0.00	11.71
		----------	Amount	Calc.	%Drift	----------		
78		cis-1,4-Dichloro-2-butene	40.000	50.710	-26.8#	122	0.00	11.74
79		n-Propylbenzene	40.000	42.527	-6.3	108	0.00	11.84
80		Bromobenzene	40.000	40.851	-2.1	103	0.00	11.84
		----------	AvgRF	CCRF	%Dev	----------		
81	P	1,1,2,2-Tetrachloroethane	1.086	1.167	-7.5	106	0.00	11.88
		----------	Amount	Calc.	%Drift	----------		
82		1,3,5-Trimethylbenzene	40.000	42.438	-6.1	108	0.00	12.02
83		2-Chlorotoluene	40.000	41.703	-4.3	106	0.00	12.01
84		trans-1,4-Dichloro-2-Bute	40.000	50.096	-25.2#	124	0.00	12.06
		----------	AvgRF	CCRF	%Dev	----------		
85		1,2,3-Trichloropropane	0.270	0.301	-11.5	112	0.00	12.04
		----------	Amount	Calc.	%Drift	----------		
86		Cyclohexanone	200.000	213.478	-6.7	109	0.00	12.09
87		4-Chlorotoluene	40.000	41.372	-3.4	105	0.00	12.18
88		tert-Butylbenzene	40.000	41.789	-4.5	108	0.00	12.36
89		1,2,4-Trimethylbenzene	40.000	41.542	-3.9	106	0.00	12.43
		----------	AvgRF	CCRF	%Dev	----------		
90		Pentachloroethane	0.736	0.778	-5.7	101	0.00	12.40
		----------	Amount	Calc.	%Drift	----------		
91		sec-Butylbenzene	40.000	41.466	-3.7	107	0.00	12.55
92		4-Isopropyltoluene	40.000	41.285	-3.2	106	0.00	12.68
		----------	AvgRF	CCRF	%Dev	----------		
93		1,3-Dichlorobenzene	2.122	2.229	-5.0	103	0.00	12.79
94		1,4-Dichlorobenzene	2.096	2.211	-5.5	104	0.00	12.88
		----------	Amount	Calc.	%Drift	----------		
95		n-Butylbenzene	40.000	42.628	-6.6	109	0.00	13.12
		----------	AvgRF	CCRF	%Dev	----------		
96		Benzyl Chloride	0.401	0.452	-12.7	107	0.00	13.11

Continuing Calibration Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3488-CC3486
Lab FileID: J062998.D

97		1,2-Dichlorobenzene	1.977	2.086	-5.5	104	0.00	13.31
98		1,2-Dibromo-3-Chloropropa	0.167	0.183	-9.6	110	0.00	14.07
99		Hexachlorobutadiene	0.708	0.732	-3.4	107	0.00	14.66
100		1,2,4-Trichlorobenzene	1.363	1.439	-5.6	104	0.00	14.69
101		Naphthalene	2.640	2.807	-6.3	105	0.00	14.96
102		1,2,3-Trichlorobenzene	1.212	1.225	-1.1	104	0.00	15.13
103	I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	105	0.01	5.09
		----------	Amount	Calc.	%Drift		----------	
104		Ethanol	800.000	839.180	-4.9	108	0.02	4.16
		----------	AvgRF	CCRF	%Dev		----------	
105		acrolein	2.094	2.003	4.3	101	0.00	4.57
106		Tert Butyl Alcohol	1.674	1.723	-2.9	106	0.00	5.16
107		tert Amyl alcohol	1.310	1.413	-7.9	106	0.00	7.26
108		Isobutyl alcohol	0.639	0.686	-7.4	110	0.00	7.14
109		1,4-Dioxane	0.161	0.186	-15.5	121	0.00	8.33

(#) = Out of Range SPCC's out = 0 CCC's out = 0
J062932.D 8260-japp9.m Thu Feb 10 15:16:12 2011

Continuing Calibration Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3488-CC3487
Lab FileID: J062999.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDchem\1\DATA\021011\J062999.D          Vial: 2
Acq On    : 10 Feb 2011  12:04 pm                   Operator: MelissaM
Sample    : cc3487-4                                Inst    : MSVOA6
Misc      : MS16501,VJ3488,,,,,                     Multiplr: 1.00
MS Integration Params: small.p

Method       : C:\MSDchem\1\METHODS\scoxyj.m (RTE Integrator)
Title        : EPA 624 & SWA 5030B/8260B
Last Update  : Wed Feb 09 12:47:28 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.001  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	108	0.00	7.43
		----------	Amount	Calc.	%Drift		----------	
2		tert-Butyl Formate	400.000	332.664	16.8	90	0.00	6.87
		----------	AvgRF	CCRF	%Dev		----------	
3	S	Dibromofluoromethane	0.261	0.255	2.3	107	0.00	6.60
4	S	1,2-Dichloroethane-d4	0.286	0.293	-2.4	112	0.00	7.15
5	I	Chlorobenzene-d5	1.000	1.000	0.0	107	0.00	10.50
6	S	Toluene-d8	1.296	1.305	-0.7	108	0.00	8.96
7	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	107	0.00	12.86
8	S	4-Bromofluorobenzene	1.032	1.041	-0.9	108	0.00	11.71
9	I	Tert Butyl alcohol-d10	1.000	1.000	0.0	102	0.00	5.08
		----------	Amount	Calc.	%Drift		----------	
10		Ethanol	800.000	772.417	3.4	97	0.00	4.16
11		3,3-Dimethyl-1-butanol	2000.000	1985.508	0.7	98	0.00	10.11

(#) = Out of Range SPCC's out = 0 CCC's out = 0
J062964.D scoxyj.m Thu Feb 10 15:17:13 2011

Continuing Calibration Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3490-CC3486
Lab FileID: J063028.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDchem\1\DATA\021111\J063028.D          Vial: 2
Acq On    : 11 Feb 2011   9:55 am                   Operator: MelissaM
Sample    : cc3486-4                                Inst    : MSVOA6
Misc      : MS16464,VJ3490,,,,,                     Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\MSDchem\1\METHODS\8260-japp9.m (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Wed Feb 09 08:49:47 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.001  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	134	0.00	7.43
2		Dichlorodifluoromethane	0.359	0.376	-4.7	133	-0.01	2.77
		----------	Amount	Calc.	%Drift		----------	
3	P	Chloromethane	40.000	44.341	-10.9	142	-0.01	2.92
4	C	Vinyl Chloride	40.000	41.629	-4.1	140	-0.02	3.05
5		Bromomethane	40.000	38.434	3.9	127	0.00	3.42
6		Chloroethane	40.000	41.713	-4.3	138	-0.01	3.56
		----------	AvgRF	CCRF	%Dev		----------	
7		Trichlorofluoromethane	0.446	0.468	-4.9	137	0.00	3.76
8		Ethyl Ether	0.273	0.280	-2.6	136	0.00	3.99
9		1,2-Dichlorotrifluoroetha	0.300	0.328	-9.3	144	0.00	4.23
10	C	1,1-Dichloroethene	0.462	0.499	-8.0	139	0.00	4.25
11		Freon 113	0.254	0.276	-8.7	142	-0.01	4.32
12		Carbon Disulfide	0.903	0.922	-2.1	137	0.00	4.32
13		Iodomethane	0.455	0.475	-4.4	136	-0.01	4.41
		----------	Amount	Calc.	%Drift		----------	
14		Allyl chloride	40.000	37.935	5.2	120	0.00	4.72
15		Methylene Chloride	40.000	40.682	-1.7	135	0.00	4.83
		----------	AvgRF	CCRF	%Dev		----------	
16		Acetone	0.044	0.047	-6.8	130	0.00	4.85
17		Methyl acetate	0.050	0.051	-2.0	137	0.00	4.97
18		trans-1,2-Dichloroethene	0.607	0.680	-12.0	144	-0.01	5.00
19		Hexane	0.377	0.423	-12.2	146	0.00	5.08
20		Methyl Tert Butyl Ether	0.973	1.031	-6.0	139	0.00	5.11
21		Acetonitrile	0.023	0.024	-4.3	140	-0.01	5.33
22		Di-isopropyl ether	1.535	1.684	-9.7	139	0.00	5.47
23		Chloroprene	1.237	1.342	-8.5	138	0.00	5.61
24	P	1,1-Dichloroethane	0.753	0.829	-10.1	141	0.00	5.62
25		Acrylonitrile	0.247	0.268	-8.5	138	0.00	5.61
26		ETBE	1.304	1.392	-6.7	139	0.00	5.85
		----------	Amount	Calc.	%Drift		----------	
27		Vinyl acetate	200.000	191.486	4.3	126	0.00	5.83
		----------	AvgRF	CCRF	%Dev		----------	
28		cis-1,2-Dichloroethene	0.450	0.497	-10.4	142	0.00	6.17
29		2,2-Dichloropropane	0.528	0.597	-13.1	143	0.00	6.30
30		Bromochloromethane	0.219	0.238	-8.7	141	0.00	6.37

Continuing Calibration Summary

Job Number: F79701 **Sample:** VJ3490-CC3486
Account: TETTNOAK Tetra Tech, Inc **Lab FileID:** J063028.D
Project: Holloman AFB; Alamogordo, NM

31		Cyclohexane	0.690	0.791	-14.6	145	0.00	6.43
32	C	Chloroform	0.712	0.753	-5.8	139	0.00	6.42
33		Ethyl acetate	0.408	0.419	-2.7	133	0.00	6.50
		----------	Amount	Calc.	%Drift	----------		
34		Tetrahydrofuran	40.000	42.861	-7.2	137	0.00	6.60
		----------	AvgRF	CCRF	%Dev	----------		
35	S	Dibromofluoromethane	0.255	0.253	0.8	135	0.00	6.61
36		Carbon Tetrachloride	0.521	0.583	-11.9	142	0.00	6.62
37		1,1,1-Trichloroethane	0.534	0.591	-10.7	141	0.00	6.68
38		2-Butanone	0.178	0.189	-6.2	134	0.00	6.70
39		1,1-Dichloropropene	0.515	0.592	-15.0	145	0.00	6.79
40		Propionitrile	0.044	0.047	-6.8	138	0.00	6.99
		----------	Amount	Calc.	%Drift	----------		
41		Methacrylonitrile	400.000	402.466	-0.6	133	0.00	7.03
42		Benzene	40.000	42.230	-5.6	140	0.00	7.03
		----------	AvgRF	CCRF	%Dev	----------		
43		TAME	0.997	1.045	-4.8	137	0.00	7.12
44	S	1,2-Dichloroethane-d4	0.287	0.298	-3.8	134	0.00	7.15
45		1,2-Dichloroethane	0.523	0.557	-6.5	138	0.00	7.21
46		Trichloroethene	0.395	0.437	-10.6	142	0.00	7.60
47		Methylcyclohexane	0.603	0.694	-15.1	143	0.00	7.63
48		Dibromomethane	0.238	0.250	-5.0	137	0.00	8.01
49	C	1,2-Dichloropropane	0.443	0.494	-11.5	141	0.00	8.10
50		Bromodichloromethane	0.523	0.574	-9.8	139	0.00	8.15
51		Methyl methacrylate	0.331	0.366	-10.6	137	0.00	8.26
		----------	Amount	Calc.	%Drift	----------		
52		2-Chloroethyl vinyl ether	200.000	202.298	-1.1	136	0.00	8.67
		----------	AvgRF	CCRF	%Dev	----------		
53		cis-1,3-Dichloropropene	0.655	0.729	-11.3	140	0.00	8.76
54	I	Chlorobenzene-d5	1.000	1.000	0.0	135	0.00	10.50
55	S	Toluene-d8	1.359	1.356	0.2	134	0.00	8.96
		----------	Amount	Calc.	%Drift	----------		
56	C	Toluene	40.000	41.631	-4.1	139	0.00	9.01
		----------	AvgRF	CCRF	%Dev	----------		
57		2-Nitropropane	0.124	0.130	-4.8	135	0.00	9.20
58		4-Methyl-2-pentanone	0.446	0.456	-2.2	132	0.00	9.34
59		trans-1,3-Dichloropropene	0.778	0.842	-8.2	138	0.00	9.39
60		Tetrachloroethene	0.531	0.584	-10.0	143	0.00	9.41
		----------	Amount	Calc.	%Drift	----------		
61		Ethyl methacrylate	40.000	41.174	-2.9	136	0.00	9.52
		----------	AvgRF	CCRF	%Dev	----------		
62		1,1,2-Trichloroethane	0.420	0.441	-5.0	138	0.00	9.55
63		Dibromochloromethane	0.546	0.592	-8.4	137	0.00	9.75
64		1,3-Dichloropropane	0.844	0.900	-6.6	138	0.00	9.83
65		1,2-Dibromoethane	0.487	0.513	-5.3	135	0.00	10.00
66		2-hexanone	0.336	0.370	-10.1	132	0.00	10.16
67		1-Chlorohexane	0.792	0.922	-16.4	146	0.00	10.47
		----------	Amount	Calc.	%Drift	----------		

Continuing Calibration Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3490-CC3486
Lab FileID: J063028.D

68	C	Ethylbenzene	40.000	41.695	-4.2	137	0.00	10.53
		----------	AvgRF	CCRF	%Dev	----------		
69	P	Chlorobenzene	1.375	1.478	-7.5	140	0.00	10.52
70		1,1,1,2-Tetrachloroethane	0.504	0.544	-7.9	141	0.00	10.57
		----------	Amount	Calc.	%Drift	----------		
71		m,p-Xylene	80.000	79.533	0.6	132	0.00	10.67
72		o-Xylene	40.000	40.960	-2.4	134	0.00	11.11
73		Styrene	40.000	41.567	-3.9	138	0.00	11.15
		----------	AvgRF	CCRF	%Dev	----------		
74	P	Bromoform	0.316	0.339	-7.3	134	0.00	11.20
		----------	Amount	Calc.	%Drift	----------		
75		Isopropylbenzene	40.000	41.086	-2.7	136	0.00	11.42
		----------	AvgRF	CCRF	%Dev	----------		
76	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	134	0.00	12.86
77	S	4-Bromofluorobenzene	1.042	1.063	-2.0	135	0.00	11.71
		----------	Amount	Calc.	%Drift	----------		
78		cis-1,4-Dichloro-2-butene	40.000	40.725	-1.8	125	0.00	11.74
79		n-Propylbenzene	40.000	40.775	-1.9	135	0.00	11.84
80		Bromobenzene	40.000	42.354	-5.9	138	0.00	11.84
		----------	AvgRF	CCRF	%Dev	----------		
81	P	1,1,2,2-Tetrachloroethane	1.086	1.142	-5.2	134	0.00	11.88
		----------	Amount	Calc.	%Drift	----------		
82		1,3,5-Trimethylbenzene	40.000	41.067	-2.7	136	0.00	12.02
83		2-Chlorotoluene	40.000	40.454	-1.1	134	0.00	12.01
84		trans-1,4-Dichloro-2-Bute	40.000	40.562	-1.4	128	0.00	12.06
		----------	AvgRF	CCRF	%Dev	----------		
85		1,2,3-Trichloropropane	0.270	0.279	-3.3	135	0.00	12.04
		----------	Amount	Calc.	%Drift	----------		
86		Cyclohexanone	200.000	215.341	-7.7	142	0.00	12.09
87		4-Chlorotoluene	40.000	41.446	-3.6	136	0.00	12.18
88		tert-Butylbenzene	40.000	40.991	-2.5	137	0.00	12.36
89		1,2,4-Trimethylbenzene	40.000	41.318	-3.3	137	0.00	12.43
		----------	AvgRF	CCRF	%Dev	----------		
90		Pentachloroethane	0.736	0.819	-11.3	138	0.00	12.40
		----------	Amount	Calc.	%Drift	----------		
91		sec-Butylbenzene	40.000	40.653	-1.6	136	0.00	12.55
92		4-Isopropyltoluene	40.000	40.700	-1.8	135	0.00	12.68
		----------	AvgRF	CCRF	%Dev	----------		
93		1,3-Dichlorobenzene	2.122	2.260	-6.5	135	0.00	12.79
94		1,4-Dichlorobenzene	2.096	2.219	-5.9	134	0.00	12.88
		----------	Amount	Calc.	%Drift	----------		
95		n-Butylbenzene	40.000	41.462	-3.7	138	0.00	13.12
		----------	AvgRF	CCRF	%Dev	----------		
96		Benzyl Chloride	0.401	0.438	-9.2	134	0.00	13.11

Continuing Calibration Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3490-CC3486
Lab FileID: J063028.D

97		1,2-Dichlorobenzene	1.977	2.091	-5.8	135	0.00	13.31
98		1,2-Dibromo-3-Chloropropa	0.167	0.166	0.6	130	0.00	14.07
99		Hexachlorobutadiene	0.708	0.760	-7.3	143	0.00	14.66
100		1,2,4-Trichlorobenzene	1.363	1.452	-6.5	136	0.00	14.69
101		Naphthalene	2.640	2.805	-6.3	136	0.00	14.96
102		1,2,3-Trichlorobenzene	1.212	1.248	-3.0	137	0.00	15.13
103	I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	145	0.00	5.07
		----------	Amount	Calc.	%Drift	----------		
104		Ethanol	800.000	845.969	-5.7	150	0.00	4.15
		----------	AvgRF	CCRF	%Dev	----------		
105		acrolein	2.094	1.852	11.6	129	-0.01	4.56
106		Tert Butyl Alcohol	1.674	1.696	-1.3	143	0.00	5.15
107		tert Amyl alcohol	1.310	1.368	-4.4	142	0.00	7.25
108		Isobutyl alcohol	0.639	0.640	-0.2	142	0.00	7.13
109		1,4-Dioxane	0.161	0.176	-9.3	157	0.00	8.33

(#) = Out of Range SPCC's out = 0 CCC's out = 0
J062932.D 8260-japp9.m Fri Feb 11 13:54:54 2011

Southeast ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GCD4222-MB	CD102842.D	1	02/03/11	WV	n/a	n/a	GCD4222

The QC reported here applies to the following samples: **Method:** SW846 8015C

F79701-7, F79701-8, F79701-9

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	88%	57-129%
98-08-8	aaa-Trifluorotoluene	85%	58-120%

Blank Spike Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GCD4222-BS	CD102841.D	1	02/03/11	WV	n/a	n/a	GCD4222

The QC reported here applies to the following samples: **Method:** SW846 8015C

F79701-7, F79701-8, F79701-9

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH-GRO (C6-C10)	0.4	0.368	92	75-129

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	106%	57-129%
98-08-8	aaa-Trifluorotoluene	104%	58-120%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79701-8MS	CD102864.D	1	02/03/11	WV	n/a	n/a	GCD4222
F79701-8MSD	CD102865.D	1	02/03/11	WV	n/a	n/a	GCD4222
F79701-8	CD102857.D	1	02/03/11	WV	n/a	n/a	GCD4222

The QC reported here applies to the following samples: **Method:** SW846 8015C

F79701-7, F79701-8, F79701-9

CAS No.	Compound	F79701-8 mg/l	Q	Spike mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND		0.4	0.366	92	0.350	88	4	75-129/13

CAS No.	Surrogate Recoveries	MS	MSD	F79701-8	Limits
460-00-4	4-Bromofluorobenzene	107%	103%	90%	57-129%
98-08-8	aaa-Trifluorotoluene	104%	102%	80%	58-120%

Volatile Surrogate Recovery Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Method: SW846 8015C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S2 [a]
F79701-7	CD102856.D	94.0	95.0
F79701-8	CD102857.D	90.0	80.0
F79701-9	CD102858.D	90.0	82.0
F79701-8MS	CD102864.D	107.0	104.0
F79701-8MSD	CD102865.D	103.0	102.0
GCD4222-BS	CD102841.D	106.0	104.0
GCD4222-MB	CD102842.D	88.0	85.0

Surrogate Compounds	Recovery Limits
S1 = 4-Bromofluorobenzene	57-129%
S2 = aaa-Trifluorotoluene	58-120%

(a) Recovery from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	GCD4222-ICC4222	**Injection Date:**	02/03/11
Lab File ID:	CD102835.D	**Injection Time:**	10:48
Instrument ID:	GCCD	**Method:**	SW846 8015C

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	11.90	11.90	7.48	7.48

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
GCD4222-BS	CD102841.D	02/03/11	14:03		11.90		7.48
GCD4222-MB	CD102842.D	02/03/11	14:27		11.90		7.48
F79608-1	CD102843.D	02/03/11	14:51		11.90		7.48
ZZZZZZ	CD102846.D	02/03/11	16:04		11.90		7.48
ZZZZZZ	CD102847.D	02/03/11	16:29		11.90		7.48
ZZZZZZ	CD102849.D	02/03/11	17:18		11.90		7.48
GCD4222-RT	CD102850.D	02/03/11	17:42	11.90	11.90	7.49	7.49

Surrogate Compounds

S1 = 4-Bromofluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	GCD4222-CC4222	**Injection Date:**	02/03/11
Lab File ID:	CD102851.D	**Injection Time:**	18:07
Instrument ID:	GCCD	**Method:**	SW846 8015C

	S1 [a] RT	S2 [a] RT
Check Std	11.90	7.48

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S2 [a] RT
ZZZZZZ	CD102853.D	02/03/11	18:55	11.90	7.48
ZZZZZZ	CD102854.D	02/03/11	19:20	11.90	7.48
ZZZZZZ	CD102855.D	02/03/11	19:44	11.90	7.49
F79701-7	CD102856.D	02/03/11	20:08	11.90	7.48
F79701-8	CD102857.D	02/03/11	20:33	11.90	7.48
F79701-9	CD102858.D	02/03/11	20:58	11.90	7.48

Surrogate Compounds

S1 = 4-Bromofluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	GCD4222-CC4222	**Injection Date:**	02/03/11
Lab File ID:	CD102860.D	**Injection Time:**	21:46
Instrument ID:	GCCD	**Method:**	SW846 8015C

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	11.90	11.90	7.48	7.48

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
F79608-1MS	CD102862.D	02/03/11	22:35		11.90		7.48
F79608-1MSD	CD102863.D	02/03/11	23:00		11.90		7.48
F79701-8MS	CD102864.D	02/03/11	23:24		11.90		7.47
F79701-8MSD	CD102865.D	02/03/11	23:48		11.90		7.47
GCD4222-ECC4222	CD102866.D	02/04/11	00:13	11.90	11.90	7.47	7.47

Surrogate Compounds

S1 = 4-Bromofluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

Initial Calibration Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GCD4222-ICC4222
Lab FileID: CD102835.D

```
                          Response Factor Report  VOA2

  Method       : C:\HPCHEM\1\METHODS\GROW-CD.M (Chemstation Integrator)
  Title        : EPA 8015B/TPHGRO by GC-PID/FID
  Last Update  : Thu Feb 03 12:46:41 2011
  Response via : Initial Calibration

  Calibration Files
  1   =CD102833.D  2   =CD102834.D  3   =CD102835.D  4   =CD102836.D
  5      =CD102837.D   6      =CD102838.D

        Compound              1     2     3     4     5     6     Avg    %RSD
  ---------------------------------------------------------------------------
  1) S   a,a,a-TFT           1.440 1.654 1.654 1.716 1.829 1.642 1.656 E3   7.66
  2) S   BFB                 3.726 4.305 4.397 4.618 4.888 4.473 4.401 E3   8.82

Signal #2

  4) S   a,a,a-TFT #2        4.920 5.842 6.037 6.551 6.981 6.356 6.115 E4  11.58
  5) S   BFB #2              2.589 3.007 3.030 3.163 3.470 3.192 3.075 E4   9.42
  6) H   TPH-GRO (C6-C10)    5.713 5.165 4.843 5.047 5.067 4.864 5.117 E4   6.21
             ---- Linear regression ----  Coefficient =  0.9985
               Response Ratio = 668386.17373 + 48665.03801 *A

 ---------------------------------------------------------------------------
 (#) = Out of Range

           GROW-CD.M         Sat Feb 05 12:27:09 2011
```

Initial Calibration Verification

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GCD4222-ICV4222
Lab FileID: CD102840.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\HPCHEM\1\DATA\020311\CD102840.D\FID1B.CH  Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\020311\CD102840.D\FID2A.CH
Acq On    :  3 Feb 2011   1:06 pm                    Operator: wilfredo
Sample    : icv4222-3                                Inst    : VOA2
Misc      : gc11841,gcd4222,,,,,                     Multiplr: 1.00
IntFile Signal #1: PID.E        IntFile Signal #2: events2.e

Method       : C:\HPCHEM\1\METHODS\GROW-CD.M (Chemstation Integrator)
Title        : EPA 8015B/TPHGRO by GC-PID/FID
Last Update  : Thu Feb 03 12:46:41 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	a,a,a-TFT	20.000	20.716	-3.6	104	0.01	7.37- 7.57
2 S	BFB	20.000	20.435	-2.2	102	0.01	11.79-11.99
*****	Signal #2 *****						
4 S	a,a,a-TFT #2	20.000	20.719	-3.6	105	0.00	7.37- 7.57
5 S	BFB #2	20.000	21.453	-7.3	109	0.01	11.79-11.99
6 H	TPH-GRO (C6-C10)	400.000	359.274	10.2	94	0.00	4.03-12.91

(#) = Out of Range SPCC's out = 0 CCC's out = 0
CD102835.D GROW-CD.M Sat Feb 05 12:22:33 2011

Continuing Calibration Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GCD4222-CC4222
Lab FileID: CD102851.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\HPCHEM\1\DATA\020311\CD102851.D\FID1B.CH  Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\020311\CD102851.D\FID2A.CH
Acq On    :  3 Feb 2011   6:07 pm                    Operator: wilfredo
Sample    : cc4222-3                                 Inst    : VOA2
Misc      : gc11841,gcd4222,,,,,                     Multiplr: 1.00
IntFile Signal #1: PID.E        IntFile Signal #2: events2.e

Method       : C:\HPCHEM\1\METHODS\GROW-CD.M (Chemstation Integrator)
Title        : EPA 8015B/TPHGRO by GC-PID/FID
Last Update  : Thu Feb 03 12:46:41 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	a,a,a-TFT	20.000	19.639	1.8	98	0.01	7.37- 7.57
2 S	BFB	20.000	20.122	-0.6	101	0.00	11.79-11.99
*****	Signal #2 *****						
4 S	a,a,a-TFT #2	20.000	19.042	4.8	96	0.01	7.37- 7.57
5 S	BFB #2	20.000	20.569	-2.8	104	0.00	11.79-11.99
6 H	TPH-GRO (C6-C10)	400.000	388.736	2.8	101	0.00	4.03-12.91

```
(#) = Out of Range              SPCC's out = 0  CCC's out = 0
 CD102835.D GROW-CD.M        Sat Feb 05 12:22:34 2011
```

Continuing Calibration Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GCD4222-CC4222
Lab FileID: CD102860.D

```
                    Evaluate Continuing Calibration Report

 Signal #1 : C:\HPCHEM\1\DATA\020311\CD102860.D\FID1B.CH  Vial: 31
 Signal #2 : C:\HPCHEM\1\DATA\020311\CD102860.D\FID2A.CH
 Acq On    :  3 Feb 2011   9:46 pm                    Operator: wilfredo
 Sample    : cc4222-3                                 Inst    : VOA2
 Misc      : gc11841,gcd4222,,,,,                     Multiplr: 1.00
 IntFile Signal #1: PID.E        IntFile Signal #2: events2.e

 Method       : C:\HPCHEM\1\METHODS\GROW-CD.M (Chemstation Integrator)
 Title        : EPA 8015B/TPHGRO by GC-PID/FID
 Last Update  : Thu Feb 03 12:46:41 2011
 Response via : Multiple Level Calibration

 Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
 Max. RRF Dev :  20%     Max. Rel. Area : 150%

        Compound                Amount  Calc.    %Drift Area% Dev(min)RT Window
 ---------------------------------------------------------------------------
 1 S   a,a,a-TFT               20.000  20.386     -1.9  102   0.00    7.37- 7.57
 2 S   BFB                     20.000  20.630     -3.1  103   0.00   11.79-11.99

*****  Signal #2   *****

 4 S   a,a,a-TFT #2            20.000  20.093     -0.5  102   0.00    7.37- 7.57
 5 S   BFB #2                  20.000  20.871     -4.4  106   0.00   11.79-11.99
 6 H   TPH-GRO (C6-C10)       400.000 397.593      0.6  103   0.00    4.03-12.91
---------------------------------------------------------------------------
---------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    CD102835.D GROW-CD.M        Sat Feb 05 12:22:34 2011
```

Continuing Calibration Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GCD4222-ECC4222
Lab FileID: CD102866.D

```
                    Evaluate Continuing Calibration Report

 Signal #1 : C:\HPCHEM\1\DATA\020311\CD102866.D\FID1B.CH  Vial: 35
 Signal #2 : C:\HPCHEM\1\DATA\020311\CD102866.D\FID2A.CH
 Acq On    :  4 Feb 2011  12:13 am                    Operator: wilfredo
 Sample    : ecc4222-3                                Inst    : VOA2
 Misc      : gc11841,gcd4222,,,,,                     Multiplr: 1.00
 IntFile Signal #1: PID.E        IntFile Signal #2: events2.e

 Method       : C:\HPCHEM\1\METHODS\GROW-CD.M (Chemstation Integrator)
 Title        : EPA 8015B/TPHGRO by GC-PID/FID
 Last Update  : Thu Feb 03 12:46:41 2011
 Response via : Multiple Level Calibration

 Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
 Max. RRF Dev :  20%     Max. Rel. Area : 150%

        Compound                Amount  Calc.    %Drift Area% Dev(min)RT Window
 ---------------------------------------------------------------------------
 1 S   a,a,a-TFT               20.000  20.734     -3.7  104   0.00    7.37- 7.57
 2 S   BFB                     20.000  20.739     -3.7  104   0.00   11.79-11.99

*****  Signal #2   *****

 4 S   a,a,a-TFT #2            20.000  20.837     -4.2  106   0.00    7.37- 7.57
 5 S   BFB #2                  20.000  21.019     -5.1  107   0.00   11.79-11.99
 6 H   TPH-GRO (C6-C10)       400.000 404.474     -1.1  105   0.00    4.03-12.91
---------------------------------------------------------------------------
---------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    CD102835.D GROW-CD.M        Sat Feb 05 12:22:34 2011
```

Southeast ACCUTEST LABORATORIES

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35910-MB	ZF38565.D	1	02/02/11	FEA	02/01/11	OP35910	GZF1608

The QC reported here applies to the following samples: **Method:** SW846 8015C

F79701-7, F79701-8, F79701-9

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	0.25	0.10	mg/l	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	92%	42-114%

Blank Spike Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35910-BS	ZF38564.D	1	02/02/11	FEA	02/01/11	OP35910	GZF1608

The QC reported here applies to the following samples: **Method:** SW846 8015C

F79701-7, F79701-8, F79701-9

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH (C10-C28)	1	0.974	97	59-114

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	96%	42-114%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35910-MS	ZF38570.D	1	02/02/11	FEA	02/01/11	OP35910	GZF1608
OP35910-MSD	ZF38571.D	1	02/02/11	FEA	02/01/11	OP35910	GZF1608
F79701-8	ZF38569.D	1	02/02/11	FEA	02/01/11	OP35910	GZF1608

The QC reported here applies to the following samples: **Method:** SW846 8015C

F79701-7, F79701-8, F79701-9

CAS No.	Compound	F79701-8 mg/l	Q	Spike mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	ND		1.92	1.69	88	1.53	80	10	59-114/34

CAS No.	Surrogate Recoveries	MS	MSD	F79701-8	Limits
84-15-1	o-Terphenyl	89%	82%	84%	42-114%

Semivolatile Surrogate Recovery Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Method: SW846 8015C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]
F79701-7	ZF38568.D	86.0
F79701-8	ZF38569.D	84.0
F79701-9	ZF38572.D	83.0
OP35910-BS	ZF38564.D	96.0
OP35910-MB	ZF38565.D	92.0
OP35910-MS	ZF38570.D	89.0
OP35910-MSD	ZF38571.D	82.0

Surrogate Compounds	Recovery Limits
S1 = o-Terphenyl	42-114%

(a) Recovery from GC signal #1

GC Surrogate Retention Time Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	GZF1608-CC1595	**Injection Date:**	02/02/11
Lab File ID:	ZF38563.D	**Injection Time:**	13:25
Instrument ID:	GCZF	**Method:**	SW846 8015C

	S1 [a] **RT**
Check Std	6.22

Lab Sample ID	**Lab File ID**	**Date Analyzed**	**Time Analyzed**	**S1** [a] **RT**
OP35910-BS	ZF38564.D	02/02/11	14:02	6.22
OP35910-MB	ZF38565.D	02/02/11	14:22	6.22
ZZZZZZ	ZF38566.D	02/02/11	14:43	6.22
ZZZZZZ	ZF38567.D	02/02/11	15:04	6.22
F79701-7	ZF38568.D	02/02/11	15:25	6.22
F79701-8	ZF38569.D	02/02/11	15:46	6.22
OP35910-MS	ZF38570.D	02/02/11	16:06	6.22
OP35910-MSD	ZF38571.D	02/02/11	16:27	6.22
F79701-9	ZF38572.D	02/02/11	16:48	6.22

Surrogate Compounds

S1 = o-Terphenyl

(a) Retention time from GC signal #1

Initial Calibration Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GZF1595-ICC1595
Lab FileID: ZF38256.D

Response Factor Report FID 3

```
Method       : C:\HPCHEM\1\METHODS\F_DRO.M (Chemstation Integrator)
Title        : TPH by SW846 8015C
Last Update  : Tue Dec 21 12:47:55 2010
Response via : Initial Calibration

Calibration Files
200 =ZF38254.D   500 =ZF38255.D   1000=ZF38256.D   2000=ZF38257.D
3000   =ZF38258.D    4000   =ZF38259.D
```

Compound	200	500	1000	2000	3000	4000	Avg	%RSD
1) S O-TERPHENYL	2.395	2.373	2.308	2.288	2.287	2.207	2.310 E4	2.91
2) H TPH (C10-C28)	2.124	2.065	2.020	2.013	1.999	1.948	2.028 E4	2.97

(#) = Out of Range

F_DRO.M Wed Dec 22 08:30:25 2010

7.6.1

7

Initial Calibration Verification

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GZF1595-ICV1595
Lab FileID: ZF38260.D

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\1221DRO\ZF38260.D          Vial: 9
Acq On    : 21 Dec 2010  12:43 pm                   Operator: marke
Sample    : icv1595-1000                            Inst    : FID 3
Misc      : op35367,gzf1595,30.0,,,1,1,soil         Multiplr: 1.00
IntFile   : events.e

Method       : C:\HPCHEM\1\METHODS\F_DRO.M (Chemstation Integrator)
Title        : TPH by SW846 8015C
Last Update  : Tue Dec 21 12:47:55 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%

       Compound                Amount  Calc.    %Drift Area% Dev(min)RT Window
 ---------------------------------------------------------------------------
 1 S   O-TERPHENYL                        ----------NA----------
 2 H   TPH (C10-C28)          1000.000 1002.742     -0.3  101   0.00    3.05- 8.58
-----------------------------------------------------------------------------
-----------------------------------------------------------------------------

   (#) = Out of Range               SPCC's out = 0  CCC's out = 0
    ZF38256.D  F_DRO.M          Wed Dec 22 08:30:11 2010
```

7.6.2

7

Continuing Calibration Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GZF1608-CC1595
Lab FileID: ZF38563.D

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\0202DRO\ZF38563.D          Vial: 2
Acq On    :  2 Feb 2011   1:25 pm                   Operator: enoca
Sample    : cc1595-1000                             Inst    : FID 3
Misc      : op35871,gzf1608,30.0,,,1,1,soil         Multiplr: 1.00
IntFile   : events.e

Method       : C:\HPCHEM\1\METHODS\F_DRO.M (Chemstation Integrator)
Title        : TPH by SW846 8015C
Last Update  : Fri Jan 07 13:39:25 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	25.000	26.786	-7.1	107	-0.02	6.14- 6.34
2 H	TPH (C10-C28)	1000.000	1118.449	-11.8	112	0.00	3.02- 8.57

(#) = Out of Range SPCC's out = 0 CCC's out = 0
ZF38256.D F_DRO.M Wed Feb 02 14:05:43 2011

7.6.3

7

Continuing Calibration Summary

Job Number: F79701
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GZF1608-CC1595
Lab FileID: ZF38573.D

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\0202DRO\ZF38573.D          Vial: 17
Acq On    :  2 Feb 2011   5:09 pm                   Operator: enoca
Sample    : cc1595-1000                              Inst    : FID 3
Misc      : op35910,gzf1608,1040,,,1,1,water         Multiplr: 1.00
IntFile   : events.e

Method       : C:\HPCHEM\1\METHODS\F_DRO.M (Chemstation Integrator)
Title        : TPH by SW846 8015C
Last Update  : Fri Jan 07 13:39:25 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	25.000	26.691	-6.8	107	-0.02	6.14- 6.34
2 H	TPH (C10-C28)	1000.000	1112.388	-11.2	112	0.00	3.02- 8.57

(#) = Out of Range SPCC's out = 0 CCC's out = 0
ZF38256.D F_DRO.M Thu Feb 03 16:47:58 2011

7.6.4

7

Southeast ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
Analyst: LM Run ID: MA8687
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:31	MA8687-STD1	1		STD01REP1
10:33	MA8687-STD2	1		STD02REP1
10:36	MA8687-STD3	1		STD03REP1
10:38	MA8687-STD4	1		STD04REP1
10:40	MA8687-STD5	1		STD05REP1
10:43	MA8687-STD6	1		STD06REP1
10:45	MA8687-HSTD1	1		
10:47	MA8687-ICV1	1		
10:50	MA8687-ICB1	1		
10:52	MA8687-CRI1	1		
10:55	MA8687-CCV1	1		
10:58	MA8687-CCB1	1		
11:13	MA8687-CCV2	1		
11:15	MA8687-CCB2	1		
11:24	MP19910-MB1	1		
11:27	MP19910-B1	1		
11:29	F79701-6	1		
11:31	MP19910-D1	1		
11:33	MP19910-SD1	5		
11:36	MP19910-S1	1		
11:38	MP19910-S2	1		
11:41	ZZZZZZ	1		
11:43	ZZZZZZ	1		
11:45	ZZZZZZ	1		
11:48	MA8687-CCV3	1		
11:50	MA8687-CCB3	1		
11:52	ZZZZZZ	1		
11:54	ZZZZZZ	1		
11:57	ZZZZZZ	1		
11:59	ZZZZZZ	1		
12:01	ZZZZZZ	1		
12:04	ZZZZZZ	1		
12:08	MP19910-MB2A	1		

----------> Last reportable sample/prep for job F79701

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
Analyst: LM Run ID: MA8687
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:10	ZZZZZZ	1		
12:13	MP19909-MB1	1		
12:15	MA8687-CCV4	1		
12:18	MA8687-CCB4	1		
12:20	MP19909-B1	1		
12:22	F79608-1F	1		(sample used for QC only; not part of login F79701)
12:25	MP19909-D1	1		
12:27	MP19909-SD1	5		
12:29	MP19909-S1	1		
12:31	MP19909-S2	1		
12:34	ZZZZZZ	1		
12:36	ZZZZZZ	1		
12:39	ZZZZZZ	1		
12:41	ZZZZZZ	1		
12:43	MA8687-CCV5	1		
12:46	MA8687-CCB5	1		
12:48	ZZZZZZ	1		
12:50	ZZZZZZ	1		
12:53	ZZZZZZ	1		
12:55	ZZZZZZ	1		
12:57	ZZZZZZ	1		
12:59	ZZZZZZ	1		
13:02	ZZZZZZ	1		
13:04	ZZZZZZ	1		
13:06	ZZZZZZ	1		
13:09	ZZZZZZ	1		
13:11	MA8687-CCV6	1		
13:14	MA8687-CCB6	1		
13:16	ZZZZZZ	1		
13:18	ZZZZZZ	1		
13:20	ZZZZZZ	1		
13:23	ZZZZZZ	1		
13:25	MP19909-MB2A	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
Analyst: LM Run ID: MA8687
Parameters: Hg

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	13:27	ZZZZZZ	1		
	13:31	MA8687-CRI2	1		
	13:34	MA8687-CCV7	1		
	13:36	MA8687-CCB7	1		
---------->	Last reportable CCB for job F79701				
	Refer to raw data for calibration curve and standards.				

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA8687 Units: ug/l

Time:			10:50		10:58		11:15		11:50	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	1.0	.071	-0.029	<1.0	-0.019	<1.0	-0.046	<1.0	-0.043	<1.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA8687 Units: ug/l

Time:			12:18		12:46		13:14		13:36	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	1.0	.071	-0.023	<1.0	-0.0070	<1.0	0.011	<1.0	-0.025	<1.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA8687 Units: ug/l

Time:		10:47			10:55			11:13	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3.0	3.0	100.0	3.0	3.0	100.0	3.0	3.0	100.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA8687 Units: ug/l

Time:		11:48			12:15			12:43	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	3.1	103.3	3	3.1	103.3	3	3.1	103.3

(*) Outside of QC limits
(anr) Analyte not requested

8.1.2
8

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA8687 Units: ug/l

Time:		13:11			13:34	
Sample ID:	CCV	CCV6		CCV	CCV7	
Metal	True	Results	% Rec	True	Results	% Rec
Mercury	3	3.1	103.3	3	3.1	103.3

(*) Outside of QC limits
(anr) Analyte not requested

8.1.2
8

HIGH STANDARD CHECK SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
QC Limits: 95 to 105 % Recovery Run ID: MA8687 Units: ug/l

Time:		10:45	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Mercury	6.0	6.0	100.0

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
QC Limits: 80 to 120 % Recovery Run ID: MA8687 Units: ug/l

Time:			10:52		13:31	
Sample ID:	CRI	CRIA	CRI1		CRI2	
Metal	True	True	Results	% Rec	Results	% Rec
Mercury	0.20		0.19	95.0	0.19	95.0

(*) Outside of QC limits
(anr) Analyte not requested

8.1.4
8

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30203W2.PRN Date Analyzed: 02/03/11 Methods: SW846 7470A
Analyst: LM Run ID: MA8690
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:34	MA8690-STD1	1		STD01REP1
10:37	MA8690-STD2	1		STD02REP1
10:40	MA8690-STD3	1		STD03REP1
10:42	MA8690-STD4	1		STD04REP1
10:46	MA8690-STD5	1		STD05REP1
10:50	MA8690-STD6	1		STD06REP1
10:52	MA8690-HSTD1	1		
10:55	MA8690-ICV1	1		
10:58	MA8690-ICB1	1		
11:01	MA8690-CRI1	1		
11:05	MA8690-CCV1	1		
11:07	MA8690-CCB1	1		
11:09	MP19914-MB1	1		
11:12	MP19914-B1	1		
11:14	F79652-2	1		(sample used for QC only; not part of login F79701)
11:17	MP19914-D1	1		
11:21	MP19914-SD1	5		
11:23	MP19914-S1	1		
11:27	MP19914-S2	1		
11:30	ZZZZZZ	1		
11:33	MP19914-MB2	1		
11:36	MP19914-MB3	1		
11:40	MA8690-CCV2	1		
11:42	MA8690-CCB2	1		
11:46	MP19914-B2	1		
11:48	MP19914-B3	1		
11:50	MP19915-MB1	1		
11:53	MP19915-B1	1		
11:56	F79701-8	1		
11:59	MP19915-D1	1		
12:03	MP19915-SD1	5		
12:05	MP19915-S1	1		
12:07	MP19915-S2	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30203W2.PRN Date Analyzed: 02/03/11 Methods: SW846 7470A
Analyst: LM Run ID: MA8690
Parameters: Hg

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	12:11	F79701-1	1		
	12:13	MA8690-CCV3	1		
	12:16	MA8690-CCB3	1		
	12:19	F79701-2	1		
	12:21	F79701-3	1		
	12:24	F79701-4	1		
	12:26	F79701-5	1		
	12:28	F79701-7	1		
	12:31	ZZZZZZ	1		
	12:33	ZZZZZZ	1		
	12:37	ZZZZZZ	1		
	12:41	MP19916-MB1	1		
	12:45	MP19916-B1	1		
	12:47	MA8690-CCV4	1		
	12:50	MA8690-CCB4	1		
	12:52	F79701-6F	1		
	12:55	MP19916-D1	1		
	12:58	MP19916-SD1	5		
	13:00	MP19916-S1	1		
	13:02	MP19916-S2	1		
	13:05	F79701-1F	1		
	13:07	F79701-2F	1		
	13:10	F79701-3F	1		
	13:13	F79701-4F	1		
	13:16	F79701-5F	1		
	13:18	MA8690-CCV5	1		
	13:21	MA8690-CCB5	1		
	13:23	F79701-7F	1		
	13:26	F79701-9F	1		
	13:28	F79701-9	1		
---------->	Last reportable sample/prep for job F79701				
	13:31	ZZZZZZ	1		
	13:33	MA8690-CRI2	1		
	13:37	MA8690-CCV6	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30203W2.PRN Date Analyzed: 02/03/11 Methods: SW846 7470A
Analyst: LM Run ID: MA8690
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:40	MA8690-CCB6	1		

----------> Last reportable CCB for job F79701
Refer to raw data for calibration curve and standards.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30203W2.PRN Date Analyzed: 02/03/11 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA8690 Units: ug/l

Time:			10:58		11:07		11:42		12:16	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	1.0	.071	-0.0050	<1.0	0.0070	<1.0	0.0070	<1.0	-0.024	<1.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30203W2.PRN Date Analyzed: 02/03/11 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA8690 Units: ug/l

Time:			12:50		13:21		13:40	
Sample ID:			CCB4		CCB5		CCB6	
Metal	RL	IDL	raw	final	raw	final	raw	final
Mercury	1.0	.071	0.060	<1.0	0.039	<1.0	0.043	<1.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30203W2.PRN Date Analyzed: 02/03/11 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA8690 Units: ug/l

Time:		10:55			11:05			11:40	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	2.9	96.7	3.0	3.0	100.0	3.0	3.0	100.0

(*) Outside of QC limits
(anr) Analyte not requested

8.2.2
8

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30203W2.PRN Date Analyzed: 02/03/11 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA8690 Units: ug/l

Time:		12:13			12:47			13:18	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	3.1	103.3	3.0	3.0	100.0	3	2.9	96.7

(*) Outside of QC limits
(anr) Analyte not requested

8.2.2
8

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30203W2.PRN Date Analyzed: 02/03/11 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA8690 Units: ug/l

Time:		13:37	
Sample ID:	CCV	CCV6	
Metal	True	Results	% Rec
Mercury	3.0	3.0	100.0

(*) Outside of QC limits
(anr) Analyte not requested

8.2.2
8

HIGH STANDARD CHECK SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30203W2.PRN Date Analyzed: 02/03/11 Methods: SW846 7470A
QC Limits: 95 to 105 % Recovery Run ID: MA8690 Units: ug/l

Time:		10:52	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Mercury	6	6.1	101.7

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30203W2.PRN Date Analyzed: 02/03/11 Methods: SW846 7470A
QC Limits: 80 to 120 % Recovery Run ID: MA8690 Units: ug/l

Time:			11:01		13:33	
Sample ID:	CRI	CRIA	CRI1		CRI2	
Metal	True	True	Results	% Rec	Results	% Rec
Mercury	0.20		0.21	105.0	0.17	85.0

(*) Outside of QC limits
(anr) Analyte not requested

8.2.4

8

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30207W1.PRN Date Analyzed: 02/07/11 Methods: SW846 7470A
Analyst: LM Run ID: MA8695
Parameters: Hg

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	11:44	MA8695-STD1	1		STD01REP1
	11:47	MA8695-STD2	1		STD02REP1
	11:49	MA8695-STD3	1		STD03REP1
	11:52	MA8695-STD4	1		STD04REP1
	11:54	MA8695-STD5	1		STD05REP1
	11:57	MA8695-STD6	1		STD06REP1
	11:59	MA8695-HSTD1	1		
	12:01	MA8695-ICV1	1		
	12:04	MA8695-ICB1	1		
	12:06	MA8695-CRI1	1		
	12:09	MA8695-CCV1	1		
	12:12	MA8695-CCB1	1		
	12:14	MP19927-MB1	1		
	12:16	MP19927-B1	1		
	12:18	F79699-1	1		(sample used for QC only; not part of login F79701)
	12:21	MP19927-D1	1		
	12:24	MP19927-SD1	5		
	12:26	MP19927-S1	1		
	12:28	MP19927-S2	1		
	12:31	ZZZZZZ	1		
	12:33	ZZZZZZ	1		
	12:43	MP19930-MB1	1		
	12:46	MA8695-CCV2	1		
	12:48	MA8695-CCB2	1		
	12:51	MP19930-B1	1		
	12:53	F79701-8F	1		
	12:55	MP19930-D1	1		
	12:57	MP19930-SD1	5		
	13:00	MP19930-S1	1		
	13:02	MP19930-S2	1		
---------->	Last reportable sample/prep for job F79701				
	13:05	ZZZZZZ	1		
	13:07	MP19927-MB2	1		
	13:09	MP19927-MB3	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30207W1.PRN Date Analyzed: 02/07/11 Methods: SW846 7470A
Analyst: LM Run ID: MA8695
Parameters: Hg

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	13:12	MP19927-B2	1		
	13:14	MA8695-CCV3	1		
	13:17	MA8695-CCB3	1		
	13:19	MP19927-B3	1		
	13:23	MA8695-CRI2	1		
	13:25	MA8695-CCV4	1		
	13:27	MA8695-CCB4	1		
---------->	Last reportable CCB for job F79701				
	Refer to raw data for calibration curve and standards.				

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30207W1.PRN Date Analyzed: 02/07/11 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA8695 Units: ug/l

Time:			12:04		12:12		12:48		13:17	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	1.0	.071	0.014	<1.0	-0.0050	<1.0	0.0	<1.0	-0.013	<1.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30207W1.PRN Date Analyzed: 02/07/11 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA8695 Units: ug/l

Time:			13:27	
Sample ID:			CCB4	
Metal	RL	IDL	raw	final
Mercury	1.0	.071	-0.0050	<1.0

(*) Outside of QC limits
(anr) Analyte not requested

8.3.1
8

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30207W1.PRN Date Analyzed: 02/07/11 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA8695 Units: ug/l

Time:		12:01			12:09			12:46	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	2.9	96.7	3	3.1	103.3	3.0	3.0	100.0

(*) Outside of QC limits
(anr) Analyte not requested

8.3.2
8

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30207W1.PRN Date Analyzed: 02/07/11 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA8695 Units: ug/l

Time:		13:14			13:25	
Sample ID:	CCV	CCV3		CCV	CCV4	
Metal	True	Results	% Rec	True	Results	% Rec
Mercury	3.0	3.0	100.0	3.0	3.0	100.0

(*) Outside of QC limits
(anr) Analyte not requested

8.3.2
8

HIGH STANDARD CHECK SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30207W1.PRN Date Analyzed: 02/07/11 Methods: SW846 7470A
QC Limits: 95 to 105 % Recovery Run ID: MA8695 Units: ug/l

Time:		11:59	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Mercury	6	6.1	101.7

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30207W1.PRN Date Analyzed: 02/07/11 Methods: SW846 7470A
QC Limits: 80 to 120 % Recovery Run ID: MA8695 Units: ug/l

Time:			12:06		13:23	
Sample ID:	CRI	CRIA	CRI1		CRI2	
Metal	True	True	Results	% Rec	Results	% Rec
Mercury	0.20		0.23	115.0	0.20	100.0

(*) Outside of QC limits
(anr) Analyte not requested

8.3.4
8

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:32	MA8700-STD1	1		STDA
09:36	MA8700-STD2	1		STDB
09:39	MA8700-STD3	1		STDC
09:44	MA8700-HSTD1	1		
09:47	MA8700-ICV1	1		
09:55	MA8700-ICB1	1		
10:00	MA8700-CRIA1	1		
10:12	MA8700-ICSA1	1		
10:21	MA8700-ICSAB1	1		
10:27	MA8700-CCV1	1		
10:38	MA8700-CCB1	1		
10:53	F79608-1	5		(sample used for QC only; not part of login F79701)
10:58	MP19932-D1	5		
11:02	MP19932-S1	5		
11:07	MP19932-S2	5		
11:11	MP19932-PS1	5		
11:15	MP19932-SD1	25		
11:19	ZZZZZZ	5		
11:24	ZZZZZZ	5		
11:28	ZZZZZZ	5		
11:32	ZZZZZZ	5		
11:37	MA8700-CCV2	1		
11:41	MA8700-CCB2	1		
11:45	ZZZZZZ	5		
11:49	ZZZZZZ	5		
11:53	ZZZZZZ	10		
11:58	ZZZZZZ	10		
12:02	ZZZZZZ	10		
12:06	ZZZZZZ	5		
12:10	ZZZZZZ	10		
12:14	ZZZZZZ	5		
12:18	ZZZZZZ	5		
12:22	ZZZZZZ	10		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:27	MA8700-CCV3	1		
12:30	MA8700-CCB3	1		
12:35	ZZZZZZ	10		
12:39	ZZZZZZ	10		
12:43	ZZZZZZ	5		
12:47	ZZZZZZ	10		
12:51	ZZZZZZ	5		
12:55	F79608-1F	5		(sample used for QC only; not part of login F79701)
13:00	MP19933-D1	5		
13:04	MP19933-S1	5		
13:09	MP19933-S2	5		
13:13	MP19933-PS1	5		
13:17	MA8700-CCV4	1		
13:21	MA8700-CCB4	1		
13:25	MP19933-SD1	25		
13:29	ZZZZZZ	5		
13:34	ZZZZZZ	5		
13:38	ZZZZZZ	5		
13:43	ZZZZZZ	5		
13:47	ZZZZZZ	5		
13:51	F79839-1	4		(sample used for QC only; not part of login F79701)
13:55	MP19931-D1	4		
13:59	MP19931-S1	4		
14:03	MP19931-S2	4		
14:07	MA8700-CCV5	1		
14:11	MA8700-CCB5	1		
14:15	MP19931-PS1	4		
14:19	MP19931-SD1	20		
14:23	ZZZZZZ	4		
14:27	ZZZZZZ	4		
14:32	ZZZZZZ	4		
14:36	ZZZZZZ	2		
14:40	ZZZZZZ	2		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:44	ZZZZZZ	2		
14:48	ZZZZZZ	1		
14:52	MP19931-MB1	1		
14:56	MA8700-CCV6	1		
15:00	MA8700-CCB6	1		
15:04	MP19931-B1	1		
15:08	F79839-1	1		(sample used for QC only; not part of login F79701)
15:12	MP19931-D1	1		
15:16	MP19931-SD1	5		
15:20	MP19931-PS1	1		
15:24	MP19931-S1	1		
15:28	MP19931-S2	1		
15:44	MA8700-CCV7	1		
15:54	MA8700-CCB7	1		
17:03	MA8700-CCV8	1		
17:07	MA8700-CCB8	1		
17:28	MP19934-MB1	1		
17:32	MP19934-B1	1		
17:36	F79701-6F	1		
17:40	MP19934-D1	1		
17:45	MP19934-SD1	5		
17:49	MP19934-PS1	1		
17:53	MA8700-CCV9	1		
17:57	MA8700-CCB9	1		
18:01	MP19934-S1	1		
18:06	MP19934-S2	1		
18:10	ZZZZZZ	1		
18:14	ZZZZZZ	1		
18:18	ZZZZZZ	1		
18:22	ZZZZZZ	1		
18:27	ZZZZZZ	1		
18:31	ZZZZZZ	1		
18:35	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:39	ZZZZZZ	1		
18:43	MA8700-CCV10	1		
18:47	MA8700-CCB10	1		
18:52	ZZZZZZ	1		
18:56	ZZZZZZ	1		
19:00	ZZZZZZ	1		
19:04	MP19934-MB2A	1		
19:08	MP19934-MB3A	1		
19:13	MP19937-MB1	1		
19:17	MP19937-B1	1		
19:21	F79601-1A	1		(sample used for QC only; not part of login F79701)
19:25	MP19937-D1	1		
19:29	MP19937-SD1	5		
19:33	MA8700-CCV11	1		
19:37	MA8700-CCB11	1		
19:42	MP19937-S1	1		
19:46	MP19937-S2	1		
19:49	MP19937-MB2	1		
19:54	MP19937-B2	1		
19:58	MP19936-MB1	1		
20:02	MP19936-B1	1		
20:06	C14412-1T	1		(sample used for QC only; not part of login F79701)
20:10	MP19936-D1	1		
20:15	MP19936-SD1	5		
20:19	MP19936-S1	1		
20:23	MA8700-CCV12	1		
20:27	MA8700-CCB12	1		
20:31	MP19936-S2	1		
20:35	ZZZZZZ	1		
20:39	ZZZZZZ	1		
20:44	ZZZZZZ	1		
20:48	ZZZZZZ	1		
20:52	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:57	ZZZZZZ	1		
21:01	ZZZZZZ	1		
21:06	ZZZZZZ	1		
21:10	F79712-1	1		(sample used for QC only; not part of login F79701)
21:14	MA8700-CCV13	1		
21:18	MA8700-CCB13	1		
21:22	MP19936-D2	1		
21:27	MP19936-MB2	1		
21:31	MP19936-B2	1		
21:35	MP19938-MB1	1		
21:39	MP19938-B1	1		
21:43	F79701-6	1		
21:47	MP19938-D1	1		
21:52	MP19938-SD1	5		
21:56	MP19938-PS1	1		
22:00	MP19938-S1	1		
22:04	MA8700-CCV14	1		
22:08	MA8700-CCB14	1		
22:13	MP19938-S2	1		
22:17	F79701-1	1		
22:21	F79701-2	1		
22:26	F79701-3	1		
22:30	F79701-4	1		
22:39	F79701-7	1		
22:44	F79701-9	1		
22:48	ZZZZZZ	1		
22:52	ZZZZZZ	1		
22:57	MA8700-CCV15	1		
23:00	MA8700-CCB15	1		
23:05	ZZZZZZ	1		
23:09	ZZZZZZ	1		
23:13	ZZZZZZ	1		
23:17	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
23:22	ZZZZZZ	1		
23:26	ZZZZZZ	1		
23:30	ZZZZZZ	1		
23:34	ZZZZZZ	1		
23:38	ZZZZZZ	1		
23:43	ZZZZZZ	1		
23:47	MA8700-CCV16	1		
23:51	MA8700-CCB16	1		
23:55	MP19939-MB1	1		
23:59	MP19939-B1	1		
00:03	F79701-8	1		
00:08	MP19939-D1	1		
00:12	MP19939-SD1	5		
00:16	MP19939-PS1	1		
00:21	MP19939-S1	1		
00:25	MP19939-S2	1		
00:29	F79701-1F	1		
00:34	F79701-2F	1		
00:38	MA8700-CCV17	1		
00:42	MA8700-CCB17	1		
00:46	F79701-3F	1		
00:51	F79701-4F	1		
00:55	F79701-5F	1		
01:00	F79701-7F	1		
01:04	F79701-9F	1		
01:09	ZZZZZZ	1		
01:13	ZZZZZZ	1		
01:17	ZZZZZZ	1		
01:21	ZZZZZZ	1		
01:26	ZZZZZZ	1		
01:30	MA8700-CCV18	1		
01:34	MA8700-CCB18	1		
01:38	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	01:42	ZZZZZZ	1		
	01:46	ZZZZZZ	1		
	01:51	ZZZZZZ	1		
	01:55	ZZZZZZ	1		
	01:59	MP19939-MB2A	1		
---------->	Last reportable sample/prep for job F79701				
	02:03	MA8700-CRIA2	1		
	02:07	MA8700-ICSA2	1		
	02:12	MA8700-ICSAB2	1		
	02:16	MA8700-CCV19	1		
	02:20	MA8700-CCB19	1		
---------->	Last reportable CCB for job F79701				

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
09:32	MA8700-STD1	2640	29086	3901	1320
09:36	MA8700-STD2	2506	27022	3832	1154
09:39	MA8700-STD3	2430	26522	3767	1085
09:44	MA8700-HSTD1	2430	26640	3734	1089
09:47	MA8700-ICV1	2500	27239	3818	1153
09:55	MA8700-ICB1	2645 R	28461 R	3887 R	1322 R
10:00	MA8700-CRIA1	2596	27823	3845	1270
10:12	MA8700-ICSA1	2321	24569	3679	999
10:21	MA8700-ICSAB1	2309	24541	3649	988
10:27	MA8700-CCV1	2517	26924	3775	1148
10:38	MA8700-CCB1	2644	28299	3813	1315
10:53	F79608-1	2255	23673	3631	995
10:58	MP19932-D1	2232	23761	3642	988
11:02	MP19932-S1	2267	23313	3634	999
11:07	MP19932-S2	2242	24087	3608	983
11:11	MP19932-PS1	2239	23999	3631	992
11:15	MP19932-SD1	2485	26562	3843	1163
11:19	ZZZZZZ	2287	23996	3683	1029
11:24	ZZZZZZ	2282	24321	3623	1027
11:28	ZZZZZZ	2154	23170	3574	949
11:32	ZZZZZZ	2153	22979	3577	948
11:37	MA8700-CCV2	2497	25764	3789	1145
11:41	MA8700-CCB2	2642	28446	3846	1320
11:45	ZZZZZZ	2281	24354	3643	1025
11:49	ZZZZZZ	2181	23203	3580	957
11:53	ZZZZZZ	2077	21904	3463	898
11:58	ZZZZZZ	2055	21403	3444	881
12:02	ZZZZZZ	2060	21645	3484	863
12:06	ZZZZZZ	2283	24297	3632	1020
12:10	ZZZZZZ	2096	21951	3533	899
12:14	ZZZZZZ	2261	24127	3656	1013
12:18	ZZZZZZ	2180	23073	3593	959
12:22	ZZZZZZ	2084	21954	3511	896

INTERNAL STANDARD SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
12:27	MA8700-CCV3	2498	26598	3812	1146
12:30	MA8700-CCB3	2630	28369	3838	1319
12:35	ZZZZZZ	2086	21852	3476	897
12:39	ZZZZZZ	2038	21323	3473	873
12:43	ZZZZZZ	2256	23863	3661	1015
12:47	ZZZZZZ	2079	21832	3490	897
12:51	ZZZZZZ	2276	24589	3650	1022
12:55	F79608-1F	2218	23449	3588	988
13:00	MP19933-D1	2211	23691	3612	985
13:04	MP19933-S1	2205	23787	3621	970
13:09	MP19933-S2	2225	23632	3637	972
13:13	MP19933-PS1	2216	23597	3632	981
13:17	MA8700-CCV4	2480	26383	3776	1137
13:21	MA8700-CCB4	2625	28396	3849	1313
13:25	MP19933-SD1	2469	26303	3747	1151
13:29	ZZZZZZ	2256	24086	3627	1012
13:34	ZZZZZZ	2268	24127	3653	1018
13:38	ZZZZZZ	2166	22971	3569	948
13:43	ZZZZZZ	2149	22842	3557	941
13:47	ZZZZZZ	2272	24095	3673	1021
13:51	F79839-1	2643	27756	3954	1215
13:55	MP19931-D1	2667	27988	3950	1213
13:59	MP19931-S1	2619	27915	3927	1197
14:03	MP19931-S2	2633	27689	3974	1197
14:07	MA8700-CCV5	2483	26634	3808	1134
14:11	MA8700-CCB5	2647	28270	3769	1319
14:15	MP19931-PS1	2677	27465	3981	1231
14:19	MP19931-SD1	2671	28096	3898	1292
14:23	ZZZZZZ	2622	27521	3923	1207
14:27	ZZZZZZ	2651	27749	3882	1240
14:32	ZZZZZZ	2606	27677	3923	1210
14:36	ZZZZZZ	2708	27898	3993	1218
14:40	ZZZZZZ	2688	28135	4051	1188

INTERNAL STANDARD SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
14:44	ZZZZZZ	2681	28383	4006	1188
14:48	ZZZZZZ	2745	28658	4194	1111
14:52	MP19931-MB1	2613	27751	3812	1281
14:56	MA8700-CCV6	2526	27176	3802	1147
15:00	MA8700-CCB6	2673	28112	3881	1320
15:04	MP19931-B1	2537	26668	3790	1178
15:08	F79839-1	2699	28196	4132	1071
15:12	MP19931-D1	2782	28925	4285	1074
15:16	MP19931-SD1	2702	28281	3988	1254
15:20	MP19931-PS1	2733	28644	4210	1054
15:24	MP19931-S1	2656	28181	4126	1045
15:28	MP19931-S2	2678	28302	4180	1037
15:44	MA8700-CCV7	2535	26456	3802	1145
15:54	MA8700-CCB7	2657	28645	3880	1321
17:03	MA8700-CCV8	2468	26755	3765	1132
17:07	MA8700-CCB8	2673	27925	3865	1328
17:28	MP19934-MB1	2618	28514	3800	1300
17:32	MP19934-B1	2544	27263	3760	1196
17:36	F79701-6F	1518 !	16502 !	2965	614 !
17:40	MP19934-D1	1512 !	16525 !	2958	613 !
17:45	MP19934-SD1	2052	21891	3460	886
17:49	MP19934-PS1	1538 !	16705 !	2997	621 !
17:53	MA8700-CCV9	2524	27340	3768	1164
17:57	MA8700-CCB9	2643	28790	3646	1323
18:01	MP19934-S1	1547 !	16868 !	2958	616 !
18:06	MP19934-S2	1549 !	17027 !	2982	617 !
18:10	ZZZZZZ	2622	28559	3822	1276
18:14	ZZZZZZ	5016 !	54514 !	7767 !	1080
18:18	ZZZZZZ	2684	29418	3920	1279
18:22	ZZZZZZ	2549	27756	3874	1145
18:27	ZZZZZZ	2744	29808	4095	1157
18:31	ZZZZZZ	2595	28464	3762	1293
18:35	ZZZZZZ	2455	27622	3720	1178

INTERNAL STANDARD SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
18:39	ZZZZZZ	2600	28400	3723	1296
18:43	MA8700-CCV10	2490	26973	3704	1152
18:47	MA8700-CCB10	2659	28931	3765	1342
18:52	ZZZZZZ	2413	26632	3621	1157
18:56	ZZZZZZ	2456	26972	3680	1172
19:00	ZZZZZZ	2610	28621	3768	1301
19:04	MP19934-MB2A	2601	29052	3741	1308
19:08	MP19934-MB3A	2600	28947	3765	1305
19:13	MP19937-MB1	2612	28812	3723	1317
19:17	MP19937-B1	2532	27765	3549	1208
19:21	F79601-1A	2577	28371	3750	1291
19:25	MP19937-D1	2593	29011	3761	1303
19:29	MP19937-SD1	2609	28850	3748	1323
19:33	MA8700-CCV11	2477	27302	3714	1160
19:37	MA8700-CCB11	2647	29020	3773	1342
19:42	MP19937-S1	2492	27794	3715	1189
19:46	MP19937-S2	2531	27676	3763	1207
19:49	MP19937-MB2	2585	28662	3668	1308
19:54	MP19937-B2	2523	27034	3850	1205
19:58	MP19936-MB1	2596	29344	3667	1313
20:02	MP19936-B1	2520	27661	3666	1204
20:06	C14412-1T	2432	27159	3659	1176
20:10	MP19936-D1	2414	26957	3637	1166
20:15	MP19936-SD1	2566	28618	3701	1282
20:19	MP19936-S1	2411	26556	3645	1114
20:23	MA8700-CCV12	2481	27264	3644	1162
20:27	MA8700-CCB12	2697	29297	3715	1370
20:31	MP19936-S2	2412	26666	3771	1115
20:35	ZZZZZZ	2388	26753	3650	1152
20:39	ZZZZZZ	2406	26760	3599	1171
20:44	ZZZZZZ	2421	27018	3637	1178
20:48	ZZZZZZ	2435	27280	3644	1186
20:52	ZZZZZZ	2394	27142	3671	1166

INTERNAL STANDARD SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
20:57	ZZZZZZ	2378	26267	3582	1149
21:01	ZZZZZZ	2426	26996	3616	1182
21:06	ZZZZZZ	2394	26928	3623	1152
21:10	F79712-1	2461	28055	3678	1218
21:14	MA8700-CCV13	2488	27731	3659	1168
21:18	MA8700-CCB13	2624	29190	3670	1345
21:22	MP19936-D2	2414	27139	3619	1183
21:27	MP19936-MB2	2463	27781	3699	1198
21:31	MP19936-B2	2466	27405	3660	1158
21:35	MP19938-MB1	2587	29230	3687	1322
21:39	MP19938-B1	2527	28068	3721	1220
21:43	F79701-6	1508 !	16973 !	2898	626 !
21:47	MP19938-D1	1513 !	17127	2893	631 !
21:52	MP19938-SD1	2036	22632	3358	901
21:56	MP19938-PS1	1497 !	17075 !	2877	622 !
22:00	MP19938-S1	1514 !	17320	2874	617 !
22:04	MA8700-CCV14	2473	28039	3609	1174
22:08	MA8700-CCB14	2605	29546	3694	1349
22:13	MP19938-S2	1542 !	17616	2877	631 !
22:17	F79701-1	1171 !	14196 !	2601	462 !
22:21	F79701-2	1155 !	13811 !	2570	445 !
22:26	F79701-3	1121 !	13428 !	2476	437 !
22:30	F79701-4	1929	21956	3302	855
22:39	F79701-7	1919	21778	3307	850
22:44	F79701-9	1787	20552	3218	775 !
22:48	ZZZZZZ	2454	28874	3641	1255
22:52	ZZZZZZ	2488	28535	3759	1266
22:57	MA8700-CCV15	2431	27819	3698	1164
23:00	MA8700-CCB15	2573	30107	3726	1332
23:05	ZZZZZZ	2493	28690	3720	1272
23:09	ZZZZZZ	2511	28879	3743	1269
23:13	ZZZZZZ	2464	28100	3792	1233
23:17	ZZZZZZ	2469	27979	3682	1233

INTERNAL STANDARD SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
23:22	ZZZZZZ	2489	28519	3694	1251
23:26	ZZZZZZ	2474	27950	3620	1235
23:30	ZZZZZZ	2534	29193	3717	1294
23:34	ZZZZZZ	2479	28688	3735	1248
23:38	ZZZZZZ	2567	30026	3808	1341
23:43	ZZZZZZ	2522	29576	3885	1297
23:47	MA8700-CCV16	2439	28414	3792	1175
23:51	MA8700-CCB16	2654	30429	3866	1393
23:55	MP19939-MB1	2536	29986	3854	1336
23:59	MP19939-B1	2470	29136	3949	1226
00:03	F79701-8	1867	22204	3413	839
00:08	MP19939-D1	1867	21640	3435	834
00:12	MP19939-SD1	2220	26085	3532	1058
00:16	MP19939-PS1	1859	22345	3458	833
00:21	MP19939-S1	1869	22433	3481	823
00:25	MP19939-S2	1871	22672	3578	826
00:29	F79701-1F	1184 !	14789 !	2856	481 !
00:34	F79701-2F	1147 !	14138 !	2646	462 !
00:38	MA8700-CCV17	2432	29415	3946	1191
00:42	MA8700-CCB17	2535	30875	4018	1355
00:46	F79701-3F	1110 !	14193 !	2629	444 !
00:51	F79701-4F	1889	23681	3458	862
00:55	F79701-5F	1303 !	15846 !	2921	551 !
01:00	F79701-7F	1884	22820	3536	861
01:04	F79701-9F	1757	21266	3425	787 !
01:09	ZZZZZZ	2366	29786	3954	1217
01:13	ZZZZZZ	2428	29124	3998	1209
01:17	ZZZZZZ	2348	29129	3929	1207
01:21	ZZZZZZ	2354	28916	3887	1208
01:26	ZZZZZZ	2331	28568	3795	1202
01:30	MA8700-CCV18	2383	28750	4024	1177
01:34	MA8700-CCB18	2550	31475	4007	1371
01:38	ZZZZZZ	2323	29057	3887	1202

INTERNAL STANDARD SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
01:42	ZZZZZZ	2349	29233	3866	1209
01:46	ZZZZZZ	2357	29261	3904	1218
01:51	ZZZZZZ	2378	30297	3935	1222
01:55	ZZZZZZ	2312	28782	3925	1180
01:59	MP19939-MB2A	2478	30418	3925	1336
02:03	MA8700-CRIA2	2483	30594	3943	1314
02:07	MA8700-ICSA2	2196	26599	3776	1024
02:12	MA8700-ICSAB2	2188	26626	3852	1019
02:16	MA8700-CCV19	2378	29220	3912	1186
02:20	MA8700-CCB19	2533	31281	3980	1371

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	60-125 %
Istd#2	Yttrium (3600)	60-125 %
Istd#3	Yttrium (3710)	60-125 %
Istd#4	Indium	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8700 Units: ug/l

Time:			09:55		10:38		11:41		12:30	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	-0.60	<10	-0.90	<10	1.0	<10	-0.30	<10
Barium	200	1	1.9	<200	3.8	<200	3.4	<200	3.6	<200
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	0.0	<5.0	0.0	<5.0	0.10	<5.0	0.20	<5.0
Calcium	1000	50	anr							
Chromium	10	1	-0.20	<10	-0.10	<10	0.10	<10	0.60	<10
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	-0.50	<5.0	-0.20	<5.0	0.30	<5.0	-0.30	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	1.6	<10	1.0	<10	-0.50	<10	2.5	<10
Silver	10	1	0.0	<10	0.10	<10	0.10	<10	0.30	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8700 Units: ug/l

Time:			13:21		14:11		15:00		15:54	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	0.80	<10	0.10	<10	0.40	<10	1.0	<10
Barium	200	1	2.9	<200	4.9	<200	2.7	<200	2.1	<200
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	0.20	<5.0	0.20	<5.0	0.20	<5.0	0.30	<5.0
Calcium	1000	50	anr							
Chromium	10	1	0.40	<10	0.20	<10	0.30	<10	0.30	<10
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	0.30	<5.0	0.10	<5.0	0.80	<5.0	0.70	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	1.4	<10	0.20	<10	2.4	<10	1.4	<10
Silver	10	1	0.30	<10	0.40	<10	0.30	<10	0.30	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8700 Units: ug/l

Time:			17:07		17:57		18:47		19:37	
Sample ID:			CCB8		CCB9		CCB10		CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	0.30	<10	0.50	<10	-0.20	<10	0.20	<10
Barium	200	1	-0.70	<200	0.40	<200	-1.0	<200	-0.20	<200
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	0.0	<5.0	0.10	<5.0	0.10	<5.0	0.10	<5.0
Calcium	1000	50	anr							
Chromium	10	1	-0.20	<10	0.10	<10	-0.20	<10	0.0	<10
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	0.20	<5.0	-0.60	<5.0	-0.60	<5.0	0.60	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	0.80	<10	0.60	<10	-0.60	<10	0.10	<10
Silver	10	1	0.0	<10	0.70	<10	0.20	<10	0.0	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8700 Units: ug/l

Time:			20:27		21:18		22:08		23:00	
Sample ID:			CCB12		CCB13		CCB14		CCB15	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	0.20	<10	0.20	<10	0.20	<10	0.60	<10
Barium	200	1	-0.80	<200	0.30	<200	-0.40	<200	-1.5	<200
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	0.0	<5.0	0.0	<5.0	0.0	<5.0	0.0	<5.0
Calcium	1000	50	anr							
Chromium	10	1	0.20	<10	0.20	<10	0.20	<10	0.20	<10
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	-0.30	<5.0	-0.60	<5.0	0.10	<5.0	0.30	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	0.70	<10	1.3	<10	-0.60	<10	0.60	<10
Silver	10	1	-0.40	<10	0.30	<10	0.0	<10	-0.30	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8700 Units: ug/l

Time:			23:51		00:42		01:34		02:20	
Sample ID:			CCB16		CCB17		CCB18		CCB19	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	-0.20	<10	-0.30	<10	0.10	<10	-0.20	<10
Barium	200	1	-0.60	<200	-1.5	<200	-2.1	<200	-2.0	<200
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	0.10	<5.0	-0.10	<5.0	0.0	<5.0	0.0	<5.0
Calcium	1000	50	anr							
Chromium	10	1	0.20	<10	0.20	<10	0.10	<10	0.0	<10
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	-0.50	<5.0	-0.90	<5.0	-0.30	<5.0	-0.10	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	1.5	<10	0.80	<10	1.7	<10	0.60	<10
Silver	10	1	-0.20	<10	0.10	<10	-0.30	<10	-0.30	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8700 Units: ug/l

Time:		09:47			10:27			11:37	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1970	98.5	2000	2030	101.5	2000	2040	102.0
Barium	2000	1990	99.5	2000	2070	103.5	2000	2060	103.0
Beryllium	anr								
Cadmium	2000	2020	101.0	2000	2050	102.5	2000	2050	102.5
Calcium	anr								
Chromium	2000	1990	99.5	2000	2070	103.5	2000	2180	109.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1980	99.0	2000	2030	101.5	2000	2040	102.0
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2000	100.0	2000	2020	101.0	2000	2040	102.0
Silver	250	246	98.4	250	250	100.0	250	263	105.2
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8700 Units: ug/l

Time:		12:27			13:17			14:07	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2040	102.0	2000	2050	102.5	2000	2070	103.5
Barium	2000	2080	104.0	2000	2100	105.0	2000	2100	105.0
Beryllium	anr								
Cadmium	2000	2050	102.5	2000	2050	102.5	2000	2080	104.0
Calcium	anr								
Chromium	2000	2090	104.5	2000	2100	105.0	2000	2110	105.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2030	101.5	2000	2040	102.0	2000	2070	103.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2050	102.5	2000	2060	103.0	2000	2080	104.0
Silver	250	253	101.2	250	253	101.2	250	253	101.2
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8700 Units: ug/l

Time:		14:56			15:44			17:03	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2060	103.0	2000	2040	102.0	2000	2080	104.0
Barium	2000	2110	105.5	2000	2110	105.5	2000	2050	102.5
Beryllium	anr								
Cadmium	2000	2070	103.5	2000	2050	102.5	2000	2110	105.5
Calcium	anr								
Chromium	2000	2080	104.0	2000	2110	105.5	2000	2010	100.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2070	103.5	2000	2070	103.5	2000	2070	103.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2060	103.0	2000	2030	101.5	2000	2080	104.0
Silver	250	249	99.6	250	254	101.6	250	244	97.6
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8700 Units: ug/l

Time:		17:53			18:43			19:33	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2020	101.0	2000	2060	103.0	2000	2060	103.0
Barium	2000	2030	101.5	2000	2020	101.0	2000	2010	100.5
Beryllium	anr								
Cadmium	2000	2060	103.0	2000	2090	104.5	2000	2100	105.0
Calcium	anr								
Chromium	2000	1990	99.5	2000	2010	100.5	2000	2010	100.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2010	100.5	2000	2040	102.0	2000	2010	100.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2030	101.5	2000	2060	103.0	2000	2070	103.5
Silver	250	243	97.2	250	245	98.0	250	244	97.6
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8700 Units: ug/l

Time:		20:23			21:14			22:04	
Sample ID:	CCV	CCV12		CCV	CCV13		CCV	CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2070	103.5	2000	2060	103.0	2000	2070	103.5
Barium	2000	2020	101.0	2000	2020	101.0	2000	2030	101.5
Beryllium	anr								
Cadmium	2000	2110	105.5	2000	2110	105.5	2000	2120	106.0
Calcium	anr								
Chromium	2000	2020	101.0	2000	2000	100.0	2000	1990	99.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2030	101.5	2000	2020	101.0	2000	2000	100.0
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2080	104.0	2000	2070	103.5	2000	2080	104.0
Silver	250	246	98.4	250	245	98.0	250	246	98.4
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8700 Units: ug/l

Time:		22:57			23:47			00:38	
Sample ID:	CCV	CCV15		CCV	CCV16		CCV	CCV17	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2090	104.5	2000	2100	105.0	2000	2100	105.0
Barium	2000	2010	100.5	2000	2010	100.5	2000	2000	100.0
Beryllium	anr								
Cadmium	2000	2130	106.5	2000	2120	106.0	2000	2100	105.0
Calcium	anr								
Chromium	2000	1970	98.5	2000	1950	97.5	2000	1900	95.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2000	100.0	2000	1980	99.0	2000	1930	96.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2120	106.0	2000	2120	106.0	2000	2140	107.0
Silver	250	248	99.2	250	245	98.0	250	242	96.8
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8700 Units: ug/l

Time:		01:30			02:16	
Sample ID:	CCV	CCV18		CCV	CCV19	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	anr					
Antimony	anr					
Arsenic	2000	2120	106.0	2000	2110	105.5
Barium	2000	1940	97.0	2000	2000	100.0
Beryllium	anr					
Cadmium	2000	2130	106.5	2000	2130	106.5
Calcium	anr					
Chromium	2000	1920	96.0	2000	1870	93.5
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	2000	1930	96.5	2000	1900	95.0
Magnesium	anr					
Manganese	anr					
Molybdenum						
Nickel	anr					
Potassium	anr					
Selenium	2000	2170	108.5	2000	2170	108.5
Silver	250	249	99.6	250	244	97.6
Sodium	anr					
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium	anr					
Zinc	anr					

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA8700 Units: ug/l

Time:		09:44	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	4000	3950	98.8
Barium	4000	3940	98.5
Beryllium	anr		
Cadmium	4000	3910	97.8
Calcium	anr		
Chromium	4000	3890	97.3
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	4000	3930	98.3
Magnesium	anr		
Manganese	anr		
Molybdenum			
Nickel	anr		
Potassium	anr		
Selenium	4000	3950	98.8
Silver	500	494	98.8
Sodium	anr		
Strontium			
Thallium	anr		
Tin			
Titanium			
Vanadium	anr		
Zinc	anr		

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA8700 Units: ug/l

Time:			10:00		02:03	
Sample ID:	CRI	CRIA	CRIA1		CRIA2	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	400	200	anr			
Antimony	10	5.0	anr			
Arsenic	20	10	9.4	94.0	10.4	104.0
Barium	400	200	203	101.5	192	96.0
Beryllium	10	5.0	anr			
Cadmium	10	5.0	5.1	102.0	5.1	102.0
Calcium	2000	1000	anr			
Chromium	20	10	10.4	104.0	9.3	93.0
Cobalt	100	50	anr			
Copper	50	25	anr			
Iron	600	300	anr			
Lead	10	5.0	4.7	94.0	4.1	82.0
Magnesium	10000	5000	anr			
Manganese	30	15	anr			
Molybdenum	100	50				
Nickel	80	40	anr			
Potassium	20000	10000	anr			
Selenium	20	10	10.3	103.0	10.3	103.0
Silver	20	10	9.0	90.0	7.8	78.0
Sodium	20000	10000	anr			
Strontium	20	10				
Thallium	20	10	anr			
Tin	100	50				
Titanium	20	10				
Vanadium	100	50	anr			
Zinc	40	20	anr			

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA8700 Units: ug/l

Time: / Sample ID: / Metal	ICSA True	ICSAB True	10:12 ICSA1 Results	% Rec	10:21 ICSAB1 Results	% Rec	02:07 ICSA2 Results	% Rec	02:12 ICSAB2 Results	% Rec
Aluminum	500000	500000	473000	94.6	483000	96.6	473000	94.6	476000	95.2
Antimony		1000	0.0		979	97.9	2.0		1030	103.0
Arsenic		1000	-1.4		989	98.9	-1.4		1020	102.0
Barium		500	4.5		516	103.2	0.70		477	95.4
Beryllium		500	0.0		489	97.8	-0.20		445	89.0
Cadmium		1000	0.0		926	92.6	1.6		944	94.4
Calcium	500000	500000	460000	92.0	459000	91.8	426000	85.2	418000	83.6
Chromium		500	0.10		468	93.6	0.20		418	83.6
Cobalt		500	-0.10		456	91.2	0.10		489	97.8
Copper		500	0.0		497	99.4	-1.6		422	84.4
Iron	200000	200000	183000	91.5	185000	92.5	163000	81.5	163000	81.5
Lead		1000	0.0		981	98.1	5.7		905	90.5
Magnesium	500000	500000	487000	97.4	490000	98.0	502000	100.4	488000	97.6
Manganese		500	0.60		479	95.8	0.20		414	82.8
Molybdenum		1000	0.90		950	95.0	-1.0		1020	102.0
Nickel		1000	0.0		967	96.7	1.5		893	89.3
Potassium			7.1		18.7		18.3		-14	
Selenium		1000	-0.10		967	96.7	-7.9		1010	101.0
Silver		1000	0.30		1070	107.0	0.20		1040	104.0
Sodium			-2800		-2600		40.6		-410	
Strontium		1000	0.20		0.10	0.0*	0.10		0.20	0.0*
Thallium		1000	0.0		952	95.2	-1.1		879	87.9
Tin		1000	1.7		874	87.4	2.2		852	85.2
Titanium		1000	-3.2		-1.6	0.0*	-3.0		-2.1	0.0*
Vanadium		500	0.0		485	97.0	0.50		418	83.6
Zinc		1000	-1.8		882	88.2	-1.6		854	85.4

(*) Outside of QC limits
(anr) Analyte not requested

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8704
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:28	MA8704-STD1	1		STDA
09:32	MA8704-STD2	1		STDB
09:35	MA8704-STD3	1		STDC
09:39	MA8704-HSTD1	1		
10:02	MA8704-ICV1	1		
10:12	MA8704-ICB1	1		
10:16	MA8704-CRIA1	1		
10:21	MA8704-CRIA2	1		
10:41	MA8704-ICSA1	1		
10:49	MA8704-ICSAB1	1		
10:55	MA8704-CCV1	1		
11:01	MA8704-CCB1	1		
11:19	MA8704-CCV2	1		
11:27	MA8704-CCB2	1		
11:33	MP19940-MB1	1		
11:37	MP19940-B1	1		
11:41	F79751-1	1		(sample used for QC only; not part of login F79701)
11:45	MP19940-D1	1		
11:49	MP19940-SD1	5		
11:53	MP19940-PS1	1		
11:57	MP19940-S1	1		
12:01	MP19940-S2	1		
12:05	ZZZZZZ	1		
12:09	ZZZZZZ	1		
12:13	MA8704-CCV3	1		
12:17	MA8704-CCB3	1		
12:21	ZZZZZZ	1		
12:26	ZZZZZZ	1		
12:30	ZZZZZZ	1		
12:34	ZZZZZZ	1		
12:38	ZZZZZZ	1		
12:42	ZZZZZZ	1		
12:46	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8704
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:50	ZZZZZZ	1		
12:55	ZZZZZZ	1		
12:59	ZZZZZZ	1		
13:03	MA8704-CCV4	1		
13:07	MA8704-CCB4	1		
13:11	ZZZZZZ	1		
13:15	ZZZZZZ	1		
13:20	ZZZZZZ	1		
13:24	ZZZZZZ	1		
13:28	ZZZZZZ	1		
13:32	ZZZZZZ	1		
13:37	MP19941-MB1	1		
13:41	MP19941-B1	1		
13:45	F79806-1	1		(sample used for QC only; not part of login F79701)
13:49	MP19941-D1	1		
13:53	MA8704-CCV5	1		
13:57	MA8704-CCB5	1		
14:01	MP19941-SD1	1		
14:06	MP19941-S1	1		
14:10	MP19941-S2	1		
14:13	MP19941-MB2	1		
14:18	MP19941-B2	1		
14:22	MA8704-CCV6	1		
14:25	MA8704-CCB6	1		
14:42	MA8704-CCV7	1		
14:48	MA8704-CCB7	1		
14:52	MP19946-MB1	1		
14:57	MP19946-B1	1		
15:00	C14427-1T	1		(sample used for QC only; not part of login F79701)
15:05	MP19946-D1	1		
15:09	MP19946-SD1	5		
15:13	MP19946-S1	1		
15:17	MP19946-S2	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8704
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:21	F79813-1	1		(sample used for QC only; not part of login F79701)
15:25	ZZZZZZ	1		
15:29	ZZZZZZ	1		
15:34	MA8704-CCV8	1		
15:37	MA8704-CCB8	1		
15:42	MP19946-D2	1		
15:46	MP19946-MB2	1		
15:50	MP19946-B2	1		
15:54	MP19947-MB1	1		
15:58	MP19947-B1	1		
16:02	F79729-1	1		(sample used for QC only; not part of login F79701)
16:06	MP19947-D1	1		
16:11	MP19947-SD1	5		
16:15	MP19947-S1	1		
16:19	MP19947-S2	1		
16:23	MA8704-CCV9	1		
16:27	MA8704-CCB9	1		
16:31	ZZZZZZ	1		
16:35	ZZZZZZ	1		
16:39	ZZZZZZ	1		
16:44	ZZZZZZ	1		
16:48	ZZZZZZ	1		
16:52	MP19947-MB2	1		
16:56	MP19947-B2	1		
17:13	MA8704-CCV10	1		
17:17	MA8704-CCB10	1		
17:58	F79701-6F	10		
18:03	MA8704-CCV11	1		
18:07	MA8704-CCB11	1		
18:11	MP19934-D1	10		
18:15	MP19934-S1	10		
18:19	MP19934-S2	10		
18:24	MP19934-PS1	10		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8704
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:28	MP19934-SD1	50		
18:32	F79701-6F	5		
18:37	MP19934-D1	5		
18:41	MP19934-S1	5		
18:45	MP19934-S2	5		
18:50	MP19934-PS1	5		
18:54	MA8704-CCV12	1		
18:58	MA8704-CCB12	1		
19:02	MP19934-SD1	25		
19:06	ZZZZZZ	5		
19:10	F79701-6	5		
19:15	MP19938-D1	5		
19:19	MP19938-S1	5		
19:24	MP19938-S2	5		
19:28	MP19938-PS1	5		
19:32	MP19938-SD1	25		
19:37	F79701-1	5		
19:41	F79701-2	5		
19:45	MA8704-CCV13	1		
19:49	MA8704-CCB13	1		
19:54	F79701-3	5		
19:58	F79701-4	2		
20:02	F79701-5	5		
20:07	F79701-5	1		
20:11	F79701-7	2		
20:16	F79701-9	2		
20:20	F79701-8	100		
20:24	MP19939-D1	100		
20:29	MP19939-S1	100		
20:33	MP19939-S2	100		
20:37	MA8704-CCV14	1		
20:41	MA8704-CCB14	1		
20:45	MP19939-PS1	100		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8704
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:49	MP19939-SD1	500		
20:53	F79701-8	2		
20:58	MP19939-D1	2		
21:02	MP19939-S1	2		
21:07	MP19939-S2	2		
21:11	MP19939-PS1	2		
21:15	MP19939-SD1	10		
21:19	F79701-1F	5		
21:24	F79701-2F	5		
21:28	MA8704-CCV15	1		
21:32	MA8704-CCB15	1		
21:36	F79701-3F	5		
21:41	F79701-4F	2		
21:45	F79701-5F	5		
21:50	F79701-7F	2		
21:54	F79701-9F	2		
21:59	ZZZZZZ	1		
22:03	ZZZZZZ	1		
22:07	ZZZZZZ	1		
22:11	ZZZZZZ	1		
22:15	ZZZZZZ	1		
22:20	MA8704-CCV16	1		
22:23	MA8704-CCB16	1		
22:28	ZZZZZZ	1		
22:32	ZZZZZZ	1		
22:36	ZZZZZZ	1		
22:40	MP19939-MB2A	1		
22:45	MP19948-MB1	1		
22:49	MP19948-B1	1		
22:53	F79773-16	1		(sample used for QC only; not part of login F79701)
22:57	MP19948-D1	1		
23:01	MP19948-SD1	5		
23:05	MP19948-PS1	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8704
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
23:09	MA8704-CCV17	1		
23:13	MA8704-CCB17	1		
23:18	MP19948-S1	1		
23:21	MP19948-S2	1		
23:25	ZZZZZZ	1		
23:30	ZZZZZZ	1		
23:34	ZZZZZZ	1		
23:38	ZZZZZZ	1		
23:42	ZZZZZZ	1		
23:46	ZZZZZZ	1		
23:51	ZZZZZZ	1		
23:55	ZZZZZZ	1		
23:59	MA8704-CCV18	1		
00:03	MA8704-CCB18	1		
00:07	ZZZZZZ	1		
00:11	ZZZZZZ	1		
00:16	ZZZZZZ	1		
00:20	ZZZZZZ	1		
00:24	ZZZZZZ	1		
00:28	ZZZZZZ	1		
00:33	ZZZZZZ	1		
00:37	ZZZZZZ	1		
00:41	ZZZZZZ	1		
00:45	ZZZZZZ	1		
00:49	MA8704-CCV19	1		
00:53	MA8704-CCB19	1		
00:58	ZZZZZZ	1		
01:02	MP19948-MB2A	1		
01:06	MP19949-MB1	1		
01:10	MP19949-B1	1		
01:14	F79701-8F	1		
01:19	MP19949-D1	1		
01:23	MP19949-SD1	5		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8704
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	01:28	MP19949-PS1	1		
	01:32	MP19949-S1	1		
	01:36	MP19949-S2	1		
	01:40	MA8704-CCV20	1		
	01:44	MA8704-CCB20	1		
	01:49	ZZZZZZ	1		
	01:53	ZZZZZZ	1		
	01:57	ZZZZZZ	1		
	02:01	ZZZZZZ	1		
	02:10	ZZZZZZ	1		
	02:14	ZZZZZZ	1		
	02:18	MP19949-MB2A	1		
	02:22	MP19949-MB3A	1		
---------->	Last reportable sample/prep for job F79701				
	02:26	MA8704-CRIA3	1		
	02:31	MA8704-CCV21	1		
	02:35	MA8704-CCB21	1		
	02:39	MA8704-ICSA2	1		
	02:43	MA8704-ICSAB2	1		
	03:08	MA8704-CCV22	1		
	03:12	MA8704-CCB22	1		
---------->	Last reportable CCB for job F79701				

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8704
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
09:28	MA8704-STD1	2790	31688	7297	1480
09:32	MA8704-STD2	2647	29506	7201	1220
09:35	MA8704-STD3	2567	28639	7105	1136
09:39	MA8704-HSTD1	2551	28432	7163	1136
10:02	MA8704-ICV1	2638	29085	7244	1209
10:12	MA8704-ICB1	2774 R	31097 R	7383 R	1462 R
10:16	MA8704-CRIA1	2735	30154	7730	1379
10:21	MA8704-CRIA2	2726	30046	7320	999999 !
10:41	MA8704-ICSA1	2433	25344	7068	1016
10:49	MA8704-ICSAB1	2429	25409	7060	1007
10:55	MA8704-CCV1	2651	27868	7081	1201
11:01	MA8704-CCB1	2812	30387	7406	1467
11:19	MA8704-CCV2	2655	28460	7339	1206
11:27	MA8704-CCB2	2803	30382	7453	1466
11:33	MP19940-MB1	2701	29922	7398	1393
11:37	MP19940-B1	2690	28529	7223	1249
11:41	F79751-1	3261	35050	8538	1366
11:45	MP19940-D1	2892	32384	7607	1382
11:49	MP19940-SD1	2885	32458	7789	1428
11:53	MP19940-PS1	3140	34339	8447	1310
11:57	MP19940-S1	2777	29996	7486	1240
12:01	MP19940-S2	2755	29516	7444	1249
12:05	ZZZZZZ	2766	29433	7316	1267
12:09	ZZZZZZ	2859	30785	7700	1294
12:13	MA8704-CCV3	2770	29155	7384	1250
12:17	MA8704-CCB3	2803	31220	7632	1478
12:21	ZZZZZZ	2777	30713	7399	1378
12:26	ZZZZZZ	2771	30146	7460	1285
12:30	ZZZZZZ	3165	34192	8457	1303
12:34	ZZZZZZ	2752	30147	7362	1361
12:38	ZZZZZZ	2246	26362	7736	817 !
12:42	ZZZZZZ	2171	25678	8026	861 !
12:46	ZZZZZZ	2169	26193	8085	851 !

INTERNAL STANDARD SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8704
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
12:50	ZZZZZZ	2030	24339	7676	857 !
12:55	ZZZZZZ	2277	27046	8907	850 !
12:59	ZZZZZZ	2185	25888	8236	875 !
13:03	MA8704-CCV4	2599	30647	8316	1229
13:07	MA8704-CCB4	2767	32218	8423	1509
13:11	ZZZZZZ	2578	29479	9133	928
13:15	ZZZZZZ	2508	29151	9420 !	844 !
13:20	ZZZZZZ	2336	27628	8823	839 !
13:24	ZZZZZZ	2223	27266	8602	860 !
13:28	ZZZZZZ	2149	26142	8333	851 !
13:32	ZZZZZZ	2178	26745	8308	885
13:37	MP19941-MB1	2695	32866	8533	1452
13:41	MP19941-B1	2616	31353	8302	1294
13:45	F79806-1	2605	32203	8627	1410
13:49	MP19941-D1	2601	31536	8504	1403
13:53	MA8704-CCV5	2609	30415	8246	1238
13:57	MA8704-CCB5	2690	32961	8473	1481
14:01	MP19941-SD1	2650	32913	8462	1464
14:06	MP19941-S1	2488	30586	8261	1246
14:10	MP19941-S2	2555	30690	8253	1264
14:13	MP19941-MB2	2447	29777	7912	1240
14:18	MP19941-B2	2458	29898	8284	1178
14:22	MA8704-CCV6	2483	30251	8265	1203
14:25	MA8704-CCB6	2578	32938	8332	1441
14:42	MA8704-CCV7	2510	30501	8294	1212
14:48	MA8704-CCB7	2642	32805	8343	1473
14:52	MP19946-MB1	2606	32795	8319	1434
14:57	MP19946-B1	2490	30823	8268	1259
15:00	C14427-1T	2380	29193	8310	1213
15:05	MP19946-D1	2421	29748	8173	1223
15:09	MP19946-SD1	2583	31481	8626	1366
15:13	MP19946-S1	2435	29604	8218	1168
15:17	MP19946-S2	2401	29890	8143	1166

INTERNAL STANDARD SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8704
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
15:21	F79813-1	2479	28300	8555	1282
15:25	ZZZZZZ	2445	30036	8281	1250
15:29	ZZZZZZ	2495	30418	8309	1287
15:34	MA8704-CCV8	2497	31068	8378	1213
15:37	MA8704-CCB8	2585	33229	8522	1460
15:42	MP19946-D2	2442	30294	8222	1254
15:46	MP19946-MB2	2424	29619	8748	1230
15:50	MP19946-B2	2447	30105	8288	1189
15:54	MP19947-MB1	2599	32888	8431	1446
15:58	MP19947-B1	2521	31091	8402	1273
16:02	F79729-1	2585	33809	8290	1417
16:06	MP19947-D1	2576	32183	8733	1403
16:11	MP19947-SD1	2613	33653	8402	1451
16:15	MP19947-S1	2509	31277	8439	1264
16:19	MP19947-S2	2508	31317	8474	1265
16:23	MA8704-CCV9	2482	30848	8320	1200
16:27	MA8704-CCB9	2619	32645	8405	1466
16:31	ZZZZZZ	2570	32478	8475	1423
16:35	ZZZZZZ	2553	32354	8474	1415
16:39	ZZZZZZ	2581	32751	8428	1427
16:44	ZZZZZZ	2613	999999 !	8440	1428
16:48	ZZZZZZ	2601	32906	8460	1430
16:52	MP19947-MB2	2438	29521	8375	1246
16:56	MP19947-B2	2400	29749	7796	1170
17:13	MA8704-CCV10	2477	30674	8247	1211
17:17	MA8704-CCB10	2669	32781	8060	1496
17:58	F79701-6F	2108	24199	7898	991
18:03	MA8704-CCV11	2498	30679	8197	1215
18:07	MA8704-CCB11	2636	32983	8422	1474
18:11	MP19934-D1	2124	25474	7833	999
18:15	MP19934-S1	2075	25609	7762	970
18:19	MP19934-S2	2117	25215	8307	992
18:24	MP19934-PS1	2087	25552	7777	977

INTERNAL STANDARD SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8704
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
18:28	MP19934-SD1	2355	29275	8240	1171
18:32	F79701-6F	1909	23319	7506	873 !
18:37	MP19934-D1	1872	23117	7580	865 !
18:41	MP19934-S1	1934	23152	7476	878
18:45	MP19934-S2	1960	23947	7574	885
18:50	MP19934-PS1	1917	23828	7720	874 !
18:54	MA8704-CCV12	2497	29175	8302	1222
18:58	MA8704-CCB12	2622	33469	8490	1474
19:02	MP19934-SD1	2309	26819	8117	1119
19:06	ZZZZZZ	3064	38391	10232 !	1298
19:10	F79701-6	1932	23445	7485	884
19:15	MP19938-D1	1965	23595	7596	905
19:19	MP19938-S1	1938	23345	7463	878
19:24	MP19938-S2	1942	23846	7525	873 !
19:28	MP19938-PS1	1946	23800	7482	881
19:32	MP19938-SD1	2294	27699	7876	1109
19:37	F79701-1	1677	20616	7153	739 !
19:41	F79701-2	1654 !	20333	7024	726 !
19:45	MA8704-CCV13	2471	30553	8056	1205
19:49	MA8704-CCB13	2635	32969	8324	1474
19:54	F79701-3	1667	20216	6969	720 !
19:58	F79701-4	2003	24532	8067	930
20:02	F79701-5	1819	21753	7362	817 !
20:07	F79701-5	1221 !	15336 !	5884	506 !
20:11	F79701-7	2003	24594	7454	936
20:16	F79701-9	1890	21995	7365	868 !
20:20	F79701-8	2548	31630	8228	1352
20:24	MP19939-D1	2515	31113	8263	1331
20:29	MP19939-S1	2247	29800	8142	1196
20:33	MP19939-S2	2546	32028	8436	1346
20:37	MA8704-CCV14	2498	30150	8198	1208
20:41	MA8704-CCB14	2600	32634	8468	1447
20:45	MP19939-PS1	2609	31655	8332	1365

INTERNAL STANDARD SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8704
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
20:49	MP19939-SD1	2614	32537	8672	1413
20:53	F79701-8	1987	24097	7604	916
20:58	MP19939-D1	1974	24065	7601	913
21:02	MP19939-S1	2002	24504	7539	914
21:07	MP19939-S2	1989	24537	7589	906
21:11	MP19939-PS1	1965	24191	7598	907
21:15	MP19939-SD1	2302	28146	8143	1132
21:19	F79701-1F	1693	20372	7037	740 !
21:24	F79701-2F	1691	20158	7055	736 !
21:28	MA8704-CCV15	2522	29266	8328	1208
21:32	MA8704-CCB15	2673	32890	8233	1478
21:36	F79701-3F	1646 !	19686	6885	710 !
21:41	F79701-4F	2035	24269	7646	935
21:45	F79701-5F	1903	21509	7895	839 !
21:50	F79701-7F	2061	24555	7680	943
21:54	F79701-9F	1927	22809	7321	869 !
21:59	ZZZZZZ	2455	30568	8374	1267
22:03	ZZZZZZ	2536	30671	8484	1232
22:07	ZZZZZZ	2377	29949	8332	1227
22:11	ZZZZZZ	2440	30544	8318	1255
22:15	ZZZZZZ	2349	30824	8237	1216
22:20	MA8704-CCV16	2512	31039	8386	1222
22:23	MA8704-CCB16	2631	33256	8525	1467
22:28	ZZZZZZ	2418	29750	8345	1241
22:32	ZZZZZZ	2415	29317	8252	1241
22:36	ZZZZZZ	2412	30436	8352	1240
22:40	MP19939-MB2A	2591	33021	8359	1441
22:45	MP19948-MB1	2580	32504	8473	1429
22:49	MP19948-B1	2518	31278	8388	1263
22:53	F79773-16	2603	32525	7950	1360
22:57	MP19948-D1	2580	32091	8413	1347
23:01	MP19948-SD1	2623	32856	8452	1433
23:05	MP19948-PS1	2509	31405	8210	1301

INTERNAL STANDARD SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8704
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
23:09	MA8704-CCV17	2462	30887	8100	1208
23:13	MA8704-CCB17	2625	33466	8421	1488
23:18	MP19948-S1	2456	30795	8276	1228
23:21	MP19948-S2	2461	31012	8286	1232
23:25	ZZZZZZ	2454	29981	8253	1283
23:30	ZZZZZZ	2484	31398	8336	1298
23:34	ZZZZZZ	2393	29606	8069	1216
23:38	ZZZZZZ	2416	30011	8239	1231
23:42	ZZZZZZ	2624	33327	8695	1463
23:46	ZZZZZZ	2593	33317	8366	1438
23:51	ZZZZZZ	2499	31244	8474	1294
23:55	ZZZZZZ	2500	32537	8343	1294
23:59	MA8704-CCV18	2484	30997	8311	1206
00:03	MA8704-CCB18	2662	33232	8466	1487
00:07	ZZZZZZ	2677	33219	8489	1489
00:11	ZZZZZZ	2585	32090	8380	1446
00:16	ZZZZZZ	2604	33002	8403	1465
00:20	ZZZZZZ	2569	33028	8813	1446
00:24	ZZZZZZ	2415	999999 !	8133	1267
00:28	ZZZZZZ	2388	29975	8344	1221
00:33	ZZZZZZ	2343	29490	8246	1158
00:37	ZZZZZZ	2387	30298	8279	1215
00:41	ZZZZZZ	2629	33699	8499	1478
00:45	ZZZZZZ	2483	31669	8944	1327
00:49	MA8704-CCV19	2463	31010	8208	1204
00:53	MA8704-CCB19	2604	33399	8421	1480
00:58	ZZZZZZ	2501	34054	8432	1412
01:02	MP19948-MB2A	2561	33123	8387	1440
01:06	MP19949-MB1	2614	33497	8460	1467
01:10	MP19949-B1	2473	31409	8331	1255
01:14	F79701-8F	1798	22823	7034	811 !
01:19	MP19949-D1	1773	22358	7194	806 !
01:23	MP19949-SD1	2154	28076	8121	1051

INTERNAL STANDARD SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8704
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
01:28	MP19949-PS1	1721	22390	7283	785 !
01:32	MP19949-S1	1778	22925	7296	798 !
01:36	MP19949-S2	1783	22299	7284	798 !
01:40	MA8704-CCV20	2415	31271	8580	1204
01:44	MA8704-CCB20	2583	33834	8520	1482
01:49	ZZZZZZ	2400	32452	8330	1298
01:53	ZZZZZZ	2406	31031	8109	1262
01:57	ZZZZZZ	2403	31036	8206	1266
02:01	ZZZZZZ	2384	31110	8479	1250
02:10	ZZZZZZ	2377	30859	8582	1250
02:14	ZZZZZZ	2406	31157	8352	1255
02:18	MP19949-MB2A	2536	33829	8494	1425
02:22	MP19949-MB3A	2559	33279	8593	1440
02:26	MA8704-CRIA3	2527	32205	8458	1372
02:31	MA8704-CCV21	2472	30694	8435	1211
02:35	MA8704-CCB21	2593	33273	8477	1472
02:39	MA8704-ICSA2	2247	27281	7977	1012
02:43	MA8704-ICSAB2	2261	27524	8158	1006
03:08	MA8704-CCV22	2416	30767	8232	1202
03:12	MA8704-CCB22	2546	33577	8571	1463

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	60-125 %
Istd#2	Yttrium (3600)	60-125 %
Istd#3	Yttrium (3710)	60-125 %
Istd#4	Indium	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8704 Units: ug/l

Time:			10:12		11:01		11:27		12:17	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	-0.80	<10	0.30	<10	-0.10	<10	-0.10	<10
Barium	200	1	1.3	<200	2.3	<200	0.60	<200	-1.8	<200
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	0.0	<5.0	0.20	<5.0	0.10	<5.0	0.0	<5.0
Calcium	1000	50	anr							
Chromium	10	1	-0.50	<10	-0.10	<10	-0.10	<10	0.0	<10
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	0.20	<5.0	0.30	<5.0	0.20	<5.0	0.70	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1	anr							
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	-0.10	<10	-0.90	<10	1.1	<10	-2.2	<10
Silver	10	1	-0.10	<10	0.10	<10	0.40	<10	-0.10	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8704 Units: ug/l

Time:			13:07		13:57		14:25		14:48	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	-0.30	<10	-0.60	<10	0.40	<10	0.0	<10
Barium	200	1	-1.9	<200	-5.4	<200	-2.8	<200	0.80	<200
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	0.20	<5.0	0.30	<5.0	0.30	<5.0	0.0	<5.0
Calcium	1000	50	anr							
Chromium	10	1	0.10	<10	0.30	<10	0.20	<10	0.0	<10
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	0.10	<5.0	0.40	<5.0	0.70	<5.0	-0.80	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1	anr							
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	-0.20	<10	1.0	<10	0.30	<10	-0.80	<10
Silver	10	1	-0.50	<10	0.0	<10	-0.80	<10	-0.20	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8704 Units: ug/l

Time:			15:37		16:27		17:17		18:07	
Sample ID:			CCB8		CCB9		CCB10		CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	-0.60	<10	0.50	<10	-0.60	<10	0.10	<10
Barium	200	1	1.8	<200	1.5	<200	2.8	<200	0.50	<200
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	0.10	<5.0	0.30	<5.0	0.10	<5.0	0.0	<5.0
Calcium	1000	50	anr							
Chromium	10	1	0.20	<10	0.40	<10	0.30	<10	0.40	<10
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	0.20	<5.0	0.20	<5.0	-0.10	<5.0	0.10	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1	anr							
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	-0.20	<10	1.7	<10	-2.7	<10	-1.5	<10
Silver	10	1	-0.40	<10	-0.10	<10	-0.40	<10	-0.10	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8704 Units: ug/l

Time:			18:58		19:49		20:41		21:32	
Sample ID:			CCB12		CCB13		CCB14		CCB15	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	-0.80	<10	-0.30	<10	-0.60	<10	-0.80	<10
Barium	200	1	2.4	<200	1.7	<200	1.0	<200	1.8	<200
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	0.20	<5.0	-0.10	<5.0	0.0	<5.0	0.10	<5.0
Calcium	1000	50	anr							
Chromium	10	1	0.30	<10	0.10	<10	0.30	<10	0.60	<10
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	0.0	<5.0	-0.40	<5.0	0.20	<5.0	-0.60	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1	anr							
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	0.40	<10	-0.20	<10	-1.6	<10	-1.5	<10
Silver	10	1	-0.30	<10	0.10	<10	-0.20	<10	-0.20	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8704 Units: ug/l

Time:			22:23		23:13		00:03		00:53	
Sample ID:			CCB16		CCB17		CCB18		CCB19	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	-0.60	<10	-0.20	<10	-0.40	<10	-0.90	<10
Barium	200	1	0.30	<200	0.90	<200	-0.80	<200	0.30	<200
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	0.20	<5.0	0.20	<5.0	0.0	<5.0	0.0	<5.0
Calcium	1000	50	anr							
Chromium	10	1	0.10	<10	0.40	<10	-0.10	<10	0.0	<10
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	-0.60	<5.0	0.60	<5.0	-0.30	<5.0	-0.50	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1	anr							
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	-0.90	<10	-1.8	<10	-1.2	<10	-1.2	<10
Silver	10	1	-0.30	<10	-0.30	<10	-0.20	<10	-0.20	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8704 Units: ug/l

Time:			01:44		02:35		03:12	
Sample ID:			CCB20		CCB21		CCB22	
Metal	RL	IDL	raw	final	raw	final	raw	final
Aluminum	200	20	anr					
Antimony	6.0	1	anr					
Arsenic	10	1	-0.60	<10	-0.70	<10	-2.3	<10
Barium	200	1	-0.70	<200	0.10	<200	-0.60	<200
Beryllium	4.0	.1	anr					
Cadmium	5.0	.1	0.0	<5.0	0.0	<5.0	0.10	<5.0
Calcium	1000	50	anr					
Chromium	10	1	0.20	<10	0.10	<10	0.50	<10
Cobalt	50	1	anr					
Copper	25	1	anr					
Iron	300	34	anr					
Lead	5.0	1	-0.10	<5.0	-0.30	<5.0	0.20	<5.0
Magnesium	5000	50	anr					
Manganese	15	1	anr					
Molybdenum	50	1	anr					
Nickel	40	1	anr					
Potassium	10000	50	anr					
Selenium	10	2	0.20	<10	-2.4	<10	-0.80	<10
Silver	10	1	-0.10	<10	-0.30	<10	-0.40	<10
Sodium	10000	750	anr					
Strontium	10	1						
Thallium	10	1	anr					
Tin	50	1						
Titanium	10	1.1						
Vanadium	50	1	anr					
Zinc	20	1	anr					

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8704 Units: ug/l

Time:		10:02			10:55			11:19	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2030	101.5	2000	1990	99.5	2000	1990	99.5
Barium	2000	2070	103.5	2000	2120	106.0	2000	2050	102.5
Beryllium	anr								
Cadmium	2000	2080	104.0	2000	2000	100.0	2000	2020	101.0
Calcium	anr								
Chromium	2000	2070	103.5	2000	2110	105.5	2000	2020	101.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2050	102.5	2000	2010	100.5	2000	1980	99.0
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	2000	2070	103.5	2000	2000	100.0	2000	2000	100.0
Silver	250	251	100.4	250	251	100.4	250	248	99.2
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8704 Units: ug/l

Time:		12:13			13:03			13:53	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1920	96.0	2000	2040	102.0	2000	1980	99.0
Barium	2000	2030	101.5	2000	2090	104.5	2000	2080	104.0
Beryllium	anr								
Cadmium	2000	1960	98.0	2000	1990	99.5	2000	1940	97.0
Calcium	anr								
Chromium	2000	2000	100.0	2000	1890	94.5	2000	1870	93.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1940	97.0	2000	1870	93.5	2000	1830	91.5
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	2000	1920	96.0	2000	2070	103.5	2000	2010	100.5
Silver	250	249	99.6	250	245	98.0	250	244	97.6
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8704 Units: ug/l

Time:		14:22			14:42			15:34	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2070	103.5	2000	2010	100.5	2000	2010	100.5
Barium	2000	2080	104.0	2000	2040	102.0	2000	1970	98.5
Beryllium	anr								
Cadmium	2000	2010	100.5	2000	2050	102.5	2000	2060	103.0
Calcium	anr								
Chromium	2000	1850	92.5	2000	2030	101.5	2000	1980	99.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1840	92.0	2000	2020	101.0	2000	2010	100.5
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	2000	2130	106.5	2000	2020	101.0	2000	2020	101.0
Silver	250	244	97.6	250	246	98.4	250	244	97.6
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8704 Units: ug/l

Time:		16:23			17:13			18:03	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2030	101.5	2000	2020	101.0	2000	2010	100.5
Barium	2000	1990	99.5	2000	2020	101.0	2000	2000	100.0
Beryllium	anr								
Cadmium	2000	2090	104.5	2000	2060	103.0	2000	2060	103.0
Calcium	anr								
Chromium	2000	1990	99.5	2000	1990	99.5	2000	2000	100.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2040	102.0	2000	1990	99.5	2000	2000	100.0
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	2000	2040	102.0	2000	2030	101.5	2000	2010	100.5
Silver	250	245	98.0	250	246	98.4	250	243	97.2
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8704 Units: ug/l

Time:		18:54			19:45			20:37	
Sample ID:	CCV	CCV12		CCV	CCV13		CCV	CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2000	100.0	2000	2050	102.5	2000	2030	101.5
Barium	2000	2010	100.5	2000	2060	103.0	2000	2020	101.0
Beryllium	anr								
Cadmium	2000	2040	102.0	2000	2090	104.5	2000	2070	103.5
Calcium	anr								
Chromium	2000	2120	106.0	2000	2030	101.5	2000	2050	102.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1970	98.5	2000	2020	101.0	2000	2020	101.0
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	2000	2020	101.0	2000	2060	103.0	2000	2040	102.0
Silver	250	263	105.2	250	248	99.2	250	251	100.4
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8704 Units: ug/l

Time:		21:28			22:20			23:09	
Sample ID:	CCV	CCV15		CCV	CCV16		CCV	CCV17	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2020	101.0	2000	2020	101.0	2000	2060	103.0
Barium	2000	1970	98.5	2000	1980	99.0	2000	2020	101.0
Beryllium	anr								
Cadmium	2000	2070	103.5	2000	2060	103.0	2000	2110	105.5
Calcium	anr								
Chromium	2000	2120	106.0	2000	1970	98.5	2000	2000	100.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2040	102.0	2000	2000	100.0	2000	2030	101.5
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	2000	2020	101.0	2000	2030	101.5	2000	2070	103.5
Silver	250	261	104.4	250	245	98.0	250	250	100.0
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8704 Units: ug/l

Time:		23:59			00:49			01:40	
Sample ID:	CCV	CCV18		CCV	CCV19		CCV	CCV20	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2050	102.5	2000	2060	103.0	2000	2090	104.5
Barium	2000	2000	100.0	2000	2010	100.5	2000	1910	95.5
Beryllium	anr								
Cadmium	2000	2100	105.0	2000	2110	105.5	2000	2130	106.5
Calcium	anr								
Chromium	2000	1990	99.5	2000	1990	99.5	2000	1980	99.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2050	102.5	2000	2040	102.0	2000	2020	101.0
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	2000	2070	103.5	2000	2080	104.0	2000	2120	106.0
Silver	250	249	99.6	250	250	100.0	250	248	99.2
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8704 Units: ug/l

Time:		02:31			03:08	
Sample ID:	CCV	CCV21		CCV	CCV22	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	anr					
Antimony	anr					
Arsenic	2000	2040	102.0	2000	2060	103.0
Barium	2000	1970	98.5	2000	2000	100.0
Beryllium	anr					
Cadmium	2000	2080	104.0	2000	2100	105.0
Calcium	anr					
Chromium	2000	1990	99.5	2000	1980	99.0
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	2000	2010	100.5	2000	2000	100.0
Magnesium	anr					
Manganese	anr					
Molybdenum	anr					
Nickel	anr					
Potassium	anr					
Selenium	2000	2070	103.5	2000	2090	104.5
Silver	250	252	100.8	250	252	100.8
Sodium	anr					
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium	anr					
Zinc	anr					

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA8704 Units: ug/l

Time:		09:39	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	4000	4040	101.0
Barium	4000	4000	100.0
Beryllium	anr		
Cadmium	4000	4000	100.0
Calcium	anr		
Chromium	4000	4030	100.8
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	4000	4010	100.3
Magnesium	anr		
Manganese	anr		
Molybdenum	anr		
Nickel	anr		
Potassium	anr		
Selenium	4000	4040	101.0
Silver	500	502	100.4
Sodium	anr		
Strontium			
Thallium	anr		
Tin			
Titanium			
Vanadium	anr		
Zinc	anr		

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA8704 Units: ug/l

Time:			10:16		10:21		02:26	
Sample ID:	CRI	CRIA	CRIA1		CRIA2		CRIA3	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	400	200	anr					
Antimony	10	5.0	anr					
Arsenic	20	10	10.1	101.0			9.5	95.0
Barium	400	200	198	99.0			199	99.5
Beryllium	10	5.0	anr					
Cadmium	10	5.0	5.3	106.0			5.2	104.0
Calcium	2000	1000	anr					
Chromium	20	10	10.3	103.0			9.8	98.0
Cobalt	100	50	anr					
Copper	50	25						
Iron	600	300	anr					
Lead	10	5.0	4.9	98.0			4.5	90.0
Magnesium	10000	5000	anr					
Manganese	30	15	anr					
Molybdenum	100	50	anr					
Nickel	80	40	anr					
Potassium	20000	10000	anr					
Selenium	20	10	10.1	101.0			9.6	96.0
Silver	20	10	8.7	87.0			8.6	86.0
Sodium	20000	10000	anr					
Strontium	20	10						
Thallium	20	10	anr					
Tin	100	50						
Titanium	20	10						
Vanadium	100	50	anr					
Zinc	40	20	anr					

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020911M1.ICP Date Analyzed: 02/09/11 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA8704 Units: ug/l

Time:			10:41		10:49		02:39		02:43	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	487000	97.4	496000	99.2	475000	95.0	466000	93.2
Antimony		1000	0.0		992	99.2	-1.1		985	98.5
Arsenic		1000	-1.3		1010	101.0	1.0		1010	101.0
Barium		500	2.0		516	103.2	0.0		489	97.8
Beryllium		500	0.0		491	98.2	-0.10		457	91.4
Cadmium		1000	0.0		927	92.7	0.0		946	94.6
Calcium	500000	500000	468000	93.6	463000	92.6	460000	92.0	449000	89.8
Chromium		500	-0.50		483	96.6	0.40		457	91.4
Cobalt		500	0.40		448	89.6	0.30		467	93.4
Copper		500	0.30		520	104.0	2.3		468	93.6
Iron	200000	200000	178000	89.0	177000	88.5	188000	94.0	184000	92.0
Lead		1000	0.0		994	99.4	4.2		982	98.2
Magnesium	500000	500000	466000	93.2	451000	90.2	551000	110.2	521000	104.2
Manganese		500	0.70		498	99.6	0.40		472	94.4
Molybdenum		1000	0.50		926	92.6	0.30		959	95.9
Nickel		1000	0.30		993	99.3	2.0		976	97.6
Potassium			-22		-52		-12		-16	
Selenium		1000	0.0		974	97.4	5.7		989	98.9
Silver		1000	0.50		1080	108.0	0.0		1090	109.0
Sodium			-170		-1800		-330		-820	
Strontium		1000	4.1		3.9	0.4*	0.20		0.10	0.0*
Thallium		1000	0.0		952	95.2	-5.5		931	93.1
Tin		1000	1.3		668	66.8*	1.3		857	85.7
Titanium		1000	-3.3		-2.6	0.0*	-2.9		-2.1	0.0*
Vanadium		500	-0.10		502	100.4	0.30		456	91.2
Zinc		1000	-1.0		892	89.2	-1.2		902	90.2

(*) Outside of QC limits
(anr) Analyte not requested

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA021011M1.ICP Date Analyzed: 02/10/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8706
Parameters: As,Cd,Cr,Pb,Se

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:51	MA8706-STD1	1		STDA
11:55	MA8706-STD2	1		STDB
11:58	MA8706-STD3	1		STDC
12:02	MA8706-HSTD1	1		
12:06	MA8706-ICV1	1		
12:13	MA8706-ICB1	1		
12:17	MA8706-ICB2	1		
12:21	MA8706-CRIA1	1		
12:21	MA8706-CRIA2	1		
12:30	MA8706-ICSA1	1		
12:37	MA8706-ICSAB1	1		
12:41	MA8706-CCV1	1		
12:46	MA8706-CCB1	1		
12:50	ZZZZZZ	5		
12:55	ZZZZZZ	5		
12:59	ZZZZZZ	5		
13:04	ZZZZZZ	5		
13:08	ZZZZZZ	5		
13:13	ZZZZZZ	5		
13:17	ZZZZZZ	4		
13:21	ZZZZZZ	5		
13:26	ZZZZZZ	5		
13:30	ZZZZZZ	5		
13:35	MA8706-CCV2	1		
13:39	MA8706-CCB2	1		
13:43	ZZZZZZ	5		
13:48	ZZZZZZ	5		
13:52	ZZZZZZ	1		
13:56	ZZZZZZ	10		
14:05	F79701-2	10		
14:13	F79701-5	10		
14:26	MA8706-CCV3	1		
14:30	MA8706-CCB3	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA021011M1.ICP Date Analyzed: 02/10/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8706
Parameters: As,Cd,Cr,Pb,Se

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	14:46	MA8706-CCV4	1		
	14:53	MA8706-CCB4	1		
	14:57	F79701-3F	10		
	15:01	F79701-5F	10		
	15:05	F79701-5F	5		
	15:09	F79701-9F	5		
	15:14	ZZZZZZ	2		
	15:18	ZZZZZZ	1		
	15:22	ZZZZZZ	2		
	15:26	ZZZZZZ	5		
	15:35	F79701-8F	100		
	15:39	MA8706-CCV5	1		
	15:43	MA8706-CCB5	1		
	15:48	MP19949-D1	100		
	15:53	MP19949-S1	100		
	15:57	MP19949-S2	100		
	16:01	MP19949-PS1	100		
	16:06	MP19949-SD1	500		
	16:10	F79701-8F	2		
	16:14	MP19949-D1	2		
	16:19	MP19949-S1	2		
	16:23	MP19949-S2	2		
	16:28	MP19949-PS1	2		
	16:32	MA8706-CCV6	1		
	16:36	MA8706-CCB6	1		
	16:40	MP19949-SD1	10		
---------->	Last reportable sample/prep for job F79701				
	16:45	ZZZZZZ	1		
	17:23	MA8706-CCV7	1		
	17:27	MA8706-CCB7	1		
	17:49	MA8706-CRIA3	1		
	17:53	MA8706-ICSA2	1		
	05:25	MA8706-ICSAB2	1		
	05:30	MA8706-CCV8	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA021011M1.ICP Date Analyzed: 02/10/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8706
Parameters: As,Cd,Cr,Pb,Se

Time	Sample Description	Dilution Factor	PS Recov	Comments
05:33	MA8706-CCB8	1		

----------> Last reportable CCB for job F79701
Refer to raw data for calibration curve and standards.

8.6

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INTERNAL STANDARD SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA021011M1.ICP Date Analyzed: 02/10/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8706
Parameters: As,Cd,Cr,Pb,Se

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
11:51	MA8706-STD1	1464	22628	4797	926
11:55	MA8706-STD2	1373	21075	4698	777
11:58	MA8706-STD3	1312	20537	4730	720
12:02	MA8706-HSTD1	1314	20306	4647	719
12:06	MA8706-ICV1	1361	21135	4686	771
12:13	MA8706-ICB1	1490 R	23074 R	4847 R	940 R
12:17	MA8706-ICB2	1484	22968	4840	936
12:21	MA8706-CRIA1	1457	22348	4771	883
12:21	MA8706-CRIA2	1458	22318	4764	884
12:30	MA8706-ICSA1	1232	18949	4524	649
12:37	MA8706-ICSAB1	1218	18498	4493	639
12:41	MA8706-CCV1	1375	21080	4710	782
12:46	MA8706-CCB1	1459	22650	4818	928
12:50	ZZZZZZ	1245	19644	4604	679
12:55	ZZZZZZ	1222	19756	4691	690
12:59	ZZZZZZ	1204	19568	4717	680
13:04	ZZZZZZ	1182	19351	4722	684
13:08	ZZZZZZ	1195	19619	4835	678
13:13	ZZZZZZ	1172	19511	4803	680
13:17	ZZZZZZ	1249	20363	5017	698
13:21	ZZZZZZ	1226	20035	4985	677
13:26	ZZZZZZ	1207	19966	4911	682
13:30	ZZZZZZ	1205	19833	4868	681
13:35	MA8706-CCV2	1283	20859	4918	757
13:39	MA8706-CCB2	1370	22691	5062	904
13:43	ZZZZZZ	1180	19617	4822	673
13:48	ZZZZZZ	1194	19835	4890	696
13:52	ZZZZZZ	1340	22148	5084	884
13:56	ZZZZZZ	1454	23997	5666	833
14:05	F79701-2	977	15653	4256	518 !
14:13	F79701-5	1054	16654	4407	573
14:26	MA8706-CCV3	1266	20579	4973	750
14:30	MA8706-CCB3	1363	22395	5094	899

INTERNAL STANDARD SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA021011M1.ICP Date Analyzed: 02/10/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8706
Parameters: As,Cd,Cr,Pb,Se

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
14:46	MA8706-CCV4	1278	20850	5024	759
14:53	MA8706-CCB4	1359	22289	5154	898
14:57	F79701-3F	969	15433	4227	509 !
15:01	F79701-5F	1036	16566	4438	562
15:05	F79701-5F	952	15082	4153	498 !
15:09	F79701-9F	1051	17233	4513	586
15:14	ZZZZZZ	1256	20726	5036	789
15:18	ZZZZZZ	1250	20612	4992	782
15:22	ZZZZZZ	1287	20829	5058	795
15:26	ZZZZZZ	1289	21460	5182	809
15:35	F79701-8F	1327	21413	5093	835
15:39	MA8706-CCV5	1263	20975	4931	751
15:43	MA8706-CCB5	1359	22347	5134	895
15:48	MP19949-D1	1318	21328	5099	834
15:53	MP19949-S1	1301	21206	5071	824
15:57	MP19949-S2	1297	21334	5098	824
16:01	MP19949-PS1	1292	21168	5047	822
16:06	MP19949-SD1	1322	21843	5121	866
16:10	F79701-8F	1010	16427	4452	553 !
16:14	MP19949-D1	1007	16337	4343	552 !
16:19	MP19949-S1	1044	16888	4400	559 !
16:23	MP19949-S2	1047	17017	4478	559 !
16:28	MP19949-PS1	1034	16660	4428	559 !
16:32	MA8706-CCV6	1273	20538	5018	754
16:36	MA8706-CCB6	1365	22444	5256	900
16:40	MP19949-SD1	1186	19281	4763	691
16:45	ZZZZZZ	1249	20541	4975	779
17:23	MA8706-CCV7	1286	20727	5020	758
17:27	MA8706-CCB7	1377	22447	5134	904
17:49	MA8706-CRIA3	1323	21715	5133	853
17:53	MA8706-ICSA2	1138	18504	4833	625
05:25	MA8706-ICSAB2	1255	19747	4947	663
05:30	MA8706-CCV8	1362	21901	5113	785

INTERNAL STANDARD SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA021011M1.ICP Date Analyzed: 02/10/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8706
Parameters: As,Cd,Cr,Pb,Se

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
05:33	MA8706-CCB8	1462	23455	5202	937

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	60-125 %
Istd#2	Yttrium (3600)	60-125 %
Istd#3	Yttrium (3710)	60-125 %
Istd#4	Indium	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA021011M1.ICP Date Analyzed: 02/10/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8706 Units: ug/l

Time:			12:13		12:17		12:46		13:39	
Sample ID:			ICB1		ICB2		CCB1		CCB2	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20								
Antimony	6.0	1								
Arsenic	10	1	-0.70	<10			-0.30	<10	-0.80	<10
Barium	200	1								
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	-0.10	<5.0			0.0	<5.0	0.20	<5.0
Calcium	1000	50	anr							
Chromium	10	1	0.0	<10			0.10	<10	0.10	<10
Cobalt	50	1								
Copper	25	1	anr							
Iron	300	34								
Lead	5.0	1			-0.20	<5.0	0.70	<5.0	0.10	<5.0
Magnesium	5000	50								
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50								
Selenium	10	2	1.2	<10			3.5	<10	3.7	<10
Silver	10	1	anr							
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA021011M1.ICP Date Analyzed: 02/10/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8706 Units: ug/l

Time:			14:30		14:53		15:43		16:36	
Sample ID:			CCB3		CCB4		CCB5		CCB6	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20								
Antimony	6.0	1								
Arsenic	10	1	-0.70	<10	0.40	<10	0.40	<10	0.30	<10
Barium	200	1								
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	0.20	<5.0	0.20	<5.0	0.30	<5.0	0.30	<5.0
Calcium	1000	50	anr							
Chromium	10	1	-0.10	<10	0.30	<10	1.0	<10	0.40	<10
Cobalt	50	1								
Copper	25	1	anr							
Iron	300	34								
Lead	5.0	1	0.70	<5.0	-1.0	<5.0	-0.90	<5.0	-1.2	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50								
Selenium	10	2	2.9	<10	1.2	<10	-0.50	<10	-0.60	<10
Silver	10	1	anr							
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA021011M1.ICP Date Analyzed: 02/10/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8706 Units: ug/l

Time:			17:27		05:33	
Sample ID:			CCB7		CCB8	
Metal	RL	IDL	raw	final	raw	final
Aluminum	200	20				
Antimony	6.0	1				
Arsenic	10	1	0.50	<10	1.2	<10
Barium	200	1				
Beryllium	4.0	.1	anr			
Cadmium	5.0	.1	0.30	<5.0	0.20	<5.0
Calcium	1000	50	anr			
Chromium	10	1	0.60	<10	0.40	<10
Cobalt	50	1				
Copper	25	1	anr			
Iron	300	34				
Lead	5.0	1	-1.1	<5.0	-0.90	<5.0
Magnesium	5000	50	anr			
Manganese	15	1	anr			
Molybdenum	50	1				
Nickel	40	1	anr			
Potassium	10000	50				
Selenium	10	2	-3.9	<10	-0.30	<10
Silver	10	1	anr			
Sodium	10000	750	anr			
Strontium	10	1				
Thallium	10	1	anr			
Tin	50	1				
Titanium	10	1.1				
Vanadium	50	1	anr			
Zinc	20	1	anr			

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA021011M1.ICP Date Analyzed: 02/10/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8706 Units: ug/l

Time:		12:06			12:41			13:35	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic	2000	2000	100.0	2000	1990	99.5	2000	2050	102.5
Barium									
Beryllium	anr								
Cadmium	2000	2070	103.5	2000	2040	102.0	2000	2010	100.5
Calcium	anr								
Chromium	2000	2040	102.0	2000	2060	103.0	2000	1950	97.5
Cobalt									
Copper	anr								
Iron									
Lead	2000	2030	101.5	2000	2000	100.0	2000	1930	96.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium	2000	2050	102.5	2000	2000	100.0	2000	2100	105.0
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA021011M1.ICP Date Analyzed: 02/10/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8706 Units: ug/l

Time:		14:26			14:46			15:39	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic	2000	2070	103.5	2000	1970	98.5	2000	1990	99.5
Barium									
Beryllium	anr								
Cadmium	2000	2020	101.0	2000	2020	101.0	2000	2030	101.5
Calcium	anr								
Chromium	2000	1950	97.5	2000	2020	101.0	2000	1990	99.5
Cobalt									
Copper	anr								
Iron									
Lead	2000	1940	97.0	2000	1980	99.0	2000	1990	99.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium	2000	2120	106.0	2000	1990	99.5	2000	2000	100.0
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA021011M1.ICP Date Analyzed: 02/10/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8706 Units: ug/l

Time:		16:32			17:23			05:30	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic	2000	1980	99.0	2000	1980	99.0	2000	1920	96.0
Barium									
Beryllium	anr								
Cadmium	2000	2030	101.5	2000	2030	101.5	2000	2000	100.0
Calcium	anr								
Chromium	2000	2030	101.5	2000	2050	102.5	2000	2040	102.0
Cobalt									
Copper	anr								
Iron									
Lead	2000	1990	99.5	2000	2000	100.0	2000	1990	99.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium	2000	1990	99.5	2000	1990	99.5	2000	1920	96.0
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA021011M1.ICP Date Analyzed: 02/10/11 Methods: SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA8706 Units: ug/l

Time:		12:02	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Aluminum			
Antimony			
Arsenic	4000	4050	101.3
Barium			
Beryllium	anr		
Cadmium	4000	4000	100.0
Calcium	anr		
Chromium	4000	4070	101.8
Cobalt			
Copper	anr		
Iron			
Lead	4000	4040	101.0
Magnesium	anr		
Manganese	anr		
Molybdenum			
Nickel	anr		
Potassium			
Selenium	4000	4040	101.0
Silver	anr		
Sodium	anr		
Strontium			
Thallium	anr		
Tin			
Titanium			
Vanadium	anr		
Zinc	anr		

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA021011M1.ICP Date Analyzed: 02/10/11 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA8706 Units: ug/l

Time:			12:21		12:21		17:49	
Sample ID:	CRI	CRIA	CRIA1		CRIA2		CRIA3	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	400	200						
Antimony	10	5.0						
Arsenic	20	10	10.0	100.0			8.9	89.0
Barium	400	200						
Beryllium	10	5.0	anr					
Cadmium	10	5.0	5.1	102.0			5.2	104.0
Calcium	2000	1000	anr					
Chromium	20	10	10.2	102.0			10.0	100.0
Cobalt	100	50						
Copper	50	25	anr					
Iron	600	300						
Lead	10	5.0	5.7	114.0			2.8	56.0*(a)
Magnesium	10000	5000	anr					
Manganese	30	15	anr					
Molybdenum	100	50						
Nickel	80	40	anr					
Potassium	20000	10000						
Selenium	20	10	11.8	118.0			10.3	103.0
Silver	20	10	anr					
Sodium	20000	10000	anr					
Strontium	20	10						
Thallium	20	10						
Tin	100	50						
Titanium	20	10						
Vanadium	100	50	anr					
Zinc	40	20	anr					

(*) Outside of QC limits
(anr) Analyte not requested
(a) Possible instrument baseline drift.

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA021011M1.ICP Date Analyzed: 02/10/11 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA8706 Units: ug/l

Time:			12:30		12:37		17:53		05:25	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	493000	98.6	505000	101.0	477000	95.4	480000	96.0
Antimony		1000	-0.50		1020	102.0	-0.30		942	94.2
Arsenic		1000	0.40		1040	104.0	1.8		985	98.5
Barium		500	1.6		511	102.2	2.8		479	95.8
Beryllium		500	-0.10		494	98.8	0.50		484	96.8
Cadmium		1000	0.0		951	95.1	5.1		910	91.0
Calcium	500000	500000	476000	95.2	471000	94.2	470000	94.0	492000	98.4
Chromium		500	0.30		485	97.0	0.80		477	95.4
Cobalt		500	0.50		466	93.2	1.3		445	89.0
Copper		500	0.0		517	103.4	1.5		476	95.2
Iron	200000	200000	188000	94.0	189000	94.5	182000	91.0	194000	97.0
Lead		1000	-0.10		987	98.7	-1.9		967	96.7
Magnesium	500000	500000	537000	107.4	525000	105.0	493000	98.6	542000	108.4
Manganese		500	0.60		494	98.8	1.3		489	97.8
Molybdenum		1000	-0.30		968	96.8	10.2		918	91.8
Nickel		1000	0.0		979	97.9	1.9		962	96.2
Potassium			7.8		4.7		14.3		-23	
Selenium		1000	-0.10		995	99.5	-4.0		935	93.5
Silver		1000	0.90		1130	113.0	2.5		1100	110.0
Sodium			-1400		-1100		723		-390	
Strontium		1000	0.20		0.20	0.0*	0.30		-0.20	0.0*
Thallium		1000	0.0		943	94.3	3.9		914	91.4
Tin		1000	3.4		888	88.8	4.1		845	84.5
Titanium		1000	-1.5		-0.20	0.0*	-1.1		-0.30	0.0*
Vanadium		500	0.20		498	99.6	1.6		475	95.0
Zinc		1000	-1.6		909	90.9	0.70		893	89.3

(*) Outside of QC limits
(anr) Analyte not requested

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8710
Parameters: Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
06:08	MA8710-STD1	1		STDA
06:11	MA8710-STD2	1		STDB
06:14	MA8710-STD3	1		STDC
06:18	MA8710-HSTD1	1		
06:22	MA8710-ICV1	1		
06:29	MA8710-ICB1	1		
06:33	MA8710-CRIA1	1		
06:40	MA8710-ICSA1	1		
06:45	MA8710-ICSAB1	1		
06:54	MA8710-CCV1	1		
06:58	MA8710-CCB1	1		
07:01	MP19956-MB1	1		
07:05	MP19956-B1	1		
07:09	F79771-1	1		(sample used for QC only; not part of login F79701)
07:13	MP19956-D1	1		
07:17	MP19956-SD1	5		
07:21	MP19956-PS1	1		
07:24	MP19956-S1	1		
07:28	MP19956-S2	1		
07:32	ZZZZZZ	1		
07:36	ZZZZZZ	1		
07:40	MA8710-CCV2	1		
07:43	MA8710-CCB2	1		
08:00	MA8710-CCV3	1		
08:06	MA8710-CCB3	1		
08:09	ZZZZZZ	1		
08:13	ZZZZZZ	1		
08:17	ZZZZZZ	1		
08:21	ZZZZZZ	1		
08:24	ZZZZZZ	1		
08:28	ZZZZZZ	1		
08:32	ZZZZZZ	1		
08:36	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8710
Parameters: Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
08:40	ZZZZZZ	1		
08:44	ZZZZZZ	1		
08:48	MA8710-CCV4	1		
08:52	MA8710-CCB4	1		
08:56	ZZZZZZ	1		
09:00	ZZZZZZ	1		
09:04	ZZZZZZ	1		
09:07	ZZZZZZ	1		
09:11	MP19950-MB1	1		
09:15	MP19950-B1	1		
09:19	ZZZZZZ	2		
09:23	F79790-9	1		(sample used for QC only; not part of login F79701)
09:27	MP19950-D1	1		
09:31	MP19950-SD1	5		
09:35	MA8710-CCV5	1		
09:38	MA8710-CCB5	1		
09:42	MP19950-PS1	1		
09:46	MP19950-S1	1		
09:50	MP19950-S2	1		
09:54	ZZZZZZ	1		
09:58	ZZZZZZ	1		
10:02	ZZZZZZ	1		
10:06	ZZZZZZ	1		
10:10	ZZZZZZ	1		
10:14	ZZZZZZ	1		
10:18	ZZZZZZ	1		
10:22	MA8710-CCV6	1		
10:26	MA8710-CCB6	1		
10:30	ZZZZZZ	1		
10:34	ZZZZZZ	1		
10:38	ZZZZZZ	1		
10:42	ZZZZZZ	1		
10:46	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8710
Parameters: Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:50	ZZZZZZ	1		
10:54	ZZZZZZ	1		
10:58	ZZZZZZ	1		
11:02	MP19955-MB1	1		
11:06	MP19955-B1	1		
11:10	MA8710-CCV7	1		
11:14	MA8710-CCB7	1		
11:18	F79788-8	1		(sample used for QC only; not part of login F79701)
11:22	MP19955-D1	1		
11:26	MP19955-SD1	5		
11:30	MP19955-PS1	1		
11:34	MP19955-S1	1		
11:38	MP19955-S2	1		
11:42	ZZZZZZ	1		
11:46	ZZZZZZ	1		
11:50	ZZZZZZ	1		
11:54	ZZZZZZ	1		
11:58	MA8710-CCV8	1		
12:02	MA8710-CCB8	1		
12:30	MA8710-CCV9	1		
12:36	MA8710-CCB9	1		
12:41	ZZZZZZ	1		
12:45	ZZZZZZ	1		
12:49	ZZZZZZ	1		
12:53	ZZZZZZ	1		
12:57	ZZZZZZ	1		
13:01	ZZZZZZ	1		
13:04	ZZZZZZ	1		
13:08	ZZZZZZ	1		
13:12	ZZZZZZ	1		
13:16	ZZZZZZ	1		
13:20	MA8710-CCV10	1		
13:24	MA8710-CCB10	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8710
Parameters: Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:28	ZZZZZZ	1		
13:32	ZZZZZZ	1		
13:36	ZZZZZZ	1		
13:40	ZZZZZZ	1		
13:44	MP19951-MB1	1		
13:48	MP19951-B1	1		
13:52	F79863-4	1		(sample used for QC only; not part of login F79701)
13:56	MP19951-D1	1		
14:00	MP19951-SD1	5		
14:04	MP19951-PS1	1		
14:08	MA8710-CCV11	1		
14:12	MA8710-CCB11	1		
14:15	MP19951-S1	1		
14:20	MP19951-S2	1		
14:24	ZZZZZZ	1		
14:27	MP19948-MB1	1		
14:31	MP19948-B1	1		
14:35	F79773-16	1		(sample used for QC only; not part of login F79701)
14:39	MP19948-D1	1		
14:43	MP19948-SD1	5		
14:47	MP19948-PS1	1		
14:50	MP19948-S1	1		
14:54	MA8710-CCV12	1		
14:58	MA8710-CCB12	1		
15:13	MA8710-CCV13	1		
15:19	MA8710-CCB13	1		
15:22	MP19948-S2	1		
15:26	ZZZZZZ	1		
15:30	ZZZZZZ	1		
15:34	ZZZZZZ	1		
15:38	ZZZZZZ	1		
15:42	ZZZZZZ	1		
15:45	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8710
Parameters: Pb

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	15:49	ZZZZZZ	1		
	15:53	ZZZZZZ	1		
	15:57	ZZZZZZ	10		
	16:01	MA8710-CCV14	1		
	16:05	MA8710-CCB14	1		
	16:09	ZZZZZZ	10		
	16:13	ZZZZZZ	10		
	16:17	ZZZZZZ	10		
	16:21	ZZZZZZ	10		
	16:25	ZZZZZZ	10		
	16:29	ZZZZZZ	10		
	16:33	ZZZZZZ	10		
	16:37	ZZZZZZ	10		
	16:41	F79701-1	20		
	16:45	F79701-2	20		
	16:49	MA8710-CCV15	1		
	16:53	MA8710-CCB15	1		
	16:57	F79701-3	20		
	17:01	F79701-1F	20		
	17:04	F79701-2F	20		
	17:08	F79701-3F	20		
	17:12	F79701-8F	5		
	17:16	MP19949-D1	5		
	17:20	MP19949-S1	5		
	17:24	MP19949-S2	5		
	17:28	MP19949-PS1	5		
	17:33	MP19949-SD1	25		
---------->	Last reportable sample/prep for job F79701				
	17:36	MA8710-CCV16	1		
	17:40	MA8710-CCB16	1		
	17:44	MP19959-MB1	1		
	17:48	MP19959-B1	1		
	17:52	F79855-8	1		(sample used for QC only; not part of login F79701)
	17:56	MP19959-D1	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8710
Parameters: Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:00	MP19959-SD1	5		
18:04	MP19959-PS1	1		
18:08	MP19959-S1	1		
18:12	MP19959-S2	1		
18:16	ZZZZZZ	1		
18:20	ZZZZZZ	1		
18:24	MA8710-CCV17	1		
18:28	MA8710-CCB17	1		
18:32	ZZZZZZ	1		
18:35	ZZZZZZ	1		
18:39	ZZZZZZ	1		
18:43	ZZZZZZ	1		
18:47	ZZZZZZ	1		
18:51	ZZZZZZ	1		
18:55	MP19958-MB1	1		
18:59	MP19958-B1	1		
19:03	F79878-1	1		(sample used for QC only; not part of login F79701)
19:07	MP19958-D1	1		
19:11	MA8710-CCV18	1		
19:15	MA8710-CCB18	1		
19:18	MP19958-SD1	5		
19:22	MP19958-PS1	1		
19:26	MP19958-S1	1		
19:30	MP19958-S2	1		
19:34	ZZZZZZ	1		
19:38	ZZZZZZ	1		
19:46	ZZZZZZ	1		
19:50	ZZZZZZ	1		
19:54	ZZZZZZ	1		
19:58	MA8710-CCV19	1		
20:02	MA8710-CCB19	1		
20:06	ZZZZZZ	1		
20:10	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8710
Parameters: Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:14	ZZZZZZ	1		
20:18	ZZZZZZ	1		
20:22	ZZZZZZ	1		
20:26	ZZZZZZ	1		
20:30	ZZZZZZ	1		
20:34	ZZZZZZ	1		
20:38	ZZZZZZ	1		
20:42	ZZZZZZ	1		
20:45	MA8710-CCV20	1		
20:49	MA8710-CCB20	1		
20:53	ZZZZZZ	1		
20:57	ZZZZZZ	1		
21:01	ZZZZZZ	1		
21:05	ZZZZZZ	1		
21:09	ZZZZZZ	1		
21:13	ZZZZZZ	1		
21:17	ZZZZZZ	1		
21:21	ZZZZZZ	1		
21:33	MA8710-CCV21	1		
21:37	MA8710-CCB21	1		
21:41	ZZZZZZ	1		
21:57	MA8710-CRIA2	1		
22:01	MA8710-ICSA2	1		
22:05	MA8710-ICSAB2	1		
22:09	MA8710-CCV22	1		
22:13	MA8710-CCB22	1		

----------> Last reportable CCB for job F79701
Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8710
Parameters: Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
06:08	MA8710-STD1	7925	59736	9800	3339
06:11	MA8710-STD2	7466	55837	9594	2792
06:14	MA8710-STD3	7181	54528	9576	2609
06:18	MA8710-HSTD1	7261	55410	9660	2632
06:22	MA8710-ICV1	7552	57999	9763	2792
06:29	MA8710-ICB1	8012 R	61794 R	10055 R	3308 R
06:33	MA8710-CRIA1	7756	59081	9909	3078
06:40	MA8710-ICSA1	6957	51961	9655	2432
06:45	MA8710-ICSAB1	6856	52414	9506	2378
06:54	MA8710-CCV1	7508	56805	9834	2800
06:58	MA8710-CCB1	8030	59717	10128	3352
07:01	MP19956-MB1	7911	60733	10052	3266
07:05	MP19956-B1	7581	57483	9864	2893
07:09	F79771-1	7502	57482	9885	2913
07:13	MP19956-D1	7432	56754	9795	2882
07:17	MP19956-SD1	7827	60247	9994	3159
07:21	MP19956-PS1	7532	57675	9935	2862
07:24	MP19956-S1	7390	56328	9749	2731
07:28	MP19956-S2	7336	55897	9806	2728
07:32	ZZZZZZ	7508	57637	9942	2912
07:36	ZZZZZZ	7526	57895	9906	2908
07:40	MA8710-CCV2	7588	58038	9764	2839
07:43	MA8710-CCB2	8007	61422	9966	3337
08:00	MA8710-CCV3	7550	57508	9812	2826
08:06	MA8710-CCB3	7995	61923	10061	3349
08:09	ZZZZZZ	7457	57754	9810	2885
08:13	ZZZZZZ	7518	58013	9835	2924
08:17	ZZZZZZ	7685	59315	10132	2984
08:21	ZZZZZZ	7448	57697	9828	2891
08:24	ZZZZZZ	7436	57745	9889	2900
08:28	ZZZZZZ	7513	58614	9997	2921
08:32	ZZZZZZ	7607	58967	10072	2945
08:36	ZZZZZZ	7429	57474	9840	2872

INTERNAL STANDARD SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8710
Parameters: Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
08:40	ZZZZZZ	7400	57155	9967	2855
08:44	ZZZZZZ	8312	63913	10683	3043
08:48	MA8710-CCV4	7547	58008	9803	2833
08:52	MA8710-CCB4	8014	61951	10038	3348
08:56	ZZZZZZ	7432	58021	9936	2922
09:00	ZZZZZZ	7445	58010	9893	2869
09:04	ZZZZZZ	7592	58911	9928	3008
09:07	ZZZZZZ	7466	58117	9819	2946
09:11	MP19950-MB1	8030	62868	10070	3318
09:15	MP19950-B1	7605	59100	9729	2922
09:19	ZZZZZZ	7708	59820	10027	3033
09:23	F79790-9	7273	55970	9901	2556
09:27	MP19950-D1	7504	57888	10002	2680
09:31	MP19950-SD1	7860	61006	10186	3028
09:35	MA8710-CCV5	7644	58739	9872	2865
09:38	MA8710-CCB5	7944	61614	9867	3334
09:42	MP19950-PS1	7287	56237	9862	2557
09:46	MP19950-S1	7469	57567	9976	2544
09:50	MP19950-S2	6700	52136	9498	2243
09:54	ZZZZZZ	7405	57287	9775	2755
09:58	ZZZZZZ	7954	61466	9851	3156
10:02	ZZZZZZ	7238	55807	9827	2434
10:06	ZZZZZZ	7494	58315	9805	2804
10:10	ZZZZZZ	7107	54802	9540	2564
10:14	ZZZZZZ	7117	54998	10084	2165
10:18	ZZZZZZ	7139	54919	9622	2386
10:22	MA8710-CCV6	7657	58769	9584	2868
10:26	MA8710-CCB6	8220	63666	9911	3446
10:30	ZZZZZZ	7561	58826	9729	2776
10:34	ZZZZZZ	7781	60533	9702	2999
10:38	ZZZZZZ	7099	55060	9789	2267
10:42	ZZZZZZ	7905	61634	9700	3114
10:46	ZZZZZZ	7516	57593	9636	2606

INTERNAL STANDARD SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8710
Parameters: Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
10:50	ZZZZZZ	7792	59733	10058	2663
10:54	ZZZZZZ	7138	55008	9679	2336
10:58	ZZZZZZ	7075	54940	9519	2406
11:02	MP19955-MB1	8257	64612	9757	3417
11:06	MP19955-B1	7513	57735	9296	2882
11:10	MA8710-CCV7	7624	58784	9359	2858
11:14	MA8710-CCB7	8095	62747	9636	3390
11:18	F79788-8	6655	51364	9084	2255
11:22	MP19955-D1	7570	58317	9597	2496
11:26	MP19955-SD1	7337	56924	9203	2735
11:30	MP19955-PS1	6755	52499	8926	2288
11:34	MP19955-S1	7375	56903	8914	2561
11:38	MP19955-S2	7079	54700	8843	2333
11:42	ZZZZZZ	8077	62648	9260	3007
11:46	ZZZZZZ	7301	54427	8880	2637
11:50	ZZZZZZ	6556	50816	8451	2122
11:54	ZZZZZZ	7880	61495	8752	2990
11:58	MA8710-CCV8	7645	59100	8547	2875
12:02	MA8710-CCB8	8031	62735	8681	3380
12:30	MA8710-CCV9	7413	58894	8589	2772
12:36	MA8710-CCB9	7935	63158	8797	3295
12:41	ZZZZZZ	8047	62893	9921	2262
12:45	ZZZZZZ	7465	58839	8773	2607
12:49	ZZZZZZ	6649	52925	8483	2124
12:53	ZZZZZZ	7512	59571	8833	2699
12:57	ZZZZZZ	7463	58760	9007	2408
13:01	ZZZZZZ	7762	61015	8672	2996
13:04	ZZZZZZ	7320	57602	8652	2584
13:08	ZZZZZZ	7840	62089	8766	2993
13:12	ZZZZZZ	7109	56440	8603	2444
13:16	ZZZZZZ	7871	62163	8859	2930
13:20	MA8710-CCV10	7696	60934	8589	2876
13:24	MA8710-CCB10	7983	62839	8713	3326

INTERNAL STANDARD SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8710
Parameters: Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
13:28	ZZZZZZ	7320	57055	8678	2414
13:32	ZZZZZZ	7564	60332	8641	2811
13:36	ZZZZZZ	7304	57127	8439	2661
13:40	ZZZZZZ	7376	58393	8465	2811
13:44	MP19951-MB1	8027	64540	8811	3292
13:48	MP19951-B1	7691	60576	8724	2941
13:52	F79863-4	7320	57901	9150	2263
13:56	MP19951-D1	7235	57734	9078	2165
14:00	MP19951-SD1	7410	58304	8370	2699
14:04	MP19951-PS1	7241	57676	8902	2243
14:08	MA8710-CCV11	7552	59949	8250	2832
14:12	MA8710-CCB11	7984	63686	8319	3328
14:15	MP19951-S1	6803	54520	8374	2096
14:20	MP19951-S2	7254	58253	8646	2233
14:24	ZZZZZZ	7689	61815	8190	3062
14:27	MP19948-MB1	8068	64798	8146	3328
14:31	MP19948-B1	7754	61063	8167	2965
14:35	F79773-16	7833	62664	8261	3101
14:39	MP19948-D1	7762	62111	8167	3084
14:43	MP19948-SD1	8029	64051	8196	3285
14:47	MP19948-PS1	7639	60898	8108	2985
14:50	MP19948-S1	7513	59575	8051	2860
14:54	MA8710-CCV12	7509	59761	8038	2825
14:58	MA8710-CCB12	7908	62844	8170	3303
15:13	MA8710-CCV13	7407	58819	7989	2796
15:19	MA8710-CCB13	7901	62503	8117	3312
15:22	MP19948-S2	7452	59121	8006	2839
15:26	ZZZZZZ	7576	59294	8084	2991
15:30	ZZZZZZ	7528	59724	8078	2977
15:34	ZZZZZZ	7301	57994	8047	2844
15:38	ZZZZZZ	7363	58487	8038	2869
15:42	ZZZZZZ	7927	63437	8158	3295
15:45	ZZZZZZ	7996	63812	8314	3307

INTERNAL STANDARD SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8710
Parameters: Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
15:49	ZZZZZZ	7580	60168	8146	3001
15:53	ZZZZZZ	7552	59934	8130	2984
15:57	ZZZZZZ	7372	58219	8212	2752
16:01	MA8710-CCV14	7498	59524	8014	2825
16:05	MA8710-CCB14	7885	62797	8143	3293
16:09	ZZZZZZ	7339	58314	8136	2778
16:13	ZZZZZZ	7357	58515	8228	2783
16:17	ZZZZZZ	7188	57873	8111	2749
16:21	ZZZZZZ	7379	59011	8177	2790
16:25	ZZZZZZ	7312	58276	8120	2794
16:29	ZZZZZZ	7371	58555	8252	2750
16:33	ZZZZZZ	7485	59765	8251	2817
16:37	ZZZZZZ	7418	59271	8171	2807
16:41	F79701-1	6481	49965	7779	2329
16:45	F79701-2	6475	50137	7761	2330
16:49	MA8710-CCV15	7378	59672	8128	2804
16:53	MA8710-CCB15	7913	63811	8317	3336
16:57	F79701-3	6328	48605	7649	2268
17:01	F79701-1F	6452	49887	7754	2329
17:04	F79701-2F	6455	49923	7720	2325
17:08	F79701-3F	6501	49943	7876	2323
17:12	F79701-8F	6700	52755	7970	2472
17:16	MP19949-D1	6747	52758	7933	2498
17:20	MP19949-S1	6773	53201	7965	2467
17:24	MP19949-S2	6776	53596	7920	2461
17:28	MP19949-PS1	6693	52416	7947	2461
17:33	MP19949-SD1	7338	58149	8237	2850
17:36	MA8710-CCV16	7402	59433	8156	2811
17:40	MA8710-CCB16	7859	63683	8164	3329
17:44	MP19959-MB1	7970	64887	8290	3312
17:48	MP19959-B1	7598	61305	8157	2934
17:52	F79855-8	7094	56980	8034	2463
17:56	MP19959-D1	7101	56934	8081	2454

INTERNAL STANDARD SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8710
Parameters: Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
18:00	MP19959-SD1	7624	61092	8084	2918
18:04	MP19959-PS1	7158	57250	7954	2484
18:08	MP19959-S1	7166	57125	7916	2465
18:12	MP19959-S2	7250	57801	7999	2485
18:16	ZZZZZZ	8139	65699	8146	3325
18:20	ZZZZZZ	8084	65415	8154	3278
18:24	MA8710-CCV17	7590	60733	7911	2876
18:28	MA8710-CCB17	8127	65122	8102	3432
18:32	ZZZZZZ	7935	63772	8015	3224
18:35	ZZZZZZ	7921	63164	8183	2904
18:39	ZZZZZZ	7066	56360	7762	2618
18:43	ZZZZZZ	8015	64216	8099	3120
18:47	ZZZZZZ	7519	60137	8069	2590
18:51	ZZZZZZ	6989	55834	7727	2436
18:55	MP19958-MB1	7939	64024	7873	3292
18:59	MP19958-B1	7665	61067	7798	2952
19:03	F79878-1	17871 !	136580 !	18495 !	3017
19:07	MP19958-D1	14504 !	110870 !	14978 !	3002
19:11	MA8710-CCV18	7813	61964	7854	2943
19:15	MA8710-CCB18	8107	65229	7970	3412
19:18	MP19958-SD1	10332 !	80162 !	10594	3141
19:22	MP19958-PS1	17550 !	134030 !	18071 !	3001
19:26	MP19958-S1	16532 !	127040 !	17038 !	2911
19:30	MP19958-S2	19597 !	149060 !	20127 !	2912
19:34	ZZZZZZ	16323 !	126380 !	16997 !	2664
19:38	ZZZZZZ	10684 !	83456 !	10764	2991
19:46	ZZZZZZ	18359 !	140760 !	19878 !	2506
19:50	ZZZZZZ	17784 !	137320 !	18130 !	2737
19:54	ZZZZZZ	7276	58590	8259	1925 !
19:58	MA8710-CCV19	7844	62959	7402	2963
20:02	MA8710-CCB19	8358	66520	7605	3513
20:06	ZZZZZZ	17046 !	131940 !	16335 !	2878
20:10	ZZZZZZ	25611 !	196820 !	24833 !	2993

INTERNAL STANDARD SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8710
Parameters: Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
20:14	ZZZZZZ	20673 !	157990 !	19848 !	2901
20:18	ZZZZZZ	7732	63185	8773	1886 !
20:22	ZZZZZZ	8884	69208	8233	3040
20:26	ZZZZZZ	15565 !	121190 !	15131 !	2830
20:30	ZZZZZZ	14562 !	113170 !	14341 !	2755
20:34	ZZZZZZ	15134 !	117820 !	14381 !	2904
20:38	ZZZZZZ	14059 !	109890 !	13697 !	2660
20:42	ZZZZZZ	8392	66741	7503	3103
20:45	MA8710-CCV20	7797	62508	7066	2955
20:49	MA8710-CCB20	8324	67499	7331	3527
20:53	ZZZZZZ	9405	75224	8791	2894
20:57	ZZZZZZ	6348	51858	6704	2133
21:01	ZZZZZZ	6610	56537	7478	2176
21:05	ZZZZZZ	6671	58348	7758	2102
21:09	ZZZZZZ	7132	60900	8203	2144
21:13	ZZZZZZ	7305	62187	7990	2368
21:17	ZZZZZZ	6876	59122	7850	2231
21:21	ZZZZZZ	6669	57718	7708	2194
21:33	MA8710-CCV21	8011	67343	7594	3076
21:37	MA8710-CCB21	8341	70595	7648	3668
21:41	ZZZZZZ	9516	80640 !	9384	2938
21:57	MA8710-CRIA2	8172	68593	7624	3425
22:01	MA8710-ICSA2	7143	59430	7203	2589
22:05	MA8710-ICSAB2	7122	59494	7253	2565
22:09	MA8710-CCV22	7779	65998	7418	2992
22:13	MA8710-CCB22	8247	69766	7574	3625

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	60-125 %
Istd#2	Yttrium (3600)	60-125 %
Istd#3	Yttrium (3710)	60-125 %
Istd#4	Indium	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8710 Units: ug/l

Time:			06:29		06:58		07:43		08:06	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	24	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	anr							
Barium	200	4	anr							
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	anr							
Calcium	1000	50	anr							
Chromium	10	1	anr							
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	23	anr							
Lead	5.0	1	0.60	<5.0	-1.3	<5.0	-1.0	<5.0	0.0	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	anr							
Silver	10	1	anr							
Sodium	10000	850	anr							
Strontium	10	1								
Thallium	10	1.5	anr							
Tin	50	1								
Titanium	10	1								
Vanadium	50	1	anr							
Zinc	20	1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8710 Units: ug/l

Time:			08:52		09:38		10:26		11:14	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	24	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	anr							
Barium	200	4	anr							
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	anr							
Calcium	1000	50	anr							
Chromium	10	1	anr							
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	23	anr							
Lead	5.0	1	0.80	<5.0	1.0	<5.0	0.90	<5.0	1.7	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	anr							
Silver	10	1	anr							
Sodium	10000	850	anr							
Strontium	10	1								
Thallium	10	1.5	anr							
Tin	50	1								
Titanium	10	1								
Vanadium	50	1	anr							
Zinc	20	1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8710 Units: ug/l

Time:			12:02		12:36		13:24		14:12	
Sample ID:			CCB8		CCB9		CCB10		CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	24	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	anr							
Barium	200	4	anr							
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	anr							
Calcium	1000	50	anr							
Chromium	10	1	anr							
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	23	anr							
Lead	5.0	1	0.20	<5.0	0.30	<5.0	-0.30	<5.0	-0.10	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	anr							
Silver	10	1	anr							
Sodium	10000	850	anr							
Strontium	10	1								
Thallium	10	1.5	anr							
Tin	50	1								
Titanium	10	1								
Vanadium	50	1	anr							
Zinc	20	1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8710 Units: ug/l

Time:			14:58		15:19		16:05		16:53	
Sample ID:			CCB12		CCB13		CCB14		CCB15	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	24	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	anr							
Barium	200	4	anr							
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	anr							
Calcium	1000	50	anr							
Chromium	10	1	anr							
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	23	anr							
Lead	5.0	1	0.70	<5.0	1.5	<5.0	1.6	<5.0	0.90	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	anr							
Silver	10	1	anr							
Sodium	10000	850	anr							
Strontium	10	1								
Thallium	10	1.5	anr							
Tin	50	1								
Titanium	10	1								
Vanadium	50	1	anr							
Zinc	20	1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8710 Units: ug/l

Time:			17:40		18:28		19:15		20:02	
Sample ID:			CCB16		CCB17		CCB18		CCB19	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	24	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	anr							
Barium	200	4	anr							
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	anr							
Calcium	1000	50	anr							
Chromium	10	1	anr							
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	23	anr							
Lead	5.0	1	1.1	<5.0	1.5	<5.0	0.80	<5.0	0.80	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	anr							
Silver	10	1	anr							
Sodium	10000	850	anr							
Strontium	10	1								
Thallium	10	1.5	anr							
Tin	50	1								
Titanium	10	1								
Vanadium	50	1	anr							
Zinc	20	1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8710 Units: ug/l

Time:			20:49		21:37		22:13	
Sample ID:			CCB20		CCB21		CCB22	
Metal	RL	IDL	raw	final	raw	final	raw	final
Aluminum	200	24	anr					
Antimony	6.0	1	anr					
Arsenic	10	1	anr					
Barium	200	4	anr					
Beryllium	4.0	.1	anr					
Cadmium	5.0	.1	anr					
Calcium	1000	50	anr					
Chromium	10	1	anr					
Cobalt	50	1	anr					
Copper	25	1	anr					
Iron	300	23	anr					
Lead	5.0	1	0.50	<5.0	1.1	<5.0	1.1	<5.0
Magnesium	5000	50	anr					
Manganese	15	1	anr					
Molybdenum	50	1						
Nickel	40	1	anr					
Potassium	10000	50	anr					
Selenium	10	2	anr					
Silver	10	1	anr					
Sodium	10000	850	anr					
Strontium	10	1						
Thallium	10	1.5	anr					
Tin	50	1						
Titanium	10	1						
Vanadium	50	1	anr					
Zinc	20	1	anr					

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8710 Units: ug/l

Time:		06:22			06:54			07:40	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1990	99.5	2000	1970	98.5	2000	1970	98.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8710 Units: ug/l

Time:		08:00			08:48			09:35	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1960	98.0	2000	1970	98.5	2000	1970	98.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8710 Units: ug/l

Time:		10:22			11:10			11:58	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1990	99.5	2000	1990	99.5	2000	1980	99.0
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8710 Units: ug/l

Time:		12:30			13:20			14:08	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1990	99.5	2000	1940	97.0	2000	1950	97.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8710 Units: ug/l

Time:		14:54			15:13			16:01	
Sample ID:	CCV	CCV12		CCV	CCV13		CCV	CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1950	97.5	2000	1990	99.5	2000	1960	98.0
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8710 Units: ug/l

Time:		16:49			17:36			18:24	
Sample ID:	CCV	CCV15		CCV	CCV16		CCV	CCV17	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1980	99.0	2000	1980	99.0	2000	1990	99.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8710 Units: ug/l

Time:		19:11			19:58			20:45	
Sample ID:	CCV	CCV18		CCV	CCV19		CCV	CCV20	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1950	97.5	2000	1940	97.0	2000	1960	98.0
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8710 Units: ug/l

Time:		21:33			22:09	
Sample ID:	CCV	CCV21		CCV	CCV22	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	anr					
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Cadmium	anr					
Calcium	anr					
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	2000	1850	92.5	2000	1890	94.5
Magnesium	anr					
Manganese	anr					
Molybdenum						
Nickel	anr					
Potassium	anr					
Selenium	anr					
Silver	anr					
Sodium	anr					
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium	anr					
Zinc	anr					

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA8710 Units: ug/l

Time:		06:18	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	anr		
Barium	anr		
Beryllium	anr		
Cadmium	anr		
Calcium	anr		
Chromium	anr		
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	4000	4000	100.0
Magnesium	anr		
Manganese	anr		
Molybdenum			
Nickel	anr		
Potassium	anr		
Selenium	anr		
Silver	anr		
Sodium	anr		
Strontium			
Thallium	anr		
Tin			
Titanium			
Vanadium	anr		
Zinc	anr		

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA8710 Units: ug/l

Time:			06:33		21:57	
Sample ID:	CRI	CRIA	CRIA1		CRIA2	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	400	200	anr			
Antimony	10	5.0	anr			
Arsenic	20	10	anr			
Barium	400	200	anr			
Beryllium	10	5.0	anr			
Cadmium	10	5.0	anr			
Calcium	2000	1000	anr			
Chromium	20	10	anr			
Cobalt	100	50	anr			
Copper	50	25	anr			
Iron	600	300	anr			
Lead	10	5.0	5.2	104.0	4.7	94.0
Magnesium	10000	5000	anr			
Manganese	30	15	anr			
Molybdenum	100	50				
Nickel	80	40	anr			
Potassium	20000	10000	anr			
Selenium	20	10	anr			
Silver	20	10	anr			
Sodium	20000	10000	anr			
Strontium	20	10				
Thallium	20	10	anr			
Tin	100	50				
Titanium	20	10				
Vanadium	100	50	anr			
Zinc	40	20	anr			

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SB021111M1.ICP Date Analyzed: 02/11/11 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA8710 Units: ug/l

Time:			06:40		06:45		22:01		22:05	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	459000	91.8	472000	94.4	450000	90.0	451000	90.2
Antimony		1000	-0.10		969	96.9	-1.5		1000	100.0
Arsenic		1000	-1.7		985	98.5	-1.8		995	99.5
Barium		500	2.9		506	101.2	1.8		533	106.6
Beryllium		500	-0.80		467	93.4	-0.40		450	90.0
Cadmium		1000	-0.60		927	92.7	4.0		879	87.9
Calcium	500000	500000	430000	86.0	429000	85.8	446000	89.2	444000	88.8
Chromium		500	-0.30		453	90.6	-0.30		422	84.4
Cobalt		500	-0.50		452	90.4	-0.20		437	87.4
Copper		500	0.70		468	93.6	-3.7		487	97.4
Iron	200000	200000	183000	91.5	186000	93.0	193000	96.5	190000	95.0
Lead		1000	0.0		975	97.5	7.2		893	89.3
Magnesium	500000	500000	452000	90.4	445000	89.0	490000	98.0	479000	95.8
Manganese		500	-0.50		452	90.4	1.2		443	88.6
Molybdenum		1000	-1.1		924	92.4	-0.90		923	92.3
Nickel		1000	0.0		984	98.4	-4.0		887	88.7
Potassium			113		85.7		43.6		60.8	
Selenium		1000	0.0		1000	100.0	1.6		971	97.1
Silver		1000	0.40		1070	107.0	0.30		1050	105.0
Sodium			-2100		-250		-300		-120	
Strontium		1000	-5.1		-5.1	0.0	-5.3		-5.2	0.0
Thallium		1000	-0.50		962	96.2	-1.5		886	88.6
Tin		1000	-0.60		859	85.9	0.80		818	81.8
Titanium		1000	-4.4		-3.6	0.0	-2.4		-1.9	0.0
Vanadium		500	-0.30		448	89.6	3.0		445	89.0
Zinc		1000	-0.30		853	85.3	0.0		796	80.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19910 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date:				02/02/11		02/02/11	
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Mercury	1.0	.071	.05	-0.010	<1.0	-0.047	<1.0

Associated samples MP19910: F79701-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

8.8.1

8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19910
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/02/11 02/02/11

Metal	F79701-6 Original	DUP	RPD	QC Limits	F79701-6 Original	MS	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.0	0.0	NC	0-20	0.0	3.0	3	100.0	80-120

Associated samples MP19910: F79701-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19910
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/02/11

Metal	F79701-6 Original	MSD	Spikelot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	2.9	3	96.7	3.4	20

Associated samples MP19910: F79701-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

8.8.2

8

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19910
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/02/11

Metal	BSP Result	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	3.1	3	103.3	80-120

Associated samples MP19910: F79701-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

8.8.3

8

SERIAL DILUTION RESULTS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19910
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/02/11

Metal	F79701-6 Original	SDL 1:5	%DIF	QC Limits
Mercury	0.00	0.00	NC	0-10

Associated samples MP19910: F79701-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19915
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/03/11

Metal	RL	IDL	MDL	MB raw	final
Mercury	1.0	.071	.05	-0.024	<1.0

Associated samples MP19915: F79701-1, F79701-2, F79701-3, F79701-4, F79701-5, F79701-7, F79701-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19915
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/03/11 02/03/11

Metal	F79701-8 Original	DUP	RPD	QC Limits	F79701-8 Original	MS	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.0	0.0	NC	0-20	0.0	3.0	3	100.0	80-120

Associated samples MP19915: F79701-1, F79701-2, F79701-3, F79701-4, F79701-5, F79701-7, F79701-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19915
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/03/11

Metal	F79701-8 Original	MSD	Spikelot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	3.0	3	100.0	0.0	20

Associated samples MP19915: F79701-1, F79701-2, F79701-3, F79701-4, F79701-5, F79701-7, F79701-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19915
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/03/11

Metal	BSP Result	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	2.9	3	96.7	80-120

Associated samples MP19915: F79701-1, F79701-2, F79701-3, F79701-4, F79701-5, F79701-7, F79701-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19915
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/03/11

Metal	F79701-8 Original	SDL 1:5	%DIF	QC Limits
Mercury	0.00	0.00	NC	0-10

Associated samples MP19915: F79701-1, F79701-2, F79701-3, F79701-4, F79701-5, F79701-7, F79701-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19916
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/03/11

Metal	RL	IDL	MDL	MB raw	final
Mercury	1.0	.071	.05	-0.024	<1.0

Associated samples MP19916: F79701-9, F79701-1F, F79701-2F, F79701-3F, F79701-4F, F79701-5F, F79701-6F, F79701-7F, F79701-9F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

8.10.1
8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19916
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/03/11 02/03/11

Metal	F79701-6F Original	DUP	RPD	QC Limits	F79701-6F Original	MS	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.0	0.0	NC	0-20	0.0	3.0	3	100.0	80-120

Associated samples MP19916: F79701-9, F79701-1F, F79701-2F, F79701-3F, F79701-4F, F79701-5F, F79701-6F, F79701-7F, F79701-9F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19916
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/03/11

Metal	F79701-6F Original	MSD	Spikelot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	3.1	3	103.3	3.3	20

Associated samples MP19916: F79701-9, F79701-1F, F79701-2F, F79701-3F, F79701-4F, F79701-5F, F79701-6F, F79701-7F, F79701-9F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19916
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/03/11

Metal	BSP Result	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	3.0	3	100.0	80-120

Associated samples MP19916: F79701-9, F79701-1F, F79701-2F, F79701-3F, F79701-4F, F79701-5F, F79701-6F, F79701-7F, F79701-9F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19916
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/03/11

Metal	F79701-6F Original	SDL 1:5	%DIF	QC Limits
Mercury	0.00	0.00	NC	0-10

Associated samples MP19916: F79701-9, F79701-1F, F79701-2F, F79701-3F, F79701-4F, F79701-5F, F79701-6F, F79701-7F, F79701-9F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19930
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/07/11

Metal	RL	IDL	MDL	MB raw	final
Mercury	1.0	.071	.05	-0.019	<1.0

Associated samples MP19930: F79701-8F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

8.11.1

8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19930
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/07/11 02/07/11

Metal	F79701-8F Original	DUP	RPD	QC Limits	F79701-8F Original	MS	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.0	0.0	NC	0-20	0.0	3.1	3	103.3	80-120

Associated samples MP19930: F79701-8F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

8.11.2

8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19930
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/07/11

Metal	F79701-8F Original	MSD	Spikelot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	3.0	3	100.0	3.3	20

Associated samples MP19930: F79701-8F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

8.11.2

8

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19930
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/07/11

Metal	BSP Result	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	3.0	3	100.0	80-120

Associated samples MP19930: F79701-8F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

8.11.3

8

SERIAL DILUTION RESULTS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19930
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/07/11

Metal	F79701-8F Original	SDL 1:5	%DIF	QC Limits
Mercury	0.00	0.00	NC	0-10

Associated samples MP19930: F79701-8F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19934
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:					02/08/11		02/08/11		02/08/11
Metal	RL	IDL	MDL	MB raw	final	MB raw	final	MB raw	final
Aluminum	200	20	25						
Antimony	6.0	1	2						
Arsenic	10	1	2	-0.30	<10	-0.90	<10	-1.5	<10
Barium	200	1	5	-0.20	<200	-0.50	<200	-1.0	<200
Beryllium	4.0	.1	1						
Cadmium	5.0	.1	1	-0.20	<5.0	-0.20	<5.0	-0.20	<5.0
Calcium	1000	50	100						
Chromium	10	1	1	0.0	<10	-0.10	<10	-0.10	<10
Cobalt	50	1	1						
Copper	25	1	2						
Iron	300	34	35						
Lead	5.0	1	1	-0.80	<5.0	-0.30	<5.0	-1.3	<5.0
Magnesium	5000	50	100						
Manganese	15	1	1						
Molybdenum	50	1	2						
Nickel	40	1	2						
Potassium	10000	50	500						
Selenium	10	2	2	2.2	<10	2.8	<10	0.90	<10
Silver	10	1	1	0.20	<10	0.10	<10	0.10	<10
Sodium	10000	750	1900						
Strontium	10	1	1						
Thallium	10	1	1.9						
Tin	50	1	1						
Titanium	10	1.1	2						
Vanadium	50	1	1						
Zinc	20	1	5						

Associated samples MP19934: F79701-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19934
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Metal	F79701-6F Original	DUP	RPD	QC Limits	F79701-6F Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Prep Date:			02/08/11					02/08/11	
Aluminum									
Antimony	anr								
Arsenic	0.0	6.5 (a)	200.0(b)	0-20	0.0	2390 (a)	2000	119.5	80-120
Barium	17.1	16.1	6.0	0-20	17.1	1990	2000	98.6	80-120
Beryllium	anr								
Cadmium	0.0	0.0 (a)	NC	0-20	0.0	51.5 (a)	50	103.0	80-120
Calcium									
Chromium	0.0	0.0 (a)	NC	0-20	0.0	209 (a)	200	104.5	80-120
Cobalt									
Copper	anr								
Iron									
Lead	0.0	0.0 (a)	NC	0-20	0.0	483 (a)	500	96.6	80-120
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium	15.1	17.7 (a)	15.9	0-20	15.1	2480 (a)	2000	123.2N(c	80-120
Silver	0.0	0.0 (a)	NC	0-20	0.0	61.2 (a)	50	122.4N(c	80-120
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc	anr								

Associated samples MP19934: F79701-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Elevated reporting limit(s) due to matrix interference.
(b) RPD acceptable due to low duplicate and sample concentrations.
(c) Spike recovery indicates possible matrix interference.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19934
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/08/11

Metal	F79701-6F Original	MSD	Spikelot MPFLICP1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	0.0	2260 (a)	2000	113.0	5.6	20
Barium	17.1	1980	2000	98.1	0.5	20
Beryllium	anr					
Cadmium	0.0	48.0 (a)	50	96.0	7.0	20
Calcium						
Chromium	0.0	191 (a)	200	95.5	9.0	20
Cobalt						
Copper	anr					
Iron						
Lead	0.0	478 (a)	500	95.6	1.0	20
Magnesium						
Manganese	anr					
Molybdenum						
Nickel	anr					
Potassium						
Selenium	15.1	2350 (a)	2000	116.7	5.4	20
Silver	0.0	56.7 (a)	50	113.4	7.6	20
Sodium						
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium						
Zinc	anr					

Associated samples MP19934: F79701-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Elevated reporting limit(s) due to matrix interference.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19934
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/08/11

Metal	BSP Result	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	1940	2000	97.0	80-120
Barium	1980	2000	99.0	80-120
Beryllium	anr			
Cadmium	50.0	50	100.0	80-120
Calcium				
Chromium	194	200	97.0	80-120
Cobalt				
Copper	anr			
Iron				
Lead	484	500	96.8	80-120
Magnesium				
Manganese	anr			
Molybdenum				
Nickel	anr			
Potassium				
Selenium	1970	2000	98.5	80-120
Silver	44.3	50	88.6	80-120
Sodium				
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP19934: F79701-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19934
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/08/11

Metal	F79701-6F Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	0.00	0.00	NC	0-10
Barium	17.1	20.9	22.2 (a)	0-10
Beryllium	anr			
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	0.00	0.00	NC	0-10
Cobalt				
Copper	anr			
Iron				
Lead	0.00	0.00	NC	0-10
Magnesium				
Manganese	anr			
Molybdenum				
Nickel	anr			
Potassium				
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP19934: F79701-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19934
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/08/11

Metal	Sample ml	Final ml	F79701-6F Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic	9.8	10	0	0	130.9	0.2	5	100	130.9*(a	80-120
Barium	9.8	10	17.1	16.758	265.2	0.2	12.5	250	99.4	80-120
Beryllium										
Cadmium	9.8	10	0	0	52	0.2	2.5	50	104.0	80-120
Calcium										
Chromium	9.8	10	0	0	48.9	0.2	2.5	50	97.8	80-120
Cobalt										
Copper										
Iron										
Lead	9.8	10	0	0	30.4	0.2	2.5	50	60.8*(a)	80-120
Magnesium										
Manganese										
Molybdenum										
Nickel										
Potassium										
Selenium	9.8	10	15.1	14.798	136.9	0.2	5	100	122.1*(a	80-120
Silver	9.8	10	0	0	63.4	0.2	2.5	50	126.8*(a	80-120
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP19934: F79701-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested
(a) Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19938
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/08/11

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	20	25		
Antimony	6.0	1	2		
Arsenic	10	1	2	-0.70	<10
Barium	200	1	5	-0.40	<200
Beryllium	4.0	.1	1		
Cadmium	5.0	.1	1	-0.20	<5.0
Calcium	1000	50	100		
Chromium	10	1	1	0.20	<10
Cobalt	50	1	1		
Copper	25	1	2		
Iron	300	34	35		
Lead	5.0	1	1	-0.10	<5.0
Magnesium	5000	50	100		
Manganese	15	1	1		
Molybdenum	50	1	2		
Nickel	40	1	2		
Potassium	10000	50	500		
Selenium	10	2	2	1.3	<10
Silver	10	1	1	0.0	<10
Sodium	10000	750	1900		
Strontium	10	1	1		
Thallium	10	1	1.9		
Tin	50	1	1		
Titanium	10	1.1	2		
Vanadium	50	1	1		
Zinc	20	1	5		

Associated samples MP19938: F79701-1, F79701-2, F79701-3, F79701-4, F79701-5, F79701-6, F79701-7, F79701-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19938
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:			02/08/11					02/08/11	
Metal	F79701-6 Original	DUP	RPD	QC Limits	F79701-6 Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic	5.1	7.1 (a)	32.8 (b)	0-20	5.1	2430 (a)	2000	121.2N(c	80-120
Barium	18.2	17.6	3.4	0-20	18.2	2080	2000	103.1	80-120
Beryllium									
Cadmium	0.0	0.0 (a)	NC	0-20	0.0	52.3 (a)	50	104.6	80-120
Calcium									
Chromium	0.0	0.0 (a)	NC	0-20	0.0	217 (a)	200	108.5	80-120
Cobalt									
Copper									
Iron									
Lead	0.0	0.0 (a)	NC	0-20	0.0	499 (a)	500	99.8	80-120
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium	12.0	0.0 (a)	200.0(b)	0-20	12.0	2550 (a)	2000	126.9N(c	80-120
Silver	0.0	0.0 (a)	NC	0-20	0.0	61.6 (a)	50	123.2N(c	80-120
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP19938: F79701-1, F79701-2, F79701-3, F79701-4, F79701-5, F79701-6, F79701-7, F79701-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Elevated reporting limit(s) due to matrix interference.
(b) RPD acceptable due to low duplicate and sample concentrations.
(c) Spike recovery indicates possible matrix interference.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19938
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/08/11

Metal	F79701-6 Original	MSD	Spikelot MPFLICP1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	5.1	2460 (a)	2000	122.7N(b	1.2	20
Barium	18.2	1950	2000	96.6	6.5	20
Beryllium						
Cadmium	0.0	53.4 (a)	50	106.8	2.1	20
Calcium						
Chromium	0.0	211 (a)	200	105.5	2.8	20
Cobalt						
Copper						
Iron						
Lead	0.0	517 (a)	500	103.4	3.5	20
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium	12.0	2530 (a)	2000	125.9N(b	0.8	20
Silver	0.0	63.5 (a)	50	127.0N(b	3.0	20
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP19938: F79701-1, F79701-2, F79701-3, F79701-4, F79701-5, F79701-6, F79701-7, F79701-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Elevated reporting limit(s) due to matrix interference.
(b) Spike recovery indicates possible matrix interference.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19938
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/08/11

Metal	BSP Result	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	1990	2000	99.5	80-120
Barium	1940	2000	97.0	80-120
Beryllium				
Cadmium	51.8	50	103.6	80-120
Calcium				
Chromium	195	200	97.5	80-120
Cobalt				
Copper				
Iron				
Lead	487	500	97.4	80-120
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium	2010	2000	100.5	80-120
Silver	45.6	50	91.2	80-120
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP19938: F79701-1, F79701-2, F79701-3, F79701-4, F79701-5, F79701-6, F79701-7, F79701-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19938
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/08/11

Metal	F79701-6 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	5.10	0.00	100.0(a)	0-10
Barium	18.2	26.0	42.9 (a)	0-10
Beryllium				
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	0.00	0.00	NC	0-10
Cobalt				
Copper				
Iron				
Lead	0.00	0.00	NC	0-10
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium	12.0	0.00	100.0(a)	0-10
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP19938: F79701-1, F79701-2, F79701-3, F79701-4, F79701-5, F79701-6, F79701-7, F79701-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19938
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/08/11

Metal	Sample ml	Final ml	F79701-6 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic	9.8	10	5.1	4.998	129	0.2	5	100	124.0*(a	80-120
Barium	9.8	10	18.2	17.836	262.7	0.2	12.5	250	97.9	80-120
Beryllium										
Cadmium	9.8	10	0	0	52.1	0.2	2.5	50	104.2	80-120
Calcium										
Chromium	9.8	10	0	0	53.3	0.2	2.5	50	106.6	80-120
Cobalt										
Copper										
Iron										
Lead	9.8	10	0	0	32.8	0.2	2.5	50	65.6*(a)	80-120
Magnesium										
Manganese										
Molybdenum										
Nickel										
Potassium										
Selenium	9.8	10	12	11.76	129.2	0.2	5	100	117.4	80-120
Silver	9.8	10	0	0	62.4	0.2	2.5	50	124.8*(a	80-120
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP19938: F79701-1, F79701-2, F79701-3, F79701-4, F79701-5, F79701-6, F79701-7, F79701-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested
(a) Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19939
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:					02/08/11		02/08/11
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Aluminum	200	20	25				
Antimony	6.0	1	2				
Arsenic	10	1	2	-0.60	<10	-0.80	<10
Barium	200	1	5	-1.4	<200	-1.3	<200
Beryllium	4.0	.1	1				
Cadmium	5.0	.1	1	-0.20	<5.0	-0.30	<5.0
Calcium	1000	50	100				
Chromium	10	1	1	0.20	<10	0.0	<10
Cobalt	50	1	1				
Copper	25	1	2				
Iron	300	34	35				
Lead	5.0	1	1	-0.60	<5.0	0.0	<5.0
Magnesium	5000	50	100				
Manganese	15	1	1				
Molybdenum	50	1	2				
Nickel	40	1	2				
Potassium	10000	50	500				
Selenium	10	2	2	1.6	<10	0.70	<10
Silver	10	1	1	-0.40	<10	-0.40	<10
Sodium	10000	750	1900				
Strontium	10	1	1				
Thallium	10	1	1.9				
Tin	50	1	1				
Titanium	10	1.1	2				
Vanadium	50	1	1				
Zinc	20	1	5				

Associated samples MP19939: F79701-8, F79701-1F, F79701-2F, F79701-3F, F79701-4F, F79701-5F, F79701-7F, F79701-9F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19939
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:			02/08/11					02/08/11	
Metal	F79701-8 Original	DUP	RPD	QC Limits	F79701-8 Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum	anr								
Antimony	anr								
Arsenic	5.3	6.7	23.3 (a)	0-20	5.3	2240	2000	111.7	80-120
Barium	14.0	14.3	2.1	0-20	14.0	1950	2000	96.8	80-120
Beryllium	anr								
Cadmium	0.0	0.0	NC	0-20	0.0	46.4	50	92.8	80-120
Calcium	anr								
Chromium	0.0	0.0 (b)	NC	0-20	0.0	198 (b)	200	99.0	80-120
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	0.0	0.0	NC	0-20	0.0	443	500	88.6	80-120
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	18.2	17.0 (b)	6.8	0-20	18.2	2400 (b)	2000	119.1	80-120
Silver	0.0	0.0	NC	0-20	0.0	53.3	50	106.6	80-120
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

Associated samples MP19939: F79701-8, F79701-1F, F79701-2F, F79701-3F, F79701-4F, F79701-5F, F79701-7F, F79701-9F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) RPD acceptable due to low duplicate and sample concentrations.
(b) Elevated reporting limit(s) due to matrix interference.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19939
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/08/11

Metal	F79701-8 Original	MSD	Spikelot MPFLICP1	% Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony	anr					
Arsenic	5.3	2190	2000	109.2	2.3	20
Barium	14.0	1850	2000	91.8	5.3	20
Beryllium	anr					
Cadmium	0.0	45.0	50	90.0	3.1	20
Calcium	anr					
Chromium	0.0	197 (a)	200	98.5	0.5	20
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	0.0	428	500	85.6	3.4	20
Magnesium	anr					
Manganese	anr					
Molybdenum						
Nickel	anr					
Potassium	anr					
Selenium	18.2	2410 (a)	2000	119.6	0.4	20
Silver	0.0	52.0	50	104.0	2.5	20
Sodium	anr					
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium	anr					
Zinc	anr					

Associated samples MP19939: F79701-8, F79701-1F, F79701-2F, F79701-3F, F79701-4F, F79701-5F, F79701-7F, F79701-9F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Elevated reporting limit(s) due to matrix interference.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19939
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/08/11

Metal	BSP Result	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	1920	2000	96.0	80-120
Barium	1810	2000	90.5	80-120
Beryllium	anr			
Cadmium	49.6	50	99.2	80-120
Calcium	anr			
Chromium	179	200	89.5	80-120
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	450	500	90.0	80-120
Magnesium	anr			
Manganese	anr			
Molybdenum				
Nickel	anr			
Potassium	anr			
Selenium	1960	2000	98.0	80-120
Silver	42.6	50	85.2	80-120
Sodium	anr			
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP19939: F79701-8, F79701-1F, F79701-2F, F79701-3F, F79701-4F, F79701-5F, F79701-7F, F79701-9F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19939
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/08/11

Metal	F79701-8 Original	SDL 1:5	%DIF	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	5.30	6.50	22.6 (a)	0-10
Barium	14.0	24.5	75.0 (a)	0-10
Beryllium	anr			
Cadmium	0.00	0.00	NC	0-10
Calcium	anr			
Chromium	0.00	0.00	NC	0-10
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	0.00	0.00	NC	0-10
Magnesium	anr			
Manganese	anr			
Molybdenum				
Nickel	anr			
Potassium	anr			
Selenium	18.2	0.00	100.0(a)	0-10
Silver	0.00	0.00	NC	0-10
Sodium	anr			
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP19939: F79701-8, F79701-1F, F79701-2F, F79701-3F, F79701-4F, F79701-5F, F79701-7F, F79701-9F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19939
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/08/11

Metal	Sample ml	Final ml	F79701-8 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic	9.8	10	5.3	5.194	118.9	0.2	5	100	113.7	80-120
Barium	9.8	10	14	13.72	256	0.2	12.5	250	96.9	80-120
Beryllium										
Cadmium	9.8	10	0	0	46.6	0.2	2.5	50	93.2	80-120
Calcium										
Chromium	9.8	10	0	0	50.9	0.2	2.5	50	101.8	80-120
Cobalt										
Copper										
Iron										
Lead	9.8	10	0	0	42.7	0.2	2.5	50	85.4	80-120
Magnesium										
Manganese										
Molybdenum										
Nickel										
Potassium										
Selenium	9.8	10	18.2	17.836	143	0.2	5	100	125.2*(a	80-120
Silver	9.8	10	0	0	56.7	0.2	2.5	50	113.4	80-120
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP19939: F79701-8, F79701-1F, F79701-2F, F79701-3F, F79701-4F, F79701-5F, F79701-7F, F79701-9F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested
(a) Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19949
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:					02/09/11		02/09/11		02/09/11
Metal	RL	IDL	MDL	MB raw	final	MB raw	final	MB raw	final
Aluminum	200	20	25						
Antimony	6.0	1	2						
Arsenic	10	1	2	-1.9	<10	-1.7	<10	-1.7	<10
Barium	200	1	5	-1.6	<200	-2.4	<200	-2.3	<200
Beryllium	4.0	.1	1						
Cadmium	5.0	.1	1	-0.30	<5.0	-0.30	<5.0	-0.30	<5.0
Calcium	1000	50	100						
Chromium	10	1	1	-0.10	<10	-0.20	<10	0.0	<10
Cobalt	50	1	1						
Copper	25	1	2						
Iron	300	34	35						
Lead	5.0	1	1	-1.4	<5.0	-0.70	<5.0	-1.0	<5.0
Magnesium	5000	50	100						
Manganese	15	1	1						
Molybdenum	50	1	2						
Nickel	40	1	2						
Potassium	10000	50	500						
Selenium	10	2	2	0.50	<10	-0.40	<10	1.6	<10
Silver	10	1	1	-0.40	<10	-1.0	<10	-0.40	<10
Sodium	10000	750	1900						
Strontium	10	1	1						
Thallium	10	1	1.9						
Tin	50	1	1						
Titanium	10	1.1	2						
Vanadium	50	1	1						
Zinc	20	1	5						

Associated samples MP19949: F79701-8F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19949
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:			02/09/11					02/09/11	
Metal	F79701-8F Original	DUP	RPD	QC Limits	F79701-8F Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum	anr								
Antimony									
Arsenic	4.2	5.6	28.6 (a)	0-20	4.2	2400	2000	119.8	80-120
Barium	12.0	10.8	10.5	0-20	12.0	2010	2000	99.9	80-120
Beryllium									
Cadmium	0.0	0.0	NC	0-20	0.0	48.9	50	97.8	80-120
Calcium	anr								
Chromium	0.0	0.0 (b)	NC	0-20	0.0	192 (b)	200	96.0	80-120
Cobalt									
Copper									
Iron	anr								
Lead	7.6	5.0 (b)	41.3 (a)	0-20	7.6	508 (b)	500	100.1	80-120
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel									
Potassium									
Selenium	21.0	23.0 (b)	9.1	0-20	21.0	2330 (b)	2000	115.5	80-120
Silver	0.0	0.0	NC	0-20	0.0	60.0	50	120.0	80-120
Sodium	anr								
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP19949: F79701-8F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) RPD acceptable due to low duplicate and sample concentrations.
(b) Elevated reporting limit(s) due to matrix interference.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19949
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/09/11

Metal	F79701-8F Original	MSD	Spikelot MPFLICP1	% Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony						
Arsenic	4.2	2320	2000	115.8	3.4	20
Barium	12.0	1950	2000	96.9	3.0	20
Beryllium						
Cadmium	0.0	47.2	50	94.4	3.5	20
Calcium	anr					
Chromium	0.0	187 (a)	200	93.5	2.6	20
Cobalt						
Copper						
Iron	anr					
Lead	7.6	494 (a)	500	97.3	2.8	20
Magnesium	anr					
Manganese	anr					
Molybdenum						
Nickel						
Potassium						
Selenium	21.0	2320 (a)	2000	115.0	0.4	20
Silver	0.0	61.4	50	122.8N(b	2.3	20
Sodium	anr					
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP19949: F79701-8F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Elevated reporting limit(s) due to matrix interference.
(b) Spike recovery indicates possible matrix interference.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19949
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/09/11

Metal	BSP Result	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum	anr			
Antimony				
Arsenic	2010	2000	100.5	80-120
Barium	1980	2000	99.0	80-120
Beryllium				
Cadmium	52.5	50	105.0	80-120
Calcium	anr			
Chromium	195	200	97.5	80-120
Cobalt				
Copper				
Iron	anr			
Lead	496	500	99.2	80-120
Magnesium	anr			
Manganese	anr			
Molybdenum				
Nickel				
Potassium				
Selenium	2040	2000	102.0	80-120
Silver	45.6	50	91.2	80-120
Sodium	anr			
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP19949: F79701-8F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19949
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/09/11

Metal	F79701-8F Original	SDL 1:5	%DIF	QC Limits
Aluminum	anr			
Antimony				
Arsenic	4.20	0.00	100.0(a)	0-10
Barium	12.0	6.80	43.3 (a)	0-10
Beryllium				
Cadmium	0.00	0.00	NC	0-10
Calcium	anr			
Chromium	0.00	0.00	NC	0-10
Cobalt				
Copper				
Iron	anr			
Lead	7.60	26.9	253.9(a)	0-10
Magnesium	anr			
Manganese	anr			
Molybdenum				
Nickel				
Potassium				
Selenium	21.0	31.6	50.5 (a)	0-10
Silver	0.00	0.00	NC	0-10
Sodium	anr			
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP19949: F79701-8F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19949
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/09/11

Metal	Sample ml	Final ml	F79701-8F Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic	9.8	10	4.2	4.116	131.5	0.2	5	100	127.4*(a	80-120
Barium	9.8	10	12	11.76	258.4	0.2	12.5	250	98.7	80-120
Beryllium										
Cadmium	9.8	10	0	0	51.2	0.2	2.5	50	102.4	80-120
Calcium										
Chromium	9.8	10	0	0	48.2	0.2	2.5	50	96.4	80-120
Cobalt										
Copper										
Iron										
Lead	9.8	10	7.6	7.448	54.5	0.2	2.5	50	94.1	80-120
Magnesium										
Manganese										
Molybdenum										
Nickel										
Potassium										
Selenium	9.8	10	21	20.58	145.5	0.2	5	100	124.9*(a	80-120
Silver	9.8	10	0	0	64.7	0.2	2.5	50	129.4*(a	80-120
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP19949: F79701-8F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested
(a) Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

Southeast ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Solids, Total Dissolved	GN43143	100	0.0	mg/l				

Associated Samples:
Batch GN43143: F79701-1, F79701-2, F79701-3, F79701-4, F79701-5, F79701-6, F79701-7, F79701-8, F79701-9
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F79701
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Solids, Total Dissolved	GN43143	F79701-6	mg/l	47300	47000	0.6	0-5%

Associated Samples:
Batch GN43143: F79701-1, F79701-2, F79701-3, F79701-4, F79701-5, F79701-6, F79701-7, F79701-8, F79701-9
(*) Outside of QC limits

Southeast ACCUTEST LABORATORIES

02/10/11

Technical Report for

Tetra Tech, Inc

Holloman AFB; Alamogordo, NM

SS-39 (Groundwater)

Accutest Job Number: F79653

Sampling Dates: 01/26/11 - 01/27/11

Report to:

Tetra Tech
800 Oak Ridge Tpk. Suite A600
Oak Ridge, TN 37830
Jeremy.Bennett@tetratech.com

ATTN: Jeremy Bennett

Total number of pages in report: **233**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Sue Bell 407-425-6700

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK

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Accutest Laboratories

Sample Summary

Tetra Tech, Inc

Job No: F79653

Holloman AFB; Alamogordo, NM
Project No: SS-39 (Groundwater)

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F79653-1	01/26/11	16:00	BC	01/28/11	AQ	Ground Water	MW39-06-012611
F79653-1F	01/26/11	16:00	BC	01/28/11	AQ	Ground Water	MW39-06-012611
F79653-2	01/26/11	17:00	BC	01/28/11	AQ	Ground Water	MW39-06D-012611
F79653-2F	01/26/11	17:00	BC	01/28/11	AQ	Ground Water	MW39-06D-012611
F79653-3	01/27/11	12:00	BC	01/28/11	AQ	Ground Water	MW39-08-012711
F79653-3F	01/27/11	12:00	BC	01/28/11	AQ	Ground Water	MW39-08-012711
F79653-4	01/27/11	10:50	BC	01/28/11	AQ	Ground Water	MW39-09-012711
F79653-4F	01/27/11	10:50	BC	01/28/11	AQ	Ground Water	MW39-09-012711
F79653-5	01/27/11	11:30	BC	01/28/11	AQ	Ground Water	MW39-14-012711
F79653-5F	01/27/11	11:30	BC	01/28/11	AQ	Ground Water	MW39-14-012711
F79653-6	01/26/11	00:00	BC	01/28/11	AQ	Ground Water	MW39-DUP01-012611
F79653-6F	01/26/11	00:00	BC	01/28/11	AQ	Ground Water	MW39-DUP01-012611
F79653-7	01/27/11	00:00	BC	01/28/11	AQ	Ground Water	MW39-DUP02-012711

Accutest Laboratories

Sample Summary
(continued)

Tetra Tech, Inc

Job No: F79653

Holloman AFB; Alamogordo, NM
Project No: SS-39 (Groundwater)

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F79653-7F	01/27/11	00:00	BC	01/28/11	AQ	Ground Water	MW39-DUP02-012711
F79653-8	01/27/11	16:00	BC	01/28/11	AQ	Trip Blank Water	TB01-012711

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Tetra Tech, Inc **Job** F79653

Site: Holloman AFB; Alamogordo, NM **Report Date:** 2/10/2011 2:39:36 PM

7 Samples and 1 Trip Blank were collected on 01/26/2011 and 01/27/2011 and were received at Accutest SE on 01/28/2011 properly preserved, at 3.2 Deg. C and intact. These Samples received an Accutest job number of F79653. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS by Method SW846 8260B

Matrix: AQ **Batch ID:** VJ3483

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F79653-5MS, F79653-5MSD were used as the QC samples indicated.

Blank Spike Recovery for Dichlorodifluoromethane is outside control limits.

Matrix Spike Recoverys for 2-Chloroethyl vinyl ether, Acetone, cis-1,4-Dichloro-2-Butene, Dichlorodifluoromethane, Ethyl methacrylate, Trans-1,4-Dichloro-2-Butene are outside control limits. Probable cause due to matrix interference.

Matrix Spike Duplicate Recoverys for 2-Chloroethyl vinyl ether, Acetone, cis-1,4-Dichloro-2-Butene, Dichlorodifluoromethane, Ethyl methacrylate, Trans-1,4-Dichloro-2-Butene, Trichloroethylene are outside control limits. Probable cause due to matrix interference.

RPDs for MSD for 1,2,4-Trichlorobenzene, Allyl chloride, Carbon disulfide, cis-1,4-Dichloro-2-Butene, Styrene, Trans-1,4-Dichloro-2-Butene are outside control limits for sample F79653-5MSD. Probable cause due to sample

F79653-4: Confirmation run for internal standard areas.

Matrix: AQ **Batch ID:** VJ3486

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F79758-1MS, F79758-1MSD were used as the QC samples indicated.

Matrix Spike Recoverys for 2-Chloroethyl vinyl ether, Acrolein, Allyl chloride, cis-1,4-Dichloro-2-Butene, Trans-1,4-Dichloro-2-Butene, Ethylbenzene, 1,2,4-Trimethylbenzene are outside control limits. Outside control limits due to high level in sample relative to spike amount.

Matrix Spike Duplicate Recoverys for 2-Chloroethyl vinyl ether, Acrolein, Allyl chloride, cis-1,3-Dichloropropene, cis-1,4-Dichloro-2-Butene, Trans-1,4-Dichloro-2-Butene are outside control limits. Probable cause due to matrix interference.

RPDs for MSD for cis-1,3-Dichloropropene, cis-1,4-Dichloro-2-Butene, trans-1,3-Dichloropropene, Trans-1,4-Dichloro-2-Butene are outside control limits for sample F79758-1MSD. Probable cause due to sample

F79653-4: Sample was treated with an anti-foaming agent.

F79653-1: Sample was not preserved to a pH < 2; reported results are considered minimum values.

Matrix: AQ **Batch ID:** VJ3487

All samples were analyzed within the recommended method holding time.

Samples F79780-12MS, F79780-12MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

F79653-2: Sample vial(s) contained significant headspace; reported results are considered minimum values.

Volatiles by GC by Method SW846 8015C

Matrix: AQ **Batch ID:** GCD4222

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F79608-1MS, F79608-1MSD were used as the QC samples indicated.

Extractables by GC by Method SW846 8015C

Matrix: AQ **Batch ID:** OP35910

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Samples F79701-8MS, F79701-8MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Metals by Method SW846 6010C

Matrix: AQ **Batch ID:** MP19932

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F79608-1MS, F79608-1MSD, F79608-1PS, F79608-1SDL, F79608-1DUP were used as the QC samples for metals.

Matrix Spike and Matrix Spike Duplicate Recoverys for Arsenic, Silver are outside control limits. Spike recovery indicates possible matrix interference.

RPD for Duplicate for Arsenic is outside control limits for sample MP19932-D1. RPD acceptable due to low duplicate and sample concentrations.

RPDs for Serial Dilution for Arsenic, Barium are outside control limits for sample MP19932-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

MP19932-PS1 for Arsenic: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP19932-PS1 for Silver: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

F79653-3 for Selenium: Elevated reporting limit(s) due to matrix interference.

F79653-3 for Lead: Elevated reporting limit(s) due to matrix interference.

F79653-3 for Chromium: Elevated reporting limit(s) due to matrix interference.

F79653-7F for Selenium: Elevated reporting limit(s) due to matrix interference.

F79653-3 for Arsenic: Elevated reporting limit(s) due to matrix interference.

F79653-2 for Selenium: Elevated reporting limit(s) due to matrix interference.

F79653-2 for Lead: Elevated reporting limit(s) due to matrix interference.

F79653-2 for Chromium: Elevated reporting limit(s) due to matrix interference.

F79653-2 for Cadmium: Elevated reporting limit(s) due to matrix interference.

F79653-2 for Arsenic: Elevated reporting limit(s) due to matrix interference.

F79653-1 for Selenium: Elevated reporting limit(s) due to matrix interference.

F79653-1 for Lead: Elevated reporting limit(s) due to matrix interference.

F79653-1 for Chromium: Elevated reporting limit(s) due to matrix interference.

F79653-3 for Silver: Elevated reporting limit(s) due to matrix interference.

F79653-3 for Cadmium: Elevated reporting limit(s) due to matrix interference.

F79653-5F for Chromium: Elevated reporting limit(s) due to matrix interference.

F79653-3F for Arsenic: Elevated reporting limit(s) due to matrix interference.

F79653-3F for Cadmium: Elevated reporting limit(s) due to matrix interference.

F79653-3F for Chromium: Elevated reporting limit(s) due to matrix interference.

F79653-4 for Arsenic: Elevated reporting limit(s) due to matrix interference.

F79653-3F for Selenium: Elevated reporting limit(s) due to matrix interference.

F79653-2 for Silver: Elevated reporting limit(s) due to matrix interference.

F79653-4F for Arsenic: Elevated reporting limit(s) due to matrix interference.

F79653-4F for Cadmium: Elevated reporting limit(s) due to matrix interference.

F79653-4F for Chromium: Elevated reporting limit(s) due to matrix interference.

F79653-4F for Lead: Elevated reporting limit(s) due to matrix interference.

F79653-2F for Silver: Elevated reporting limit(s) due to matrix interference.

F79653-4F for Silver: Elevated reporting limit(s) due to matrix interference.

F79653-5F for Selenium: Elevated reporting limit(s) due to matrix interference.

Metals by Method SW846 6010C

Matrix: AQ **Batch ID:** MP19932

F79653-3F for Lead: Elevated reporting limit(s) due to matrix interference.
F79653-5F for Lead: Elevated reporting limit(s) due to matrix interference.
F79653-6F for Arsenic: Elevated reporting limit(s) due to matrix interference.
F79653-6F for Cadmium: Elevated reporting limit(s) due to matrix interference.
F79653-6F for Chromium: Elevated reporting limit(s) due to matrix interference.
F79653-6F for Lead: Elevated reporting limit(s) due to matrix interference.
F79653-6F for Selenium: Elevated reporting limit(s) due to matrix interference.
F79653-6F for Silver: Elevated reporting limit(s) due to matrix interference.
F79653-7F for Chromium: Elevated reporting limit(s) due to matrix interference.
F79653-7F for Lead: Elevated reporting limit(s) due to matrix interference.
F79653-4F for Selenium: Elevated reporting limit(s) due to matrix interference.
F79653-5 for Lead: Elevated reporting limit(s) due to matrix interference.
F79653-7 for Chromium: Elevated reporting limit(s) due to matrix interference.
F79653-3F for Silver: Elevated reporting limit(s) due to matrix interference.
F79653-6 for Selenium: Elevated reporting limit(s) due to matrix interference.
F79653-6 for Lead: Elevated reporting limit(s) due to matrix interference.
F79653-6 for Chromium: Elevated reporting limit(s) due to matrix interference.
F79653-6 for Cadmium: Elevated reporting limit(s) due to matrix interference.
F79653-2F for Selenium: Elevated reporting limit(s) due to matrix interference.
F79653-5 for Selenium: Elevated reporting limit(s) due to matrix interference.
F79653-7 for Lead: Elevated reporting limit(s) due to matrix interference.
F79653-5 for Chromium: Elevated reporting limit(s) due to matrix interference.
F79653-4 for Silver: Elevated reporting limit(s) due to matrix interference.
F79653-4 for Selenium: Elevated reporting limit(s) due to matrix interference.
F79653-4 for Lead: Elevated reporting limit(s) due to matrix interference.
F79653-4 for Chromium: Elevated reporting limit(s) due to matrix interference.
F79653-4 for Cadmium: Elevated reporting limit(s) due to matrix interference.
F79653-6 for Arsenic: Elevated reporting limit(s) due to matrix interference.
F79653-1F for Chromium: Elevated reporting limit(s) due to matrix interference.
F79653-2F for Lead: Elevated reporting limit(s) due to matrix interference.
F79653-2F for Chromium: Elevated reporting limit(s) due to matrix interference.
F79653-2F for Cadmium: Elevated reporting limit(s) due to matrix interference.
F79653-2F for Arsenic: Elevated reporting limit(s) due to matrix interference.
F79653-1F for Selenium: Elevated reporting limit(s) due to matrix interference.
F79653-6 for Silver: Elevated reporting limit(s) due to matrix interference.
F79653-1F for Lead: Elevated reporting limit(s) due to matrix interference.
F79653-7 for Selenium: Elevated reporting limit(s) due to matrix interference.

Metals by Method SW846 7470A

Matrix: AQ **Batch ID:** MP19909

All samples were digested within the recommended method holding time.
All samples were analyzed within the recommended method holding time.
All method blanks for this batch meet method specific criteria.
Samples F79608-1FDUP, F79608-1FMS, F79608-1FMSD, F79608-1FSDL were used as the QC samples for metals.

Matrix: AQ **Batch ID:** MP19910

All samples were digested within the recommended method holding time.
All samples were analyzed within the recommended method holding time.
All method blanks for this batch meet method specific criteria.
Samples F79701-6DUP, F79701-6MS, F79701-6MSD, F79701-6SDL were used as the QC samples for metals.

Wet Chemistry by Method SM19 2540C

Matrix: AQ **Batch ID:** GN43106

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample F79678-1DUP was used as the QC sample for Solids, Total Dissolved.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

_____ Date: February 10, 2011

Ellen Pampel, Inorganic QA (signature on file)

Thursday, February 10, 2011

Southeast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW39-06-012611		
Lab Sample ID:	F79653-1	**Date Sampled:**	01/26/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	J062943.D	2	02/08/11	MM	n/a	n/a	VJ3486
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	20	ug/l	
75-05-8	Acetonitrile	ND	40	10	ug/l	
107-02-8	Acrolein	ND	40	10	ug/l	
107-13-1	Acrylonitrile	ND	20	6.0	ug/l	
107-05-1	Allyl chloride	ND	4.0	0.60	ug/l	
71-43-2	Benzene	ND	2.0	0.40	ug/l	
100-44-7	Benzyl Chloride	ND	4.0	1.0	ug/l	
108-86-1	Bromobenzene	ND	2.0	0.50	ug/l	
74-97-5	Bromochloromethane	ND	2.0	0.44	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	0.40	ug/l	
75-25-2	Bromoform	ND	2.0	0.40	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.52	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	0.44	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.54	ug/l	
108-90-7	Chlorobenzene	ND	2.0	0.40	ug/l	
75-00-3	Chloroethane	ND	4.0	1.0	ug/l	
67-66-3	Chloroform	2.3	2.0	0.44	ug/l	
544-10-5	1-Chlorohexane	ND	4.0	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.44	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.40	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	10	2.4	ug/l	
75-15-0	Carbon disulfide	ND	4.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	1.9	2.0	0.50	ug/l	J
75-34-3	1,1-Dichloroethane	ND	2.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	1.1	2.0	0.46	ug/l	J
563-58-6	1,1-Dichloropropene	ND	2.0	0.56	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.74	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	2.0	0.40	ug/l	
594-20-7	2,2-Dichloropropane	ND	2.0	0.88	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-06-012611		
Lab Sample ID:	F79653-1	**Date Sampled:**	01/26/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	2.0	0.40	ug/l	
75-71-8	Dichlorodifluoromethane	ND	4.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	0.52	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.40	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	20	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	2.0	0.40	ug/l	
95-50-1	o-Dichlorobenzene	ND	2.0	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	2.0	0.46	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.70	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.40	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.40	ug/l	
97-63-2	Ethyl methacrylate	ND	10	2.0	ug/l	
76-13-1	Freon 113	ND	2.0	0.94	ug/l	
591-78-6	2-Hexanone	ND	20	8.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.0	1.6	ug/l	
110-54-3	Hexane	ND	4.0	1.2	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.40	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.42	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	4.0	ug/l	
126-98-7	Methacrylonitrile	ND	40	10	ug/l	
74-83-9	Methyl bromide	ND	4.0	1.0	ug/l	
74-87-3	Methyl chloride	ND	4.0	1.0	ug/l	
74-88-4	Methyl iodide	ND	2.0	0.40	ug/l	
80-62-6	Methyl methacrylate	ND	10	2.0	ug/l	
74-95-3	Methylene bromide	ND	4.0	0.50	ug/l	
75-09-2	Methylene chloride	ND	10	4.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	4.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.68	ug/l	
91-20-3	Naphthalene	ND	10	2.0	ug/l	
76-01-7	Pentachloroethane	ND	20	4.0	ug/l	
107-12-0	Propionitrile	ND	40	10	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.40	ug/l	
100-42-5	Styrene	ND	2.0	0.40	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.0	0.40	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.40	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.44	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	4.0	0.60	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	1.0	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-06-012611		
Lab Sample ID:	F79653-1	**Date Sampled:**	01/26/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	4.0	0.54	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	4.0	0.42	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	0.40	ug/l	
79-01-6	Trichloroethylene	119	2.0	0.52	ug/l	
75-69-4	Trichlorofluoromethane	ND	4.0	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	20	4.0	ug/l	
75-01-4	Vinyl chloride	ND	2.0	0.44	ug/l	
108-05-4	Vinyl Acetate	ND	20	4.0	ug/l	
	m,p-Xylene	ND	4.0	0.64	ug/l	
95-47-6	o-Xylene	ND	2.0	0.40	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		87-116%
17060-07-0	1,2-Dichloroethane-D4	100%		76-127%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	96%		84-120%

(a) Sample was not preserved to a pH < 2; reported results are considered minimum values.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-06-012611		
Lab Sample ID:	F79653-1	**Date Sampled:**	01/26/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	3.4 B	10	2.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	16.0 B	200	5.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	5.0 U	50	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/02/11	02/02/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	24.7 B	50	10	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8687
(2) Instrument QC Batch: MA8696
(3) Instrument QC Batch: MA8700
(4) Prep QC Batch: MP19909
(5) Prep QC Batch: MP19932

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-06-012611		
Lab Sample ID:	F79653-1	**Date Sampled:**	01/26/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	26500	10000	1000	mg/l	100	01/31/11 12:00	SJL	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-06-012611		
Lab Sample ID:	F79653-1F	**Date Sampled:**	01/26/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	5.5 B	10	2.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	16.5 B	200	5.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	5.0 U	50	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/02/11	02/02/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	35.8 B	50	10	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8687
(2) Instrument QC Batch: MA8696
(3) Instrument QC Batch: MA8700
(4) Prep QC Batch: MP19909
(5) Prep QC Batch: MP19932

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-06D-012611		
Lab Sample ID:	F79653-2	**Date Sampled:**	01/26/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J062949.D	5	02/08/11	MM	n/a	n/a	VJ3486
Run #2 [a]	J062977.D	5	02/09/11	MM	n/a	n/a	VJ3487

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	130	50	ug/l	
75-05-8	Acetonitrile	ND	100	25	ug/l	
107-02-8	Acrolein	ND	100	25	ug/l	
107-13-1	Acrylonitrile	ND	50	15	ug/l	
107-05-1	Allyl chloride	ND	10	1.5	ug/l	
71-43-2	Benzene	ND	5.0	1.0	ug/l	
100-44-7	Benzyl Chloride	ND	10	2.5	ug/l	
108-86-1	Bromobenzene	ND	5.0	1.3	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.1	ug/l	
75-27-4	Bromodichloromethane	ND	5.0	1.0	ug/l	
75-25-2	Bromoform	ND	5.0	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	1.3	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	1.1	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	1.4	ug/l	
108-90-7	Chlorobenzene	ND	5.0	1.0	ug/l	
75-00-3	Chloroethane	ND	10	2.5	ug/l	
67-66-3	Chloroform	ND	5.0	1.1	ug/l	
544-10-5	1-Chlorohexane	ND	10	1.3	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	1.1	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	1.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	25	6.0	ug/l	
75-15-0	Carbon disulfide	ND	10	2.5	ug/l	
56-23-5	Carbon tetrachloride	ND	5.0	1.3	ug/l	
75-34-3	1,1-Dichloroethane	ND	5.0	1.3	ug/l	
75-35-4	1,1-Dichloroethylene	1.6	5.0	1.2	ug/l	J
563-58-6	1,1-Dichloropropene	ND	5.0	1.4	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	2.5	ug/l	
106-93-4	1,2-Dibromoethane	ND	5.0	1.9	ug/l	
107-06-2	1,2-Dichloroethane	ND	5.0	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	5.0	1.3	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	2.2	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-06D-012611		
Lab Sample ID:	F79653-2	**Date Sampled:**	01/26/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	5.0	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	10	2.5	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	5.0	1.3	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	1.0	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	50	5.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	5.0	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	5.0	1.3	ug/l	
106-46-7	p-Dichlorobenzene	ND	5.0	1.2	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	5.0	1.8	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	5.0	1.0	ug/l	
97-63-2	Ethyl methacrylate	ND	25	5.0	ug/l	
76-13-1	Freon 113	ND	5.0	2.4	ug/l	
591-78-6	2-Hexanone	ND	50	20	ug/l	
87-68-3	Hexachlorobutadiene	ND	10	4.0	ug/l	
110-54-3	Hexane	ND	10	3.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	1.1	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	25	10	ug/l	
126-98-7	Methacrylonitrile	ND	100	25	ug/l	
74-83-9	Methyl bromide	ND	10	2.5	ug/l	
74-87-3	Methyl chloride	ND	10	2.5	ug/l	
74-88-4	Methyl iodide	ND	5.0	1.0	ug/l	
80-62-6	Methyl methacrylate	ND	25	5.0	ug/l	
74-95-3	Methylene bromide	ND	10	1.3	ug/l	
75-09-2	Methylene chloride	ND	25	10	ug/l	
78-93-3	Methyl ethyl ketone	ND	25	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	1.7	ug/l	
91-20-3	Naphthalene	ND [b]	25	5.0	ug/l	
76-01-7	Pentachloroethane	ND	50	10	ug/l	
107-12-0	Propionitrile	ND	100	25	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	5.0	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	5.0	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	1.2	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	5.0	1.1	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND [b]	5.0	2.5	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	10	1.5	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND [b]	5.0	2.5	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-06D-012611		
Lab Sample ID:	F79653-2	**Date Sampled:**	01/26/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	10	1.4	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	10	1.1	ug/l	
127-18-4	Tetrachloroethylene	ND	5.0	1.3	ug/l	
108-88-3	Toluene	ND	5.0	1.0	ug/l	
79-01-6	Trichloroethylene	349	5.0	1.3	ug/l	
75-69-4	Trichlorofluoromethane	ND	10	2.5	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	50	10	ug/l	
75-01-4	Vinyl chloride	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	50	10	ug/l	
	m,p-Xylene	ND	10	1.6	ug/l	
95-47-6	o-Xylene	ND	5.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%	104%	87-116%
17060-07-0	1,2-Dichloroethane-D4	103%	104%	76-127%
2037-26-5	Toluene-D8	96%	95%	86-112%
460-00-4	4-Bromofluorobenzene	101%	99%	84-120%

(a) Sample vial(s) contained significant headspace; reported results are considered minimum values.
(b) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-06D-012611		
Lab Sample ID:	F79653-2	**Date Sampled:**	01/26/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	20 U	100	20	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Barium	25.2 B	200	5.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium [a]	10 U	50	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Chromium [a]	10 U	100	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	10 U	50	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/02/11	02/02/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	51.6 B	100	20	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver [a]	10 U	100	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]

(1) Instrument QC Batch: MA8687
(2) Instrument QC Batch: MA8696
(3) Instrument QC Batch: MA8700
(4) Prep QC Batch: MP19909
(5) Prep QC Batch: MP19932

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-06D-012611		
Lab Sample ID:	F79653-2	**Date Sampled:**	01/26/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	94500	10000	1000	mg/l	100	01/31/11 12:00	SJL	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-06D-012611		
Lab Sample ID:	F79653-2F	**Date Sampled:**	01/26/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	21.3 B	100	20	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Barium	23.9 B	200	5.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium [a]	10 U	50	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Chromium [a]	10 U	100	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	10 U	50	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/02/11	02/02/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	69.7 B	100	20	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver [a]	10 U	100	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]

(1) Instrument QC Batch: MA8687
(2) Instrument QC Batch: MA8696
(3) Instrument QC Batch: MA8700
(4) Prep QC Batch: MP19909
(5) Prep QC Batch: MP19932

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-08-012711		
Lab Sample ID:	F79653-3	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J062853.D	1	02/04/11	MM	n/a	n/a	VJ3483
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-08-012711		
Lab Sample ID:	F79653-3	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.30	1.0	0.26	ug/l	J
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	5.6	10	4.0	ug/l	J
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-08-012711		
Lab Sample ID:	F79653-3	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	14.2	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		87-116%
17060-07-0	1,2-Dichloroethane-D4	112%		76-127%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	99%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-08-012711		
Lab Sample ID:	F79653-3	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	20 U	100	20	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Barium	67.8 B	200	5.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium [a]	10 U	50	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Chromium [a]	10 U	100	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	10 U	50	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/02/11	02/02/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	55.9 B	100	20	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver [a]	10 U	100	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]

(1) Instrument QC Batch: MA8687
(2) Instrument QC Batch: MA8696
(3) Instrument QC Batch: MA8700
(4) Prep QC Batch: MP19909
(5) Prep QC Batch: MP19932

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-08-012711		
Lab Sample ID:	F79653-3	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	99500	10000	1000	mg/l	100	01/31/11 12:00	SJL	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-08-012711		
Lab Sample ID:	F79653-3F	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	20 U	100	20	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Barium	46.2 B	200	5.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium [a]	10 U	50	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Chromium [a]	10 U	100	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	10 U	50	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/02/11	02/02/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	42.5 B	100	20	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver [a]	10 U	100	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]

(1) Instrument QC Batch: MA8687
(2) Instrument QC Batch: MA8696
(3) Instrument QC Batch: MA8700
(4) Prep QC Batch: MP19909
(5) Prep QC Batch: MP19932

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-09-012711		
Lab Sample ID:	F79653-4	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	J062944.D	1	02/08/11	MM	n/a	n/a	VJ3486
Run #2 [b]	J062854.D	1	02/04/11	MM	n/a	n/a	VJ3483

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	15.3	25	10	ug/l	J
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	0.21	1.0	0.20	ug/l	J
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-09-012711		
Lab Sample ID:	F79653-4	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	0.68	2.0	0.50	ug/l	J
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	2.4	5.0	2.0	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-09-012711		
Lab Sample ID:	F79653-4	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%	105%	87-116%
17060-07-0	1,2-Dichloroethane-D4	110%	113%	76-127%
2037-26-5	Toluene-D8	95%	95%	86-112%
460-00-4	4-Bromofluorobenzene	98%	100%	84-120%

(a) Sample was treated with an anti-foaming agent.
(b) Confirmation run for internal standard areas.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-09-012711		
Lab Sample ID:	F79653-4	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	32.5 B	100	20	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Barium	602	200	5.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium [a]	10 U	50	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Chromium [a]	83.2 B	100	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	64.4	50	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/02/11	02/02/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	46.7 B	100	20	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver [a]	10 U	100	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]

(1) Instrument QC Batch: MA8687
(2) Instrument QC Batch: MA8696
(3) Instrument QC Batch: MA8700
(4) Prep QC Batch: MP19909
(5) Prep QC Batch: MP19932

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-09-012711		
Lab Sample ID:	F79653-4	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	109000	10000	1000	mg/l	100	01/31/11 12:00	SJL	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-09-012711		
Lab Sample ID:	F79653-4F	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	20 U	100	20	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Barium	34.6 B	200	5.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium [a]	10 U	50	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Chromium [a]	10 U	100	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	10 U	50	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/02/11	02/02/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	50.3 B	100	20	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver [a]	10 U	100	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]

(1) Instrument QC Batch: MA8687
(2) Instrument QC Batch: MA8696
(3) Instrument QC Batch: MA8700
(4) Prep QC Batch: MP19910
(5) Prep QC Batch: MP19932

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-14-012711		
Lab Sample ID:	F79653-5	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J062855.D	1	02/04/11	MM	n/a	n/a	VJ3483
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	1.5	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	2.9	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-14-012711		
Lab Sample ID:	F79653-5	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-14-012711		
Lab Sample ID:	F79653-5	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	9.3	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		87-116%
17060-07-0	1,2-Dichloroethane-D4	102%		76-127%
2037-26-5	Toluene-D8	95%		86-112%
460-00-4	4-Bromofluorobenzene	100%		84-120%

ND = Not detected MDL - Method Detection Limit
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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-14-012711		
Lab Sample ID:	F79653-5	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
Method:	SW846 8015C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD102853.D	1	02/03/11	WV	n/a	n/a	GCD4222
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	85%		57-129%
98-08-8	aaa-Trifluorotoluene	82%		58-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-14-012711		
Lab Sample ID:	F79653-5	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF38566.D	1	02/02/11	FEA	02/01/11	OP35910	GZF1608
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	0.24	0.095	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	81%		42-114%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-14-012711		
Lab Sample ID:	F79653-5	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	3.6 B	10	2.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	20.4 B	200	5.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	5.0 U	50	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/02/11	02/02/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	11.2 B	50	10	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8687
(2) Instrument QC Batch: MA8696
(3) Instrument QC Batch: MA8700
(4) Prep QC Batch: MP19909
(5) Prep QC Batch: MP19932

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-14-012711		
Lab Sample ID:	F79653-5	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	15800	10000	1000	mg/l	100	01/31/11 12:00	SJL	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-14-012711		
Lab Sample ID:	F79653-5F	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	3.2 B	10	2.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	16.5 B	200	5.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	5.0 U	50	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/02/11	02/02/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	11.6 B	50	10	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8687
(2) Instrument QC Batch: MA8696
(3) Instrument QC Batch: MA8700
(4) Prep QC Batch: MP19910
(5) Prep QC Batch: MP19932

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-DUP01-012611		
Lab Sample ID:	F79653-6	**Date Sampled:**	01/26/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J062950.D	5	02/08/11	MM	n/a	n/a	VJ3486
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	130	50	ug/l	
75-05-8	Acetonitrile	ND	100	25	ug/l	
107-02-8	Acrolein	ND	100	25	ug/l	
107-13-1	Acrylonitrile	ND	50	15	ug/l	
107-05-1	Allyl chloride	ND	10	1.5	ug/l	
71-43-2	Benzene	ND	5.0	1.0	ug/l	
100-44-7	Benzyl Chloride	ND	10	2.5	ug/l	
108-86-1	Bromobenzene	ND	5.0	1.3	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.1	ug/l	
75-27-4	Bromodichloromethane	ND	5.0	1.0	ug/l	
75-25-2	Bromoform	ND	5.0	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	1.3	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	1.1	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	1.4	ug/l	
108-90-7	Chlorobenzene	ND	5.0	1.0	ug/l	
75-00-3	Chloroethane	ND	10	2.5	ug/l	
67-66-3	Chloroform	ND	5.0	1.1	ug/l	
544-10-5	1-Chlorohexane	ND	10	1.3	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	1.1	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	1.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	25	6.0	ug/l	
75-15-0	Carbon disulfide	ND	10	2.5	ug/l	
56-23-5	Carbon tetrachloride	ND	5.0	1.3	ug/l	
75-34-3	1,1-Dichloroethane	ND	5.0	1.3	ug/l	
75-35-4	1,1-Dichloroethylene	1.8	5.0	1.2	ug/l	J
563-58-6	1,1-Dichloropropene	ND	5.0	1.4	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	2.5	ug/l	
106-93-4	1,2-Dibromoethane	ND	5.0	1.9	ug/l	
107-06-2	1,2-Dichloroethane	ND	5.0	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	5.0	1.3	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	2.2	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-DUP01-012611		
Lab Sample ID:	F79653-6	**Date Sampled:**	01/26/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	5.0	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	10	2.5	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	5.0	1.3	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	1.0	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	50	5.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	5.0	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	5.0	1.3	ug/l	
106-46-7	p-Dichlorobenzene	ND	5.0	1.2	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	5.0	1.8	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	5.0	1.0	ug/l	
97-63-2	Ethyl methacrylate	ND	25	5.0	ug/l	
76-13-1	Freon 113	ND	5.0	2.4	ug/l	
591-78-6	2-Hexanone	ND	50	20	ug/l	
87-68-3	Hexachlorobutadiene	ND	10	4.0	ug/l	
110-54-3	Hexane	ND	10	3.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	1.1	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	25	10	ug/l	
126-98-7	Methacrylonitrile	ND	100	25	ug/l	
74-83-9	Methyl bromide	ND	10	2.5	ug/l	
74-87-3	Methyl chloride	ND	10	2.5	ug/l	
74-88-4	Methyl iodide	ND	5.0	1.0	ug/l	
80-62-6	Methyl methacrylate	ND	25	5.0	ug/l	
74-95-3	Methylene bromide	ND	10	1.3	ug/l	
75-09-2	Methylene chloride	ND	25	10	ug/l	
78-93-3	Methyl ethyl ketone	ND	25	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	1.7	ug/l	
91-20-3	Naphthalene	ND	25	5.0	ug/l	
76-01-7	Pentachloroethane	ND	50	10	ug/l	
107-12-0	Propionitrile	ND	100	25	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	5.0	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	5.0	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	1.2	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	5.0	1.1	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	2.5	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	10	1.5	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	2.5	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-DUP01-012611		
Lab Sample ID:	F79653-6	**Date Sampled:**	01/26/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	10	1.4	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	10	1.1	ug/l	
127-18-4	Tetrachloroethylene	ND	5.0	1.3	ug/l	
108-88-3	Toluene	ND	5.0	1.0	ug/l	
79-01-6	Trichloroethylene	353	5.0	1.3	ug/l	
75-69-4	Trichlorofluoromethane	ND	10	2.5	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	50	10	ug/l	
75-01-4	Vinyl chloride	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	50	10	ug/l	
	m,p-Xylene	ND	10	1.6	ug/l	
95-47-6	o-Xylene	ND	5.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		87-116%
17060-07-0	1,2-Dichloroethane-D4	101%		76-127%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	99%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-DUP01-012611		
Lab Sample ID:	F79653-6	**Date Sampled:**	01/26/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	20 U	100	20	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Barium	25.1 B	200	5.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium [a]	10 U	50	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Chromium [a]	10 U	100	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	10 U	50	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/02/11	02/02/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	64.8 B	100	20	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver [a]	10 U	100	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]

(1) Instrument QC Batch: MA8687
(2) Instrument QC Batch: MA8696
(3) Instrument QC Batch: MA8700
(4) Prep QC Batch: MP19909
(5) Prep QC Batch: MP19932

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-DUP01-012611		
Lab Sample ID:	F79653-6	**Date Sampled:**	01/26/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	91600	10000	1000	mg/l	100	01/31/11 12:00	SJL	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-DUP01-012611		
Lab Sample ID:	F79653-6F	**Date Sampled:**	01/26/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	20 U	100	20	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Barium	23.7 B	200	5.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium [a]	10 U	50	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Chromium [a]	10 U	100	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	10 U	50	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/02/11	02/02/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	66.8 B	100	20	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver [a]	10 U	100	10	ug/l	10	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]

(1) Instrument QC Batch: MA8687
(2) Instrument QC Batch: MA8696
(3) Instrument QC Batch: MA8700
(4) Prep QC Batch: MP19910
(5) Prep QC Batch: MP19932

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-DUP02-012711		
Lab Sample ID:	F79653-7	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J062856.D	1	02/04/11	MM	n/a	n/a	VJ3483
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	1.6	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	3.3	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-DUP02-012711		
Lab Sample ID:	F79653-7	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-DUP02-012711		
Lab Sample ID:	F79653-7	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	10.7	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		87-116%
17060-07-0	1,2-Dichloroethane-D4	103%		76-127%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	100%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-DUP02-012711		
Lab Sample ID:	F79653-7	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
Method:	SW846 8015C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD102854.D	1	02/03/11	WV	n/a	n/a	GCD4222
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	87%		57-129%
98-08-8	aaa-Trifluorotoluene	81%		58-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-DUP02-012711		
Lab Sample ID:	F79653-7	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF38567.D	1	02/02/11	FEA	02/01/11	OP35910	GZF1608
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	0.24	0.095	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	83%		42-114%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-DUP02-012711		
Lab Sample ID:	F79653-7	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	3.6 B	10	2.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	19.0 B	200	5.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	5.0 U	50	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/02/11	02/02/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	32.7 B	50	10	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8687
(2) Instrument QC Batch: MA8696
(3) Instrument QC Batch: MA8700
(4) Prep QC Batch: MP19909
(5) Prep QC Batch: MP19932

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-DUP02-012711		
Lab Sample ID:	F79653-7	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	15800	10000	1000	mg/l	100	01/31/11 12:00	SJL	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-DUP02-012711		
Lab Sample ID:	F79653-7F	**Date Sampled:**	01/27/11
Matrix:	AQ - Ground Water	**Date Received:**	01/28/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	3.6 B	10	2.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	15.9 B	200	5.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	5.0 U	50	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/02/11	02/02/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	19.9 B	50	10	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8687
(2) Instrument QC Batch: MA8696
(3) Instrument QC Batch: MA8700
(4) Prep QC Batch: MP19910
(5) Prep QC Batch: MP19932

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	TB01-012711		
Lab Sample ID:	F79653-8	**Date Sampled:**	01/27/11
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/28/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J062857.D	1	02/04/11	MM	n/a	n/a	VJ3483
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB01-012711		
Lab Sample ID:	F79653-8	**Date Sampled:**	01/27/11
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/28/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB01-012711		
Lab Sample ID:	F79653-8	**Date Sampled:**	01/27/11
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/28/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		87-116%
17060-07-0	1,2-Dichloroethane-D4	98%		76-127%
2037-26-5	Toluene-D8	95%		86-112%
460-00-4	4-Bromofluorobenzene	100%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB01-012711		
Lab Sample ID:	F79653-8	**Date Sampled:**	01/27/11
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/28/11
Method:	SW846 8015C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD102855.D	1	02/03/11	WV	n/a	n/a	GCD4222
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	85%		57-129%
98-08-8	aaa-Trifluorotoluene	82%		58-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody

Parameter Certification Exceptions

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

The following parameters included in this report are exceptions to NELAC certification.
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Freon 113	76-13-1	**SW846 8260B**	AQ	Certified by SOP MS005

Tetra Tech, Inc.
800 Oak Ridge Turnpike, Ste A-500
Oak Ridge, TN 37830
865/283-9900

HAFB-SS-39-GW

CHAIN-OF-CUSTODY

F79653

Laboratory Name: **Accutest Laboratories** Address: **4405 Vineland Rd. Suite C-15 Orlando, FL 32811** Contact: **Sue Bell (813/741-3338)**

Project Name Holloman AFB Project Location **Holloman AFB, New Mexico**

Project No. **SS-39 (Groundwater)** Project Contact **Maureen McMyler** Site Telephone No. **865-621-8754**

Report to: Maureen McMyler 800 Oak Ridge Turnpike 865/535-2030

Bill to: Sheila Hall, 800 Oak Ridge Turnpike 865/283-9900

Project Manager/Supervisor **Mike Higgins**

Analysis and Method Desired

Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	VOCs by SW8260B	TPH-DRO by 8015BModified	GRO by SW8015B	RCRA 8 Metals by SW6010B/ SW7471A, TOTAL	RCRA 8 Metals by SW6010B/ SW7471A, DISSOLVED	Total Dissolved Solids by 2540 C		Remarks: Notes
1	MW39-06-012611	1/26/2011	1600		X	GW	MW-39-06	6	3	---	---	1	1	1		All VOCs and GRO in Cooler 1
2	MW39-06D-012611	1/26/2011	1700		X	GW	MW-39-06D	6	3	---	---	1	1	1		All VOCs and GRO in Cooler 1
3	MW39-08-012711	1/27/2011	1200		X	GW	MW-39-08	6	3	---	---	1	1	1		All VOCs and GRO in Cooler 1
4	MW39-09-012711	1/27/2011	1050		X	GW	MW-39-09	6	3	---	---	1	1	1		All VOCs and GRO in Cooler 1
5	MW39-14-012711	1/27/2011	1130		X	GW	MW-39-14	11	3	2	3	1	1	1		All VOCs and GRO in Cooler 1
6	MW39-DUP01-012611	1/26/2011			X	GW	DUP01	6	3	---	---	1	1	1		All VOCs and GRO in Cooler 1
7	MW39-DUP02-012711	1/27/2011			X	GW	DUP02	11	3	2	3	1	1	1		All VOCs and GRO in Cooler 1
8	TB01-012711	1/27/2011	1600		X	BW	TRIP BLANK	4	2	---	2	---	---	---		All VOCs and GRO in Cooler 1

Transfers Relinquished By (Signature)	Date/Time	Transfers Accepted By (Signature)	Date/Time
[signature] FX	1/27/11 1600	[signature] FX	
		[signature] Alk	01 28 11 09:00
		Laboratory	

TAT: ____ Standard ____ Rush Due: _____ Seals Intact? ____ Y ____ N Received Good Condition ____ Y ____ N ____ Cold

2.4 3.2

F79653: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F79653 CLIENT: Tetra Tech PROJECT: Holloman AFB

DATE/TIME RECEIVED: 01.28.11 09:00 {MM/DD/YY 24:00} NIMBER OF COOLERS RECEIVED: 2

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 8731 0084 0289

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET
- [ ] WET ICE PRESENT

TRIP BLANK INFORMATION

- [X] TRIP BLANK PROVIDED
- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [X] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [X] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? 7

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR -2
- [ ] OBSERVED TEMPS: 2.6 3.4
- [ ] CORRECTED TEMPS: 2.4 3.2

SAMPLE INFORMATION

- [X] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS: no labels on all vials ID on outside of Bag

TECHNICIAN SIGNATURE/DATE E.T. 01.28.11 REVIEWER SIGNATURE/DATE JC 1-28-11

NF 12/10 receipt confirmation 122910.xls

4.2

4

F79653: Chain of Custody

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Southeast ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3483-MB	J062850.D	1	02/04/11	MM	n/a	n/a	VJ3483

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79653-3, F79653-5, F79653-7, F79653-8

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	

Method Blank Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3483-MB	J062850.D	1	02/04/11	MM	n/a	n/a	VJ3483

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79653-3, F79653-5, F79653-7, F79653-8

CAS No.	Compound	Result	RL	MDL	Units	Q
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.69	1.0	0.50	ug/l	J
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

Method Blank Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3483-MB	J062850.D	1	02/04/11	MM	n/a	n/a	VJ3483

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79653-3, F79653-5, F79653-7, F79653-8

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	105%	87-116%
17060-07-0	1,2-Dichloroethane-D4	102%	76-127%
2037-26-5	Toluene-D8	96%	86-112%
460-00-4	4-Bromofluorobenzene	99%	84-120%

Method Blank Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3486-MB	J062938.D	1	02/08/11	MM	n/a	n/a	VJ3486

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79653-1, F79653-2, F79653-4, F79653-6

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	

Method Blank Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3486-MB	J062938.D	1	02/08/11	MM	n/a	n/a	VJ3486

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79653-1, F79653-2, F79653-4, F79653-6

CAS No.	Compound	Result	RL	MDL	Units	Q
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

Method Blank Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3486-MB	J062938.D	1	02/08/11	MM	n/a	n/a	VJ3486

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79653-1, F79653-2, F79653-4, F79653-6

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	104%	87-116%
17060-07-0	1,2-Dichloroethane-D4	100%	76-127%
2037-26-5	Toluene-D8	95%	86-112%
460-00-4	4-Bromofluorobenzene	100%	84-120%

Method Blank Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3487-MB	J062978.D	1	02/09/11	MM	n/a	n/a	VJ3487

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79653-2

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	87-116%
17060-07-0	1,2-Dichloroethane-D4	102%	76-127%
2037-26-5	Toluene-D8	95%	86-112%
460-00-4	4-Bromofluorobenzene	100%	84-120%

Blank Spike Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3483-BS	J062849.D	1	02/04/11	MM	n/a	n/a	VJ3483

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79653-3, F79653-5, F79653-7, F79653-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	108	86	59-134
75-05-8	Acetonitrile	250	226	90	57-123
107-02-8	Acrolein	125	135	108	33-157
107-13-1	Acrylonitrile	125	134	107	62-124
107-05-1	Allyl chloride	25	24.4	98	48-136
71-43-2	Benzene	25	25.6	102	83-124
100-44-7	Benzyl Chloride	25	23.1	92	61-118
108-86-1	Bromobenzene	25	26.4	106	83-115
74-97-5	Bromochloromethane	25	26.4	106	78-112
75-27-4	Bromodichloromethane	25	27.0	108	76-116
75-25-2	Bromoform	25	23.3	93	68-128
104-51-8	n-Butylbenzene	25	27.0	108	84-124
135-98-8	sec-Butylbenzene	25	27.7	111	86-127
98-06-6	tert-Butylbenzene	25	27.6	110	83-126
108-90-7	Chlorobenzene	25	25.9	104	87-115
75-00-3	Chloroethane	25	27.4	110	54-166
67-66-3	Chloroform	25	28.2	113	85-123
544-10-5	1-Chlorohexane	25	26.7	107	87-128
95-49-8	o-Chlorotoluene	25	27.1	108	84-121
106-43-4	p-Chlorotoluene	25	26.9	108	84-120
110-75-8	2-Chloroethyl vinyl ether	125	122	98	63-125
75-15-0	Carbon disulfide	25	25.8	103	67-147
56-23-5	Carbon tetrachloride	25	30.3	121	74-139
75-34-3	1,1-Dichloroethane	25	27.1	108	82-127
75-35-4	1,1-Dichloroethylene	25	24.9	100	75-133
563-58-6	1,1-Dichloropropene	25	30.7	123	87-127
96-12-8	1,2-Dibromo-3-chloropropane	25	22.9	92	61-118
106-93-4	1,2-Dibromoethane	25	25.5	102	80-115
107-06-2	1,2-Dichloroethane	25	25.6	102	76-122
78-87-5	1,2-Dichloropropane	25	26.5	106	81-120
142-28-9	1,3-Dichloropropane	25	25.6	102	81-113
594-20-7	2,2-Dichloropropane	25	29.5	118	77-138
124-48-1	Dibromochloromethane	25	26.4	106	74-116
75-71-8	Dichlorodifluoromethane	25	42.5	170*	34-158
156-59-2	cis-1,2-Dichloroethylene	25	27.3	109	81-114
10061-01-5	cis-1,3-Dichloropropene	25	27.6	110	83-119

Blank Spike Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3483-BS	J062849.D	1	02/04/11	MM	n/a	n/a	VJ3483

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79653-3, F79653-5, F79653-7, F79653-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
1476-11-5	cis-1,4-Dichloro-2-Butene	25	15.7	63	41-130
541-73-1	m-Dichlorobenzene	25	25.4	102	86-115
95-50-1	o-Dichlorobenzene	25	26.1	104	85-115
106-46-7	p-Dichlorobenzene	25	25.2	101	87-113
156-60-5	trans-1,2-Dichloroethylene	25	26.3	105	82-126
10061-02-6	trans-1,3-Dichloropropene	25	28.3	113	87-123
100-41-4	Ethylbenzene	25	26.1	104	87-118
97-63-2	Ethyl methacrylate	25	25.1	100	68-110
76-13-1	Freon 113	25	28.8	115	74-139
591-78-6	2-Hexanone	125	115	92	58-125
87-68-3	Hexachlorobutadiene	25	28.2	113	71-133
110-54-3	Hexane	25	29.9	120	71-134
98-82-8	Isopropylbenzene	25	30.4	122	87-131
99-87-6	p-Isopropyltoluene	25	28.4	114	83-125
108-10-1	4-Methyl-2-pentanone	125	113	90	62-125
126-98-7	Methacrylonitrile	250	223	89	62-133
74-83-9	Methyl bromide	25	27.7	111	55-151
74-87-3	Methyl chloride	25	31.3	125	55-173
74-88-4	Methyl iodide	25	26.8	107	72-125
80-62-6	Methyl methacrylate	25	23.5	94	63-115
74-95-3	Methylene bromide	25	25.7	103	81-116
75-09-2	Methylene chloride	25	23.3	93	69-125
78-93-3	Methyl ethyl ketone	125	107	86	61-127
1634-04-4	Methyl Tert Butyl Ether	25	24.9	100	75-116
91-20-3	Naphthalene	25	25.7	103	59-125
76-01-7	Pentachloroethane	25	27.0	108	82-111
107-12-0	Propionitrile	250	236	94	69-119
103-65-1	n-Propylbenzene	25	27.9	112	86-125
100-42-5	Styrene	25	28.9	116	78-118
630-20-6	1,1,1,2-Tetrachloroethane	25	25.7	103	81-119
71-55-6	1,1,1-Trichloroethane	25	29.7	119	79-133
79-34-5	1,1,2,2-Tetrachloroethane	25	24.1	96	71-120
79-00-5	1,1,2-Trichloroethane	25	25.0	100	80-114
87-61-6	1,2,3-Trichlorobenzene	25	25.0	100	64-126
96-18-4	1,2,3-Trichloropropane	25	22.0	88	77-115
120-82-1	1,2,4-Trichlorobenzene	25	26.8	107	68-123

Blank Spike Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3483-BS	J062849.D	1	02/04/11	MM	n/a	n/a	VJ3483

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79653-3, F79653-5, F79653-7, F79653-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-63-6	1,2,4-Trimethylbenzene	25	26.6	106	82-120
108-67-8	1,3,5-Trimethylbenzene	25	29.4	118	83-123
127-18-4	Tetrachloroethylene	25	29.1	116	80-131
108-88-3	Toluene	25	26.0	104	86-116
79-01-6	Trichloroethylene	25	30.5	122	85-124
75-69-4	Trichlorofluoromethane	25	29.6	118	66-156
110-57-6	Trans-1,4-Dichloro-2-Butene	25	16.9	68	51-137
75-01-4	Vinyl chloride	25	28.9	116	57-153
108-05-4	Vinyl Acetate	125	154	123	38-159
	m,p-Xylene	50	53.0	106	86-121
95-47-6	o-Xylene	25	26.0	104	83-121

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	87-116%
17060-07-0	1,2-Dichloroethane-D4	102%	76-127%
2037-26-5	Toluene-D8	99%	86-112%
460-00-4	4-Bromofluorobenzene	101%	84-120%

Blank Spike Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3486-BS	J062936.D	1	02/08/11	MM	n/a	n/a	VJ3486

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79653-1, F79653-2, F79653-4, F79653-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	120	96	59-134
75-05-8	Acetonitrile	250	224	90	57-123
107-02-8	Acrolein	125	126	101	33-157
107-13-1	Acrylonitrile	125	130	104	62-124
107-05-1	Allyl chloride	25	25.6	102	48-136
71-43-2	Benzene	25	25.1	100	83-124
100-44-7	Benzyl Chloride	25	24.4	98	61-118
108-86-1	Bromobenzene	25	25.0	100	83-115
74-97-5	Bromochloromethane	25	24.1	96	78-112
75-27-4	Bromodichloromethane	25	24.9	100	76-116
75-25-2	Bromoform	25	24.4	98	68-128
104-51-8	n-Butylbenzene	25	25.3	101	84-124
135-98-8	sec-Butylbenzene	25	26.2	105	86-127
98-06-6	tert-Butylbenzene	25	25.5	102	83-126
108-90-7	Chlorobenzene	25	26.9	108	87-115
75-00-3	Chloroethane	25	24.9	100	54-166
67-66-3	Chloroform	25	25.9	104	85-123
544-10-5	1-Chlorohexane	25	28.9	116	87-128
95-49-8	o-Chlorotoluene	25	25.5	102	84-121
106-43-4	p-Chlorotoluene	25	25.0	100	84-120
110-75-8	2-Chloroethyl vinyl ether	125	123	98	63-125
75-15-0	Carbon disulfide	25	25.9	104	67-147
56-23-5	Carbon tetrachloride	25	28.3	113	74-139
75-34-3	1,1-Dichloroethane	25	26.3	105	82-127
75-35-4	1,1-Dichloroethylene	25	26.5	106	75-133
563-58-6	1,1-Dichloropropene	25	29.5	118	87-127
96-12-8	1,2-Dibromo-3-chloropropane	25	21.6	86	61-118
106-93-4	1,2-Dibromoethane	25	24.7	99	80-115
107-06-2	1,2-Dichloroethane	25	24.5	98	76-122
78-87-5	1,2-Dichloropropane	25	26.0	104	81-120
142-28-9	1,3-Dichloropropane	25	24.6	98	81-113
594-20-7	2,2-Dichloropropane	25	27.6	110	77-138
124-48-1	Dibromochloromethane	25	25.2	101	74-116
75-71-8	Dichlorodifluoromethane	25	32.6	130	34-158
156-59-2	cis-1,2-Dichloroethylene	25	25.8	103	81-114
10061-01-5	cis-1,3-Dichloropropene	25	26.5	106	83-119

Blank Spike Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3486-BS	J062936.D	1	02/08/11	MM	n/a	n/a	VJ3486

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79653-1, F79653-2, F79653-4, F79653-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
1476-11-5	cis-1,4-Dichloro-2-Butene	25	24.6	98	41-130
541-73-1	m-Dichlorobenzene	25	26.9	108	86-115
95-50-1	o-Dichlorobenzene	25	26.3	105	85-115
106-46-7	p-Dichlorobenzene	25	26.2	105	87-113
156-60-5	trans-1,2-Dichloroethylene	25	26.1	104	82-126
10061-02-6	trans-1,3-Dichloropropene	25	26.9	108	87-123
100-41-4	Ethylbenzene	25	25.3	101	87-118
97-63-2	Ethyl methacrylate	25	22.4	90	68-110
76-13-1	Freon 113	25	28.7	115	74-139
591-78-6	2-Hexanone	125	115	92	58-125
87-68-3	Hexachlorobutadiene	25	30.3	121	71-133
110-54-3	Hexane	25	29.8	119	71-134
98-82-8	Isopropylbenzene	25	29.3	117	87-131
99-87-6	p-Isopropyltoluene	25	26.5	106	83-125
108-10-1	4-Methyl-2-pentanone	125	112	90	62-125
126-98-7	Methacrylonitrile	250	226	90	62-133
74-83-9	Methyl bromide	25	24.2	97	55-151
74-87-3	Methyl chloride	25	27.7	111	55-173
74-88-4	Methyl iodide	25	26.6	106	72-125
80-62-6	Methyl methacrylate	25	24.1	96	63-115
74-95-3	Methylene bromide	25	24.3	97	81-116
75-09-2	Methylene chloride	25	23.3	93	69-125
78-93-3	Methyl ethyl ketone	125	114	91	61-127
1634-04-4	Methyl Tert Butyl Ether	25	24.0	96	75-116
91-20-3	Naphthalene	25	25.7	103	59-125
76-01-7	Pentachloroethane	25	26.0	104	82-111
107-12-0	Propionitrile	250	243	97	69-119
103-65-1	n-Propylbenzene	25	26.0	104	86-125
100-42-5	Styrene	25	24.1	96	78-118
630-20-6	1,1,1,2-Tetrachloroethane	25	26.1	104	81-119
71-55-6	1,1,1-Trichloroethane	25	27.5	110	79-133
79-34-5	1,1,2,2-Tetrachloroethane	25	24.0	96	71-120
79-00-5	1,1,2-Trichloroethane	25	24.0	96	80-114
87-61-6	1,2,3-Trichlorobenzene	25	26.3	105	64-126
96-18-4	1,2,3-Trichloropropane	25	22.8	91	77-115
120-82-1	1,2,4-Trichlorobenzene	25	26.8	107	68-123

Blank Spike Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3486-BS	J062936.D	1	02/08/11	MM	n/a	n/a	VJ3486

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79653-1, F79653-2, F79653-4, F79653-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-63-6	1,2,4-Trimethylbenzene	25	24.4	98	82-120
108-67-8	1,3,5-Trimethylbenzene	25	24.6	98	83-123
127-18-4	Tetrachloroethylene	25	29.1	116	80-131
108-88-3	Toluene	25	25.4	102	86-116
79-01-6	Trichloroethylene	25	27.8	111	85-124
75-69-4	Trichlorofluoromethane	25	32.0	128	66-156
110-57-6	Trans-1,4-Dichloro-2-Butene	25	23.6	94	51-137
75-01-4	Vinyl chloride	25	26.7	107	57-153
108-05-4	Vinyl Acetate	125	143	114	38-159
	m,p-Xylene	50	50.9	102	86-121
95-47-6	o-Xylene	25	24.9	100	83-121

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	87-116%
17060-07-0	1,2-Dichloroethane-D4	99%	76-127%
2037-26-5	Toluene-D8	99%	86-112%
460-00-4	4-Bromofluorobenzene	99%	84-120%

Blank Spike Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3487-BS	J062971.D	1	02/09/11	MM	n/a	n/a	VJ3487

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79653-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
91-20-3	Naphthalene	25	25.5	102	59-125
87-61-6	1,2,3-Trichlorobenzene	25	25.4	102	64-126
120-82-1	1,2,4-Trichlorobenzene	25	26.4	106	68-123

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	98%	87-116%
17060-07-0	1,2-Dichloroethane-D4	101%	76-127%
2037-26-5	Toluene-D8	97%	86-112%
460-00-4	4-Bromofluorobenzene	99%	84-120%

Blank Spike Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3487-BS	J062972.D	1	02/09/11	MM	n/a	n/a	VJ3487

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79653-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	87-116%
17060-07-0	1,2-Dichloroethane-D4	97%	76-127%
2037-26-5	Toluene-D8	97%	86-112%
460-00-4	4-Bromofluorobenzene	101%	84-120%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79653-5MS	J062864.D	1	02/04/11	MM	n/a	n/a	VJ3483
F79653-5MSD	J062865.D	1	02/04/11	MM	n/a	n/a	VJ3483
F79653-5	J062855.D	1	02/04/11	MM	n/a	n/a	VJ3483

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79653-3, F79653-5, F79653-7, F79653-8

CAS No.	Compound	F79653-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		125	60.6	48*	60.5	48*	0	59-134/14
75-05-8	Acetonitrile	ND		250	194	78	201	80	4	57-123/15
107-02-8	Acrolein	ND		125	114	91	105	84	8	33-157/21
107-13-1	Acrylonitrile	ND		125	129	103	117	94	10	62-124/13
107-05-1	Allyl chloride	ND		25	18.0	72	15.7	63	14*	48-136/13
71-43-2	Benzene	ND		25	26.8	107	26.1	104	3	83-124/11
100-44-7	Benzyl Chloride	ND		25	21.6	86	20.3	81	6	61-118/12
108-86-1	Bromobenzene	ND		25	27.8	111	27.7	111	0	83-115/10
74-97-5	Bromochloromethane	ND		25	27.8	111	26.6	106	4	78-112/10
75-27-4	Bromodichloromethane	ND		25	28.2	113	25.9	104	9	76-116/10
75-25-2	Bromoform	ND		25	22.1	88	20.4	82	8	68-128/11
104-51-8	n-Butylbenzene	ND		25	26.2	105	26.8	107	2	84-124/10
135-98-8	sec-Butylbenzene	ND		25	27.6	110	28.3	113	3	86-127/10
98-06-6	tert-Butylbenzene	ND		25	28.3	113	29.0	116	2	83-126/10
108-90-7	Chlorobenzene	ND		25	26.8	107	26.7	107	0	87-115/9
75-00-3	Chloroethane	ND		25	31.9	128	31.5	126	1	54-166/20
67-66-3	Chloroform	1.5		25	31.2	119	30.2	115	3	85-123/10
544-10-5	1-Chlorohexane	ND		25	27.2	109	26.6	106	2	87-128/10
95-49-8	o-Chlorotoluene	ND		25	27.4	110	28.0	112	2	84-121/10
106-43-4	p-Chlorotoluene	ND		25	27.2	109	27.7	111	2	84-120/10
110-75-8	2-Chloroethyl vinyl ether	ND		125	ND	0*	ND	0*	nc	63-125/24
75-15-0	Carbon disulfide	ND		25	22.2	89	19.1	76	15*	67-147/12
56-23-5	Carbon tetrachloride	2.9		25	34.8	128	31.3	114	11	74-139/13
75-34-3	1,1-Dichloroethane	ND		25	27.7	111	27.0	108	3	82-127/10
75-35-4	1,1-Dichloroethylene	ND		25	26.2	105	25.8	103	2	75-133/13
563-58-6	1,1-Dichloropropene	ND		25	31.7	127	31.0	124	2	87-127/10
96-12-8	1,2-Dibromo-3-chloropropane	ND		25	23.8	95	23.9	96	0	61-118/15
106-93-4	1,2-Dibromoethane	ND		25	26.5	106	26.7	107	1	80-115/10
107-06-2	1,2-Dichloroethane	ND		25	27.5	110	27.1	108	1	76-122/11
78-87-5	1,2-Dichloropropane	ND		25	27.7	111	27.5	110	1	81-120/11
142-28-9	1,3-Dichloropropane	ND		25	27.0	108	27.1	108	0	81-113/11
594-20-7	2,2-Dichloropropane	ND		25	31.5	126	30.0	120	5	77-138/12
124-48-1	Dibromochloromethane	ND		25	26.5	106	24.4	98	8	74-116/11
75-71-8	Dichlorodifluoromethane	ND		25	40.4	162*	40.3	161*	0	34-158/22
156-59-2	cis-1,2-Dichloroethylene	ND		25	28.5	114	27.6	110	3	81-114/10
10061-01-5	cis-1,3-Dichloropropene	ND		25	24.5	98	22.8	91	7	83-119/10

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79653-5MS	J062864.D	1	02/04/11	MM	n/a	n/a	VJ3483
F79653-5MSD	J062865.D	1	02/04/11	MM	n/a	n/a	VJ3483
F79653-5	J062855.D	1	02/04/11	MM	n/a	n/a	VJ3483

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79653-3, F79653-5, F79653-7, F79653-8

CAS No.	Compound	F79653-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1476-11-5	cis-1,4-Dichloro-2-Butene	ND		25	ND	0*	1.4	6*	200*	41-130/33
541-73-1	m-Dichlorobenzene	ND		25	25.9	104	26.1	104	1	86-115/9
95-50-1	o-Dichlorobenzene	ND		25	26.8	107	27.2	109	1	85-115/9
106-46-7	p-Dichlorobenzene	ND		25	25.7	103	25.6	102	0	87-113/10
156-60-5	trans-1,2-Dichloroethylene	ND		25	27.5	110	25.7	103	7	82-126/10
10061-02-6	trans-1,3-Dichloropropene	ND		25	24.3	97	22.9	92	6	87-123/10
100-41-4	Ethylbenzene	ND		25	27.0	108	27.0	108	0	87-118/10
97-63-2	Ethyl methacrylate	ND		25	28.9	116*	28.0	112*	3	68-110/11
76-13-1	Freon 113	ND		25	29.5	118	28.3	113	4	74-139/13
591-78-6	2-Hexanone	ND		125	110	88	114	91	4	58-125/14
87-68-3	Hexachlorobutadiene	ND		25	27.1	108	29.1	116	7	71-133/12
110-54-3	Hexane	ND		25	30.3	121	28.3	113	7	71-134/11
98-82-8	Isopropylbenzene	ND		25	31.5	126	31.4	126	0	87-131/10
99-87-6	p-Isopropyltoluene	ND		25	28.4	114	28.7	115	1	83-125/9
108-10-1	4-Methyl-2-pentanone	ND		125	133	106	136	109	2	62-125/13
126-98-7	Methacrylonitrile	ND		250	226	90	226	90	0	62-133/17
74-83-9	Methyl bromide	ND		25	30.1	120	28.0	112	7	55-151/21
74-87-3	Methyl chloride	ND		25	30.8	123	32.3	129	5	55-173/22
74-88-4	Methyl iodide	ND		25	29.1	116	27.4	110	6	72-125/11
80-62-6	Methyl methacrylate	ND		25	26.0	104	25.2	101	3	63-115/10
74-95-3	Methylene bromide	ND		25	26.9	108	27.1	108	1	81-116/10
75-09-2	Methylene chloride	ND		25	23.7	95	23.1	92	3	69-125/11
78-93-3	Methyl ethyl ketone	ND		125	84.5	68	86.4	69	2	61-127/13
1634-04-4	Methyl Tert Butyl Ether	ND		25	28.2	113	27.8	111	1	75-116/10
91-20-3	Naphthalene	ND		25	28.2	113	29.0	116	3	59-125/15
76-01-7	Pentachloroethane	ND		25	26.9	108	25.2	101	7	82-111/8
107-12-0	Propionitrile	ND		250	237	95	244	98	3	69-119/12
103-65-1	n-Propylbenzene	ND		25	28.0	112	27.9	112	0	86-125/10
100-42-5	Styrene	ND		25	26.1	104	22.0	88	17*	78-118/11
630-20-6	1,1,1,2-Tetrachloroethane	ND		25	27.1	108	26.3	105	3	81-119/10
71-55-6	1,1,1-Trichloroethane	ND		25	31.6	126	31.1	124	2	79-133/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		25	24.9	100	25.1	100	1	71-120/11
79-00-5	1,1,2-Trichloroethane	ND		25	26.2	105	26.6	106	2	80-114/11
87-61-6	1,2,3-Trichlorobenzene	ND		25	23.3	93	26.5	106	13	64-126/16
96-18-4	1,2,3-Trichloropropane	ND		25	23.9	96	24.7	99	3	77-115/12
120-82-1	1,2,4-Trichlorobenzene	ND		25	25.1	100	28.2	113	12*	68-123/11

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79653-5MS	J062864.D	1	02/04/11	MM	n/a	n/a	VJ3483
F79653-5MSD	J062865.D	1	02/04/11	MM	n/a	n/a	VJ3483
F79653-5	J062855.D	1	02/04/11	MM	n/a	n/a	VJ3483

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79653-3, F79653-5, F79653-7, F79653-8

CAS No.	Compound	F79653-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-63-6	1,2,4-Trimethylbenzene	ND		25	27.0	108	25.9	104	4	82-120/10
108-67-8	1,3,5-Trimethylbenzene	ND		25	29.7	119	30.2	121	2	83-123/10
127-18-4	Tetrachloroethylene	ND		25	30.6	122	29.8	119	3	80-131/12
108-88-3	Toluene	ND		25	27.0	108	27.0	108	0	86-116/10
79-01-6	Trichloroethylene	9.3		25	40.2	124	40.9	126*	2	85-124/10
75-69-4	Trichlorofluoromethane	ND		25	30.2	121	28.9	116	4	66-156/15
110-57-6	Trans-1,4-Dichloro-2-Butene	ND		25	ND	0*	2.2	9*	200*	51-137/24
75-01-4	Vinyl chloride	ND		25	29.4	118	29.2	117	1	57-153/22
108-05-4	Vinyl Acetate	ND		125	149	119	146	117	2	38-159/11
	m,p-Xylene	ND		50	55.2	110	55.1	110	0	86-121/10
95-47-6	o-Xylene	ND		25	27.1	108	26.6	106	2	83-121/10

CAS No.	Surrogate Recoveries	MS	MSD	F79653-5	Limits
1868-53-7	Dibromofluoromethane	103%	100%	106%	87-116%
17060-07-0	1,2-Dichloroethane-D4	106%	103%	102%	76-127%
2037-26-5	Toluene-D8	99%	100%	95%	86-112%
460-00-4	4-Bromofluorobenzene	100%	100%	100%	84-120%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79758-1MS	J062947.D	5	02/08/11	MM	n/a	n/a	VJ3486
F79758-1MSD	J062948.D	5	02/08/11	MM	n/a	n/a	VJ3486
F79758-1 [a]	J062946.D	5	02/08/11	MM	n/a	n/a	VJ3486

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79653-1, F79653-2, F79653-4, F79653-6

CAS No.	Compound	F79758-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	130 U		625	449	72	463	74	3	59-134/14
75-05-8	Acetonitrile	100 U		1250	1070	86	1110	89	4	57-123/15
107-02-8	Acrolein	100 U		625	1030	165*	985	158*	4	33-157/21
107-13-1	Acrylonitrile	50 U		625	643	103	623	100	3	62-124/13
107-05-1	Allyl chloride	10 U		125	57.2	46*	58.1	46*	2	48-136/13
71-43-2	Benzene	93.1		125	232	111	222	103	4	83-124/11
100-44-7	Benzyl Chloride	10 U		125	103	82	98.3	79	5	61-118/12
108-86-1	Bromobenzene	5.0 U		125	127	102	124	99	2	83-115/10
74-97-5	Bromochloromethane	5.0 U		125	126	101	123	98	2	78-112/10
75-27-4	Bromodichloromethane	5.0 U		125	124	99	114	91	8	76-116/10
75-25-2	Bromoform	5.0 U		125	92.9	74	94.0	75	1	68-128/11
104-51-8	n-Butylbenzene	5.7		125	136	104	132	101	3	84-124/10
135-98-8	sec-Butylbenzene	3.6	I	125	142	111	136	106	4	86-127/10
98-06-6	tert-Butylbenzene	8.2		125	146	110	138	104	6	83-126/10
108-90-7	Chlorobenzene	5.0 U		125	131	105	128	102	2	87-115/9
75-00-3	Chloroethane	10 U		125	133	106	125	100	6	54-166/20
67-66-3	Chloroform	5.0 U		125	147	118	142	114	3	85-123/10
544-10-5	1-Chlorohexane	10 U		125	154	123	147	118	5	87-128/10
95-49-8	o-Chlorotoluene	5.0 U		125	144	115	137	110	5	84-121/10
106-43-4	p-Chlorotoluene	5.0 U		125	134	107	128	102	5	84-120/10
110-75-8	2-Chloroethyl vinyl ether	25 U		625	ND	0*	ND	0*	nc	63-125/24
75-15-0	Carbon disulfide	10 U		125	109	87	96.7	77	12	67-147/12
56-23-5	Carbon tetrachloride	5.0 U		125	148	118	130	104	13	74-139/13
75-34-3	1,1-Dichloroethane	5.0 U		125	140	112	135	108	4	82-127/10
75-35-4	1,1-Dichloroethylene	5.0 U		125	143	114	139	111	3	75-133/13
563-58-6	1,1-Dichloropropene	5.0 U		125	155	124	147	118	5	87-127/10
96-12-8	1,2-Dibromo-3-chloropropane	10 U		125	111	89	108	86	3	61-118/15
106-93-4	1,2-Dibromoethane	5.0 U		125	128	102	125	100	2	80-115/10
107-06-2	1,2-Dichloroethane	5.0 U		125	128	102	125	100	2	76-122/11
78-87-5	1,2-Dichloropropane	5.0 U		125	140	112	135	108	4	81-120/11
142-28-9	1,3-Dichloropropane	5.0 U		125	130	104	128	102	2	81-113/11
594-20-7	2,2-Dichloropropane	5.0 U		125	140	112	129	103	8	77-138/12
124-48-1	Dibromochloromethane	5.0 U		125	112	90	105	84	6	74-116/11
75-71-8	Dichlorodifluoromethane	10 U		125	159	127	153	122	4	34-158/22
156-59-2	cis-1,2-Dichloroethylene	5.0 U		125	138	110	134	107	3	81-114/10
10061-01-5	cis-1,3-Dichloropropene	5.0 U		125	123	98	103	82*	18*	83-119/10

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79758-1MS	J062947.D	5	02/08/11	MM	n/a	n/a	VJ3486
F79758-1MSD	J062948.D	5	02/08/11	MM	n/a	n/a	VJ3486
F79758-1 [a]	J062946.D	5	02/08/11	MM	n/a	n/a	VJ3486

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79653-1, F79653-2, F79653-4, F79653-6

CAS No.	Compound	F79758-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1476-11-5	cis-1,4-Dichloro-2-Butene	50 U		125	43.8	35*	24.8	20*	55*	41-130/33
541-73-1	m-Dichlorobenzene	5.0 U		125	142	114	138	110	3	86-115/9
95-50-1	o-Dichlorobenzene	5.0 U		125	138	110	136	109	1	85-115/9
106-46-7	p-Dichlorobenzene	5.0 U		125	138	110	133	106	4	87-113/10
156-60-5	trans-1,2-Dichloroethylene	5.0 U		125	139	111	132	106	5	82-126/10
10061-02-6	trans-1,3-Dichloropropene	5.0 U		125	125	100	109	87	14*	87-123/10
100-41-4	Ethylbenzene	513	L	125	767	203* [b]	703	152* [b]	9	87-118/10
97-63-2	Ethyl methacrylate	25 U		125	117	94	118	94	1	68-110/11
76-13-1	Freon 113	5.0 U		125	147	118	146	117	1	74-139/13
591-78-6	2-Hexanone	50 U		625	530	85	541	87	2	58-125/14
87-68-3	Hexachlorobutadiene	10 U		125	143	114	149	119	4	71-133/12
110-54-3	Hexane	79.9		125	224	115	205	100	9	71-134/11
98-82-8	Isopropylbenzene	29.8		125	190	128	184	123	3	87-131/10
99-87-6	p-Isopropyltoluene	3.1	I	125	143	112	137	107	4	83-125/9
108-10-1	4-Methyl-2-pentanone	25 U		625	599	96	607	97	1	62-125/13
126-98-7	Methacrylonitrile	100 U		1250	1010	81	1040	83	3	62-133/17
74-83-9	Methyl bromide	10 U		125	123	98	114	91	8	55-151/21
74-87-3	Methyl chloride	10 U		125	141	113	144	115	2	55-173/22
74-88-4	Methyl iodide	5.0 U		125	139	111	136	109	2	72-125/11
80-62-6	Methyl methacrylate	25 U		125	126	101	124	99	2	63-115/10
74-95-3	Methylene bromide	10 U		125	127	102	122	98	4	81-116/10
75-09-2	Methylene chloride	25 U		125	120	96	118	94	2	69-125/11
78-93-3	Methyl ethyl ketone	25 U		625	484	77	490	78	1	61-127/13
1634-04-4	Methyl Tert Butyl Ether	35.2		125	156	97	157	97	1	75-116/10
91-20-3	Naphthalene	106		125	221	92	239	106	8	59-125/15
76-01-7	Pentachloroethane	50 U		125	134	107	124	99	8	82-111/8
107-12-0	Propionitrile	100 U		1250	1140	91	1200	96	5	69-119/12
103-65-1	n-Propylbenzene	84.2		125	223	111	210	101	6	86-125/10
100-42-5	Styrene	5.0 U		125	123	98	119	95	3	78-118/11
630-20-6	1,1,1,2-Tetrachloroethane	5.0 U		125	138	110	131	105	5	81-119/10
71-55-6	1,1,1-Trichloroethane	5.0 U		125	145	116	141	113	3	79-133/11
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U		125	127	102	124	99	2	71-120/11
79-00-5	1,1,2-Trichloroethane	5.0 U		125	130	104	128	102	2	80-114/11
87-61-6	1,2,3-Trichlorobenzene	5.0 U		125	120	96	133	106	10	64-126/16
96-18-4	1,2,3-Trichloropropane	10 U		125	111	89	111	89	0	77-115/12
120-82-1	1,2,4-Trichlorobenzene	5.0 U		125	132	106	139	111	5	68-123/11

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79758-1MS	J062947.D	5	02/08/11	MM	n/a	n/a	VJ3486
F79758-1MSD	J062948.D	5	02/08/11	MM	n/a	n/a	VJ3486
F79758-1 [a]	J062946.D	5	02/08/11	MM	n/a	n/a	VJ3486

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79653-1, F79653-2, F79653-4, F79653-6

CAS No.	Compound	F79758-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-63-6	1,2,4-Trimethylbenzene	401		125	574	138* [b]	532	105	8	82-120/10
108-67-8	1,3,5-Trimethylbenzene	152		125	287	108	271	95	6	83-123/10
127-18-4	Tetrachloroethylene	5.0 U		125	153	122	146	117	5	80-131/12
108-88-3	Toluene	91.7		125	231	111	223	105	4	86-116/10
79-01-6	Trichloroethylene	5.0 U		125	149	119	147	118	1	85-124/10
75-69-4	Trichlorofluoromethane	10 U		125	165	132	156	125	6	66-156/15
110-57-6	Trans-1,4-Dichloro-2-Butene	50 U		125	40.5	32*	22.1	18*	59*	51-137/24
75-01-4	Vinyl chloride	5.0 U		125	133	106	128	102	4	57-153/22
108-05-4	Vinyl Acetate	50 U		625	732	117	726	116	1	38-159/11
	m,p-Xylene	393		250	665	109	634	96	5	86-121/10
95-47-6	o-Xylene	135		125	273	110	265	104	3	83-121/10

CAS No.	Surrogate Recoveries	MS	MSD	F79758-1	Limits
1868-53-7	Dibromofluoromethane	98%	98%	102%	87-116%
17060-07-0	1,2-Dichloroethane-D4	100%	98%	96%	76-127%
2037-26-5	Toluene-D8	101%	101%	97%	86-112%
460-00-4	4-Bromofluorobenzene	101%	99%	98%	84-120%

(a) Confirmation run.
(b) Outside control limits due to high level in sample relative to spike amount.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79780-12MS	J062981.D	10	02/09/11	MM	n/a	n/a	VJ3487
F79780-12MSD	J062982.D	10	02/09/11	MM	n/a	n/a	VJ3487
F79780-12	J062980.D	10	02/09/11	MM	n/a	n/a	VJ3487

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79653-2

CAS No.	Compound	F79780-12 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
91-20-3	Naphthalene	489		250	702	85	731	97	4	59-125/15
87-61-6	1,2,3-Trichlorobenzene	ND		250	241	96	259	104	7	64-126/16
120-82-1	1,2,4-Trichlorobenzene	ND		250	250	100	269	108	7	68-123/11

CAS No.	Surrogate Recoveries	MS	MSD	F79780-12	Limits
1868-53-7	Dibromofluoromethane	99%	98%	104%	87-116%
17060-07-0	1,2-Dichloroethane-D4	101%	100%	101%	76-127%
2037-26-5	Toluene-D8	100%	101%	96%	86-112%
460-00-4	4-Bromofluorobenzene	97%	99%	99%	84-120%

Instrument Performance Check (BFB)

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-BFB
Lab File ID: J062642.D
Instrument ID: GCMSJ
Injection Date: 01/27/11
Injection Time: 08:59

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	31360	27.0		Pass
75	30.0 - 60.0% of mass 95	52645	45.3		Pass
95	Base peak, 100% relative abundance	116250	100.0		Pass
96	5.0 - 9.0% of mass 95	8597	7.40		Pass
173	Less than 2.0% of mass 174	268	0.23	(0.27) [a]	Pass
174	50.0 - 100.0% of mass 95	100946	86.8		Pass
175	5.0 - 9.0% of mass 174	7136	6.14	(7.07) [a]	Pass
176	95.0 - 101.0% of mass 174	97904	84.2	(97.0) [a]	Pass
177	5.0 - 9.0% of mass 176	6666	5.73	(6.81) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VJ3475-IC3475	J062646.D	01/27/11	11:38	02:39	Initial cal 1
VJ3475-IC3475	J062647.D	01/27/11	12:02	03:03	Initial cal 2
VJ3475-IC3475	J062648.D	01/27/11	12:25	03:26	Initial cal 3
VJ3475-ICC3475	J062649.D	01/27/11	13:01	04:02	Initial cal 4
VJ3475-IC3475	J062650.D	01/27/11	13:28	04:29	Initial cal 5
VJ3475-IC3475	J062651.D	01/27/11	13:59	05:00	Initial cal 6
VJ3475-ICV3475	J062652.D	01/27/11	14:31	05:32	Initial cal verification 4

Instrument Performance Check (BFB)

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3483-BFB
Lab File ID: J062847.D
Instrument ID: GCMSJ
Injection Date: 02/04/11
Injection Time: 09:14

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	27613	22.7		Pass
75	30.0 - 60.0% of mass 95	52930	43.6		Pass
95	Base peak, 100% relative abundance	121434	100.0		Pass
96	5.0 - 9.0% of mass 95	8276	6.82		Pass
173	Less than 2.0% of mass 174	468	0.39	(0.46) [a]	Pass
174	50.0 - 100.0% of mass 95	102512	84.4		Pass
175	5.0 - 9.0% of mass 174	7093	5.84	(6.92) [a]	Pass
176	95.0 - 101.0% of mass 174	99016	81.5	(96.6) [a]	Pass
177	5.0 - 9.0% of mass 176	6914	5.69	(6.98) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VJ3483-CC3475	J062848.D	02/04/11	09:37	00:23	Continuing cal 4
VJ3483-BS	J062849.D	02/04/11	10:11	00:57	Blank Spike
VJ3483-MB	J062850.D	02/04/11	10:34	01:20	Method Blank
ZZZZZZ	J062851.D	02/04/11	10:59	01:45	(unrelated sample)
ZZZZZZ	J062852.D	02/04/11	11:21	02:07	(unrelated sample)
F79653-3	J062853.D	02/04/11	11:44	02:30	MW39-08-012711
F79653-4	J062854.D	02/04/11	12:07	02:53	MW39-09-012711
F79653-5	J062855.D	02/04/11	12:30	03:16	MW39-14-012711
F79653-7	J062856.D	02/04/11	12:53	03:39	MW39-DUP02-012711
F79653-8	J062857.D	02/04/11	13:16	04:02	TB01-012711
ZZZZZZ	J062858.D	02/04/11	13:39	04:25	(unrelated sample)
ZZZZZZ	J062859.D	02/04/11	14:02	04:48	(unrelated sample)
ZZZZZZ	J062860.D	02/04/11	14:25	05:11	(unrelated sample)
ZZZZZZ	J062861.D	02/04/11	14:48	05:34	(unrelated sample)
ZZZZZZ	J062862.D	02/04/11	15:11	05:57	(unrelated sample)
ZZZZZZ	J062863.D	02/04/11	15:34	06:20	(unrelated sample)
F79653-5MS	J062864.D	02/04/11	15:57	06:43	Matrix Spike
F79653-5MSD	J062865.D	02/04/11	16:20	07:06	Matrix Spike Duplicate
ZZZZZZ	J062866.D	02/04/11	16:43	07:29	(unrelated sample)
ZZZZZZ	J062870.D	02/04/11	18:15	09:01	(unrelated sample)
ZZZZZZ	J062871.D	02/04/11	18:37	09:23	(unrelated sample)
ZZZZZZ	J062872.D	02/04/11	19:01	09:47	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3486-BFB
Lab File ID: J062928.D
Instrument ID: GCMSJ
Injection Date: 02/08/11
Injection Time: 13:52

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	22653	19.4		Pass
75	30.0 - 60.0% of mass 95	54019	46.2		Pass
95	Base peak, 100% relative abundance	117008	100.0		Pass
96	5.0 - 9.0% of mass 95	8208	7.01		Pass
173	Less than 2.0% of mass 174	289	0.25	(0.31) [a]	Pass
174	50.0 - 100.0% of mass 95	92605	79.1		Pass
175	5.0 - 9.0% of mass 174	7095	6.06	(7.66) [a]	Pass
176	95.0 - 101.0% of mass 174	89219	76.3	(96.3) [a]	Pass
177	5.0 - 9.0% of mass 176	5701	4.87	(6.39) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VJ3486-IC3486	J062929.D	02/08/11	14:10	00:18	Initial cal 1
VJ3486-IC3486	J062930.D	02/08/11	14:33	00:41	Initial cal 2
VJ3486-IC3486	J062931.D	02/08/11	14:56	01:04	Initial cal 3
VJ3486-ICC3486	J062932.D	02/08/11	15:23	01:31	Initial cal 4
VJ3486-IC3486	J062933.D	02/08/11	15:46	01:54	Initial cal 5
VJ3486-IC3486	J062934.D	02/08/11	16:09	02:17	Initial cal 6
VJ3486-ICV3486	J062935.D	02/08/11	16:33	02:41	Initial cal verification 4
VJ3486-BS	J062936.D	02/08/11	17:17	03:25	Blank Spike
VJ3486-MB	J062938.D	02/08/11	18:03	04:11	Method Blank
ZZZZZZ	J062939.D	02/08/11	18:25	04:33	(unrelated sample)
ZZZZZZ	J062940.D	02/08/11	18:48	04:56	(unrelated sample)
ZZZZZZ	J062941.D	02/08/11	19:11	05:19	(unrelated sample)
ZZZZZZ	J062942.D	02/08/11	19:34	05:42	(unrelated sample)
F79653-1	J062943.D	02/08/11	19:57	06:05	MW39-06-012611
F79653-4	J062944.D	02/08/11	20:20	06:28	MW39-09-012711
ZZZZZZ	J062945.D	02/08/11	20:43	06:51	(unrelated sample)
F79758-1	J062946.D	02/08/11	21:06	07:14	(used for QC only; not part of job F79653)
F79758-1MS	J062947.D	02/08/11	21:29	07:37	Matrix Spike
F79758-1MSD	J062948.D	02/08/11	21:52	08:00	Matrix Spike Duplicate
F79653-2	J062949.D	02/08/11	22:15	08:23	MW39-06D-012611
F79653-6	J062950.D	02/08/11	22:39	08:47	MW39-DUP01-012611
ZZZZZZ	J062951.D	02/08/11	23:02	09:10	(unrelated sample)
ZZZZZZ	J062952.D	02/08/11	23:25	09:33	(unrelated sample)
ZZZZZZ	J062953.D	02/08/11	23:48	09:56	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3486-BFB
Lab File ID: J062928.D
Instrument ID: GCMSJ
Injection Date: 02/08/11
Injection Time: 13:52

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	J062954.D	02/09/11	00:12	10:20	(unrelated sample)
ZZZZZZ	J062955.D	02/09/11	00:35	10:43	(unrelated sample)
ZZZZZZ	J062956.D	02/09/11	00:58	11:06	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3487-BFB
Lab File ID: J062960.D
Instrument ID: GCMSJ
Injection Date: 02/09/11
Injection Time: 08:44

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	37019	18.6		Pass
75	30.0 - 60.0% of mass 95	84743	42.6		Pass
95	Base peak, 100% relative abundance	198741	100.0		Pass
96	5.0 - 9.0% of mass 95	13095	6.59		Pass
173	Less than 2.0% of mass 174	945	0.48	(0.62) [a]	Pass
174	50.0 - 100.0% of mass 95	152704	76.8		Pass
175	5.0 - 9.0% of mass 174	11034	5.55	(7.23) [a]	Pass
176	95.0 - 101.0% of mass 174	148800	74.9	(97.4) [a]	Pass
177	5.0 - 9.0% of mass 176	9513	4.79	(6.39) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VJ3487-IC3487	J062961.D	02/09/11	09:06	00:22	Initial cal 1
VJ3487-IC3487	J062962.D	02/09/11	09:29	00:45	Initial cal 2
VJ3487-IC3487	J062963.D	02/09/11	09:52	01:08	Initial cal 3
VJ3487-ICC3487	J062964.D	02/09/11	10:15	01:31	Initial cal 4
VJ3487-IC3487	J062965.D	02/09/11	10:38	01:54	Initial cal 5
VJ3487-IC3487	J062966.D	02/09/11	11:01	02:17	Initial cal 6
VJ3487-ICV3487	J062967.D	02/09/11	11:25	02:41	Initial cal verification 4

Instrument Performance Check (BFB)

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3487-BFB
Lab File ID: J062968.D
Instrument ID: GCMSJ
Injection Date: 02/09/11
Injection Time: 11:58

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	34171	19.9		Pass
75	30.0 - 60.0% of mass 95	72133	42.1		Pass
95	Base peak, 100% relative abundance	171499	100.0		Pass
96	5.0 - 9.0% of mass 95	11525	6.72		Pass
173	Less than 2.0% of mass 174	688	0.40	(0.53) [a]	Pass
174	50.0 - 100.0% of mass 95	129600	75.6		Pass
175	5.0 - 9.0% of mass 174	8922	5.20	(6.88) [a]	Pass
176	95.0 - 101.0% of mass 174	125509	73.2	(96.8) [a]	Pass
177	5.0 - 9.0% of mass 176	8495	4.95	(6.77) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VJ3487-CC3486	J062969.D	02/09/11	12:23	00:25	Continuing cal 4
VJ3487-CC3487	J062970.D	02/09/11	12:59	01:01	Continuing cal 4
VJ3487-BS	J062971.D	02/09/11	13:55	01:57	Blank Spike
VJ3487-BS	J062972.D	02/09/11	14:33	02:35	Blank Spike
ZZZZZZ	J062974.D	02/09/11	15:18	03:20	(unrelated sample)
ZZZZZZ	J062976.D	02/09/11	16:05	04:07	(unrelated sample)
F79653-2	J062977.D	02/09/11	16:28	04:30	MW39-06D-012611
VJ3487-MB	J062978.D	02/09/11	16:50	04:52	Method Blank
ZZZZZZ	J062979.D	02/09/11	17:13	05:15	(unrelated sample)
F79780-12	J062980.D	02/09/11	17:36	05:38	(used for QC only; not part of job F79653)
F79780-12MS	J062981.D	02/09/11	17:59	06:01	Matrix Spike
F79780-12MSD	J062982.D	02/09/11	18:22	06:24	Matrix Spike Duplicate
ZZZZZZ	J062984.D	02/09/11	19:08	07:10	(unrelated sample)
ZZZZZZ	J062985.D	02/09/11	19:31	07:33	(unrelated sample)
ZZZZZZ	J062986.D	02/09/11	19:54	07:56	(unrelated sample)
ZZZZZZ	J062987.D	02/09/11	20:17	08:19	(unrelated sample)
ZZZZZZ	J062988.D	02/09/11	20:40	08:42	(unrelated sample)
ZZZZZZ	J062989.D	02/09/11	21:02	09:04	(unrelated sample)
ZZZZZZ	J062990.D	02/09/11	21:25	09:27	(unrelated sample)
ZZZZZZ	J062991.D	02/09/11	21:48	09:50	(unrelated sample)
ZZZZZZ	J062992.D	02/09/11	22:12	10:14	(unrelated sample)
ZZZZZZ	J062993.D	02/09/11	22:35	10:37	(unrelated sample)
ZZZZZZ	J062994.D	02/09/11	22:58	11:00	(unrelated sample)

Volatile Internal Standard Area Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	VJ3483-CC3475	**Injection Date:**	02/04/11
Lab File ID:	J062848.D	**Injection Time:**	09:37
Instrument ID:	GCMSJ	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Initial Cal [a]	1889885	7.43	1301966	10.50	707616	12.87	169868	5.08
Check Std [b]	2009132	7.43	1350584	10.50	722610	12.86	176961	5.08
Upper Limit [c]	4018264	7.93	2701168	11.00	1445220	13.36	353922	5.58
Lower Limit [d]	1004566	6.93	675292	10.00	361305	12.36	88481	4.58

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
VJ3483-BS	2045735	7.43	1410470	10.50	742003	12.86	182539	5.09
VJ3483-MB	1974151	7.43	1410125	10.50	717338	12.86	170879	5.07
ZZZZZZ	1934226	7.43	1395727	10.50	704810	12.86	207504	5.08
ZZZZZZ	1900523	7.43	1371660	10.50	689322	12.86	140659	5.07
F79653-3	1712893	7.43	1234593	10.50	645336	12.86	322659	5.07
F79653-4 [e]	1824469	7.43	1335412	10.50	677444	12.86	390281*	5.08
F79653-5	1840916	7.43	1341499	10.50	680316	12.86	179949	5.08
F79653-7	1683902	7.42	1218563	10.50	610310	12.86	154672	5.08
F79653-8	1767185	7.43	1275311	10.50	629702	12.86	129306	5.08
ZZZZZZ	1653695	7.43	1189725	10.50	586588	12.86	127166	5.08
ZZZZZZ	1616955	7.43	1184500	10.50	591019	12.86	162579	5.09
ZZZZZZ	1568315	7.43	1150940	10.50	590867	12.86	166514	5.09
ZZZZZZ	1894760	7.43	1034054	10.51	533722	12.87	143897	5.09
ZZZZZZ	2040543	7.43	1433430	10.50	763324	12.86	194972	5.08
ZZZZZZ	2054927	7.43	1436275	10.50	770138	12.86	182448	5.08
F79653-5MS	2100130	7.42	1448267	10.50	774566	12.86	207006	5.08
F79653-5MSD	2049847	7.42	1405684	10.50	745805	12.86	197992	5.07
ZZZZZZ	1931262	7.42	1375879	10.50	702972	12.86	163154	5.07
ZZZZZZ	1542316	7.43	1142787	10.50	599624	12.86	358953*	5.07
ZZZZZZ	1638728	7.43	1203873	10.50	616717	12.86	358618*	5.07
ZZZZZZ	1517907	7.43	1099427	10.50	572624	12.86	373136*	5.08

IS 1 = Fluorobenzene
IS 2 = Chlorobenzene-D5
IS 3 = 1,4-Dichlorobenzene-d4
IS 4 = Tert Butyl Alcohol-D10

(a) Initial Cal is: VJ3475-ICC3475 J062649.D 01/27/11 13:01
(b) Check Std Limit = -50 to + 100% of initial cal area.
(c) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(d) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(e) Confirmation run for internal standard areas.

Volatile Internal Standard Area Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	VJ3486-ICC3486	**Injection Date:**	02/08/11
Lab File ID:	J062932.D	**Injection Time:**	15:23
Instrument ID:	GCMSJ	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Initial Cal [a]	1801065	7.43	1233474	10.50	636944	12.86	145962	5.08
Check Std [b]	1801065	7.43	1233474	10.50	636944	12.86	145962	5.08
Upper Limit [c]	3602130	7.93	2466948	11.00	1273888	13.36	291924	5.58
Lower Limit [d]	900533	6.93	616737	10.00	318472	12.36	72981	4.58

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
VJ3486-BS	2075411	7.43	1445272	10.50	736090	12.86	173067	5.07
VJ3486-MB	1931743	7.43	1390658	10.50	669720	12.86	153224	5.08
ZZZZZZ	1636198	7.43	1174038	10.50	600473	12.86	373788*	5.08
ZZZZZZ	1626538	7.43	1188134	10.50	602285	12.86	355902*	5.07
ZZZZZZ	1514371	7.43	1091377	10.50	553568	12.86	363537*	5.08
ZZZZZZ	1769740	7.43	1288928	10.50	629495	12.86	171415	5.08
F79653-1 [e]	1882607	7.43	1359302	10.50	688709	12.86	187303	5.08
F79653-4 [f]	1633451	7.43	1181437	10.50	583919	12.86	390691*	5.08
ZZZZZZ	1887622	7.43	1347902	10.50	674526	12.86	166387	5.08
F79758-1	1896630	7.43	1359006	10.50	691507	12.86	144022	5.08
F79758-1MS	1941814	7.43	1323658	10.50	683582	12.86	154491	5.06
F79758-1MSD	2006085	7.43	1350174	10.50	709324	12.86	167102	5.08
F79653-2	1895492	7.43	1352916	10.50	657221	12.86	206573	5.08
F79653-6	1834573	7.43	1318376	10.50	651466	12.86	191686	5.08
ZZZZZZ	1855811	7.43	1362029	10.50	668841	12.86	149766	5.08
ZZZZZZ	1845182	7.43	1314262	10.50	659309	12.86	155039	5.06
ZZZZZZ	1797724	7.43	1275841	10.50	626935	12.86	145374	5.08
ZZZZZZ	1833516	7.43	1294135	10.50	665183	12.86	143321	5.07
ZZZZZZ	1877947	7.43	1354695	10.50	673824	12.86	150605	5.08
ZZZZZZ	1852379	7.43	1319201	10.50	649335	12.86	150983	5.09

IS 1 = Fluorobenzene
IS 2 = Chlorobenzene-D5
IS 3 = 1,4-Dichlorobenzene-d4
IS 4 = Tert Butyl Alcohol-D10

(a) Initial Cal is: VJ3486-ICC3486 J062932.D 02/08/11 15:23
(b) Check Std Limit = -50 to + 100% of initial cal area.
(c) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(d) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(e) Sample was not preserved to a pH < 2; reported results are considered minimum values.
(f) Sample was treated with an anti-foaming agent.

Volatile Internal Standard Area Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	VJ3487-CC3486	**Injection Date:**	02/09/11
Lab File ID:	J062969.D	**Injection Time:**	12:23
Instrument ID:	GCMSJ	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Initial Cal [a]	1801065	7.43	1233474	10.50	636944	12.86	145962	5.08
Check Std [b]	1842025	7.43	1296653	10.50	686292	12.86	162041	5.08
Upper Limit [c]	3684050	7.93	2593306	11.00	1372584	13.36	324082	5.58
Lower Limit [d]	921013	6.93	648327	10.00	343146	12.36	81021	4.58

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
VJ3487-BS	1910850	7.43	1351482	10.50	695277	12.86	169632	5.09
VJ3487-BS	1883865	7.43	1321622	10.50	633066	12.86	170255	5.08
ZZZZZZ	1806390	7.43	1299663	10.50	695210	12.86	154108	5.08
ZZZZZZ	1918170	7.43	1366130	10.50	676115	12.86	160487	5.08
F79653-2 [e]	1742358	7.43	1242655	10.50	605044	12.86	189680	5.08
VJ3487-MB	1736203	7.43	1230873	10.50	588464	12.86	143495	5.09
ZZZZZZ	1779698	7.43	1269251	10.50	634984	12.86	146053	5.07
F79780-12	1848802	7.43	1322733	10.50	660445	12.86	156349	5.08
F79780-12MS	1954854	7.43	1329057	10.50	697704	12.86	157815	5.08
F79780-12MSD	2094117	7.43	1433834	10.50	736856	12.86	179973	5.08
ZZZZZZ	2085782	7.43	1484575	10.50	723805	12.86	170489	5.08
ZZZZZZ	1915395	7.43	1357038	10.50	656557	12.86	163182	5.07
ZZZZZZ	1818537	7.43	1306715	10.50	632692	12.86	162812	5.08
ZZZZZZ	1801644	7.43	1272858	10.50	618668	12.86	150700	5.08
ZZZZZZ	1728201	7.43	1183851	10.50	548317	12.86	85045	5.08
ZZZZZZ	1806002	7.43	1287119	10.50	633619	12.86	148358	5.06
ZZZZZZ	1671160	7.43	1202007	10.50	578407	12.86	144432	5.08
ZZZZZZ	1632881	7.43	1161129	10.50	561527	12.86	138908	5.08
ZZZZZZ	1618819	7.42	1168742	10.50	563788	12.86	137475	5.08
ZZZZZZ	1514268	7.43	1115339	10.50	562764	12.86	127896	5.08
ZZZZZZ	1620949	7.43	1166855	10.50	575797	12.86	137660	5.08

IS 1 = Fluorobenzene
IS 2 = Chlorobenzene-D5
IS 3 = 1,4-Dichlorobenzene-d4
IS 4 = Tert Butyl Alcohol-D10

(a) Initial Cal is: VJ3486-ICC3486 J062932.D 02/08/11 15:23
(b) Check Std Limit = -50 to + 100% of initial cal area.
(c) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(d) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(e) Sample vial(s) contained significant headspace; reported results are considered minimum values.

Volatile Surrogate Recovery Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Method: SW846 8260B **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
F79653-1	J062943.D	103.0	100.0	96.0	96.0
F79653-2	J062977.D	104.0	104.0	95.0	99.0
F79653-2	J062949.D	103.0	103.0	96.0	101.0
F79653-3	J062853.D	105.0	112.0	96.0	99.0
F79653-4	J062854.D	105.0	113.0	95.0	100.0
F79653-4	J062944.D	104.0	110.0	95.0	98.0
F79653-5	J062855.D	106.0	102.0	95.0	100.0
F79653-6	J062950.D	103.0	101.0	96.0	99.0
F79653-7	J062856.D	106.0	103.0	96.0	100.0
F79653-8	J062857.D	104.0	98.0	95.0	100.0
F79653-5MS	J062864.D	103.0	106.0	99.0	100.0
F79653-5MSD	J062865.D	100.0	103.0	100.0	100.0
F79758-1MS	J062947.D	98.0	100.0	101.0	101.0
F79758-1MSD	J062948.D	98.0	98.0	101.0	99.0
F79780-12MS	J062981.D	99.0	101.0	100.0	97.0
F79780-12MSD	J062982.D	98.0	100.0	101.0	99.0
VJ3483-BS	J062849.D	102.0	102.0	99.0	101.0
VJ3483-MB	J062850.D	105.0	102.0	96.0	99.0
VJ3486-BS	J062936.D	100.0	99.0	99.0	99.0
VJ3486-MB	J062938.D	104.0	100.0	95.0	100.0
VJ3487-BS	J062971.D	98.0	101.0	97.0	99.0
VJ3487-BS	J062972.D	102.0	97.0	97.0	101.0
VJ3487-MB	J062978.D	102.0	102.0	95.0	100.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	87-116%
S2 = 1,2-Dichloroethane-D4	76-127%
S3 = Toluene-D8	86-112%
S4 = 4-Bromofluorobenzene	84-120%

Initial Calibration Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICC3475
Lab FileID: J062649.D

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                    Response Factor Report  MSVOA6

Method       : C:\MSDCHEM\1\METHODS\8260-JAPP9.M (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Fri Jan 28 10:52:13 2011
Response via : Initial Calibration

Calibration Files
1   =J062646.D   2   =J062647.D   3   =J062648.D   4   =J062649.D
5      =J062650.D    6      =J062651.D

      Compound              1     2     3     4     5     6     Avg    %RSD
-------------------------------------------------------------------------------

1) I   Fluorobenzene         ----------------ISTD---------------------
2)     Dichlorodifluoromet 0.222 0.194 0.249 0.253 0.234 0.234 0.231   9.16
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9992
             Response Ratio = 0.00000 + 0.25217 *A + -0.00967 *A^2

3) P   Chloromethane       0.650 0.479 0.545 0.525 0.460 0.456 0.519  14.15
4) C   Vinyl Chloride      0.344 0.309 0.403 0.394 0.339 0.341 0.355  10.16
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9973
             Response Ratio = 0.00000 + 0.39787 *A + -0.03035 *A^2

5)     Bromomethane        0.259 0.191 0.180 0.156 0.131 0.127 0.174  28.10
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9964
             Response Ratio = 0.00000 + 0.17024 *A + -0.02279 *A^2

6)     Chloroethane        0.177 0.161 0.181 0.163 0.129 0.124 0.156  15.42
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9941
             Response Ratio = 0.00000 + 0.17510 *A + -0.02667 *A^2

7)     Trichlorofluorometh 0.398 0.380 0.462 0.464 0.403 0.390 0.416   8.92
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9985
             Response Ratio = 0.00000 + 0.48043 *A + -0.04661 *A^2

8)     Ethyl Ether         0.262 0.281 0.280 0.281 0.246 0.253 0.267   5.76
9)     1,2-Dichlorotrifluo 0.276 0.252 0.316 0.306 0.273 0.273 0.283   8.40
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9984
             Response Ratio = 0.00000 + 0.30995 *A + -0.01959 *A^2

10) C  1,1-Dichloroethene  0.420 0.419 0.505 0.506 0.461 0.458 0.461   8.36
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9992
             Response Ratio = 0.00000 + 0.51107 *A + -0.02803 *A^2

11)    Freon 113           0.224 0.223 0.269 0.268 0.242 0.238 0.244   8.32
12)    Carbon Disulfide    0.867 0.762 0.893 0.874 0.759 0.748 0.817   8.22
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9982
             Response Ratio = 0.00000 + 0.89802 *A + -0.07863 *A^2

13)    Iodomethane         0.427 0.415 0.476 0.492 0.433 0.445 0.448   6.70
14)    Allyl chloride      0.590 0.659 0.823 0.756 0.727 0.666 0.703  11.67
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9996
             Response Ratio = 0.00000 + 0.83839 *A + -0.08519 *A^2

15)    Methylene Chloride  1.900 0.982 0.763 0.742 0.664 0.661 0.952  50.29
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9987
             Response Ratio = 0.00000 + 0.76414 *A + -0.05472 *A^2

16)    Acetone             0.061 0.047 0.052 0.063 0.051 0.055 0.055  11.45
```

Initial Calibration Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICC3475
Lab FileID: J062649.D

17)		Methyl acetate	0.053	0.050	0.047	0.049	0.045	0.047	0.049	5.56
18)		trans-1,2-Dichloroe	0.601	0.558	0.659	0.668	0.618	0.613	0.620	6.46
19)		Hexane	0.403	0.368	0.446	0.442	0.399	0.394	0.409	7.34
20)		Methyl Tert Butyl E	0.914	0.847	0.838	0.880	0.839	0.886	0.867	3.58
21)		Acetonitrile	0.031	0.029	0.030	0.030	0.026	0.027	0.029	6.25
22)		Di-isopropyl ether	1.641	1.657	1.804	1.803	1.641	1.614	1.693	5.10
23)		Chloroprene	1.259	1.322	1.412	1.480	1.332	1.335	1.357	5.74
24)	P	1,1-Dichloroethane	0.746	0.696	0.795	0.818	0.741	0.726	0.754	6.01
25)		Acrylonitrile	0.252	0.264	0.282	0.296	0.266	0.267	0.271	5.74
26)		ETBE	1.345	1.346	1.391	1.411	1.270	1.274	1.340	4.36
27)		Vinyl acetate	0.672	0.713	0.706	0.692	0.583	0.545	0.652	10.84
28)		cis-1,2-Dichloroeth	0.380	0.353	0.401	0.432	0.398	0.403	0.395	6.63
29)		2,2-Dichloropropane	0.413	0.385	0.468	0.514	0.487	0.505	0.462	11.28
30)		Bromochloromethane	0.183	0.185	0.199	0.210	0.194	0.202	0.196	5.16
31)		Cyclohexane	0.694	0.641	0.843	0.827	0.752	0.727	0.747	10.38
32)	C	Chloroform	0.601	0.564	0.627	0.651	0.594	0.593	0.605	4.98
33)		Ethyl acetate	0.494	0.530	0.500	0.484	0.410	0.415	0.472	10.33
34)		Tetrahydrofuran	0.160	0.112	0.099	0.101	0.093	0.094	0.110	23.24

---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9992
Response Ratio = 0.00000 + 0.10092 *A + -0.00401 *A^2

35)	S	Dibromofluoromethan	0.264	0.260	0.252	0.249	0.248	0.247	0.253	2.77
36)		Carbon Tetrachlorid	0.392	0.365	0.462	0.505	0.491	0.510	0.454	13.54
37)		1,1,1-Trichloroetha	0.404	0.380	0.460	0.488	0.470	0.486	0.448	10.14
38)		2-Butanone	0.243	0.218	0.232	0.262	0.211	0.218	0.231	8.31
39)		1,1-Dichloropropene	0.423	0.381	0.492	0.526	0.490	0.492	0.467	11.52
40)		Propionitrile	0.052	0.054	0.051	0.052	0.045	0.045	0.050	7.98
41)		Methacrylonitrile	0.245	0.267	0.258	0.241	0.194	0.178	0.231	15.56

---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9973
Response Ratio = 0.00000 + 0.26682 *A + -0.00454 *A^2

42)		Benzene	1.477	1.328	1.468	1.447	1.202	1.093	1.336	11.91

---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9986
Response Ratio = 0.00000 + 1.58489 *A + -0.24965 *A^2

43)		TAME	0.865	0.845	0.911	0.953	0.858	0.863	0.882	4.66
44)	S	1,2-Dichloroethane-	0.291	0.292	0.296	0.278	0.281	0.292	0.288	2.41
45)		1,2-Dichloroethane	0.507	0.487	0.518	0.541	0.507	0.516	0.513	3.43
46)		Trichloroethene	0.306	0.304	0.368	0.388	0.353	0.345	0.344	9.74
47)		Methylcyclohexane	0.481	0.464	0.621	0.611	0.552	0.529	0.543	12.00

---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9993
Response Ratio = 0.00000 + 0.63959 *A + -0.05628 *A^2

48)		Dibromomethane	0.202	0.206	0.214	0.225	0.208	0.211	0.211	3.77
49)	C	1,2-Dichloropropane	0.442	0.427	0.482	0.488	0.438	0.421	0.449	6.32
50)		Bromodichloromethan	0.412	0.398	0.458	0.491	0.457	0.457	0.445	7.68
51)		Methyl methacrylate	0.314	0.342	0.392	0.402	0.369	0.373	0.365	8.94
52)		2-Chloroethyl vinyl	0.205	0.243	0.251	0.250	0.202	0.189	0.223	12.51
53)		cis-1,3-Dichloropro	0.529	0.543	0.609	0.648	0.585	0.572	0.581	7.55
54)	I	Chlorobenzene-d5	----------ISTD----------							
55)	S	Toluene-d8	1.253	1.254	1.274	1.309	1.363	1.413	1.311	4.95
56)	C	Toluene	1.859	1.796	2.081	2.186	1.986	1.887	1.966	7.50

---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9994
Response Ratio = 0.00000 + 2.26874 *A + -0.19167 *A^2

57)		2-Nitropropane	0.105	0.119	0.136	0.148	0.142	0.147	0.133	13.09
58)		4-Methyl-2-pentanon	0.491	0.543	0.549	0.549	0.466	0.444	0.507	9.20
59)		trans-1,3-Dichlorop	0.617	0.604	0.697	0.756	0.718	0.738	0.688	9.21
60)		Tetrachloroethene	0.485	0.432	0.541	0.573	0.542	0.561	0.522	10.25

Initial Calibration Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICC3475
Lab FileID: J062649.D

```
61)     Ethyl methacrylate  0.396 0.487 0.583 0.646 0.608 0.638 0.560  17.58
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9989
              Response Ratio = 0.00000 + 0.59704 *A + 0.01866 *A^2

62)     1,1,2-Trichloroetha 0.374 0.363 0.386 0.409 0.376 0.382 0.382   4.02
63)     Dibromochloromethan 0.428 0.405 0.476 0.537 0.522 0.551 0.486  12.36
64)     1,3-Dichloropropane 0.717 0.726 0.785 0.834 0.775 0.785 0.770   5.59
65)     1,2-Dibromoethane   0.421 0.422 0.452 0.497 0.471 0.490 0.459   7.18
66)     2-hexanone          0.394 0.393 0.448 0.497 0.398 0.388 0.420  10.40
67)     1-Chlorohexane      0.586 0.586 0.802 0.829 0.760 0.737 0.717  14.82
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9993
              Response Ratio = 0.00000 + 0.84643 *A + -0.05540 *A^2

68) C   Ethylbenzene        2.084 1.930 2.246 2.219 1.887 1.731 2.016  10.03
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9990
              Response Ratio = 0.00000 + 2.41122 *A + -0.34492 *A^2

69) P   Chlorobenzene       1.331 1.182 1.362 1.394 1.195 1.130 1.266   8.68
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9986
              Response Ratio = 0.00000 + 1.46506 *A + -0.17071 *A^2

70)     1,1,1,2-Tetrachloro 0.351 0.403 0.483 0.522 0.504 0.507 0.462  14.84
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9996
              Response Ratio = 0.00000 + 0.50671 *A

71)     m,p-Xylene          1.469 1.446 1.681 1.617 1.301 1.161 1.446  13.39
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9979
              Response Ratio = 0.00000 + 1.80374 *A + -0.16335 *A^2

72)     o-Xylene            1.354 1.458 1.806 1.847 1.646 1.551 1.610  12.03
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9993
              Response Ratio = 0.00000 + 1.94248 *A + -0.19753 *A^2

73)     Styrene             1.075 1.222 1.506 1.583 1.408 1.338 1.355  13.76
74) P   Bromoform           0.236 0.269 0.308 0.357 0.340 0.367 0.313  16.63
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9986
              Response Ratio = 0.00000 + 0.31546 *A + 0.02462 *A^2

75)     Isopropylbenzene    1.459 1.507 1.971 1.989 1.766 1.653 1.724  13.12
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9993
              Response Ratio = 0.00000 + 2.11041 *A + -0.23065 *A^2


76) I   1,4-Dichlorobenzene-d ----------------ISTD---------------------
77) S   4-Bromofluorobenzen 0.946 0.959 0.939 0.939 0.988 1.004 0.962   2.85
78)     cis-1,4-Dichloro-2- 0.081 0.153 0.198 0.297 0.288 0.320 0.223  42.45
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9968
              Response Ratio = 0.00000 + 0.23374 *A + 0.04281 *A^2

79)     n-Propylbenzene     4.189 4.180 4.874 4.528 3.708 3.352 4.139  13.24
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9981
              Response Ratio = 0.00000 + 5.05675 *A + -0.86922 *A^2

80)     Bromobenzene        1.175 1.072 1.159 1.165 1.011 0.991 1.096   7.52
81) P   1,1,2,2-Tetrachloro 1.039 1.030 1.012 1.056 0.952 0.966 1.009   4.14
82)     1,3,5-Trimethylbenz 2.875 3.043 3.536 3.318 2.779 2.552 3.017  11.98
83)     2-Chlorotoluene     2.919 2.961 3.310 3.170 2.702 2.527 2.931   9.85
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9987
              Response Ratio = 0.00000 + 3.42544 *A + -0.45906 *A^2
```

Initial Calibration Summary

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Sample: VJ3475-ICC3475
Lab FileID: J062649.D

```
 84)     trans-1,4-Dichloro- 0.121 0.177 0.205 0.323 0.302 0.339 0.245  36.48
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9953
               Response Ratio = 0.00000 + 0.25049 *A + 0.04372 *A^2

 85)     1,2,3-Trichloroprop 0.293 0.257 0.254 0.263 0.239 0.246 0.259   7.34
 86)     Cyclohexanone       0.019 0.024 0.025 0.028 0.028 0.029 0.026  13.97
 87)     4-Chlorotoluene     2.688 2.677 3.135 3.093 2.740 2.593 2.821   8.24
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9993
               Response Ratio = 0.00000 + 3.27863 *A + -0.34869 *A^2

 88)     tert-Butylbenzene   1.495 1.568 1.917 1.896 1.729 1.679 1.714   9.92
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9995
               Response Ratio = 0.00000 + 1.96139 *A + -0.14461 *A^2

 89)     1,2,4-Trimethylbenz 2.870 3.095 3.590 3.488 3.037 2.858 3.156   9.89
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9991
               Response Ratio = 0.00000 + 3.73194 *A + -0.44542 *A^2

 90)     Pentachloroethane   0.534 0.590 0.656 0.721 0.685 0.701 0.648  11.09
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9992
               Response Ratio = 0.00000 + 0.69303 *A

 91)     sec-Butylbenzene    3.712 3.789 4.659 4.368 3.719 3.380 3.938  12.11
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9990
               Response Ratio = 0.00000 + 4.84322 *A + -0.74224 *A^2

 92)     4-Isopropyltoluene  2.552 2.786 3.554 3.405 2.933 2.731 2.994  13.31
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9989
               Response Ratio = 0.00000 + 3.68274 *A + -0.48445 *A^2

 93)     1,3-Dichlorobenzene 2.152 1.973 2.185 2.191 1.950 1.871 2.054   6.76
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9993
               Response Ratio = 0.00000 + 2.28732 *A + -0.21279 *A^2

 94)     1,4-Dichlorobenzene 2.107 1.934 2.164 2.179 1.905 1.844 2.022   7.17
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9988
               Response Ratio = 0.00000 + 2.25694 *A + -0.21286 *A^2

 95)     n-Butylbenzene      1.635 1.766 2.246 2.130 1.833 1.705 1.886  13.03
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9989
               Response Ratio = 0.00000 + 2.31234 *A + -0.30918 *A^2

 96)     Benzyl Chloride     0.283 0.350 0.380 0.437 0.385 0.383 0.370  13.83
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9978
               Response Ratio = 0.00000 + 0.42564 *A + -0.02221 *A^2

 97)     1,2-Dichlorobenzene 1.967 1.909 2.068 2.077 1.850 1.775 1.941   6.18
 98)     1,2-Dibromo-3-Chlor 0.124 0.148 0.141 0.154 0.152 0.165 0.147   9.39
 99)     Hexachlorobutadiene 0.719 0.570 0.755 0.734 0.692 0.713 0.697   9.46
100)     1,2,4-Trichlorobenz 1.311 1.230 1.438 1.437 1.259 1.240 1.319   7.27
101)     Naphthalene         2.157 2.180 2.557 2.684 2.393 2.329 2.383   8.73
102)     1,2,3-Trichlorobenz 1.312 1.082 1.258 1.262 1.143 1.138 1.199   7.54

103) I   Tert Butyl Alcohol-d1 ----------------ISTD---------------------
104)     Ethanol             0.191 0.222 0.157 0.153 0.136 0.134 0.166  20.81
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9985
               Response Ratio = 0.00000 + 0.15898 *A + -0.00328 *A^2

105)     acrolein            2.487 2.271 2.197 2.112 2.033 2.088 2.198   7.49
106)     Tert Butyl Alcohol  1.853 1.830 1.689 1.615 1.622 1.632 1.707   6.31
```

Initial Calibration Summary

Job Number: F79653
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Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICC3475
Lab FileID: J062649.D

107)	tert Amyl alcohol	1.108	1.288	1.371	1.432	1.370	1.380	1.325	8.74
108)	Isobutyl alcohol	0.721	0.720	0.745	0.722	0.676	0.641	0.704	5.44
109)	1,4-Dioxane	0.130	0.147	0.155	0.164	0.162	0.158	0.153	8.25

(#) = Out of Range

8260-JAPP9.M Fri Jan 28 11:35:47 2011

Initial Calibration Verification

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICV3475
Lab FileID: J062652.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\012711\J062652.D          Vial: 10
Acq On    : 27 Jan 2011   2:31 pm                   Operator: MelissaM
Sample    : icv3475-4                               Inst    : MSVOA6
Misc      : ms16326,vj3475,,,,,                     Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\MSDCHEM\1\METHODS\8260-JAPP9.M (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Fri Jan 28 10:52:13 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.001  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	114	0.00	7.43
		Amount	Calc.	%Drift			
2	Dichlorodifluoromethane	40.000	47.582	-19.0	130	0.00	2.77
		AvgRF	CCRF	%Dev			
3 P	Chloromethane	0.519	0.521	-0.4	113	0.00	2.93
		Amount	Calc.	%Drift			
4 C	Vinyl Chloride	40.000	38.110	4.7	103	0.00	3.06
5	Bromomethane	40.000	42.215	-5.5	116	0.00	3.43
6	Chloroethane	40.000	38.656	3.4	104	0.01	3.57
7	Trichlorofluoromethane	40.000	40.957	-2.4	111	0.00	3.76
		AvgRF	CCRF	%Dev			
8	Ethyl Ether	0.267	0.267	0.0	108	0.00	4.00
		Amount	Calc.	%Drift			
9	1,2-Dichlorotrifluoroetha	40.000	42.180	-5.4	115	0.00	4.22
10 C	1,1-Dichloroethene	40.000	37.708	5.7	104	0.00	4.25
		AvgRF	CCRF	%Dev			
11	Freon 113	0.244	0.253	-3.7	107	0.00	4.33
		Amount	Calc.	%Drift			
12	Carbon Disulfide	40.000	37.919	5.2	103	0.00	4.32
		AvgRF	CCRF	%Dev			
13	Iodomethane	0.448	0.472	-5.4	109	0.00	4.42
		Amount	Calc.	%Drift			
14	Allyl chloride	40.000	36.954	7.6	108	0.00	4.73
15	Methylene Chloride	40.000	39.838	0.4	110	0.00	4.84
		AvgRF	CCRF	%Dev			
16	Acetone	0.055	0.048	12.7	86	0.00	4.86
17	Methyl acetate	0.049	0.048	2.0	112	0.01	4.98
18	trans-1,2-Dichloroethene	0.620	0.621	-0.2	106	0.00	5.01
19	Hexane	0.409	0.430	-5.1	111	0.00	5.07
20	Methyl Tert Butyl Ether	0.867	0.929	-7.2	120	0.00	5.12
21	Acetonitrile	0.029	0.027	6.9	105	0.00	5.33
22	Di-isopropyl ether	1.693	1.780	-5.1	112	0.00	5.48

Initial Calibration Verification

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Sample: VJ3475-ICV3475
Lab FileID: J062652.D

23		Chloroprene	1.357	1.374	-1.3	106	0.00	5.61
24	P	1,1-Dichloroethane	0.754	0.766	-1.6	106	0.00	5.63
25		Acrylonitrile	0.271	0.275	-1.5	106	0.00	5.61
26		ETBE	1.340	1.345	-0.4	108	0.00	5.85
27		Vinyl acetate	0.652	0.772	-18.4	127	0.00	5.82
28		cis-1,2-Dichloroethene	0.395	0.413	-4.6	109	0.00	6.17
29		2,2-Dichloropropane	0.462	0.533	-15.4	118	0.00	6.30
30		Bromochloromethane	0.196	0.202	-3.1	110	0.00	6.37
31		Cyclohexane	0.747	0.777	-4.0	107	0.00	6.44
32	C	Chloroform	0.605	0.647	-6.9	113	0.00	6.42
33		Ethyl acetate	0.472	0.529	-12.1	124	0.00	6.50
		----------	Amount	Calc.	%Drift	----------		
34		Tetrahydrofuran	40.000	38.480	3.8	106	0.00	6.60
		----------	AvgRF	CCRF	%Dev	----------		
35	S	Dibromofluoromethane	0.253	0.254	-0.4	116	0.00	6.61
36		Carbon Tetrachloride	0.454	0.523	-15.2	118	0.00	6.63
37		1,1,1-Trichloroethane	0.448	0.507	-13.2	118	0.00	6.69
38		2-Butanone	0.231	0.206	10.8	90	0.00	6.70
39		1,1-Dichloropropene	0.467	0.515	-10.3	111	0.00	6.78
40		Propionitrile	0.050	0.048	4.0	107	0.00	7.00
		----------	Amount	Calc.	%Drift	----------		
41		Methacrylonitrile	400.000	371.459	7.1	102	0.00	7.03
42		Benzene	40.000	38.020	4.9	104	0.00	7.03
		----------	AvgRF	CCRF	%Dev	----------		
43		TAME	0.882	0.920	-4.3	110	0.00	7.12
44	S	1,2-Dichloroethane-d4	0.288	0.309	-7.3	126	0.00	7.15
45		1,2-Dichloroethane	0.513	0.535	-4.3	113	0.00	7.22
46		Trichloroethene	0.344	0.377	-9.6	111	0.00	7.61
		----------	Amount	Calc.	%Drift	----------		
47		Methylcyclohexane	40.000	41.016	-2.5	113	0.00	7.64
		----------	AvgRF	CCRF	%Dev	----------		
48		Dibromomethane	0.211	0.221	-4.7	111	0.00	8.01
49	C	1,2-Dichloropropane	0.449	0.458	-2.0	107	0.00	8.10
50		Bromodichloromethane	0.445	0.479	-7.6	111	0.00	8.15
51		Methyl methacrylate	0.365	0.376	-3.0	107	0.00	8.26
52		2-Chloroethyl vinyl ether	0.223	0.228	-2.2	104	0.00	8.68
53		cis-1,3-Dichloropropene	0.581	0.637	-9.6	112	0.00	8.77
54	I	Chlorobenzene-d5	1.000	1.000	0.0	111	0.00	10.50
55	S	Toluene-d8	1.311	1.326	-1.1	113	0.00	8.96
		----------	Amount	Calc.	%Drift	----------		
56	C	Toluene	40.000	39.829	0.4	107	0.00	9.02
		----------	AvgRF	CCRF	%Dev	----------		
57		2-Nitropropane	0.133	0.134	-0.8	100	0.00	9.21
58		4-Methyl-2-pentanone	0.507	0.481	5.1	97	0.00	9.34
59		trans-1,3-Dichloropropene	0.688	0.807	-17.3	119	0.00	9.39
60		Tetrachloroethene	0.522	0.594	-13.8	115	0.00	9.42
		----------	Amount	Calc.	%Drift	----------		
61		Ethyl methacrylate	40.000	41.522	-3.8	110	0.00	9.52
		----------	AvgRF	CCRF	%Dev	----------		

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Sample: VJ3475-ICV3475
Lab FileID: J062652.D

62		1,1,2-Trichloroethane	0.382	0.396	-3.7	108	0.00	9.56
63		Dibromochloromethane	0.486	0.545	-12.1	113	0.00	9.75
64		1,3-Dichloropropane	0.770	0.804	-4.4	107	0.00	9.84
65		1,2-Dibromoethane	0.459	0.494	-7.6	111	0.00	10.01
66		2-hexanone	0.420	0.395	6.0	88	0.00	10.15
		----------	Amount	Calc.	%Drift		----------	
67		1-Chlorohexane	40.000	38.626	3.4	104	0.00	10.47
68	C	Ethylbenzene	40.000	39.570	1.1	106	0.00	10.53
69	P	Chlorobenzene	40.000	40.494	-1.2	107	0.00	10.52
70		1,1,1,2-Tetrachloroethane	40.000	41.572	-3.9	112	0.00	10.57
71		m,p-Xylene	80.000	79.090	1.1	105	0.00	10.67
72		o-Xylene	40.000	40.446	-1.1	109	0.00	11.11
		----------	AvgRF	CCRF	%Dev		----------	
73		Styrene	1.355	1.506	-11.1	106	0.00	11.15
		----------	Amount	Calc.	%Drift		----------	
74	P	Bromoform	40.000	41.634	-4.1	109	0.00	11.19
75		Isopropylbenzene	40.000	45.989	-15.0	122	0.00	11.42
		----------	AvgRF	CCRF	%Dev		----------	
76	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	109	0.00	12.87
77	S	4-Bromofluorobenzene	0.962	0.978	-1.7	114	0.00	11.71
		----------	Amount	Calc.	%Drift		----------	
78		cis-1,4-Dichloro-2-butene	40.000	41.837	-4.6	104	0.00	11.75
79		n-Propylbenzene	40.000	40.160	-0.4	106	0.00	11.84
		----------	AvgRF	CCRF	%Dev		----------	
80		Bromobenzene	1.096	1.157	-5.6	109	0.00	11.84
81	P	1,1,2,2-Tetrachloroethane	1.009	1.016	-0.7	105	0.00	11.88
82		1,3,5-Trimethylbenzene	3.017	3.182	-5.5	105	0.00	12.03
		----------	Amount	Calc.	%Drift		----------	
83		2-Chlorotoluene	40.000	40.939	-2.3	108	0.00	12.02
84		trans-1,4-Dichloro-2-Bute	40.000	39.191	2.0	95	0.00	12.06
		----------	AvgRF	CCRF	%Dev		----------	
85		1,2,3-Trichloropropane	0.259	0.248	4.2	103	0.00	12.04
86		Cyclohexanone	0.026	0.030	-15.4	116	0.00	12.09
		----------	Amount	Calc.	%Drift		----------	
87		4-Chlorotoluene	40.000	41.594	-4.0	110	0.00	12.18
88		tert-Butylbenzene	40.000	41.230	-3.1	110	0.00	12.36
89		1,2,4-Trimethylbenzene	40.000	40.575	-1.4	107	0.00	12.43
90		Pentachloroethane	40.000	42.879	-7.2	113	0.00	12.40
91		sec-Butylbenzene	40.000	39.980	0.1	106	0.00	12.55
92		4-Isopropyltoluene	40.000	41.859	-4.6	110	0.00	12.68
93		1,3-Dichlorobenzene	40.000	41.896	-4.7	110	0.00	12.79
94		1,4-Dichlorobenzene	40.000	41.688	-4.2	109	0.00	12.88
95		n-Butylbenzene	40.000	39.463	1.3	105	0.00	13.12
96		Benzyl Chloride	40.000	40.155	-0.4	102	0.00	13.12
		----------	AvgRF	CCRF	%Dev		----------	
97		1,2-Dichlorobenzene	1.941	2.103	-8.3	111	0.00	13.32
98		1,2-Dibromo-3-Chloropropa	0.147	0.157	-6.8	111	0.00	14.07
99		Hexachlorobutadiene	0.697	0.798	-14.5	119	0.00	14.66
100		1,2,4-Trichlorobenzene	1.319	1.473	-11.7	112	0.00	14.69

Initial Calibration Verification

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICV3475
Lab FileID: J062652.D

101		Naphthalene	2.383	2.701	-13.3	110	0.00	14.96
102		1,2,3-Trichlorobenzene	1.199	1.324	-10.4	115	0.00	15.12
103	I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	115	0.01	5.09
		----------	Amount	Calc.	%Drift		----------	
104		Ethanol	800.000	838.068	-4.8	117	0.01	4.16
		----------	AvgRF	CCRF	%Dev		----------	
105		acrolein	2.198	2.391	-8.8	131	0.00	4.57
106		Tert Butyl Alcohol	1.707	1.549	9.3	111	0.01	5.17
107		tert Amyl alcohol	1.325	1.342	-1.3	108	0.00	7.26
108		Isobutyl alcohol	0.704	0.647	8.1	103	0.00	7.14
109		1,4-Dioxane	0.153	0.164	-7.2	115	0.00	8.34

(#) = Out of Range SPCC's out = 0 CCC's out = 0
J062649.D 8260-JAPP9.M Fri Jan 28 11:34:22 2011

Continuing Calibration Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3483-CC3475
Lab FileID: J062848.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\020411\J062848.D          Vial: 1
Acq On    :  4 Feb 2011   9:37 am                   Operator: MelissaM
Sample    : cc3475-4                                Inst    : MSVOA6
Misc      : ms16326,vj3483,,,,,                     Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\MSDCHEM\1\METHODS\8260-JAPP9.M (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Fri Jan 28 10:52:13 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.001  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	106	0.00	7.43
	----------	Amount	Calc.	%Drift	----------		
2	Dichlorodifluoromethane	40.000	35.778	10.6	92	0.00	2.77
	----------	AvgRF	CCRF	%Dev	----------		
3 P	Chloromethane	0.519	0.514	1.0	104	0.00	2.93
	----------	Amount	Calc.	%Drift	----------		
4 C	Vinyl Chloride	40.000	38.842	2.9	98	0.00	3.05
5	Bromomethane	40.000	40.563	-1.4	105	0.00	3.43
6	Chloroethane	40.000	43.756	-9.4	109	0.01	3.57
7	Trichlorofluoromethane	40.000	37.602	6.0	96	0.01	3.77
	----------	AvgRF	CCRF	%Dev	----------		
8	Ethyl Ether	0.267	0.294	-10.1	111	0.00	4.00
	----------	Amount	Calc.	%Drift	----------		
9	1,2-Dichlorotrifluoroetha	40.000	40.842	-2.1	104	0.00	4.22
10 C	1,1-Dichloroethene	40.000	39.866	0.3	102	0.00	4.26
	----------	AvgRF	CCRF	%Dev	----------		
11	Freon 113	0.244	0.258	-5.7	102	0.00	4.33
	----------	Amount	Calc.	%Drift	----------		
12	Carbon Disulfide	40.000	41.094	-2.7	104	0.00	4.33
	----------	AvgRF	CCRF	%Dev	----------		
13	Iodomethane	0.448	0.481	-7.4	104	0.00	4.42
	----------	Amount	Calc.	%Drift	----------		
14	Allyl chloride	40.000	38.405	4.0	104	0.00	4.73
15	Methylene Chloride	40.000	39.712	0.7	102	0.00	4.84
	----------	AvgRF	CCRF	%Dev	----------		
16	Acetone	0.055	0.051	7.3	85	0.00	4.86
17	Methyl acetate	0.049	0.049	0.0	107	0.01	4.98
18	trans-1,2-Dichloroethene	0.620	0.668	-7.7	106	0.00	5.01
19	Hexane	0.409	0.438	-7.1	106	0.00	5.08
20	Methyl Tert Butyl Ether	0.867	0.938	-8.2	113	0.00	5.12
21	Acetonitrile	0.029	0.027	6.9	99	0.00	5.33
22	Di-isopropyl ether	1.693	1.791	-5.8	106	0.00	5.48

Continuing Calibration Summary

Job Number: F79653 **Sample:** VJ3483-CC3475
Account: TETTNOAK Tetra Tech, Inc **Lab FileID:** J062848.D
Project: Holloman AFB; Alamogordo, NM

23		Chloroprene	1.357	1.433	-5.6	103	0.01	5.62
24	P	1,1-Dichloroethane	0.754	0.825	-9.4	107	0.00	5.63
25		Acrylonitrile	0.271	0.287	-5.9	103	0.01	5.62
26		ETBE	1.340	1.414	-5.5	107	0.00	5.85
27		Vinyl acetate	0.652	0.652	0.0	100	0.00	5.83
28		cis-1,2-Dichloroethene	0.395	0.452	-14.4	111	0.00	6.17
29		2,2-Dichloropropane	0.462	0.527	-14.1	109	0.00	6.32
30		Bromochloromethane	0.196	0.223	-13.8	113	0.00	6.38
31		Cyclohexane	0.747	0.815	-9.1	105	0.00	6.44
32	C	Chloroform	0.605	0.689	-13.9	112	0.00	6.43
33		Ethyl acetate	0.472	0.453	4.0	100	0.00	6.50
		----------	Amount	Calc.	%Drift	----------		
34		Tetrahydrofuran	40.000	44.190	-10.5	113	0.00	6.60
		----------	AvgRF	CCRF	%Dev	----------		
35	S	Dibromofluoromethane	0.253	0.253	0.0	108	0.00	6.61
36		Carbon Tetrachloride	0.454	0.534	-17.6	112	0.00	6.63
37		1,1,1-Trichloroethane	0.448	0.517	-15.4	113	0.00	6.69
38		2-Butanone	0.231	0.219	5.2	89	0.00	6.70
39		1,1-Dichloropropene	0.467	0.540	-15.6	109	0.00	6.79
40		Propionitrile	0.050	0.051	-2.0	105	0.00	7.00
		----------	Amount	Calc.	%Drift	----------		
41		Methacrylonitrile	400.000	387.403	3.1	99	0.00	7.03
42		Benzene	40.000	42.708	-6.8	108	0.00	7.04
		----------	AvgRF	CCRF	%Dev	----------		
43		TAME	0.882	0.969	-9.9	108	0.00	7.12
44	S	1,2-Dichloroethane-d4	0.288	0.301	-4.5	115	0.00	7.15
45		1,2-Dichloroethane	0.513	0.561	-9.4	110	0.00	7.22
46		Trichloroethene	0.344	0.400	-16.3	110	0.00	7.60
		----------	Amount	Calc.	%Drift	----------		
47		Methylcyclohexane	40.000	42.574	-6.4	110	0.00	7.64
		----------	AvgRF	CCRF	%Dev	----------		
48		Dibromomethane	0.211	0.233	-10.4	110	0.00	8.02
49	C	1,2-Dichloropropane	0.449	0.492	-9.6	107	0.00	8.10
50		Bromodichloromethane	0.445	0.517	-16.2	112	0.00	8.15
51		Methyl methacrylate	0.365	0.387	-6.0	103	0.00	8.27
52		2-Chloroethyl vinyl ether	0.223	0.210	5.8	89	0.00	8.68
53		cis-1,3-Dichloropropene	0.581	0.658	-13.3	108	0.00	8.77
54	I	Chlorobenzene-d5	1.000	1.000	0.0	104	0.00	10.50
55	S	Toluene-d8	1.311	1.321	-0.8	105	0.00	8.97
		----------	Amount	Calc.	%Drift	----------		
56	C	Toluene	40.000	42.646	-6.6	107	0.00	9.02
		----------	AvgRF	CCRF	%Dev	----------		
57		2-Nitropropane	0.133	0.142	-6.8	100	0.00	9.20
58		4-Methyl-2-pentanone	0.507	0.509	-0.4	96	0.00	9.34
59		trans-1,3-Dichloropropene	0.688	0.781	-13.5	107	0.00	9.39
60		Tetrachloroethene	0.522	0.582	-11.5	106	0.00	9.42
		----------	Amount	Calc.	%Drift	----------		
61		Ethyl methacrylate	40.000	43.092	-7.7	106	0.00	9.52
		----------	AvgRF	CCRF	%Dev	----------		

Continuing Calibration Summary

Job Number: F79653 **Sample:** VJ3483-CC3475
Account: TETTNOAK Tetra Tech, Inc **Lab FileID:** J062848.D
Project: Holloman AFB; Alamogordo, NM

62		1,1,2-Trichloroethane	0.382	0.417	-9.2	106	0.00	9.56
63		Dibromochloromethane	0.486	0.562	-15.6	109	0.00	9.75
64		1,3-Dichloropropane	0.770	0.855	-11.0	106	0.00	9.84
65		1,2-Dibromoethane	0.459	0.506	-10.2	106	0.00	10.01
66		2-hexanone	0.420	0.420	0.0	88	0.00	10.15
		----------	Amount	Calc.	%Drift	----------		
67		1-Chlorohexane	40.000	42.517	-6.3	106	0.00	10.47
68	C	Ethylbenzene	40.000	42.133	-5.3	104	0.00	10.53
69	P	Chlorobenzene	40.000	42.092	-5.2	103	0.00	10.52
70		1,1,1,2-Tetrachloroethane	40.000	42.880	-7.2	108	0.00	10.57
71		m,p-Xylene	80.000	84.836	-6.0	104	0.00	10.67
72		o-Xylene	40.000	42.565	-6.4	106	0.00	11.10
		----------	AvgRF	CCRF	%Dev	----------		
73		Styrene	1.355	1.594	-17.6	104	0.00	11.15
		----------	Amount	Calc.	%Drift	----------		
74	P	Bromoform	40.000	40.316	-0.8	98	0.00	11.20
75		Isopropylbenzene	40.000	42.239	-5.6	105	0.00	11.42
		----------	AvgRF	CCRF	%Dev	----------		
76	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	102	0.00	12.86
77	S	4-Bromofluorobenzene	0.962	0.978	-1.7	106	0.00	11.71
		----------	Amount	Calc.	%Drift	----------		
78		cis-1,4-Dichloro-2-butene	40.000	33.753	15.6	76	0.00	11.75
79		n-Propylbenzene	40.000	42.519	-6.3	104	0.00	11.84
		----------	AvgRF	CCRF	%Dev	----------		
80		Bromobenzene	1.096	1.167	-6.5	102	0.00	11.84
81	P	1,1,2,2-Tetrachloroethane	1.009	1.037	-2.8	100	0.00	11.88
82		1,3,5-Trimethylbenzene	3.017	3.403	-12.8	105	0.00	12.02
		----------	Amount	Calc.	%Drift	----------		
83		2-Chlorotoluene	40.000	43.047	-7.6	105	0.00	12.02
84		trans-1,4-Dichloro-2-Bute	40.000	35.831	10.4	80	0.00	12.06
		----------	AvgRF	CCRF	%Dev	----------		
85		1,2,3-Trichloropropane	0.259	0.267	-3.1	104	0.00	12.04
86		Cyclohexanone	0.026	0.027	-3.8	97	0.00	12.09
		----------	Amount	Calc.	%Drift	----------		
87		4-Chlorotoluene	40.000	43.453	-8.6	107	0.00	12.18
88		tert-Butylbenzene	40.000	43.472	-8.7	107	0.00	12.36
89		1,2,4-Trimethylbenzene	40.000	43.676	-9.2	107	0.00	12.43
90		Pentachloroethane	40.000	42.679	-6.7	105	0.00	12.40
91		sec-Butylbenzene	40.000	42.719	-6.8	105	0.00	12.54
92		4-Isopropyltoluene	40.000	43.002	-7.5	105	0.00	12.68
93		1,3-Dichlorobenzene	40.000	40.815	-2.0	101	0.00	12.79
94		1,4-Dichlorobenzene	40.000	41.219	-3.0	101	0.00	12.88
95		n-Butylbenzene	40.000	42.593	-6.5	105	0.00	13.12
96		Benzyl Chloride	40.000	39.088	2.3	93	0.00	13.12
		----------	AvgRF	CCRF	%Dev	----------		
97		1,2-Dichlorobenzene	1.941	2.038	-5.0	100	0.00	13.32
98		1,2-Dibromo-3-Chloropropa	0.147	0.152	-3.4	100	0.00	14.07
99		Hexachlorobutadiene	0.697	0.698	-0.1	97	0.00	14.66
100		1,2,4-Trichlorobenzene	1.319	1.403	-6.4	100	0.00	14.69

Continuing Calibration Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3483-CC3475
Lab FileID: J062848.D

101	Naphthalene	2.383	2.539	-6.5	97	0.00	14.96
102	1,2,3-Trichlorobenzene	1.199	1.200	-0.1	97	0.00	15.12
103 I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	104	0.00	5.08
	----------	Amount	Calc.	%Drift		----------	
104	Ethanol	800.000	995.395	-24.4#	124	0.01	4.16
	----------	AvgRF	CCRF	%Dev		----------	
105	acrolein	2.198	2.170	1.3	107	0.00	4.57
106	Tert Butyl Alcohol	1.707	1.755	-2.8	113	0.00	5.15
107	tert Amyl alcohol	1.325	1.405	-6.0	102	0.00	7.26
108	Isobutyl alcohol	0.704	0.698	0.9	101	0.00	7.14
109	1,4-Dioxane	0.153	0.175	-14.4	111	0.00	8.34

(#) = Out of Range SPCC's out = 0 CCC's out = 0
J062649.D 8260-JAPP9.M Fri Feb 04 15:23:59 2011

Initial Calibration Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3486-ICC3486
Lab FileID: J062932.D

Response Factor Report MSVOA6

```
Method       : C:\MSDchem\1\METHODS\8260-japp9.m (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Wed Feb 09 08:49:47 2011
Response via : Initial Calibration

Calibration Files
1   =J062929.D   2   =J062930.D   3   =J062931.D   4   =J062932.D
5      =J062933.D    6      =J062934.D

      Compound              1     2     3     4     5     6     Avg    %RSD
-------------------------------------------------------------------------------

1) I   Fluorobenzene         ----------------ISTD---------------------
2)     Dichlorodifluoromet 0.322 0.313 0.412 0.377 0.373 0.355 0.359  10.30
3) P   Chloromethane       0.645 0.465 0.529 0.540 0.484 0.456 0.520  13.49
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9994
             Response Ratio = 0.00000 + 0.56936 *A + -0.05730 *A^2

4) C   Vinyl Chloride      0.367 0.340 0.432 0.406 0.392 0.376 0.385   8.33
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
             Response Ratio = 0.00000 + 0.42995 *A + -0.02720 *A^2

5)     Bromomethane        0.344 0.230 0.232 0.209 0.179 0.164 0.226  28.22
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9990
             Response Ratio = 0.00000 + 0.23354 *A + -0.03542 *A^2

6)     Chloroethane        0.197 0.177 0.211 0.189 0.167 0.150 0.182  12.14
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9995
             Response Ratio = 0.00000 + 0.21453 *A + -0.03272 *A^2

7)     Trichlorofluorometh 0.437 0.400 0.517 0.459 0.447 0.416 0.446   9.14
8)     Ethyl Ether         0.285 0.263 0.287 0.274 0.267 0.259 0.273   4.24
9)     1,2-Dichlorotrifluo 0.296 0.280 0.341 0.305 0.297 0.283 0.300   7.25
10) C  1,1-Dichloroethene  0.449 0.415 0.527 0.481 0.462 0.439 0.462   8.38
11)    Freon 113           0.248 0.233 0.288 0.259 0.252 0.244 0.254   7.44
12)    Carbon Disulfide    1.052 0.815 0.998 0.902 0.851 0.803 0.903  11.24
13)    Iodomethane         0.462 0.423 0.509 0.467 0.440 0.431 0.455   6.93
14)    Allyl chloride      0.608 0.599 0.689 0.726 0.639 0.636 0.650   7.55
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9984
             Response Ratio = 0.00000 + 0.72385 *A + -0.04611 *A^2

15)    Methylene Chloride  1.724 0.760 0.672 0.644 0.601 0.575 0.829  53.40
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9997
             Response Ratio = 0.00000 + 0.68553 *A + -0.05618 *A^2

16)    Acetone             0.054 0.035 0.044 0.048 0.041 0.044 0.044  13.86
17)    Methyl acetate      0.052 0.051 0.052 0.050 0.048 0.047 0.050   4.51
18)    trans-1,2-Dichloroe 0.596 0.548 0.669 0.632 0.611 0.589 0.607   6.72
19)    Hexane              0.389 0.323 0.409 0.388 0.381 0.368 0.377   7.85
20)    Methyl Tert Butyl E 0.960 0.981 1.031 0.993 0.945 0.930 0.973   3.73
21)    Acetonitrile        0.025 0.023 0.024 0.023 0.023 0.021 0.023   5.02
22)    Di-isopropyl ether  1.483 1.460 1.650 1.620 1.527 1.470 1.535   5.29
23)    Chloroprene         1.158 1.165 1.352 1.298 1.238 1.208 1.237   6.17
24) P  1,1-Dichloroethane  0.751 0.699 0.818 0.785 0.749 0.713 0.753   5.87
25)    Acrylonitrile       0.232 0.233 0.270 0.260 0.248 0.242 0.247   6.17
26)    ETBE                1.262 1.302 1.414 1.343 1.279 1.226 1.304   5.08
27)    Vinyl acetate       0.577 0.587 0.596 0.589 0.538 0.492 0.563   7.20
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
```

Initial Calibration Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3486-ICC3486
Lab FileID: J062932.D

```
                Response Ratio = 0.00000 + 0.63110 *A + -0.01363 *A^2

28)      cis-1,2-Dichloroeth 0.450 0.405 0.483 0.468 0.447 0.445 0.450   5.87
29)      2,2-Dichloropropane 0.484 0.467 0.577 0.559 0.542 0.536 0.528   8.19
30)      Bromochloromethane  0.207 0.220 0.239 0.225 0.215 0.210 0.219   5.39
31)      Cyclohexane         0.660 0.590 0.786 0.731 0.703 0.672 0.690   9.67
32)  C   Chloroform          0.756 0.672 0.765 0.724 0.689 0.665 0.712   6.03
33)      Ethyl acetate       0.426 0.414 0.411 0.423 0.403 0.373 0.408   4.70
34)      Tetrahydrofuran     0.156 0.085 0.085 0.092 0.083 0.083 0.097  29.62
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9989
                Response Ratio = 0.00000 + 0.09056 *A + -0.00394 *A^2

35)  S   Dibromofluoromethan 0.264 0.262 0.258 0.251 0.246 0.246 0.255   3.11
36)      Carbon Tetrachlorid 0.494 0.447 0.582 0.548 0.528 0.526 0.521   8.90
37)      1,1,1-Trichloroetha 0.505 0.469 0.596 0.559 0.542 0.530 0.534   8.20
38)      2-Butanone          0.195 0.165 0.181 0.189 0.170 0.170 0.178   6.83
39)      1,1-Dichloropropene 0.459 0.457 0.570 0.547 0.536 0.520 0.515   9.07
40)      Propionitrile       0.046 0.045 0.046 0.046 0.043 0.041 0.044   4.86
41)      Methacrylonitrile   0.225 0.229 0.219 0.209 0.184 0.165 0.205  12.36
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9999
                Response Ratio = 0.00000 + 0.23449 *A + -0.00349 *A^2

42)      Benzene             1.567 1.486 1.671 1.521 1.351 1.226 1.471  10.81
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9997
                Response Ratio = 0.00000 + 1.70603 *A + -0.24204 *A^2

43)      TAME                0.986 1.009 1.080 1.020 0.968 0.920 0.997   5.39
44)  S   1,2-Dichloroethane- 0.296 0.290 0.294 0.297 0.273 0.271 0.287   4.01
45)      1,2-Dichloroethane  0.534 0.503 0.544 0.540 0.514 0.503 0.523   3.52
46)      Trichloroethene     0.395 0.362 0.436 0.412 0.390 0.374 0.395   6.73
47)      Methylcyclohexane   0.541 0.529 0.708 0.650 0.612 0.579 0.603  11.31
48)      Dibromomethane      0.246 0.236 0.250 0.245 0.229 0.225 0.238   4.33
49)  C   1,2-Dichloropropane 0.440 0.413 0.477 0.468 0.437 0.423 0.443   5.64
50)      Bromodichloromethan 0.496 0.505 0.556 0.551 0.518 0.512 0.523   4.76
51)      Methyl methacrylate 0.314 0.306 0.339 0.357 0.337 0.331 0.331   5.56
52)      2-Chloroethyl vinyl 0.178 0.205 0.222 0.207 0.193 0.178 0.197   8.78
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9999
                Response Ratio = 0.00000 + 0.22806 *A + -0.00498 *A^2

53)      cis-1,3-Dichloropro 0.645 0.622 0.697 0.697 0.643 0.625 0.655   5.15

54)  I   Chlorobenzene-d5      ----------------ISTD---------------------
55)  S   Toluene-d8          1.317 1.322 1.338 1.360 1.383 1.434 1.359   3.24
56)  C   Toluene             2.473 2.140 2.464 2.341 2.164 2.033 2.269   8.08
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
                Response Ratio = 0.00000 + 2.52191 *A + -0.24631 *A^2

57)      2-Nitropropane      0.112 0.117 0.126 0.130 0.129 0.127 0.124   5.88
58)      4-Methyl-2-pentanon 0.457 0.469 0.474 0.464 0.420 0.392 0.446   7.33
59)      trans-1,3-Dichlorop 0.747 0.736 0.800 0.823 0.789 0.771 0.778   4.19
60)      Tetrachloroethene   0.498 0.482 0.600 0.549 0.530 0.524 0.531   7.83
61)      Ethyl methacrylate  0.502 0.575 0.659 0.705 0.680 0.665 0.631  12.20
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9997
                Response Ratio = 0.00000 + 0.70669 *A + -0.02014 *A^2

62)      1,1,2-Trichloroetha 0.437 0.411 0.428 0.432 0.407 0.404 0.420   3.34
63)      Dibromochloromethan 0.485 0.512 0.567 0.584 0.564 0.563 0.546   7.10
64)      1,3-Dichloropropane 0.872 0.809 0.860 0.878 0.831 0.812 0.844   3.59
65)      1,2-Dibromoethane   0.464 0.471 0.500 0.514 0.486 0.490 0.487   3.79
66)      2-hexanone          0.311 0.316 0.358 0.378 0.332 0.321 0.336   7.94
```

Initial Calibration Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3486-ICC3486
Lab FileID: J062932.D

```
67)      1-Chlorohexane       0.689 0.703 0.892 0.852 0.823 0.790 0.792  10.28
68) C    Ethylbenzene         2.437 2.305 2.601 2.406 2.097 1.906 2.292  10.99
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9995
               Response Ratio = 0.00000 + 2.68236 *A + -0.39283 *A^2

69) P    Chlorobenzene        1.451 1.393 1.519 1.426 1.266 1.192 1.375   8.89
70)      1,1,1,2-Tetrachloro 0.517 0.451 0.534 0.521 0.506 0.493 0.504   5.83
71)      m,p-Xylene           1.802 1.751 1.947 1.759 1.471 1.282 1.669  14.64
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9992
               Response Ratio = 0.00000 + 2.03130 *A + -0.18924 *A^2

72)      o-Xylene             1.794 1.825 2.098 2.043 1.820 1.697 1.879   8.29
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9996
               Response Ratio = 0.00000 + 2.19936 *A + -0.25370 *A^2

73)      Styrene              1.235 1.428 1.697 1.642 1.499 1.400 1.484  11.39
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
               Response Ratio = 0.00000 + 1.76756 *A + -0.18488 *A^2

74) P    Bromoform            0.281 0.285 0.325 0.340 0.333 0.332 0.316   8.24
75)      Isopropylbenzene     1.831 1.794 2.224 2.094 1.892 1.751 1.931   9.70
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9997
               Response Ratio = 0.00000 + 2.28647 *A + -0.26965 *A^2


76) I    1,4-Dichlorobenzene-d ----------------ISTD---------------------
77) S    4-Bromofluorobenzen 1.034 1.012 1.013 1.053 1.071 1.072 1.042   2.60
78)      cis-1,4-Dichloro-2- 0.163 0.110 0.176 0.271 0.259 0.269 0.208  32.59
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9957
               Response Ratio = 0.00000 + 0.23183 *A + 0.01938 *A^2

79)      n-Propylbenzene      5.245 5.006 5.687 5.209 4.474 3.878 4.917  13.09
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9997
               Response Ratio = 0.00000 + 6.01855 *A + -1.07517 *A^2

80)      Bromobenzene         1.179 1.152 1.234 1.191 1.065 1.000 1.137   7.72
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9996
               Response Ratio = 0.00000 + 1.28052 *A + -0.14250 *A^2

81) P    1,1,2,2-Tetrachloro 1.123 1.062 1.095 1.146 1.067 1.026 1.086   4.01
82)      1,3,5-Trimethylbenz 3.648 3.488 3.960 3.708 3.267 2.896 3.494  10.68
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
               Response Ratio = 0.00000 + 4.19612 *A + -0.65193 *A^2

83)      2-Chlorotoluene      3.446 3.571 3.911 3.701 3.294 2.989 3.485   9.25
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
               Response Ratio = 0.00000 + 4.10823 *A + -0.56273 *A^2

84)      trans-1,4-Dichloro- 0.181 0.129 0.196 0.272 0.271 0.281 0.222  28.08
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9977
               Response Ratio = 0.00000 + 0.23819 *A + 0.02194 *A^2

85)      1,2,3-Trichloroprop 0.262 0.281 0.278 0.278 0.270 0.254 0.270   3.89
86)      Cyclohexanone        0.019 0.019 0.021 0.023 0.023 0.023 0.021  10.34
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9996
               Response Ratio = 0.00000 + 0.02287 *A + 0.00004 *A^2

87)      4-Chlorotoluene      3.488 3.287 3.680 3.604 3.251 3.004 3.386   7.45
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
               Response Ratio = 0.00000 + 3.90526 *A + -0.45244 *A^2
```

Initial Calibration Summary

Job Number: F79653
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Project: Holloman AFB; Alamogordo, NM

Sample: VJ3486-ICC3486
Lab FileID: J062932.D

```
 88)     tert-Butylbenzene   1.891 1.923 2.291 2.222 2.095 1.942 2.061   8.19
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9999
               Response Ratio = 0.00000 + 2.40508 *A + -0.22974 *A^2

 89)     1,2,4-Trimethylbenz 3.708 3.613 4.087 3.904 3.497 3.136 3.658   9.04
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9999
               Response Ratio = 0.00000 + 4.35755 *A + -0.61062 *A^2

 90)     Pentachloroethane   0.709 0.699 0.732 0.795 0.745 0.739 0.736   4.58
 91)     sec-Butylbenzene    4.312 4.320 5.190 4.807 4.300 3.768 4.449  11.00
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
               Response Ratio = 0.00000 + 5.49701 *A + -0.86246 *A^2

 92)     4-Isopropyltoluene  3.345 3.270 4.009 3.800 3.418 3.070 3.485  10.07
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
               Response Ratio = 0.00000 + 4.23999 *A + -0.58460 *A^2

 93)     1,3-Dichlorobenzene 2.255 2.032 2.285 2.238 2.024 1.897 2.122   7.49
 94)     1,4-Dichlorobenzene 2.243 2.019 2.234 2.213 2.006 1.859 2.096   7.52
 95)     n-Butylbenzene      1.976 2.074 2.563 2.426 2.224 2.030 2.216  10.61
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
               Response Ratio = 0.00000 + 2.67470 *A + -0.32180 *A^2

 96)     Benzyl Chloride     0.378 0.360 0.424 0.439 0.412 0.392 0.401   7.36
 97)     1,2-Dichlorobenzene 2.024 2.006 2.087 2.072 1.894 1.776 1.977   6.04
 98)     1,2-Dibromo-3-Chlor 0.186 0.151 0.160 0.172 0.167 0.167 0.167   7.07
 99)     Hexachlorobutadiene 0.721 0.620 0.777 0.712 0.714 0.705 0.708   7.14
100)     1,2,4-Trichlorobenz 1.431 1.292 1.453 1.435 1.317 1.250 1.363   6.40
101)     Naphthalene         2.958 2.413 2.728 2.774 2.557 2.407 2.640   8.30
102)     1,2,3-Trichlorobenz 1.466 1.078 1.253 1.220 1.152 1.103 1.212  11.65

103) I   Tert Butyl Alcohol-d1 ----------------ISTD---------------------
104)     Ethanol             0.218 0.172 0.154 0.157 0.148 0.145 0.166  16.47
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
               Response Ratio = 0.00000 + 0.16097 *A + -0.00208 *A^2

105)     acrolein            2.190 2.232 2.036 2.076 2.049 1.981 2.094   4.62
106)     Tert Butyl Alcohol  1.696 1.737 1.607 1.716 1.635 1.654 1.674   2.99
107)     tert Amyl alcohol   1.132 1.278 1.338 1.400 1.353 1.361 1.310   7.32
108)     Isobutyl alcohol    0.649 0.662 0.630 0.652 0.634 0.610 0.639   2.92
109)     1,4-Dioxane         0.159 0.168 0.161 0.163 0.155 0.163 0.161   2.71
 ---------------------------------------------------------------------------
 (#) = Out of Range

           8260-japp9.m        Wed Feb 09 11:04:37 2011
```

Initial Calibration Verification

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3486-ICV3486
Lab FileID: J062935.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDchem\1\DATA\020811\J062935.D          Vial: 7
Acq On    :  8 Feb 2011   4:33 pm                   Operator: MelissaM
Sample    : ICV3486-4                               Inst    : MSVOA6
Misc      : MS16464,VJ3486,,,,,                     Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\MSDchem\1\METHODS\8260-japp9.m (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Wed Feb 09 08:49:47 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.001  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	112	0.00	7.43
2		Dichlorodifluoromethane	0.359	0.410	-14.2	121	0.00	2.78
		----------	Amount	Calc.	%Drift		----------	
3	P	Chloromethane	40.000	41.491	-3.7	112	0.00	2.94
4	C	Vinyl Chloride	40.000	39.946	0.1	112	0.00	3.06
5		Bromomethane	40.000	37.092	7.3	103	0.00	3.43
6		Chloroethane	40.000	37.789	5.5	106	0.00	3.57
		----------	AvgRF	CCRF	%Dev		----------	
7		Trichlorofluoromethane	0.446	0.522	-17.0	127	0.00	3.76
8		Ethyl Ether	0.273	0.272	0.4	111	0.00	4.00
9		1,2-Dichlorotrifluoroetha	0.300	0.310	-3.3	113	0.00	4.22
10	C	1,1-Dichloroethene	0.462	0.438	5.2	102	0.00	4.26
11		Freon 113	0.254	0.251	1.2	108	0.00	4.33
12		Carbon Disulfide	0.903	0.820	9.2	101	0.00	4.32
13		Iodomethane	0.455	0.449	1.3	107	0.00	4.42
		----------	Amount	Calc.	%Drift		----------	
14		Allyl chloride	40.000	40.690	-1.7	107	0.00	4.73
15		Methylene Chloride	40.000	35.790	10.5	100	0.00	4.83
		----------	AvgRF	CCRF	%Dev		----------	
16		Acetone	0.044	0.041	6.8	96	0.00	4.85
17		Methyl acetate	0.050	0.049	2.0	108	0.00	4.97
18		trans-1,2-Dichloroethene	0.607	0.586	3.5	104	0.00	5.00
19		Hexane	0.377	0.399	-5.8	115	0.00	5.08
20		Methyl Tert Butyl Ether	0.973	0.944	3.0	106	0.00	5.11
21		Acetonitrile	0.023	0.024	-4.3	118	0.00	5.33
22		Di-isopropyl ether	1.535	1.606	-4.6	111	0.00	5.47
23		Chloroprene	1.237	1.262	-2.0	109	0.00	5.61
24	P	1,1-Dichloroethane	0.753	0.744	1.2	106	0.00	5.62
25		Acrylonitrile	0.247	0.252	-2.0	109	0.00	5.61
26		ETBE	1.304	1.258	3.5	105	0.00	5.86
		----------	Amount	Calc.	%Drift		----------	
27		Vinyl acetate	200.000	250.540	-25.3#	133	0.00	5.83
		----------	AvgRF	CCRF	%Dev		----------	
28		cis-1,2-Dichloroethene	0.450	0.437	2.9	104	0.00	6.17
29		2,2-Dichloropropane	0.528	0.544	-3.0	109	0.00	6.31
30		Bromochloromethane	0.219	0.210	4.1	104	0.00	6.37

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31		Cyclohexane	0.690	0.712	-3.2	109	0.00	6.43
32	C	Chloroform	0.712	0.708	0.6	109	0.00	6.43
33		Ethyl acetate	0.408	0.470	-15.2	124	0.00	6.51
		----------	Amount	Calc.	%Drift	----------		
34		Tetrahydrofuran	40.000	40.484	-1.2	108	0.00	6.60
		----------	AvgRF	CCRF	%Dev	----------		
35	S	Dibromofluoromethane	0.255	0.251	1.6	111	0.00	6.61
36		Carbon Tetrachloride	0.521	0.527	-1.2	107	0.00	6.63
37		1,1,1-Trichloroethane	0.534	0.532	0.4	106	0.00	6.68
38		2-Butanone	0.178	0.167	6.2	99	0.00	6.71
39		1,1-Dichloropropene	0.515	0.538	-4.5	110	0.00	6.79
40		Propionitrile	0.044	0.045	-2.3	109	0.00	6.99
		----------	Amount	Calc.	%Drift	----------		
41		Methacrylonitrile	400.000	393.669	1.6	109	0.00	7.03
42		Benzene	40.000	37.770	5.6	106	0.00	7.04
		----------	AvgRF	CCRF	%Dev	----------		
43		TAME	0.997	0.968	2.9	106	0.00	7.12
44	S	1,2-Dichloroethane-d4	0.287	0.291	-1.4	109	0.00	7.15
45		1,2-Dichloroethane	0.523	0.510	2.5	105	0.00	7.22
46		Trichloroethene	0.395	0.402	-1.8	109	0.00	7.61
47		Methylcyclohexane	0.603	0.656	-8.8	113	0.00	7.64
48		Dibromomethane	0.238	0.234	1.7	106	0.00	8.02
49	C	1,2-Dichloropropane	0.443	0.447	-0.9	107	0.00	8.11
50		Bromodichloromethane	0.523	0.513	1.9	104	0.00	8.16
51		Methyl methacrylate	0.331	0.349	-5.4	109	0.00	8.26
		----------	Amount	Calc.	%Drift	----------		
52		2-Chloroethyl vinyl ether	200.000	209.990	-5.0	117	0.00	8.67
		----------	AvgRF	CCRF	%Dev	----------		
53		cis-1,3-Dichloropropene	0.655	0.685	-4.6	110	0.00	8.77
54	I	Chlorobenzene-d5	1.000	1.000	0.0	110	0.00	10.50
55	S	Toluene-d8	1.359	1.375	-1.2	111	0.00	8.96
		----------	Amount	Calc.	%Drift	----------		
56	C	Toluene	40.000	38.950	2.6	107	0.00	9.02
		----------	AvgRF	CCRF	%Dev	----------		
57		2-Nitropropane	0.124	0.121	2.4	102	0.00	9.20
58		4-Methyl-2-pentanone	0.446	0.424	4.9	101	0.00	9.34
59		trans-1,3-Dichloropropene	0.778	0.863	-10.9	116	0.00	9.39
60		Tetrachloroethene	0.531	0.556	-4.7	112	0.00	9.42
		----------	Amount	Calc.	%Drift	----------		
61		Ethyl methacrylate	40.000	40.395	-1.0	109	0.00	9.52
		----------	AvgRF	CCRF	%Dev	----------		
62		1,1,2-Trichloroethane	0.420	0.421	-0.2	108	0.00	9.55
63		Dibromochloromethane	0.546	0.564	-3.3	106	0.00	9.76
64		1,3-Dichloropropane	0.844	0.847	-0.4	106	0.00	9.83
65		1,2-Dibromoethane	0.487	0.501	-2.9	107	0.00	10.00
66		2-hexanone	0.336	0.324	3.6	94	0.00	10.16
67		1-Chlorohexane	0.792	0.824	-4.0	107	0.00	10.47
		----------	Amount	Calc.	%Drift	----------		

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Lab FileID: J062935.D

68	C	Ethylbenzene	40.000	38.838	2.9	106	0.00	10.53
		----------	AvgRF	CCRF	%Dev	----------		
69	P	Chlorobenzene	1.375	1.393	-1.3	108	0.00	10.52
70		1,1,1,2-Tetrachloroethane	0.504	0.531	-5.4	112	0.00	10.57
		----------	Amount	Calc.	%Drift	----------		
71		m,p-Xylene	80.000	77.488	3.1	106	0.00	10.67
72		o-Xylene	40.000	39.578	1.1	107	0.00	11.11
73		Styrene	40.000	38.930	2.7	106	0.00	11.15
		----------	AvgRF	CCRF	%Dev	----------		
74	P	Bromoform	0.316	0.334	-5.7	108	0.00	11.20
		----------	Amount	Calc.	%Drift	----------		
75		Isopropylbenzene	40.000	44.500	-11.3	120	0.00	11.42
		----------	AvgRF	CCRF	%Dev	----------		
76	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	111	0.00	12.86
77	S	4-Bromofluorobenzene	1.042	1.015	2.6	107	0.00	11.71
		----------	Amount	Calc.	%Drift	----------		
78		cis-1,4-Dichloro-2-butene	40.000	43.375	-8.4	110	0.00	11.74
79		n-Propylbenzene	40.000	38.350	4.1	106	0.00	11.84
80		Bromobenzene	40.000	38.574	3.6	105	0.00	11.84
		----------	AvgRF	CCRF	%Dev	----------		
81	P	1,1,2,2-Tetrachloroethane	1.086	1.091	-0.5	105	0.00	11.88
		----------	Amount	Calc.	%Drift	----------		
82		1,3,5-Trimethylbenzene	40.000	37.235	6.9	103	0.00	12.02
83		2-Chlorotoluene	40.000	38.194	4.5	105	0.00	12.01
84		trans-1,4-Dichloro-2-Bute	40.000	40.542	-1.4	106	0.00	12.06
		----------	AvgRF	CCRF	%Dev	----------		
85		1,2,3-Trichloropropane	0.270	0.249	7.8	99	0.00	12.04
		----------	Amount	Calc.	%Drift	----------		
86		Cyclohexanone	200.000	220.514	-10.3	120	0.00	12.09
87		4-Chlorotoluene	40.000	39.205	2.0	107	0.00	12.18
88		tert-Butylbenzene	40.000	39.222	1.9	109	0.00	12.36
89		1,2,4-Trimethylbenzene	40.000	37.871	5.3	105	0.00	12.43
		----------	AvgRF	CCRF	%Dev	----------		
90		Pentachloroethane	0.736	0.798	-8.4	111	0.00	12.40
		----------	Amount	Calc.	%Drift	----------		
91		sec-Butylbenzene	40.000	39.047	2.4	108	0.00	12.55
92		4-Isopropyltoluene	40.000	39.714	0.7	109	0.00	12.68
		----------	AvgRF	CCRF	%Dev	----------		
93		1,3-Dichlorobenzene	2.122	2.173	-2.4	107	0.00	12.79
94		1,4-Dichlorobenzene	2.096	2.142	-2.2	107	0.00	12.88
		----------	Amount	Calc.	%Drift	----------		
95		n-Butylbenzene	40.000	38.867	2.8	107	0.00	13.12
		----------	AvgRF	CCRF	%Dev	----------		
96		Benzyl Chloride	0.401	0.415	-3.5	105	0.00	13.11

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Sample: VJ3486-ICV3486
Lab FileID: J062935.D

97		1,2-Dichlorobenzene	1.977	2.022	-2.3	108	0.00	13.31
98		1,2-Dibromo-3-Chloropropa	0.167	0.162	3.0	105	0.00	14.07
99		Hexachlorobutadiene	0.708	0.757	-6.9	118	0.00	14.66
100		1,2,4-Trichlorobenzene	1.363	1.416	-3.9	109	0.00	14.69
101		Naphthalene	2.640	2.755	-4.4	110	0.00	14.96
102		1,2,3-Trichlorobenzene	1.212	1.246	-2.8	113	0.00	15.13
103	I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	110	0.01	5.09
		----------	Amount	Calc.	%Drift		----------	
104		Ethanol	800.000	840.774	-5.1	113	0.03	4.17
		----------	AvgRF	CCRF	%Dev		----------	
105		acrolein	2.094	2.354	-12.4	125	0.00	4.57
106		Tert Butyl Alcohol	1.674	1.607	4.0	103	0.00	5.16
107		tert Amyl alcohol	1.310	1.352	-3.2	107	0.00	7.26
108		Isobutyl alcohol	0.639	0.624	2.3	106	0.00	7.14
109		1,4-Dioxane	0.161	0.175	-8.7	119	0.00	8.33

(#) = Out of Range SPCC's out = 0 CCC's out = 0
J062932.D 8260-japp9.m Wed Feb 09 11:04:05 2011

Initial Calibration Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3487-ICC3487
Lab FileID: J062964.D


```
                         Response Factor Report  MSVOA6

 Method       : C:\MSDchem\1\METHODS\scoxyj.m (RTE Integrator)
 Title        : EPA 624 & SWA 5030B/8260B
 Last Update  : Wed Feb 09 12:47:28 2011
 Response via : Initial Calibration

 Calibration Files
 1   =J062961.D   2   =J062962.D   3   =J062963.D   4   =J062964.D
 5      =J062965.D    6      =J062966.D

       Compound              1     2     3     4     5     6     Avg    %RSD
 ---------------------------------------------------------------------------

 1) I   Fluorobenzene         ----------------ISTD--------------------
 2)     tert-Butyl Formate  0.200 0.212 0.245 0.241 0.230 0.221 0.225   7.69
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9999
              Response Ratio = 0.00000 + 0.25122 *A + -0.00149 *A^2

 3) S   Dibromofluoromethan 0.260 0.262 0.263 0.256 0.261 0.261 0.261   0.90
 4) S   1,2-Dichloroethane- 0.287 0.285 0.285 0.281 0.289 0.287 0.286   1.01

 5) I   Chlorobenzene-d5      ----------------ISTD--------------------
 6) S   Toluene-d8          1.299 1.303 1.298 1.293 1.291 1.294 1.296   0.34

 7) I   1,4-Dichlorobenzene-d ----------------ISTD--------------------
 8) S   4-Bromofluorobenzen 1.058 1.013 1.035 1.031 1.016 1.039 1.032   1.58

 9) I   Tert Butyl alcohol-d1 ----------------ISTD--------------------
10)     Ethanol             0.383 0.182 0.179 0.175 0.167 0.165 0.208  41.09
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
              Response Ratio = 0.00000 + 0.17944 *A + -0.00188 *A^2

11)     3,3-Dimethyl-1-buta 0.945 1.086 1.323 1.368 1.276 1.246 1.207  13.29
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9996
              Response Ratio = 0.00000 + 1.38756 *A + -0.00716 *A^2

---------------------------------------------------------------------------
(#) = Out of Range

          scoxyj.m          Wed Feb 09 15:59:35 2011
```

Initial Calibration Verification

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3487-ICV3487
Lab FileID: J062967.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDchem\1\DATA\020911\J062967.D          Vial: 7
Acq On    :  9 Feb 2011  11:25 am                   Operator: MelissaM
Sample    : ICV3487-4                               Inst    : MSVOA6
Misc      : MS16501,VJ3487,,,,,                     Multiplr: 1.00
MS Integration Params: small.p

Method       : C:\MSDchem\1\METHODS\scoxyj.m (RTE Integrator)
Title        : EPA 624 & SWA 5030B/8260B
Last Update  : Wed Feb 09 12:47:28 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.001  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	96	0.00	7.43
		----------	Amount	Calc.	%Drift	----------		
2		tert-Butyl Formate	400.000	570.093	-42.5#	133	0.00	6.87
		----------	AvgRF	CCRF	%Dev	----------		
3	S	Dibromofluoromethane	0.261	0.258	1.1	97	0.00	6.61
4	S	1,2-Dichloroethane-d4	0.286	0.278	2.8	95	0.00	7.15
5	I	Chlorobenzene-d5	1.000	1.000	0.0	96	0.00	10.50
6	S	Toluene-d8	1.296	1.306	-0.8	97	0.00	8.96
7	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	95	0.00	12.86
8	S	4-Bromofluorobenzene	1.032	1.027	0.5	95	0.00	11.71
9	I	Tert Butyl alcohol-d10	1.000	1.000	0.0	93	-0.01	5.07
		----------	Amount	Calc.	%Drift	----------		
10		Ethanol	800.000	1065.119	-33.1#	121	0.00	4.16
11		3,3-Dimethyl-1-butanol	2000.000	2140.380	-7.0	97	0.00	10.11

(#) = Out of Range SPCC's out = 0 CCC's out = 0
J062964.D scoxyj.m Wed Feb 09 14:04:13 2011

Continuing Calibration Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3487-CC3486
Lab FileID: J062969.D

Evaluate Continuing Calibration Report

Data File : C:\MSDchem\1\DATA\020911\J062969.D Vial: 1
Acq On : 9 Feb 2011 12:23 pm Operator: MelissaM
Sample : cc3486-4 Inst : MSVOA6
Misc : MS16501,VJ3487,,,,, Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDchem\1\METHODS\8260-japp9.m (RTE Integrator)
Title : SW-846 Method 5030B/8260B & EPA 624
Last Update : Wed Feb 09 08:49:47 2011
Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	102	0.00	7.43
2		Dichlorodifluoromethane	0.359	0.374	-4.2	101	0.01	2.79
			Amount	Calc.	%Drift			
3	P	Chloromethane	40.000	41.650	-4.1	103	0.00	2.94
4	C	Vinyl Chloride	40.000	41.508	-3.8	107	-0.01	3.06
5		Bromomethane	40.000	37.308	6.7	95	0.00	3.43
6		Chloroethane	40.000	37.713	5.7	97	0.00	3.57
			AvgRF	CCRF	%Dev			
7		Trichlorofluoromethane	0.446	0.478	-7.2	107	0.00	3.76
8		Ethyl Ether	0.273	0.289	-5.9	108	0.00	3.99
9		1,2-Dichlorotrifluoroetha	0.300	0.332	-10.7	111	0.00	4.22
10	C	1,1-Dichloroethene	0.462	0.513	-11.0	109	0.00	4.26
11		Freon 113	0.254	0.284	-11.8	112	0.00	4.33
12		Carbon Disulfide	0.903	0.976	-8.1	111	0.00	4.32
13		Iodomethane	0.455	0.506	-11.2	111	0.00	4.43
			Amount	Calc.	%Drift			
14		Allyl chloride	40.000	40.829	-2.1	99	0.00	4.72
15		Methylene Chloride	40.000	45.899	-14.7	116	0.00	4.83
			AvgRF	CCRF	%Dev			
16		Acetone	0.044	0.055	-25.0#	119	0.00	4.85
17		Methyl acetate	0.050	0.054	-8.0	110	0.00	4.97
18		trans-1,2-Dichloroethene	0.607	0.670	-10.4	108	0.00	5.00
19		Hexane	0.377	0.425	-12.7	112	0.00	5.08
20		Methyl Tert Butyl Ether	0.973	0.992	-2.0	102	0.00	5.12
21		Acetonitrile	0.023	0.026	-13.0	116	0.00	5.33
22		Di-isopropyl ether	1.535	1.685	-9.8	106	0.00	5.48
23		Chloroprene	1.237	1.374	-11.1	108	0.00	5.61
24	P	1,1-Dichloroethane	0.753	0.820	-8.9	107	0.00	5.62
25		Acrylonitrile	0.247	0.275	-11.3	108	0.00	5.61
26		ETBE	1.304	1.399	-7.3	107	0.00	5.86
			Amount	Calc.	%Drift			
27		Vinyl acetate	200.000	220.207	-10.1	109	0.00	5.83
			AvgRF	CCRF	%Dev			
28		cis-1,2-Dichloroethene	0.450	0.476	-5.8	104	0.00	6.17
29		2,2-Dichloropropane	0.528	0.553	-4.7	101	0.00	6.31
30		Bromochloromethane	0.219	0.231	-5.5	105	0.00	6.37

Continuing Calibration Summary

Job Number: F79653 **Sample:** VJ3487-CC3486
Account: TETTNOAK Tetra Tech, Inc **Lab FileID:** J062969.D
Project: Holloman AFB; Alamogordo, NM

31		Cyclohexane	0.690	0.778	-12.8	109	0.00	6.43
32	C	Chloroform	0.712	0.733	-2.9	104	0.00	6.43
33		Ethyl acetate	0.408	0.465	-14.0	112	0.00	6.51
		----------	Amount	Calc.	%Drift	----------		
34		Tetrahydrofuran	40.000	45.144	-12.9	110	0.00	6.60
		----------	AvgRF	CCRF	%Dev	----------		
35	S	Dibromofluoromethane	0.255	0.246	3.5	100	0.00	6.61
36		Carbon Tetrachloride	0.521	0.537	-3.1	100	0.00	6.63
37		1,1,1-Trichloroethane	0.534	0.556	-4.1	102	0.00	6.68
38		2-Butanone	0.178	0.218	-22.5#	118	0.00	6.71
39		1,1-Dichloropropene	0.515	0.562	-9.1	105	0.00	6.79
40		Propionitrile	0.044	0.050	-13.6	110	0.00	7.00
		----------	Amount	Calc.	%Drift	----------		
41		Methacrylonitrile	400.000	456.179	-14.0	113	0.00	7.03
42		Benzene	40.000	43.257	-8.1	109	0.00	7.04
		----------	AvgRF	CCRF	%Dev	----------		
43		TAME	0.997	1.070	-7.3	107	0.00	7.12
44	S	1,2-Dichloroethane-d4	0.287	0.291	-1.4	100	0.00	7.15
45		1,2-Dichloroethane	0.523	0.543	-3.8	103	0.00	7.22
46		Trichloroethene	0.395	0.427	-8.1	106	0.00	7.60
47		Methylcyclohexane	0.603	0.681	-12.9	107	0.00	7.63
48		Dibromomethane	0.238	0.254	-6.7	106	0.00	8.02
49	C	1,2-Dichloropropane	0.443	0.490	-10.6	107	0.00	8.11
50		Bromodichloromethane	0.523	0.549	-5.0	102	0.00	8.16
51		Methyl methacrylate	0.331	0.376	-13.6	108	0.00	8.26
		----------	Amount	Calc.	%Drift	----------		
52		2-Chloroethyl vinyl ether	200.000	231.567	-15.8	117	0.00	8.68
		----------	AvgRF	CCRF	%Dev	----------		
53		cis-1,3-Dichloropropene	0.655	0.711	-8.5	104	0.00	8.77
54	I	Chlorobenzene-d5	1.000	1.000	0.0	105	0.00	10.50
55	S	Toluene-d8	1.359	1.323	2.6	102	0.00	8.96
		----------	Amount	Calc.	%Drift	----------		
56	C	Toluene	40.000	40.442	-1.1	105	0.00	9.02
		----------	AvgRF	CCRF	%Dev	----------		
57		2-Nitropropane	0.124	0.135	-8.9	109	0.00	9.20
58		4-Methyl-2-pentanone	0.446	0.495	-11.0	112	0.00	9.34
59		trans-1,3-Dichloropropene	0.778	0.826	-6.2	106	0.00	9.40
60		Tetrachloroethene	0.531	0.548	-3.2	105	0.00	9.42
		----------	Amount	Calc.	%Drift	----------		
61		Ethyl methacrylate	40.000	40.551	-1.4	104	0.00	9.52
		----------	AvgRF	CCRF	%Dev	----------		
62		1,1,2-Trichloroethane	0.420	0.442	-5.2	108	0.00	9.55
63		Dibromochloromethane	0.546	0.576	-5.5	104	0.00	9.76
64		1,3-Dichloropropane	0.844	0.899	-6.5	108	0.00	9.83
65		1,2-Dibromoethane	0.487	0.516	-6.0	106	0.00	10.00
66		2-hexanone	0.336	0.422	-25.6#	117	0.00	10.16
67		1-Chlorohexane	0.792	0.878	-10.9	108	0.00	10.47
		----------	Amount	Calc.	%Drift	----------		

Continuing Calibration Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3487-CC3486
Lab FileID: J062969.D

68	C	Ethylbenzene	40.000	41.904	-4.8	108	0.00	10.53
		----------	AvgRF	CCRF	%Dev	----------		
69	P	Chlorobenzene	1.375	1.486	-8.1	110	0.00	10.52
70		1,1,1,2-Tetrachloroethane	0.504	0.533	-5.8	107	0.00	10.57
		----------	Amount	Calc.	%Drift	----------		
71		m,p-Xylene	80.000	82.519	-3.1	106	0.00	10.67
72		o-Xylene	40.000	40.695	-1.7	104	0.00	11.11
73		Styrene	40.000	41.178	-2.9	106	0.00	11.15
		----------	AvgRF	CCRF	%Dev	----------		
74	P	Bromoform	0.316	0.337	-6.6	104	0.00	11.20
		----------	Amount	Calc.	%Drift	----------		
75		Isopropylbenzene	40.000	40.247	-0.6	105	0.00	11.42
		----------	AvgRF	CCRF	%Dev	----------		
76	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	108	0.00	12.86
77	S	4-Bromofluorobenzene	1.042	1.012	2.9	104	0.00	11.71
		----------	Amount	Calc.	%Drift	----------		
78		cis-1,4-Dichloro-2-butene	40.000	38.583	3.5	95	0.00	11.74
79		n-Propylbenzene	40.000	39.875	0.3	106	0.00	11.84
80		Bromobenzene	40.000	40.454	-1.1	107	0.00	11.84
		----------	AvgRF	CCRF	%Dev	----------		
81	P	1,1,2,2-Tetrachloroethane	1.086	1.158	-6.6	109	0.00	11.88
		----------	Amount	Calc.	%Drift	----------		
82		1,3,5-Trimethylbenzene	40.000	39.766	0.6	106	0.00	12.02
83		2-Chlorotoluene	40.000	40.435	-1.1	108	0.00	12.01
84		trans-1,4-Dichloro-2-Bute	40.000	40.916	-2.3	104	0.00	12.06
		----------	AvgRF	CCRF	%Dev	----------		
85		1,2,3-Trichloropropane	0.270	0.283	-4.8	110	0.00	12.04
		----------	Amount	Calc.	%Drift	----------		
86		Cyclohexanone	200.000	214.665	-7.3	114	0.00	12.09
87		4-Chlorotoluene	40.000	39.899	0.3	106	0.00	12.18
88		tert-Butylbenzene	40.000	39.120	2.2	106	0.00	12.36
89		1,2,4-Trimethylbenzene	40.000	39.323	1.7	105	0.00	12.43
		----------	AvgRF	CCRF	%Dev	----------		
90		Pentachloroethane	0.736	0.782	-6.3	106	0.00	12.40
		----------	Amount	Calc.	%Drift	----------		
91		sec-Butylbenzene	40.000	39.545	1.1	107	0.00	12.55
92		4-Isopropyltoluene	40.000	39.528	1.2	106	0.00	12.68
		----------	AvgRF	CCRF	%Dev	----------		
93		1,3-Dichlorobenzene	2.122	2.191	-3.3	105	0.00	12.79
94		1,4-Dichlorobenzene	2.096	2.203	-5.1	107	0.00	12.88
		----------	Amount	Calc.	%Drift	----------		
95		n-Butylbenzene	40.000	40.410	-1.0	108	0.00	13.12
		----------	AvgRF	CCRF	%Dev	----------		
96		Benzyl Chloride	0.401	0.468	-16.7	115	0.00	13.11

Continuing Calibration Summary

Job Number: F79653 **Sample:** VJ3487-CC3486
Account: TETTNOAK Tetra Tech, Inc **Lab FileID:** J062969.D
Project: Holloman AFB; Alamogordo, NM

97	1,2-Dichlorobenzene	1.977	2.082	-5.3	108	0.00	13.31
98	1,2-Dibromo-3-Chloropropa	0.167	0.171	-2.4	107	0.00	14.07
99	Hexachlorobutadiene	0.708	0.710	-0.3	108	0.00	14.66
100	1,2,4-Trichlorobenzene	1.363	1.433	-5.1	108	0.00	14.69
101	Naphthalene	2.640	2.798	-6.0	109	0.00	14.96
102	1,2,3-Trichlorobenzene	1.212	1.217	-0.4	107	0.00	15.13
103 I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	111	0.00	5.08
	----------	Amount	Calc.	%Drift		----------	
104	Ethanol	800.000	886.990	-10.9	120	0.00	4.14
	----------	AvgRF	CCRF	%Dev		----------	
105	acrolein	2.094	2.114	-1.0	113	-0.01	4.56
106	Tert Butyl Alcohol	1.674	1.673	0.1	108	0.00	5.16
107	tert Amyl alcohol	1.310	1.381	-5.4	110	0.00	7.26
108	Isobutyl alcohol	0.639	0.671	-5.0	114	0.00	7.14
109	1,4-Dioxane	0.161	0.164	-1.9	112	0.00	8.34

(#) = Out of Range SPCC's out = 0 CCC's out = 0
J062932.D 8260-japp9.m Thu Feb 10 11:23:56 2011

Continuing Calibration Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3487-CC3487
Lab FileID: J062970.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDchem\1\DATA\020911\J062970.D          Vial: 2
Acq On    :  9 Feb 2011  12:59 pm                   Operator: MelissaM
Sample    : cc3487-4                                Inst    : MSVOA6
Misc      : MS16501,VJ3487,,,,,                     Multiplr: 1.00
MS Integration Params: small.p

Method       : C:\MSDchem\1\METHODS\scoxyj.m (RTE Integrator)
Title        : EPA 624 & SWA 5030B/8260B
Last Update  : Wed Feb 09 12:47:28 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.001  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	106	0.00	7.43
		----------	Amount	Calc.	%Drift		----------	
2		tert-Butyl Formate	400.000	397.688	0.6	105	0.00	6.88
		----------	AvgRF	CCRF	%Dev		----------	
3	S	Dibromofluoromethane	0.261	0.258	1.1	107	0.00	6.61
4	S	1,2-Dichloroethane-d4	0.286	0.278	2.8	105	0.00	7.15
5	I	Chlorobenzene-d5	1.000	1.000	0.0	102	0.00	10.50
6	S	Toluene-d8	1.296	1.328	-2.5	105	0.00	8.96
7	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	104	0.00	12.86
8	S	4-Bromofluorobenzene	1.032	1.029	0.3	104	0.00	11.71
9	I	Tert Butyl alcohol-d10	1.000	1.000	0.0	102	0.00	5.08
		----------	Amount	Calc.	%Drift		----------	
10		Ethanol	800.000	833.505	-4.2	105	0.01	4.17
11		3,3-Dimethyl-1-butanol	2000.000	1941.891	2.9	96	0.00	10.11

(#) = Out of Range SPCC's out = 0 CCC's out = 0
J062964.D scoxyj.m Thu Feb 10 10:54:36 2011

Southeast ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GCD4222-MB	CD102842.D	1	02/03/11	WV	n/a	n/a	GCD4222

The QC reported here applies to the following samples: **Method:** SW846 8015C

F79653-5, F79653-7, F79653-8

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	88%	57-129%
98-08-8	aaa-Trifluorotoluene	85%	58-120%

Blank Spike Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GCD4222-BS	CD102841.D	1	02/03/11	WV	n/a	n/a	GCD4222

The QC reported here applies to the following samples: **Method:** SW846 8015C

F79653-5, F79653-7, F79653-8

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH-GRO (C6-C10)	0.4	0.368	92	75-129

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	106%	57-129%
98-08-8	aaa-Trifluorotoluene	104%	58-120%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79608-1MS	CD102862.D	1	02/03/11	WV	n/a	n/a	GCD4222
F79608-1MSD	CD102863.D	1	02/03/11	WV	n/a	n/a	GCD4222
F79608-1	CD102843.D	1	02/03/11	WV	n/a	n/a	GCD4222

The QC reported here applies to the following samples: **Method:** SW846 8015C

F79653-5, F79653-7, F79653-8

CAS No.	Compound	F79608-1 mg/l	Q	Spike mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND		0.4	0.336	84	0.337	84	0	75-129/13

CAS No.	Surrogate Recoveries	MS	MSD	F79608-1	Limits
460-00-4	4-Bromofluorobenzene	100%	106%	89%	57-129%
98-08-8	aaa-Trifluorotoluene	99%	103%	81%	58-120%

Volatile Surrogate Recovery Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Method: SW846 8015C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S2 [a]
F79653-5	CD102853.D	85.0	82.0
F79653-7	CD102854.D	87.0	81.0
F79653-8	CD102855.D	85.0	82.0
F79608-1MS	CD102862.D	100.0	99.0
F79608-1MSD	CD102863.D	106.0	103.0
GCD4222-BS	CD102841.D	106.0	104.0
GCD4222-MB	CD102842.D	88.0	85.0

Surrogate Compounds	Recovery Limits
S1 = 4-Bromofluorobenzene	57-129%
S2 = aaa-Trifluorotoluene	58-120%

(a) Recovery from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	GCD4222-ICC4222	**Injection Date:**	02/03/11
Lab File ID:	CD102835.D	**Injection Time:**	10:48
Instrument ID:	GCCD	**Method:**	SW846 8015C

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	11.90	11.90	7.48	7.48

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
GCD4222-BS	CD102841.D	02/03/11	14:03		11.90		7.48
GCD4222-MB	CD102842.D	02/03/11	14:27		11.90		7.48
F79608-1	CD102843.D	02/03/11	14:51		11.90		7.48
ZZZZZZ	CD102846.D	02/03/11	16:04		11.90		7.48
ZZZZZZ	CD102847.D	02/03/11	16:29		11.90		7.48
ZZZZZZ	CD102849.D	02/03/11	17:18		11.90		7.48
GCD4222-RT	CD102850.D	02/03/11	17:42	11.90	11.90	7.49	7.49

Surrogate Compounds

S1 = 4-Bromofluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	GCD4222-CC4222	**Injection Date:**	02/03/11
Lab File ID:	CD102851.D	**Injection Time:**	18:07
Instrument ID:	GCCD	**Method:**	SW846 8015C

	S1 [a] RT	S2 [a] RT
Check Std	11.90	7.48

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S2 [a] RT
F79653-5	CD102853.D	02/03/11	18:55	11.90	7.48
F79653-7	CD102854.D	02/03/11	19:20	11.90	7.48
F79653-8	CD102855.D	02/03/11	19:44	11.90	7.49
ZZZZZZ	CD102856.D	02/03/11	20:08	11.90	7.48
F79701-8	CD102857.D	02/03/11	20:33	11.90	7.48
ZZZZZZ	CD102858.D	02/03/11	20:58	11.90	7.48

Surrogate Compounds

S1 = 4-Bromofluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	GCD4222-CC4222	**Injection Date:**	02/03/11
Lab File ID:	CD102860.D	**Injection Time:**	21:46
Instrument ID:	GCCD	**Method:**	SW846 8015C

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	11.90	11.90	7.48	7.48

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
F79608-1MS	CD102862.D	02/03/11	22:35		11.90		7.48
F79608-1MSD	CD102863.D	02/03/11	23:00		11.90		7.48
F79701-8MS	CD102864.D	02/03/11	23:24		11.90		7.47
F79701-8MSD	CD102865.D	02/03/11	23:48		11.90		7.47
GCD4222-ECC4222	CD102866.D	02/04/11	00:13	11.90	11.90	7.47	7.47

Surrogate Compounds

S1 = 4-Bromofluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

Initial Calibration Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GCD4222-ICC4222
Lab FileID: CD102835.D

```
                         Response Factor Report  VOA2

  Method       : C:\HPCHEM\1\METHODS\GROW-CD.M (Chemstation Integrator)
  Title        : EPA 8015B/TPHGRO by GC-PID/FID
  Last Update  : Thu Feb 03 12:46:41 2011
  Response via : Initial Calibration

  Calibration Files
  1   =CD102833.D  2   =CD102834.D  3   =CD102835.D  4   =CD102836.D
  5      =CD102837.D   6      =CD102838.D

        Compound              1     2     3     4     5     6     Avg    %RSD
  ---------------------------------------------------------------------------
  1) S   a,a,a-TFT           1.440 1.654 1.654 1.716 1.829 1.642 1.656 E3   7.66
  2) S   BFB                 3.726 4.305 4.397 4.618 4.888 4.473 4.401 E3   8.82

Signal #2

  4) S   a,a,a-TFT #2        4.920 5.842 6.037 6.551 6.981 6.356 6.115 E4  11.58
  5) S   BFB #2              2.589 3.007 3.030 3.163 3.470 3.192 3.075 E4   9.42
  6) H   TPH-GRO (C6-C10)    5.713 5.165 4.843 5.047 5.067 4.864 5.117 E4   6.21
             ---- Linear regression ----  Coefficient =  0.9985
               Response Ratio = 668386.17373 + 48665.03801 *A

 ---------------------------------------------------------------------------
 (#) = Out of Range

           GROW-CD.M         Sat Feb 05 12:27:09 2011
```

6.6.1

6

Initial Calibration Verification

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GCD4222-ICV4222
Lab FileID: CD102840.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\HPCHEM\1\DATA\020311\CD102840.D\FID1B.CH  Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\020311\CD102840.D\FID2A.CH
Acq On    :  3 Feb 2011   1:06 pm                    Operator: wilfredo
Sample    : icv4222-3                                Inst    : VOA2
Misc      : gc11841,gcd4222,,,,,                     Multiplr: 1.00
IntFile Signal #1: PID.E        IntFile Signal #2: events2.e

Method       : C:\HPCHEM\1\METHODS\GROW-CD.M (Chemstation Integrator)
Title        : EPA 8015B/TPHGRO by GC-PID/FID
Last Update  : Thu Feb 03 12:46:41 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	a,a,a-TFT	20.000	20.716	-3.6	104	0.01	7.37- 7.57
2 S	BFB	20.000	20.435	-2.2	102	0.01	11.79-11.99
*****	Signal #2 *****						
4 S	a,a,a-TFT #2	20.000	20.719	-3.6	105	0.00	7.37- 7.57
5 S	BFB #2	20.000	21.453	-7.3	109	0.01	11.79-11.99
6 H	TPH-GRO (C6-C10)	400.000	359.274	10.2	94	0.00	4.03-12.91

(#) = Out of Range SPCC's out = 0 CCC's out = 0
CD102835.D GROW-CD.M Sat Feb 05 12:22:33 2011

Continuing Calibration Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GCD4222-CC4222
Lab FileID: CD102851.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\HPCHEM\1\DATA\020311\CD102851.D\FID1B.CH  Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\020311\CD102851.D\FID2A.CH
Acq On    :  3 Feb 2011   6:07 pm                    Operator: wilfredo
Sample    : cc4222-3                                 Inst    : VOA2
Misc      : gc11841,gcd4222,,,,,                     Multiplr: 1.00
IntFile Signal #1: PID.E        IntFile Signal #2: events2.e

Method       : C:\HPCHEM\1\METHODS\GROW-CD.M (Chemstation Integrator)
Title        : EPA 8015B/TPHGRO by GC-PID/FID
Last Update  : Thu Feb 03 12:46:41 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	a,a,a-TFT	20.000	19.639	1.8	98	0.01	7.37- 7.57
2 S	BFB	20.000	20.122	-0.6	101	0.00	11.79-11.99
*****	Signal #2 *****						
4 S	a,a,a-TFT #2	20.000	19.042	4.8	96	0.01	7.37- 7.57
5 S	BFB #2	20.000	20.569	-2.8	104	0.00	11.79-11.99
6 H	TPH-GRO (C6-C10)	400.000	388.736	2.8	101	0.00	4.03-12.91

```
(#) = Out of Range              SPCC's out = 0  CCC's out = 0
 CD102835.D GROW-CD.M        Sat Feb 05 12:22:34 2011
```

Continuing Calibration Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GCD4222-CC4222
Lab FileID: CD102860.D

```
                    Evaluate Continuing Calibration Report

 Signal #1 : C:\HPCHEM\1\DATA\020311\CD102860.D\FID1B.CH  Vial: 31
 Signal #2 : C:\HPCHEM\1\DATA\020311\CD102860.D\FID2A.CH
 Acq On    :  3 Feb 2011   9:46 pm                    Operator: wilfredo
 Sample    : cc4222-3                                 Inst    : VOA2
 Misc      : gc11841,gcd4222,,,,,                     Multiplr: 1.00
 IntFile Signal #1: PID.E        IntFile Signal #2: events2.e

 Method       : C:\HPCHEM\1\METHODS\GROW-CD.M (Chemstation Integrator)
 Title        : EPA 8015B/TPHGRO by GC-PID/FID
 Last Update  : Thu Feb 03 12:46:41 2011
 Response via : Multiple Level Calibration

 Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
 Max. RRF Dev :  20%     Max. Rel. Area : 150%

        Compound                Amount  Calc.    %Drift Area% Dev(min)RT Window
 ---------------------------------------------------------------------------
 1 S   a,a,a-TFT               20.000  20.386     -1.9  102   0.00    7.37- 7.57
 2 S   BFB                     20.000  20.630     -3.1  103   0.00   11.79-11.99

*****  Signal #2   *****

 4 S   a,a,a-TFT #2            20.000  20.093     -0.5  102   0.00    7.37- 7.57
 5 S   BFB #2                  20.000  20.871     -4.4  106   0.00   11.79-11.99
 6 H   TPH-GRO (C6-C10)       400.000 397.593      0.6  103   0.00    4.03-12.91
---------------------------------------------------------------------------
---------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    CD102835.D GROW-CD.M        Sat Feb 05 12:22:34 2011
```

Continuing Calibration Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GCD4222-ECC4222
Lab FileID: CD102866.D

```
                    Evaluate Continuing Calibration Report

 Signal #1 : C:\HPCHEM\1\DATA\020311\CD102866.D\FID1B.CH  Vial: 35
 Signal #2 : C:\HPCHEM\1\DATA\020311\CD102866.D\FID2A.CH
 Acq On    :  4 Feb 2011  12:13 am                    Operator: wilfredo
 Sample    : ecc4222-3                                Inst    : VOA2
 Misc      : gc11841,gcd4222,,,,,                     Multiplr: 1.00
 IntFile Signal #1: PID.E        IntFile Signal #2: events2.e

 Method       : C:\HPCHEM\1\METHODS\GROW-CD.M (Chemstation Integrator)
 Title        : EPA 8015B/TPHGRO by GC-PID/FID
 Last Update  : Thu Feb 03 12:46:41 2011
 Response via : Multiple Level Calibration

 Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
 Max. RRF Dev :  20%     Max. Rel. Area : 150%

        Compound                Amount  Calc.    %Drift Area% Dev(min)RT Window
 ---------------------------------------------------------------------------
 1 S   a,a,a-TFT               20.000  20.734     -3.7  104   0.00    7.37- 7.57
 2 S   BFB                     20.000  20.739     -3.7  104   0.00   11.79-11.99

*****  Signal #2   *****

 4 S   a,a,a-TFT #2            20.000  20.837     -4.2  106   0.00    7.37- 7.57
 5 S   BFB #2                  20.000  21.019     -5.1  107   0.00   11.79-11.99
 6 H   TPH-GRO (C6-C10)       400.000 404.474     -1.1  105   0.00    4.03-12.91
---------------------------------------------------------------------------
---------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    CD102835.D GROW-CD.M        Sat Feb 05 12:22:34 2011
```

Southeast ACCUTEST LABORATORIES

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35910-MB	ZF38565.D	1	02/02/11	FEA	02/01/11	OP35910	GZF1608

The QC reported here applies to the following samples: **Method:** SW846 8015C

F79653-5, F79653-7

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	0.25	0.10	mg/l	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	92%	42-114%

Blank Spike Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35910-BS	ZF38564.D	1	02/02/11	FEA	02/01/11	OP35910	GZF1608

The QC reported here applies to the following samples: **Method:** SW846 8015C

F79653-5, F79653-7

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH (C10-C28)	1	0.974	97	59-114

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	96%	42-114%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35910-MS	ZF38570.D	1	02/02/11	FEA	02/01/11	OP35910	GZF1608
OP35910-MSD	ZF38571.D	1	02/02/11	FEA	02/01/11	OP35910	GZF1608
F79701-8	ZF38569.D	1	02/02/11	FEA	02/01/11	OP35910	GZF1608

The QC reported here applies to the following samples: **Method:** SW846 8015C

F79653-5, F79653-7

CAS No.	Compound	F79701-8 mg/l	Q	Spike mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	ND		1.92	1.69	88	1.53	80	10	59-114/34

CAS No.	Surrogate Recoveries	MS	MSD	F79701-8	Limits
84-15-1	o-Terphenyl	89%	82%	84%	42-114%

Semivolatile Surrogate Recovery Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Method: SW846 8015C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]
F79653-5	ZF38566.D	81.0
F79653-7	ZF38567.D	83.0
OP35910-BS	ZF38564.D	96.0
OP35910-MB	ZF38565.D	92.0
OP35910-MS	ZF38570.D	89.0
OP35910-MSD	ZF38571.D	82.0

Surrogate Compounds	Recovery Limits
S1 = o-Terphenyl	42-114%

(a) Recovery from GC signal #1

GC Surrogate Retention Time Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	GZF1608-CC1595	**Injection Date:**	02/02/11
Lab File ID:	ZF38563.D	**Injection Time:**	13:25
Instrument ID:	GCZF	**Method:**	SW846 8015C

	S1 [a] **RT**
Check Std	6.22

Lab Sample ID	**Lab File ID**	**Date Analyzed**	**Time Analyzed**	**S1** [a] **RT**
OP35910-BS	ZF38564.D	02/02/11	14:02	6.22
OP35910-MB	ZF38565.D	02/02/11	14:22	6.22
F79653-5	ZF38566.D	02/02/11	14:43	6.22
F79653-7	ZF38567.D	02/02/11	15:04	6.22
ZZZZZZ	ZF38568.D	02/02/11	15:25	6.22
F79701-8	ZF38569.D	02/02/11	15:46	6.22
OP35910-MS	ZF38570.D	02/02/11	16:06	6.22
OP35910-MSD	ZF38571.D	02/02/11	16:27	6.22
ZZZZZZ	ZF38572.D	02/02/11	16:48	6.22

Surrogate Compounds

S1 = o-Terphenyl

(a) Retention time from GC signal #1

Initial Calibration Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GZF1595-ICC1595
Lab FileID: ZF38256.D

Response Factor Report FID 3

Method : C:\HPCHEM\1\METHODS\F_DRO.M (Chemstation Integrator)
Title : TPH by SW846 8015C
Last Update : Tue Dec 21 12:47:55 2010
Response via : Initial Calibration

Calibration Files
200 =ZF38254.D 500 =ZF38255.D 1000=ZF38256.D 2000=ZF38257.D
3000 =ZF38258.D 4000 =ZF38259.D

Compound	200	500	1000	2000	3000	4000	Avg	%RSD
1) S O-TERPHENYL	2.395	2.373	2.308	2.288	2.287	2.207	2.310 E4	2.91
2) H TPH (C10-C28)	2.124	2.065	2.020	2.013	1.999	1.948	2.028 E4	2.97

(#) = Out of Range

F_DRO.M Wed Dec 22 08:30:25 2010

7.6.1

7

Initial Calibration Verification

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GZF1595-ICV1595
Lab FileID: ZF38260.D

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\1221DRO\ZF38260.D          Vial: 9
Acq On    : 21 Dec 2010  12:43 pm                   Operator: marke
Sample    : icv1595-1000                            Inst    : FID 3
Misc      : op35367,gzf1595,30.0,,,1,1,soil         Multiplr: 1.00
IntFile   : events.e

Method       : C:\HPCHEM\1\METHODS\F_DRO.M (Chemstation Integrator)
Title        : TPH by SW846 8015C
Last Update  : Tue Dec 21 12:47:55 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%

       Compound                Amount  Calc.    %Drift Area% Dev(min)RT Window
 ---------------------------------------------------------------------------
 1 S   O-TERPHENYL                        ----------NA----------
 2 H   TPH (C10-C28)          1000.000 1002.742     -0.3  101   0.00    3.05- 8.58
---------------------------------------------------------------------------
---------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    ZF38256.D  F_DRO.M          Wed Dec 22 08:30:11 2010
```

7.6.2

7

Continuing Calibration Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GZF1608-CC1595
Lab FileID: ZF38563.D

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\0202DRO\ZF38563.D          Vial: 2
Acq On    :  2 Feb 2011   1:25 pm                   Operator: enoca
Sample    : cc1595-1000                             Inst    : FID 3
Misc      : op35871,gzf1608,30.0,,,1,1,soil         Multiplr: 1.00
IntFile   : events.e

Method       : C:\HPCHEM\1\METHODS\F_DRO.M (Chemstation Integrator)
Title        : TPH by SW846 8015C
Last Update  : Fri Jan 07 13:39:25 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	25.000	26.786	-7.1	107	-0.02	6.14- 6.34
2 H	TPH (C10-C28)	1000.000	1118.449	-11.8	112	0.00	3.02- 8.57

(#) = Out of Range SPCC's out = 0 CCC's out = 0
ZF38256.D F_DRO.M Wed Feb 02 14:05:43 2011

7.6.3

7

Continuing Calibration Summary

Job Number: F79653
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GZF1608-CC1595
Lab FileID: ZF38573.D

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\0202DRO\ZF38573.D          Vial: 17
Acq On    :  2 Feb 2011   5:09 pm                   Operator: enoca
Sample    : cc1595-1000                              Inst    : FID 3
Misc      : op35910,gzf1608,1040,,,1,1,water         Multiplr: 1.00
IntFile   : events.e

Method       : C:\HPCHEM\1\METHODS\F_DRO.M (Chemstation Integrator)
Title        : TPH by SW846 8015C
Last Update  : Fri Jan 07 13:39:25 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	25.000	26.691	-6.8	107	-0.02	6.14- 6.34
2 H	TPH (C10-C28)	1000.000	1112.388	-11.2	112	0.00	3.02- 8.57

(#) = Out of Range SPCC's out = 0 CCC's out = 0
ZF38256.D F_DRO.M Thu Feb 03 16:47:58 2011

7.6.4

7

Southeast ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
Analyst: LM Run ID: MA8687
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:31	MA8687-STD1	1		STD01REP1
10:33	MA8687-STD2	1		STD02REP1
10:36	MA8687-STD3	1		STD03REP1
10:38	MA8687-STD4	1		STD04REP1
10:40	MA8687-STD5	1		STD05REP1
10:43	MA8687-STD6	1		STD06REP1
10:45	MA8687-HSTD1	1		
10:47	MA8687-ICV1	1		
10:50	MA8687-ICB1	1		
10:52	MA8687-CRI1	1		
10:55	MA8687-CCV1	1		
10:58	MA8687-CCB1	1		
11:13	MA8687-CCV2	1		
11:15	MA8687-CCB2	1		
11:24	MP19910-MB1	1		
11:27	MP19910-B1	1		
11:29	F79701-6	1		(sample used for QC only; not part of login F79653)
11:31	MP19910-D1	1		
11:33	MP19910-SD1	5		
11:36	MP19910-S1	1		
11:38	MP19910-S2	1		
11:41	F79653-4F	1		
11:43	F79653-5F	1		
11:45	F79653-6F	1		
11:48	MA8687-CCV3	1		
11:50	MA8687-CCB3	1		
11:52	F79653-7F	1		
11:54	ZZZZZZ	1		
11:57	ZZZZZZ	1		
11:59	ZZZZZZ	1		
12:01	ZZZZZZ	1		
12:04	ZZZZZZ	1		
12:08	MP19910-MB2A	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
Analyst: LM Run ID: MA8687
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:10	ZZZZZZ	1		
12:13	MP19909-MB1	1		
12:15	MA8687-CCV4	1		
12:18	MA8687-CCB4	1		
12:20	MP19909-B1	1		
12:22	F79608-1F	1		(sample used for QC only; not part of login F79653)
12:25	MP19909-D1	1		
12:27	MP19909-SD1	5		
12:29	MP19909-S1	1		
12:31	MP19909-S2	1		
12:34	ZZZZZZ	1		
12:36	ZZZZZZ	1		
12:39	ZZZZZZ	1		
12:41	ZZZZZZ	1		
12:43	MA8687-CCV5	1		
12:46	MA8687-CCB5	1		
12:48	ZZZZZZ	1		
12:50	ZZZZZZ	1		
12:53	ZZZZZZ	1		
12:55	ZZZZZZ	1		
12:57	F79653-1	1		
12:59	F79653-2	1		
13:02	F79653-3	1		
13:04	F79653-4	1		
13:06	F79653-5	1		
13:09	F79653-6	1		
13:11	MA8687-CCV6	1		
13:14	MA8687-CCB6	1		
13:16	F79653-7	1		
13:18	F79653-1F	1		
13:20	F79653-2F	1		
13:23	F79653-3F	1		
13:25	MP19909-MB2A	1		

----------> Last reportable sample/prep for job F79653

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
Analyst: LM Run ID: MA8687
Parameters: Hg

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	13:27	ZZZZZZ	1		
	13:31	MA8687-CRI2	1		
	13:34	MA8687-CCV7	1		
---------->	13:36	MA8687-CCB7	1		Last reportable CCB for job F79653 Refer to raw data for calibration curve and standards.

8.1

8

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA8687 Units: ug/l

Time:			10:50		10:58		11:15		11:50	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	1.0	.071	-0.029	<1.0	-0.019	<1.0	-0.046	<1.0	-0.043	<1.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA8687 Units: ug/l

Time:			12:18		12:46		13:14		13:36	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	1.0	.071	-0.023	<1.0	-0.0070	<1.0	0.011	<1.0	-0.025	<1.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA8687 Units: ug/l

Time:		10:47			10:55			11:13	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3.0	3.0	100.0	3.0	3.0	100.0	3.0	3.0	100.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA8687 Units: ug/l

Time:		11:48			12:15			12:43	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	3.1	103.3	3	3.1	103.3	3	3.1	103.3

(*) Outside of QC limits
(anr) Analyte not requested

8.1.2
8

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA8687 Units: ug/l

Time:		13:11			13:34	
Sample ID:	CCV	CCV6		CCV	CCV7	
Metal	True	Results	% Rec	True	Results	% Rec
Mercury	3	3.1	103.3	3	3.1	103.3

(*) Outside of QC limits
(anr) Analyte not requested

8.1.2
8

HIGH STANDARD CHECK SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
QC Limits: 95 to 105 % Recovery Run ID: MA8687 Units: ug/l

Time:		10:45	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Mercury	6.0	6.0	100.0

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
QC Limits: 80 to 120 % Recovery Run ID: MA8687 Units: ug/l

Time:			10:52		13:31	
Sample ID:	CRI	CRIA	CRI1		CRI2	
Metal	True	True	Results	% Rec	Results	% Rec
Mercury	0.20		0.19	95.0	0.19	95.0

(*) Outside of QC limits
(anr) Analyte not requested

8.1.4
8

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:23	MA8696-STD1	1		STDA
09:26	MA8696-STD2	1		STDB
09:30	MA8696-STD3	1		STDC
09:34	MA8696-HSTD1	1		
09:38	MA8696-ICV1	1		
09:48	MA8696-ICB1	1		
09:52	MA8696-ICB2	1		
09:56	MA8696-CRIA1	1		
10:01	MA8696-CRIA2	1		
10:14	MA8696-ICSA1	1		
10:20	MA8696-ICSAB1	1		
10:31	MA8696-CCV1	1		
10:38	MA8696-CCB1	1		
12:19	MA8696-CCV2	1		
12:23	MA8696-CCB2	1		
13:00	F79564-1	5		(sample used for QC only; not part of login F79653)
13:05	MP19913-D1	5		
13:09	MA8696-CCV3	1		
13:13	MA8696-CCB3	1		
13:29	MA8696-CCV4	1		
13:34	MA8696-CCB4	1		
13:38	MP19913-S1	5		
13:42	MP19913-S2	5		
13:47	MP19913-PS1	5		
13:51	MP19913-SD1	25		
13:55	ZZZZZZ	5		
14:00	ZZZZZZ	5		
14:04	ZZZZZZ	5		
14:08	ZZZZZZ	5		
14:13	ZZZZZZ	5		
14:17	F79564-1F	5		(sample used for QC only; not part of login F79653)
14:21	MA8696-CCV5	1		
14:25	MA8696-CCB5	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:29	MP19917-D1	5		
14:34	MP19917-S1	5		
14:38	MP19917-S2	5		
14:42	MP19917-PS1	5		
14:46	MP19917-SD1	25		
14:51	ZZZZZZ	5		
14:55	ZZZZZZ	5		
15:00	ZZZZZZ	5		
15:04	ZZZZZZ	5		
15:08	ZZZZZZ	5		
15:13	MA8696-CCV6	1		
15:16	MA8696-CCB6	1		
15:21	ZZZZZZ	4		
15:25	ZZZZZZ	2		
15:29	ZZZZZZ	5		
15:33	ZZZZZZ	5		
15:37	ZZZZZZ	10		
15:42	ZZZZZZ	10		
15:46	ZZZZZZ	5		
15:50	ZZZZZZ	10		
15:54	ZZZZZZ	4		
15:59	F79566-7	5		(sample used for QC only; not part of login F79653)
16:03	MA8696-CCV7	1		
16:07	MA8696-CCB7	1		
16:11	MP19923-D1	5		
16:15	MP19923-S1	5		
16:19	MP19923-S2	5		
16:23	MP19923-SD1	25		
16:27	MP19932-MB1	1		
16:32	MP19932-B1	1		
16:35	F79608-1	1		(sample used for QC only; not part of login F79653)
16:40	MP19932-D1	1		
16:44	MP19932-SD1	5		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:49	MP19932-PS1	1		
16:53	MA8696-CCV8	1		
16:57	MA8696-CCB8	1		
17:01	MP19932-S1	1		
17:06	MP19932-S2	1		
17:10	ZZZZZZ	1		
17:14	ZZZZZZ	1		
17:19	ZZZZZZ	1		
17:23	ZZZZZZ	1		
17:28	ZZZZZZ	1		
17:32	F79653-1	1		
17:36	F79653-2	1		
17:41	F79653-3	1		
17:45	MA8696-CCV9	1		
17:49	MA8696-CCB9	1		
17:54	F79653-4	1		
17:58	F79653-5	1		
18:03	F79653-6	1		
18:07	F79653-7	1		
18:12	F79653-1F	1		
18:16	F79653-2F	1		
18:21	F79653-3F	1		
18:25	F79653-4F	1		
18:30	F79653-5F	1		
18:34	F79653-6F	1		
18:39	MA8696-CCV10	1		
18:43	MA8696-CCB10	1		
18:47	F79653-7F	1		
18:51	MP19932-MB2A	1		
---------->	Last reportable sample/prep for job F79653			
18:56	MP19933-MB1	1		
19:00	MP19933-B1	1		
19:04	F79608-1F	1		(sample used for QC only; not part of login F79653)
19:08	MP19933-D1	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:13	MP19933-SD1	5		
19:17	MP19933-PS1	1		
19:22	MP19933-S1	1		
19:26	MP19933-S2	1		
19:30	MA8696-CCV11	1		
19:34	MA8696-CCB11	1		
19:38	ZZZZZZ	1		
19:43	ZZZZZZ	1		
19:47	ZZZZZZ	1		
19:52	ZZZZZZ	1		
19:56	ZZZZZZ	1		
20:00	ZZZZZZ	1		
20:05	ZZZZZZ	1		
20:09	ZZZZZZ	1		
20:13	ZZZZZZ	1		
20:17	ZZZZZZ	1		
20:22	MA8696-CCV12	1		
20:26	MA8696-CCB12	1		
20:30	ZZZZZZ	1		
20:34	ZZZZZZ	1		
20:38	ZZZZZZ	1		
20:42	ZZZZZZ	1		
20:47	ZZZZZZ	1		
20:51	ZZZZZZ	1		
20:55	ZZZZZZ	1		
20:59	ZZZZZZ	1		
21:03	MP19933-MB2A	1		
21:08	MP19933-MB3A	1		
21:12	MA8696-CCV13	1		
21:16	MA8696-CCB13	1		
21:20	MP19931-MB1	1		
21:24	MP19931-B1	1		
21:28	F79839-1	1		(sample used for QC only; not part of login F79653)

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:32	MP19931-D1	1		
21:37	MP19931-SD1	5		
21:41	MP19931-PS1	1		
21:45	MP19931-S1	1		
21:49	MP19931-S2	1		
21:52	ZZZZZZ	1		
21:56	ZZZZZZ	1		
22:01	MA8696-CCV14	1		
22:04	MA8696-CCB14	1		
22:09	ZZZZZZ	1		
22:13	ZZZZZZ	1		
22:17	ZZZZZZ	1		
22:21	ZZZZZZ	1		
22:25	ZZZZZZ	1		
22:29	ZZZZZZ	1		
22:33	ZZZZZZ	1		
22:38	ZZZZZZ	1		
22:42	ZZZZZZ	1		
22:46	ZZZZZZ	1		
22:50	MA8696-CCV15	1		
22:54	MA8696-CCB15	1		
22:59	ZZZZZZ	1		
23:03	ZZZZZZ	1		
23:07	ZZZZZZ	1		
23:11	ZZZZZZ	1		
23:15	ZZZZZZ	1		
23:19	ZZZZZZ	1		
23:24	ZZZZZZ	1		
23:28	MA8696-CRIA3	1		
23:32	MA8696-ICSA2	1		
23:36	MA8696-ICSAB2	1		
23:40	MA8696-CCV16	1		
23:44	MA8696-CCB16	1		

----------> Last reportable CCB for job F79653

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
23:49	MA8696-CCV17	1		
23:53	MA8696-CCB17	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
09:23	MA8696-STD1	1704	26193	8908	1060
09:26	MA8696-STD2	1619	24341	8745	888
09:30	MA8696-STD3	1555	23738	8577	824
09:34	MA8696-HSTD1	1571	23694	8568	829
09:38	MA8696-ICV1	1627	24299	8626	891
09:48	MA8696-ICB1	1730 R	25979 R	8815 R	1071 R
09:52	MA8696-ICB2	1718	26030	8808	999999 !
09:56	MA8696-CRIA1	1693	25322	8717	1014
10:01	MA8696-CRIA2	1688	25317	8693	1005
10:14	MA8696-ICSA1	1498	21925	8376	751
10:20	MA8696-ICSAB1	1481	21852	8298	738
10:31	MA8696-CCV1	1636	24327	8579	891
10:38	MA8696-CCB1	1692	25318	8766	1042
12:19	MA8696-CCV2	1693	24851	8935	906
12:23	MA8696-CCB2	1759	26090	8835	1069
13:00	F79564-1	1452	21045	7853	735
13:05	MP19913-D1	1419	20794	8155	721
13:09	MA8696-CCV3	1663	24559	8390	892
13:13	MA8696-CCB3	1757	26610	8662	1067
13:29	MA8696-CCV4	1681	24888	8409	898
13:34	MA8696-CCB4	1788	26800	8684	1082
13:38	MP19913-S1	1445	21117	7969	716
13:42	MP19913-S2	1446	21083	7910	719
13:47	MP19913-PS1	1448	20674	7822	729
13:51	MP19913-SD1	1622	23280	8210	876
13:55	ZZZZZZ	1366	20144	7803	686
14:00	ZZZZZZ	1378	19743	7493	687
14:04	ZZZZZZ	1412	20527	7741	714
14:08	ZZZZZZ	1409	20416	7754	714
14:13	ZZZZZZ	1417	21102	7887	719
14:17	F79564-1F	1383	20296	7679	701
14:21	MA8696-CCV5	1680	24896	8440	892
14:25	MA8696-CCB5	1784	26654	8600	1073

INTERNAL STANDARD SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
14:29	MP19917-D1	1421	20728	7838	718
14:34	MP19917-S1	1447	21099	7798	720
14:38	MP19917-S2	1458	21330	7914	726
14:42	MP19917-PS1	1444	21151	7837	724
14:46	MP19917-SD1	1622	23815	8338	878
14:51	ZZZZZZ	1391	20153	7436	689
14:55	ZZZZZZ	1392	20283	7635	696
15:00	ZZZZZZ	1379	20258	7619	695
15:04	ZZZZZZ	1434	20446	7720	729
15:08	ZZZZZZ	1433	20999	7841	729
15:13	MA8696-CCV6	1696	25190	8553	901
15:16	MA8696-CCB6	1759	26468	8535	1062
15:21	ZZZZZZ	1680	25187	8453	959
15:25	ZZZZZZ	1673	24944	8522	935
15:29	ZZZZZZ	1685	25101	8544	945
15:33	ZZZZZZ	1683	25130	8560	948
15:37	ZZZZZZ	1717	25448	8524	974
15:42	ZZZZZZ	1708	25208	8524	974
15:46	ZZZZZZ	1718	25332	8545	966
15:50	ZZZZZZ	1747	25823	8576	1002
15:54	ZZZZZZ	1775	26434	8646	1036
15:59	F79566-7	1712	25280	8458	988
16:03	MA8696-CCV7	1710	25111	8503	906
16:07	MA8696-CCB7	1815	27829	8536	1090
16:11	MP19923-D1	1769	26287	8649	1012
16:15	MP19923-S1	1770	25433	8439	992
16:19	MP19923-S2	1708	25206	8390	957
16:23	MP19923-SD1	1784	26389	8660	1059
16:27	MP19932-MB1	1773	26993	8755	1065
16:32	MP19932-B1	1721	25347	8554	953
16:35	F79608-1	1186	17282	7211	557 !
16:40	MP19932-D1	1178	17297	7124	550 !
16:44	MP19932-SD1	1446	21294	8000	739

INTERNAL STANDARD SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
16:49	MP19932-PS1	1177	17449	7141	552 !
16:53	MA8696-CCV8	1636	24865	8600	880
16:57	MA8696-CCB8	1747	26307	8704	1065
17:01	MP19932-S1	1178	17510	7127	546 !
17:06	MP19932-S2	1179	17437	7157	545 !
17:10	ZZZZZZ	1212	18114	7470	590 !
17:14	ZZZZZZ	1209	18015	7478	585 !
17:19	ZZZZZZ	1088	16130	6860	506 !
17:23	ZZZZZZ	1074	15512 !	6875	498 !
17:28	ZZZZZZ	1187	17624	7436	573 !
17:32	F79653-1	1080	15849	7049	504 !
17:36	F79653-2	754 !	11330 !	5609	314 !
17:41	F79653-3	713 !	10919 !	5518	290 !
17:45	MA8696-CCV9	1646	24864	8886	896
17:49	MA8696-CCB9	1764	26325	8801	1080
17:54	F79653-4	805 !	12200 !	5925	273 !
17:58	F79653-5	1193	17847	7520	581 !
18:03	F79653-6	750 !	11453 !	5603	313 !
18:07	F79653-7	1160	17392	7421	564 !
18:12	F79653-1F	1087	15716	6820	503 !
18:16	F79653-2F	753 !	11923 !	5708	315 !
18:21	F79653-3F	743 !	11305 !	5893	310 !
18:25	F79653-4F	658 !	10611 !	5533	266 !
18:30	F79653-5F	1186	17811	7703	578 !
18:34	F79653-6F	733 !	11359 !	5709	306 !
18:39	MA8696-CCV10	1620	24862	8947	886
18:43	MA8696-CCB10	1727	26257	8949	1067
18:47	F79653-7F	1167	17643	7481	576 !
18:51	MP19932-MB2A	1707	26046	8898	1048
18:56	MP19933-MB1	1697	26203	8818	1042
19:00	MP19933-B1	1638	24822	8875	927
19:04	F79608-1F	1122	16722	7114	542 !
19:08	MP19933-D1	1125	16925	7247	544 !

INTERNAL STANDARD SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
19:13	MP19933-SD1	1406	20896	8217	736
19:17	MP19933-PS1	1114	16855	7216	536 !
19:22	MP19933-S1	1148	17370	7318	541 !
19:26	MP19933-S2	1137	17256	7364	537 !
19:30	MA8696-CCV11	1575	23967	8678	867
19:34	MA8696-CCB11	1688	25929	8938	1048
19:38	ZZZZZZ	1178	17451	7345	585 !
19:43	ZZZZZZ	1146	17578	7506	568 !
19:47	ZZZZZZ	1038	15536 !	6989	493 !
19:52	ZZZZZZ	1031 !	15585 !	6901	487 !
19:56	ZZZZZZ	1125	17439	7385	558 !
20:00	ZZZZZZ	1517	24373	8677	861
20:05	ZZZZZZ	1555	23676	8621	894
20:09	ZZZZZZ	1556	23793	8645	872
20:13	ZZZZZZ	1600	24352	8840	936
20:17	ZZZZZZ	1584	24269	8638	918
20:22	MA8696-CCV12	1600	24159	8943	873
20:26	MA8696-CCB12	1690	25818	8798	1042
20:30	ZZZZZZ	1584	24160	8639	913
20:34	ZZZZZZ	1670	25597	8904	1000
20:38	ZZZZZZ	1597	24420	8750	922
20:42	ZZZZZZ	1606	24718	8741	940
20:47	ZZZZZZ	1598	24409	8593	924
20:51	ZZZZZZ	1590	24384	8747	919
20:55	ZZZZZZ	1660	25500	8892	1001
20:59	ZZZZZZ	1585	24159	8661	914
21:03	MP19933-MB2A	1702	26265	8927	1048
21:08	MP19933-MB3A	1713	26266	8952	1055
21:12	MA8696-CCV13	1596	24036	8598	873
21:16	MA8696-CCB13	1706	25872	8870	1053
21:20	MP19931-MB1	1686	26567	8760	1033
21:24	MP19931-B1	1616	24197	8543	918
21:28	F79839-1	1725	25802	9403	834

INTERNAL STANDARD SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
21:32	MP19931-D1	1769	26240	9640	827
21:37	MP19931-SD1	1721	25580	9041	965
21:41	MP19931-PS1	1707	25208	9220	824
21:45	MP19931-S1	1701	25280	9247	805
21:49	MP19931-S2	1711	25451	9434	797
21:52	ZZZZZZ	1665	24565	8990	786
21:56	ZZZZZZ	1669	24645	8991	831
22:01	MA8696-CCV14	1668	24875	8852	911
22:04	MA8696-CCB14	1747	26254	8944	1074
22:09	ZZZZZZ	1682	24865	9090	827
22:13	ZZZZZZ	1744	25635	9218	871
22:17	ZZZZZZ	1764	26165	9455	852
22:21	ZZZZZZ	1757	26076	9231	915
22:25	ZZZZZZ	1763	26252	9231	928
22:29	ZZZZZZ	1844	27319	9925	890
22:33	ZZZZZZ	2037	30045	10884	880
22:38	ZZZZZZ	2045	30130	10838	866
22:42	ZZZZZZ	1759	25999	9601	823
22:46	ZZZZZZ	1784	26377	9472	868
22:50	MA8696-CCV15	1629	24197	8665	889
22:54	MA8696-CCB15	1741	26269	8858	1073
22:59	ZZZZZZ	1736	25978	8847	1019
23:03	ZZZZZZ	1692	25152	8622	993
23:07	ZZZZZZ	1742	26109	8889	1018
23:11	ZZZZZZ	1774	26560	9060	1039
23:15	ZZZZZZ	1718	25572	8914	973
23:19	ZZZZZZ	1743	25964	8784	1024
23:24	ZZZZZZ	1682	24973	8686	924
23:28	MA8696-CRIA3	1740	25917	8839	1024
23:32	MA8696-ICSA2	1485	21837	8311	746
23:36	MA8696-ICSAB2	1478	21870	8330	738
23:40	MA8696-CCV16	1629	24154	8607	887
23:44	MA8696-CCB16	1741	26169	8803	1068

INTERNAL STANDARD SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
23:49	MA8696-CCV17	1628	24335	8643	886
23:53	MA8696-CCB17	1727	26193	8826	1058

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	60-125 %
Istd#2	Yttrium (3600)	60-125 %
Istd#3	Yttrium (3710)	60-125 %
Istd#4	Indium	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8696 Units: ug/l

Time:			09:48		09:52		10:38		12:23	
Sample ID:			ICB1		ICB2		CCB1		CCB2	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	0.70	<10			-0.70	<10	-1.4	<10
Barium	200	1	0.20	<200			0.50	<200	0.90	<200
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	0.10	<5.0			0.30	<5.0	0.10	<5.0
Calcium	1000	50	anr							
Chromium	10	1	-0.40	<10			-0.10	<10	-0.40	<10
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	0.80	<5.0			0.90	<5.0	0.70	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2			-0.10	<10	1.3	<10	1.5	<10
Silver	10	1	0.10	<10			0.0	<10	-0.10	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8696 Units: ug/l

Time:			13:13		13:34		14:25		15:16	
Sample ID:			CCB3		CCB4		CCB5		CCB6	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	-0.80	<10	-1.4	<10	0.20	<10	-0.30	<10
Barium	200	1	1.5	<200	-0.40	<200	1.3	<200	0.60	<200
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	0.20	<5.0	0.10	<5.0	0.20	<5.0	0.20	<5.0
Calcium	1000	50	anr							
Chromium	10	1	-0.40	<10	0.10	<10	0.10	<10	0.50	<10
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	1.3	<5.0	-0.80	<5.0	0.0	<5.0	0.0	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	1.4	<10	0.70	<10	2.2	<10	1.8	<10
Silver	10	1	0.0	<10	-0.20	<10	-0.40	<10	-0.40	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8696 Units: ug/l

Time:			16:07		16:57		17:49		18:43	
Sample ID:			CCB7		CCB8		CCB9		CCB10	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	0.30	<10	-0.60	<10	-0.50	<10	-1.1	<10
Barium	200	1	0.60	<200	0.80	<200	-0.70	<200	-1.0	<200
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	0.30	<5.0	0.10	<5.0	0.10	<5.0	0.10	<5.0
Calcium	1000	50	anr							
Chromium	10	1	0.0	<10	-0.10	<10	0.10	<10	0.0	<10
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	0.40	<5.0	-0.10	<5.0	0.0	<5.0	-0.10	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	0.90	<10	2.6	<10	2.0	<10	2.0	<10
Silver	10	1	-0.40	<10	-0.40	<10	-0.20	<10	-0.30	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8696 Units: ug/l

Time:			19:34		20:26		21:16		22:04	
Sample ID:			CCB11		CCB12		CCB13		CCB14	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	0.80	<10	-0.30	<10	-1.1	<10	-1.1	<10
Barium	200	1	-1.4	<200	-1.1	<200	-1.6	<200	-1.7	<200
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	0.20	<5.0	0.0	<5.0	0.0	<5.0	0.10	<5.0
Calcium	1000	50	anr							
Chromium	10	1	0.0	<10	-0.30	<10	-0.20	<10	0.10	<10
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	0.60	<5.0	-0.50	<5.0	-0.30	<5.0	0.30	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	2.2	<10	1.0	<10	3.5	<10	1.6	<10
Silver	10	1	-0.30	<10	0.10	<10	-0.20	<10	-0.50	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8696 Units: ug/l

Time:			22:54		23:44	
Sample ID:			CCB15		CCB16	
Metal	RL	IDL	raw	final	raw	final
Aluminum	200	20	anr			
Antimony	6.0	1	anr			
Arsenic	10	1	0.60	<10	-1.3	<10
Barium	200	1	-1.1	<200	-1.2	<200
Beryllium	4.0	.1	anr			
Cadmium	5.0	.1	0.10	<5.0	0.20	<5.0
Calcium	1000	50	anr			
Chromium	10	1	0.0	<10	0.30	<10
Cobalt	50	1	anr			
Copper	25	1	anr			
Iron	300	34	anr			
Lead	5.0	1	-0.70	<5.0	0.20	<5.0
Magnesium	5000	50	anr			
Manganese	15	1	anr			
Molybdenum	50	1				
Nickel	40	1	anr			
Potassium	10000	50	anr			
Selenium	10	2	-0.10	<10	2.6	<10
Silver	10	1	0.0	<10	-0.20	<10
Sodium	10000	750	anr			
Strontium	10	1				
Thallium	10	1	anr			
Tin	50	1				
Titanium	10	1.1				
Vanadium	50	1	anr			
Zinc	20	1				

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8696 Units: ug/l

Time:		09:38			10:31			12:19	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1960	98.0	2000	2010	100.5	2000	1930	96.5
Barium	2000	2030	101.5	2000	2060	103.0	2000	1910	95.5
Beryllium	anr								
Cadmium	2000	2040	102.0	2000	2060	103.0	2000	1980	99.0
Calcium	anr								
Chromium	2000	2030	101.5	2000	2080	104.0	2000	2070	103.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2010	100.5	2000	2040	102.0	2000	2000	100.0
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2010	100.5	2000	2010	100.5	2000	1970	98.5
Silver	250	248	99.2	250	251	100.4	250	253	101.2
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8696 Units: ug/l

Time:		13:09			13:29			14:21	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1950	97.5	2000	2050	102.5	2000	2010	100.5
Barium	2000	2070	103.5	2000	2100	105.0	2000	2080	104.0
Beryllium	anr								
Cadmium	2000	1990	99.5	2000	2090	104.5	2000	2050	102.5
Calcium	anr								
Chromium	2000	2070	103.5	2000	2110	105.5	2000	2070	103.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2010	100.5	2000	2060	103.0	2000	2030	101.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2000	100.0	2000	2060	103.0	2000	2030	101.5
Silver	250	254	101.6	250	255	102.0	250	253	101.2
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8696 Units: ug/l

Time:		15:13			16:03			16:53	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2000	100.0	2000	2010	100.5	2000	2110	105.5
Barium	2000	2050	102.5	2000	2080	104.0	2000	2080	104.0
Beryllium	anr								
Cadmium	2000	2040	102.0	2000	2060	103.0	2000	2150	107.5
Calcium	anr								
Chromium	2000	2050	102.5	2000	2090	104.5	2000	2090	104.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2020	101.0	2000	2050	102.5	2000	2100	105.0
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2020	101.0	2000	2010	100.5	2000	2120	106.0
Silver	250	250	100.0	250	254	101.6	250	250	100.0
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8696 Units: ug/l

Time:		17:45			18:39			19:30	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2090	104.5	2000	2090	104.5	2000	2160	108.0
Barium	2000	2130	106.5	2000	2110	105.5	2000	2160	108.0
Beryllium	anr								
Cadmium	2000	2120	106.0	2000	2100	105.0	2000	2170	108.5
Calcium	anr								
Chromium	2000	2080	104.0	2000	2030	101.5	2000	2100	105.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2060	103.0	2000	2030	101.5	2000	2080	104.0
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2090	104.5	2000	2090	104.5	2000	2160	108.0
Silver	250	248	99.2	250	248	99.2	250	251	100.4
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8696 Units: ug/l

Time:		20:22			21:12			22:01	
Sample ID:	CCV	CCV12		CCV	CCV13		CCV	CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2150	107.5	2000	2160	108.0	2000	2110	105.5
Barium	2000	2050	102.5	2000	2160	108.0	2000	2090	104.5
Beryllium	anr								
Cadmium	2000	2160	108.0	2000	2190	109.5	2000	2150	107.5
Calcium	anr								
Chromium	2000	2100	105.0	2000	2140	107.0	2000	2110	105.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2090	104.5	2000	2110	105.5	2000	2070	103.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2140	107.0	2000	2150	107.5	2000	2090	104.5
Silver	250	251	100.4	250	253	101.2	250	249	99.6
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8696 Units: ug/l

Time:		22:50			23:40	
Sample ID:	CCV	CCV15		CCV	CCV16	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	anr					
Antimony	anr					
Arsenic	2000	2170	108.5	2000	2140	107.0
Barium	2000	2150	107.5	2000	2130	106.5
Beryllium	anr					
Cadmium	2000	2190	109.5	2000	2170	108.5
Calcium	anr					
Chromium	2000	2160	108.0	2000	2130	106.5
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	2000	2120	106.0	2000	2100	105.0
Magnesium	anr					
Manganese	anr					
Molybdenum						
Nickel	anr					
Potassium	anr					
Selenium	2000	2140	107.0	2000	2120	106.0
Silver	250	255	102.0	250	254	101.6
Sodium	anr					
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium	anr					
Zinc						

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA8696 Units: ug/l

Time:		09:34	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	4000	3950	98.8
Barium	4000	3930	98.3
Beryllium	anr		
Cadmium	4000	3920	98.0
Calcium	anr		
Chromium	4000	3950	98.8
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	4000	3960	99.0
Magnesium	anr		
Manganese	anr		
Molybdenum			
Nickel	anr		
Potassium	anr		
Selenium	4000	3950	98.8
Silver	500	497	99.4
Sodium	anr		
Strontium			
Thallium	anr		
Tin			
Titanium			
Vanadium	anr		
Zinc			

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA8696 Units: ug/l

Time:			09:56		10:01		23:28	
Sample ID:	CRI	CRIA	CRIA1		CRIA2		CRIA3	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	400	200	anr					
Antimony	10	5.0	anr					
Arsenic	20	10	9.8	98.0			10.3	103.0
Barium	400	200	205	102.5			208	104.0
Beryllium	10	5.0	anr					
Cadmium	10	5.0	5.2	104.0			5.4	108.0
Calcium	2000	1000	anr					
Chromium	20	10	9.9	99.0			9.9	99.0
Cobalt	100	50	anr					
Copper	50	25	anr					
Iron	600	300	anr					
Lead	10	5.0	5.7	114.0			4.8	96.0
Magnesium	10000	5000	anr					
Manganese	30	15	anr					
Molybdenum	100	50						
Nickel	80	40	anr					
Potassium	20000	10000	anr					
Selenium	20	10			12.0	120.0	9.6	96.0
Silver	20	10	9.1	91.0			8.7	87.0
Sodium	20000	10000	anr					
Strontium	20	10						
Thallium	20	10						
Tin	100	50						
Titanium	20	10						
Vanadium	100	50	anr					
Zinc	40	20						

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA8696 Units: ug/l

Time:			10:14		10:20		23:32		23:36	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	475000	95.0	489000	97.8	475000	95.0	481000	96.2
Antimony		1000	1.7		975	97.5	2.2		1020	102.0
Arsenic		1000	1.8		986	98.6	-2.3		1050	105.0
Barium		500	1.1		508	101.6	-0.50		518	103.6
Beryllium		500	0.0		484	96.8	-0.20		479	95.8
Cadmium		1000	0.0		920	92.0	2.0		970	97.0
Calcium	500000	500000	459000	91.8	454000	90.8	467000	93.4	456000	91.2
Chromium		500	-0.50		470	94.0	0.30		476	95.2
Cobalt		500	0.40		451	90.2	0.40		462	92.4
Copper		500	-1.3		492	98.4	-2.7		522	104.4
Iron	200000	200000	180000	90.0	183000	91.5	175000	87.5	175000	87.5
Lead		1000	0.0		972	97.2	-1.9		992	99.2
Magnesium	500000	500000	504000	100.8	512000	102.4	485000	97.0	483000	96.6
Manganese		500	0.60		480	96.0	0.60		500	100.0
Molybdenum		1000	0.20		949	94.9	-0.30		974	97.4
Nickel		1000	0.0		964	96.4	1.1		998	99.8
Potassium			-7.9		10.5		-0.10		0.20	
Selenium		1000	0.0		958	95.8	-5.7		1000	100.0
Silver		1000	0.0		1100	110.0	0.70		1100	110.0
Sodium			143		-1500		-960		-160	
Strontium		1000	0.50		0.60	0.0*	0.50		0.50	0.0*
Thallium		1000	0.80		934	93.4	-1.9		969	96.9
Tin		1000	4.0		849	84.9	2.5		919	91.9
Titanium		1000	-1.2		-0.40	0.0*	-1.7		-0.80	0.0*
Vanadium		500	0.50		481	96.2	0.90		497	99.4
Zinc		1000	-2.1		881	88.1	-0.90		949	94.9

(*) Outside of QC limits
(anr) Analyte not requested

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: As,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:32	MA8700-STD1	1		STDA
09:36	MA8700-STD2	1		STDB
09:39	MA8700-STD3	1		STDC
09:44	MA8700-HSTD1	1		
09:47	MA8700-ICV1	1		
09:55	MA8700-ICB1	1		
10:00	MA8700-CRIA1	1		
10:12	MA8700-ICSA1	1		
10:21	MA8700-ICSAB1	1		
10:27	MA8700-CCV1	1		
10:38	MA8700-CCB1	1		
10:53	F79608-1	5		(sample used for QC only; not part of login F79653)
10:58	MP19932-D1	5		
11:02	MP19932-S1	5		
11:07	MP19932-S2	5		
11:11	MP19932-PS1	5		
11:15	MP19932-SD1	25		
11:19	ZZZZZZ	5		
11:24	ZZZZZZ	5		
11:28	ZZZZZZ	5		
11:32	ZZZZZZ	5		
11:37	MA8700-CCV2	1		
11:41	MA8700-CCB2	1		
11:45	ZZZZZZ	5		
11:49	F79653-1	5		
11:53	F79653-2	10		
11:58	F79653-3	10		
12:02	F79653-4	10		
12:06	F79653-5	5		
12:10	F79653-6	10		
12:14	F79653-7	5		
12:18	F79653-1F	5		
12:22	F79653-2F	10		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: As,Cd,Cr,Pb,Se,Ag

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	12:27	MA8700-CCV3	1		
	12:30	MA8700-CCB3	1		
	12:35	F79653-3F	10		
	12:39	F79653-4F	10		
	12:43	F79653-5F	5		
	12:47	F79653-6F	10		
	12:51	F79653-7F	5		
---------->	Last reportable sample/prep for job F79653				
	12:55	F79608-1F	5		(sample used for QC only; not part of login F79653)
	13:00	MP19933-D1	5		
	13:04	MP19933-S1	5		
	13:09	MP19933-S2	5		
	13:13	MP19933-PS1	5		
	13:17	MA8700-CCV4	1		
	13:21	MA8700-CCB4	1		
	13:25	MP19933-SD1	25		
	13:29	ZZZZZZ	5		
	13:34	ZZZZZZ	5		
	13:38	ZZZZZZ	5		
	13:43	ZZZZZZ	5		
	13:47	ZZZZZZ	5		
	13:51	F79839-1	4		(sample used for QC only; not part of login F79653)
	13:55	MP19931-D1	4		
	13:59	MP19931-S1	4		
	14:03	MP19931-S2	4		
	14:07	MA8700-CCV5	1		
	14:11	MA8700-CCB5	1		
	14:15	MP19931-PS1	4		
	14:19	MP19931-SD1	20		
	14:23	ZZZZZZ	4		
	14:27	ZZZZZZ	4		
	14:32	ZZZZZZ	4		
	14:36	ZZZZZZ	2		
	14:40	ZZZZZZ	2		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: As,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:44	ZZZZZZ	2		
14:48	ZZZZZZ	1		
14:52	MP19931-MB1	1		
14:56	MA8700-CCV6	1		
15:00	MA8700-CCB6	1		
15:04	MP19931-B1	1		
15:08	F79839-1	1		(sample used for QC only; not part of login F79653)
15:12	MP19931-D1	1		
15:16	MP19931-SD1	5		
15:20	MP19931-PS1	1		
15:24	MP19931-S1	1		
15:28	MP19931-S2	1		
15:44	MA8700-CCV7	1		
15:54	MA8700-CCB7	1		
17:03	MA8700-CCV8	1		
17:07	MA8700-CCB8	1		
17:28	MP19934-MB1	1		
17:32	MP19934-B1	1		
17:36	F79701-6F	1		(sample used for QC only; not part of login F79653)
17:40	MP19934-D1	1		
17:45	MP19934-SD1	5		
17:49	MP19934-PS1	1		
17:53	MA8700-CCV9	1		
17:57	MA8700-CCB9	1		
18:01	MP19934-S1	1		
18:06	MP19934-S2	1		
18:10	ZZZZZZ	1		
18:14	ZZZZZZ	1		
18:18	ZZZZZZ	1		
18:22	ZZZZZZ	1		
18:27	ZZZZZZ	1		
18:31	ZZZZZZ	1		
18:35	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: As,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:39	ZZZZZZ	1		
18:43	MA8700-CCV10	1		
18:47	MA8700-CCB10	1		
18:52	ZZZZZZ	1		
18:56	ZZZZZZ	1		
19:00	ZZZZZZ	1		
19:04	MP19934-MB2A	1		
19:08	MP19934-MB3A	1		
19:13	MP19937-MB1	1		
19:17	MP19937-B1	1		
19:21	F79601-1A	1		(sample used for QC only; not part of login F79653)
19:25	MP19937-D1	1		
19:29	MP19937-SD1	5		
19:33	MA8700-CCV11	1		
19:37	MA8700-CCB11	1		
19:42	MP19937-S1	1		
19:46	MP19937-S2	1		
19:49	MP19937-MB2	1		
19:54	MP19937-B2	1		
19:58	MP19936-MB1	1		
20:02	MP19936-B1	1		
20:06	C14412-1T	1		(sample used for QC only; not part of login F79653)
20:10	MP19936-D1	1		
20:15	MP19936-SD1	5		
20:19	MP19936-S1	1		
20:23	MA8700-CCV12	1		
20:27	MA8700-CCB12	1		
20:31	MP19936-S2	1		
20:35	ZZZZZZ	1		
20:39	ZZZZZZ	1		
20:44	ZZZZZZ	1		
20:48	ZZZZZZ	1		
20:52	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: As,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:57	ZZZZZZ	1		
21:01	ZZZZZZ	1		
21:06	ZZZZZZ	1		
21:10	F79712-1	1		(sample used for QC only; not part of login F79653)
21:14	MA8700-CCV13	1		
21:18	MA8700-CCB13	1		
21:22	MP19936-D2	1		
21:27	MP19936-MB2	1		
21:31	MP19936-B2	1		
21:35	MP19938-MB1	1		
21:39	MP19938-B1	1		
21:43	F79701-6	1		(sample used for QC only; not part of login F79653)
21:47	MP19938-D1	1		
21:52	MP19938-SD1	5		
21:56	MP19938-PS1	1		
22:00	MP19938-S1	1		
22:04	MA8700-CCV14	1		
22:08	MA8700-CCB14	1		
22:13	MP19938-S2	1		
22:17	ZZZZZZ	1		
22:21	ZZZZZZ	1		
22:26	ZZZZZZ	1		
22:30	ZZZZZZ	1		
22:39	ZZZZZZ	1		
22:44	ZZZZZZ	1		
22:48	ZZZZZZ	1		
22:52	ZZZZZZ	1		
22:57	MA8700-CCV15	1		
23:00	MA8700-CCB15	1		
23:05	ZZZZZZ	1		
23:09	ZZZZZZ	1		
23:13	ZZZZZZ	1		
23:17	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: As,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
23:22	ZZZZZZ	1		
23:26	ZZZZZZ	1		
23:30	ZZZZZZ	1		
23:34	ZZZZZZ	1		
23:38	ZZZZZZ	1		
23:43	ZZZZZZ	1		
23:47	MA8700-CCV16	1		
23:51	MA8700-CCB16	1		
23:55	MP19939-MB1	1		
23:59	MP19939-B1	1		
00:03	F79701-8	1		(sample used for QC only; not part of login F79653)
00:08	MP19939-D1	1		
00:12	MP19939-SD1	5		
00:16	MP19939-PS1	1		
00:21	MP19939-S1	1		
00:25	MP19939-S2	1		
00:29	ZZZZZZ	1		
00:34	ZZZZZZ	1		
00:38	MA8700-CCV17	1		
00:42	MA8700-CCB17	1		
00:46	ZZZZZZ	1		
00:51	ZZZZZZ	1		
00:55	ZZZZZZ	1		
01:00	ZZZZZZ	1		
01:04	ZZZZZZ	1		
01:09	ZZZZZZ	1		
01:13	ZZZZZZ	1		
01:17	ZZZZZZ	1		
01:21	ZZZZZZ	1		
01:26	ZZZZZZ	1		
01:30	MA8700-CCV18	1		
01:34	MA8700-CCB18	1		
01:38	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: As,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
01:42	ZZZZZZ	1		
01:46	ZZZZZZ	1		
01:51	ZZZZZZ	1		
01:55	ZZZZZZ	1		
01:59	MP19939-MB2A	1		
02:03	MA8700-CRIA2	1		
02:07	MA8700-ICSA2	1		
02:12	MA8700-ICSAB2	1		
02:16	MA8700-CCV19	1		
02:20	MA8700-CCB19	1		

----------> Last reportable CCB for job F79653
Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: As,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
09:32	MA8700-STD1	2640	29086	3901	1320
09:36	MA8700-STD2	2506	27022	3832	1154
09:39	MA8700-STD3	2430	26522	3767	1085
09:44	MA8700-HSTD1	2430	26640	3734	1089
09:47	MA8700-ICV1	2500	27239	3818	1153
09:55	MA8700-ICB1	2645 R	28461 R	3887 R	1322 R
10:00	MA8700-CRIA1	2596	27823	3845	1270
10:12	MA8700-ICSA1	2321	24569	3679	999
10:21	MA8700-ICSAB1	2309	24541	3649	988
10:27	MA8700-CCV1	2517	26924	3775	1148
10:38	MA8700-CCB1	2644	28299	3813	1315
10:53	F79608-1	2255	23673	3631	995
10:58	MP19932-D1	2232	23761	3642	988
11:02	MP19932-S1	2267	23313	3634	999
11:07	MP19932-S2	2242	24087	3608	983
11:11	MP19932-PS1	2239	23999	3631	992
11:15	MP19932-SD1	2485	26562	3843	1163
11:19	ZZZZZZ	2287	23996	3683	1029
11:24	ZZZZZZ	2282	24321	3623	1027
11:28	ZZZZZZ	2154	23170	3574	949
11:32	ZZZZZZ	2153	22979	3577	948
11:37	MA8700-CCV2	2497	25764	3789	1145
11:41	MA8700-CCB2	2642	28446	3846	1320
11:45	ZZZZZZ	2281	24354	3643	1025
11:49	F79653-1	2181	23203	3580	957
11:53	F79653-2	2077	21904	3463	898
11:58	F79653-3	2055	21403	3444	881
12:02	F79653-4	2060	21645	3484	863
12:06	F79653-5	2283	24297	3632	1020
12:10	F79653-6	2096	21951	3533	899
12:14	F79653-7	2261	24127	3656	1013
12:18	F79653-1F	2180	23073	3593	959
12:22	F79653-2F	2084	21954	3511	896

INTERNAL STANDARD SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: As,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
12:27	MA8700-CCV3	2498	26598	3812	1146
12:30	MA8700-CCB3	2630	28369	3838	1319
12:35	F79653-3F	2086	21852	3476	897
12:39	F79653-4F	2038	21323	3473	873
12:43	F79653-5F	2256	23863	3661	1015
12:47	F79653-6F	2079	21832	3490	897
12:51	F79653-7F	2276	24589	3650	1022
12:55	F79608-1F	2218	23449	3588	988
13:00	MP19933-D1	2211	23691	3612	985
13:04	MP19933-S1	2205	23787	3621	970
13:09	MP19933-S2	2225	23632	3637	972
13:13	MP19933-PS1	2216	23597	3632	981
13:17	MA8700-CCV4	2480	26383	3776	1137
13:21	MA8700-CCB4	2625	28396	3849	1313
13:25	MP19933-SD1	2469	26303	3747	1151
13:29	ZZZZZZ	2256	24086	3627	1012
13:34	ZZZZZZ	2268	24127	3653	1018
13:38	ZZZZZZ	2166	22971	3569	948
13:43	ZZZZZZ	2149	22842	3557	941
13:47	ZZZZZZ	2272	24095	3673	1021
13:51	F79839-1	2643	27756	3954	1215
13:55	MP19931-D1	2667	27988	3950	1213
13:59	MP19931-S1	2619	27915	3927	1197
14:03	MP19931-S2	2633	27689	3974	1197
14:07	MA8700-CCV5	2483	26634	3808	1134
14:11	MA8700-CCB5	2647	28270	3769	1319
14:15	MP19931-PS1	2677	27465	3981	1231
14:19	MP19931-SD1	2671	28096	3898	1292
14:23	ZZZZZZ	2622	27521	3923	1207
14:27	ZZZZZZ	2651	27749	3882	1240
14:32	ZZZZZZ	2606	27677	3923	1210
14:36	ZZZZZZ	2708	27898	3993	1218
14:40	ZZZZZZ	2688	28135	4051	1188

INTERNAL STANDARD SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: As,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
14:44	ZZZZZZ	2681	28383	4006	1188
14:48	ZZZZZZ	2745	28658	4194	1111
14:52	MP19931-MB1	2613	27751	3812	1281
14:56	MA8700-CCV6	2526	27176	3802	1147
15:00	MA8700-CCB6	2673	28112	3881	1320
15:04	MP19931-B1	2537	26668	3790	1178
15:08	F79839-1	2699	28196	4132	1071
15:12	MP19931-D1	2782	28925	4285	1074
15:16	MP19931-SD1	2702	28281	3988	1254
15:20	MP19931-PS1	2733	28644	4210	1054
15:24	MP19931-S1	2656	28181	4126	1045
15:28	MP19931-S2	2678	28302	4180	1037
15:44	MA8700-CCV7	2535	26456	3802	1145
15:54	MA8700-CCB7	2657	28645	3880	1321
17:03	MA8700-CCV8	2468	26755	3765	1132
17:07	MA8700-CCB8	2673	27925	3865	1328
17:28	MP19934-MB1	2618	28514	3800	1300
17:32	MP19934-B1	2544	27263	3760	1196
17:36	F79701-6F	1518 !	16502 !	2965	614 !
17:40	MP19934-D1	1512 !	16525 !	2958	613 !
17:45	MP19934-SD1	2052	21891	3460	886
17:49	MP19934-PS1	1538 !	16705 !	2997	621 !
17:53	MA8700-CCV9	2524	27340	3768	1164
17:57	MA8700-CCB9	2643	28790	3646	1323
18:01	MP19934-S1	1547 !	16868 !	2958	616 !
18:06	MP19934-S2	1549 !	17027 !	2982	617 !
18:10	ZZZZZZ	2622	28559	3822	1276
18:14	ZZZZZZ	5016 !	54514 !	7767 !	1080
18:18	ZZZZZZ	2684	29418	3920	1279
18:22	ZZZZZZ	2549	27756	3874	1145
18:27	ZZZZZZ	2744	29808	4095	1157
18:31	ZZZZZZ	2595	28464	3762	1293
18:35	ZZZZZZ	2455	27622	3720	1178

INTERNAL STANDARD SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: As,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
18:39	ZZZZZZ	2600	28400	3723	1296
18:43	MA8700-CCV10	2490	26973	3704	1152
18:47	MA8700-CCB10	2659	28931	3765	1342
18:52	ZZZZZZ	2413	26632	3621	1157
18:56	ZZZZZZ	2456	26972	3680	1172
19:00	ZZZZZZ	2610	28621	3768	1301
19:04	MP19934-MB2A	2601	29052	3741	1308
19:08	MP19934-MB3A	2600	28947	3765	1305
19:13	MP19937-MB1	2612	28812	3723	1317
19:17	MP19937-B1	2532	27765	3549	1208
19:21	F79601-1A	2577	28371	3750	1291
19:25	MP19937-D1	2593	29011	3761	1303
19:29	MP19937-SD1	2609	28850	3748	1323
19:33	MA8700-CCV11	2477	27302	3714	1160
19:37	MA8700-CCB11	2647	29020	3773	1342
19:42	MP19937-S1	2492	27794	3715	1189
19:46	MP19937-S2	2531	27676	3763	1207
19:49	MP19937-MB2	2585	28662	3668	1308
19:54	MP19937-B2	2523	27034	3850	1205
19:58	MP19936-MB1	2596	29344	3667	1313
20:02	MP19936-B1	2520	27661	3666	1204
20:06	C14412-1T	2432	27159	3659	1176
20:10	MP19936-D1	2414	26957	3637	1166
20:15	MP19936-SD1	2566	28618	3701	1282
20:19	MP19936-S1	2411	26556	3645	1114
20:23	MA8700-CCV12	2481	27264	3644	1162
20:27	MA8700-CCB12	2697	29297	3715	1370
20:31	MP19936-S2	2412	26666	3771	1115
20:35	ZZZZZZ	2388	26753	3650	1152
20:39	ZZZZZZ	2406	26760	3599	1171
20:44	ZZZZZZ	2421	27018	3637	1178
20:48	ZZZZZZ	2435	27280	3644	1186
20:52	ZZZZZZ	2394	27142	3671	1166

INTERNAL STANDARD SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: As,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
20:57	ZZZZZZ	2378	26267	3582	1149
21:01	ZZZZZZ	2426	26996	3616	1182
21:06	ZZZZZZ	2394	26928	3623	1152
21:10	F79712-1	2461	28055	3678	1218
21:14	MA8700-CCV13	2488	27731	3659	1168
21:18	MA8700-CCB13	2624	29190	3670	1345
21:22	MP19936-D2	2414	27139	3619	1183
21:27	MP19936-MB2	2463	27781	3699	1198
21:31	MP19936-B2	2466	27405	3660	1158
21:35	MP19938-MB1	2587	29230	3687	1322
21:39	MP19938-B1	2527	28068	3721	1220
21:43	F79701-6	1508 !	16973 !	2898	626 !
21:47	MP19938-D1	1513 !	17127	2893	631 !
21:52	MP19938-SD1	2036	22632	3358	901
21:56	MP19938-PS1	1497 !	17075 !	2877	622 !
22:00	MP19938-S1	1514 !	17320	2874	617 !
22:04	MA8700-CCV14	2473	28039	3609	1174
22:08	MA8700-CCB14	2605	29546	3694	1349
22:13	MP19938-S2	1542 !	17616	2877	631 !
22:17	ZZZZZZ	1171 !	14196 !	2601	462 !
22:21	ZZZZZZ	1155 !	13811 !	2570	445 !
22:26	ZZZZZZ	1121 !	13428 !	2476	437 !
22:30	ZZZZZZ	1929	21956	3302	855
22:39	ZZZZZZ	1919	21778	3307	850
22:44	ZZZZZZ	1787	20552	3218	775 !
22:48	ZZZZZZ	2454	28874	3641	1255
22:52	ZZZZZZ	2488	28535	3759	1266
22:57	MA8700-CCV15	2431	27819	3698	1164
23:00	MA8700-CCB15	2573	30107	3726	1332
23:05	ZZZZZZ	2493	28690	3720	1272
23:09	ZZZZZZ	2511	28879	3743	1269
23:13	ZZZZZZ	2464	28100	3792	1233
23:17	ZZZZZZ	2469	27979	3682	1233

INTERNAL STANDARD SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: As,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
23:22	ZZZZZZ	2489	28519	3694	1251
23:26	ZZZZZZ	2474	27950	3620	1235
23:30	ZZZZZZ	2534	29193	3717	1294
23:34	ZZZZZZ	2479	28688	3735	1248
23:38	ZZZZZZ	2567	30026	3808	1341
23:43	ZZZZZZ	2522	29576	3885	1297
23:47	MA8700-CCV16	2439	28414	3792	1175
23:51	MA8700-CCB16	2654	30429	3866	1393
23:55	MP19939-MB1	2536	29986	3854	1336
23:59	MP19939-B1	2470	29136	3949	1226
00:03	F79701-8	1867	22204	3413	839
00:08	MP19939-D1	1867	21640	3435	834
00:12	MP19939-SD1	2220	26085	3532	1058
00:16	MP19939-PS1	1859	22345	3458	833
00:21	MP19939-S1	1869	22433	3481	823
00:25	MP19939-S2	1871	22672	3578	826
00:29	ZZZZZZ	1184 !	14789 !	2856	481 !
00:34	ZZZZZZ	1147 !	14138 !	2646	462 !
00:38	MA8700-CCV17	2432	29415	3946	1191
00:42	MA8700-CCB17	2535	30875	4018	1355
00:46	ZZZZZZ	1110 !	14193 !	2629	444 !
00:51	ZZZZZZ	1889	23681	3458	862
00:55	ZZZZZZ	1303 !	15846 !	2921	551 !
01:00	ZZZZZZ	1884	22820	3536	861
01:04	ZZZZZZ	1757	21266	3425	787 !
01:09	ZZZZZZ	2366	29786	3954	1217
01:13	ZZZZZZ	2428	29124	3998	1209
01:17	ZZZZZZ	2348	29129	3929	1207
01:21	ZZZZZZ	2354	28916	3887	1208
01:26	ZZZZZZ	2331	28568	3795	1202
01:30	MA8700-CCV18	2383	28750	4024	1177
01:34	MA8700-CCB18	2550	31475	4007	1371
01:38	ZZZZZZ	2323	29057	3887	1202

INTERNAL STANDARD SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: As,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
01:42	ZZZZZZ	2349	29233	3866	1209
01:46	ZZZZZZ	2357	29261	3904	1218
01:51	ZZZZZZ	2378	30297	3935	1222
01:55	ZZZZZZ	2312	28782	3925	1180
01:59	MP19939-MB2A	2478	30418	3925	1336
02:03	MA8700-CRIA2	2483	30594	3943	1314
02:07	MA8700-ICSA2	2196	26599	3776	1024
02:12	MA8700-ICSAB2	2188	26626	3852	1019
02:16	MA8700-CCV19	2378	29220	3912	1186
02:20	MA8700-CCB19	2533	31281	3980	1371

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	60-125 %
Istd#2	Yttrium (3600)	60-125 %
Istd#3	Yttrium (3710)	60-125 %
Istd#4	Indium	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8700 Units: ug/l

Time:			09:55		10:38		11:41		12:30	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	-0.60	<10	-0.90	<10	1.0	<10	-0.30	<10
Barium	200	1	anr							
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	0.0	<5.0	0.0	<5.0	0.10	<5.0	0.20	<5.0
Calcium	1000	50	anr							
Chromium	10	1	-0.20	<10	-0.10	<10	0.10	<10	0.60	<10
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	-0.50	<5.0	-0.20	<5.0	0.30	<5.0	-0.30	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	1.6	<10	1.0	<10	-0.50	<10	2.5	<10
Silver	10	1	0.0	<10	0.10	<10	0.10	<10	0.30	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8700 Units: ug/l

Time:			13:21		14:11		15:00		15:54	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	0.80	<10	0.10	<10	0.40	<10	1.0	<10
Barium	200	1	anr							
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	0.20	<5.0	0.20	<5.0	0.20	<5.0	0.30	<5.0
Calcium	1000	50	anr							
Chromium	10	1	0.40	<10	0.20	<10	0.30	<10	0.30	<10
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	0.30	<5.0	0.10	<5.0	0.80	<5.0	0.70	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	1.4	<10	0.20	<10	2.4	<10	1.4	<10
Silver	10	1	0.30	<10	0.40	<10	0.30	<10	0.30	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8700 Units: ug/l

Time:			17:07		17:57		18:47		19:37	
Sample ID:			CCB8		CCB9		CCB10		CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	0.30	<10	0.50	<10	-0.20	<10	0.20	<10
Barium	200	1	anr							
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	0.0	<5.0	0.10	<5.0	0.10	<5.0	0.10	<5.0
Calcium	1000	50	anr							
Chromium	10	1	-0.20	<10	0.10	<10	-0.20	<10	0.0	<10
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	0.20	<5.0	-0.60	<5.0	-0.60	<5.0	0.60	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	0.80	<10	0.60	<10	-0.60	<10	0.10	<10
Silver	10	1	0.0	<10	0.70	<10	0.20	<10	0.0	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8700 Units: ug/l

Time:			20:27		21:18		22:08		23:00	
Sample ID:			CCB12		CCB13		CCB14		CCB15	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	0.20	<10	0.20	<10	0.20	<10	0.60	<10
Barium	200	1	anr							
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	0.0	<5.0	0.0	<5.0	0.0	<5.0	0.0	<5.0
Calcium	1000	50	anr							
Chromium	10	1	0.20	<10	0.20	<10	0.20	<10	0.20	<10
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	-0.30	<5.0	-0.60	<5.0	0.10	<5.0	0.30	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	0.70	<10	1.3	<10	-0.60	<10	0.60	<10
Silver	10	1	-0.40	<10	0.30	<10	0.0	<10	-0.30	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8700 Units: ug/l

Time:			23:51		00:42		01:34		02:20	
Sample ID:			CCB16		CCB17		CCB18		CCB19	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	-0.20	<10	-0.30	<10	0.10	<10	-0.20	<10
Barium	200	1	anr							
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	0.10	<5.0	-0.10	<5.0	0.0	<5.0	0.0	<5.0
Calcium	1000	50	anr							
Chromium	10	1	0.20	<10	0.20	<10	0.10	<10	0.0	<10
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	-0.50	<5.0	-0.90	<5.0	-0.30	<5.0	-0.10	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	1.5	<10	0.80	<10	1.7	<10	0.60	<10
Silver	10	1	-0.20	<10	0.10	<10	-0.30	<10	-0.30	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8700 Units: ug/l

Time:		09:47			10:27			11:37	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1970	98.5	2000	2030	101.5	2000	2040	102.0
Barium	anr								
Beryllium	anr								
Cadmium	2000	2020	101.0	2000	2050	102.5	2000	2050	102.5
Calcium	anr								
Chromium	2000	1990	99.5	2000	2070	103.5	2000	2180	109.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1980	99.0	2000	2030	101.5	2000	2040	102.0
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2000	100.0	2000	2020	101.0	2000	2040	102.0
Silver	250	246	98.4	250	250	100.0	250	263	105.2
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8700 Units: ug/l

Time:		12:27			13:17			14:07	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2040	102.0	2000	2050	102.5	2000	2070	103.5
Barium	anr								
Beryllium	anr								
Cadmium	2000	2050	102.5	2000	2050	102.5	2000	2080	104.0
Calcium	anr								
Chromium	2000	2090	104.5	2000	2100	105.0	2000	2110	105.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2030	101.5	2000	2040	102.0	2000	2070	103.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2050	102.5	2000	2060	103.0	2000	2080	104.0
Silver	250	253	101.2	250	253	101.2	250	253	101.2
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8700 Units: ug/l

Time:		14:56			15:44			17:03	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2060	103.0	2000	2040	102.0	2000	2080	104.0
Barium	anr								
Beryllium	anr								
Cadmium	2000	2070	103.5	2000	2050	102.5	2000	2110	105.5
Calcium	anr								
Chromium	2000	2080	104.0	2000	2110	105.5	2000	2010	100.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2070	103.5	2000	2070	103.5	2000	2070	103.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2060	103.0	2000	2030	101.5	2000	2080	104.0
Silver	250	249	99.6	250	254	101.6	250	244	97.6
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8700 Units: ug/l

Time:		17:53			18:43			19:33	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2020	101.0	2000	2060	103.0	2000	2060	103.0
Barium	anr								
Beryllium	anr								
Cadmium	2000	2060	103.0	2000	2090	104.5	2000	2100	105.0
Calcium	anr								
Chromium	2000	1990	99.5	2000	2010	100.5	2000	2010	100.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2010	100.5	2000	2040	102.0	2000	2010	100.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2030	101.5	2000	2060	103.0	2000	2070	103.5
Silver	250	243	97.2	250	245	98.0	250	244	97.6
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8700 Units: ug/l

Time:		20:23			21:14			22:04	
Sample ID:	CCV	CCV12		CCV	CCV13		CCV	CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2070	103.5	2000	2060	103.0	2000	2070	103.5
Barium	anr								
Beryllium	anr								
Cadmium	2000	2110	105.5	2000	2110	105.5	2000	2120	106.0
Calcium	anr								
Chromium	2000	2020	101.0	2000	2000	100.0	2000	1990	99.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2030	101.5	2000	2020	101.0	2000	2000	100.0
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2080	104.0	2000	2070	103.5	2000	2080	104.0
Silver	250	246	98.4	250	245	98.0	250	246	98.4
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8700 Units: ug/l

Time:		22:57			23:47			00:38	
Sample ID:	CCV	CCV15		CCV	CCV16		CCV	CCV17	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2090	104.5	2000	2100	105.0	2000	2100	105.0
Barium	anr								
Beryllium	anr								
Cadmium	2000	2130	106.5	2000	2120	106.0	2000	2100	105.0
Calcium	anr								
Chromium	2000	1970	98.5	2000	1950	97.5	2000	1900	95.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2000	100.0	2000	1980	99.0	2000	1930	96.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2120	106.0	2000	2120	106.0	2000	2140	107.0
Silver	250	248	99.2	250	245	98.0	250	242	96.8
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8700 Units: ug/l

Time:		01:30			02:16	
Sample ID:	CCV	CCV18		CCV	CCV19	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	anr					
Antimony	anr					
Arsenic	2000	2120	106.0	2000	2110	105.5
Barium	anr					
Beryllium	anr					
Cadmium	2000	2130	106.5	2000	2130	106.5
Calcium	anr					
Chromium	2000	1920	96.0	2000	1870	93.5
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	2000	1930	96.5	2000	1900	95.0
Magnesium	anr					
Manganese	anr					
Molybdenum						
Nickel	anr					
Potassium	anr					
Selenium	2000	2170	108.5	2000	2170	108.5
Silver	250	249	99.6	250	244	97.6
Sodium	anr					
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium	anr					
Zinc	anr					

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA8700 Units: ug/l

Time:		09:44	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	4000	3950	98.8
Barium	anr		
Beryllium	anr		
Cadmium	4000	3910	97.8
Calcium	anr		
Chromium	4000	3890	97.3
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	4000	3930	98.3
Magnesium	anr		
Manganese	anr		
Molybdenum			
Nickel	anr		
Potassium	anr		
Selenium	4000	3950	98.8
Silver	500	494	98.8
Sodium	anr		
Strontium			
Thallium	anr		
Tin			
Titanium			
Vanadium	anr		
Zinc	anr		

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA8700 Units: ug/l

Time:			10:00		02:03	
Sample ID:	CRI	CRIA	CRIA1		CRIA2	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	400	200	anr			
Antimony	10	5.0	anr			
Arsenic	20	10	9.4	94.0	10.4	104.0
Barium	400	200	anr			
Beryllium	10	5.0	anr			
Cadmium	10	5.0	5.1	102.0	5.1	102.0
Calcium	2000	1000	anr			
Chromium	20	10	10.4	104.0	9.3	93.0
Cobalt	100	50	anr			
Copper	50	25	anr			
Iron	600	300	anr			
Lead	10	5.0	4.7	94.0	4.1	82.0
Magnesium	10000	5000	anr			
Manganese	30	15	anr			
Molybdenum	100	50				
Nickel	80	40	anr			
Potassium	20000	10000	anr			
Selenium	20	10	10.3	103.0	10.3	103.0
Silver	20	10	9.0	90.0	7.8	78.0
Sodium	20000	10000	anr			
Strontium	20	10				
Thallium	20	10	anr			
Tin	100	50				
Titanium	20	10				
Vanadium	100	50	anr			
Zinc	40	20	anr			

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA8700 Units: ug/l

Time:			10:12		10:21		02:07		02:12	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	473000	94.6	483000	96.6	473000	94.6	476000	95.2
Antimony		1000	0.0		979	97.9	2.0		1030	103.0
Arsenic		1000	-1.4		989	98.9	-1.4		1020	102.0
Barium		500	4.5		516	103.2	0.70		477	95.4
Beryllium		500	0.0		489	97.8	-0.20		445	89.0
Cadmium		1000	0.0		926	92.6	1.6		944	94.4
Calcium	500000	500000	460000	92.0	459000	91.8	426000	85.2	418000	83.6
Chromium		500	0.10		468	93.6	0.20		418	83.6
Cobalt		500	-0.10		456	91.2	0.10		489	97.8
Copper		500	0.0		497	99.4	-1.6		422	84.4
Iron	200000	200000	183000	91.5	185000	92.5	163000	81.5	163000	81.5
Lead		1000	0.0		981	98.1	5.7		905	90.5
Magnesium	500000	500000	487000	97.4	490000	98.0	502000	100.4	488000	97.6
Manganese		500	0.60		479	95.8	0.20		414	82.8
Molybdenum		1000	0.90		950	95.0	-1.0		1020	102.0
Nickel		1000	0.0		967	96.7	1.5		893	89.3
Potassium			7.1		18.7		18.3		-14	
Selenium		1000	-0.10		967	96.7	-7.9		1010	101.0
Silver		1000	0.30		1070	107.0	0.20		1040	104.0
Sodium			-2800		-2600		40.6		-410	
Strontium		1000	0.20		0.10	0.0*	0.10		0.20	0.0*
Thallium		1000	0.0		952	95.2	-1.1		879	87.9
Tin		1000	1.7		874	87.4	2.2		852	85.2
Titanium		1000	-3.2		-1.6	0.0*	-3.0		-2.1	0.0*
Vanadium		500	0.0		485	97.0	0.50		418	83.6
Zinc		1000	-1.8		882	88.2	-1.6		854	85.4

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19909 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date:				02/02/11		02/02/11	
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Mercury	1.0	.071	.05	-0.017	<1.0	-0.022	<1.0

Associated samples MP19909: F79653-1, F79653-2, F79653-3, F79653-4, F79653-5, F79653-6, F79653-7, F79653-1F, F79653-2F, F79653-3F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19909
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/02/11 02/02/11

Metal	F79608-1F Original	DUP	RPD	QC Limits	F79608-1F Original	MS	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.0	0.0	NC	0-20	0.0	3.1	3	103.3	80-120

Associated samples MP19909: F79653-1, F79653-2, F79653-3, F79653-4, F79653-5, F79653-6, F79653-7, F79653-1F, F79653-2F, F79653-3F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19909
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/02/11

Metal	F79608-1F Original	MSD	Spikelot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	3.1	3	103.3	0.0	20

Associated samples MP19909: F79653-1, F79653-2, F79653-3, F79653-4, F79653-5, F79653-6, F79653-7, F79653-1F, F79653-2F, F79653-3F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19909
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/02/11

Metal	BSP Result	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	3.1	3	103.3	80-120

Associated samples MP19909: F79653-1, F79653-2, F79653-3, F79653-4, F79653-5, F79653-6, F79653-7, F79653-1F, F79653-2F, F79653-3F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19909
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/02/11

Metal	F79608-1F Original	SDL 1:5	%DIF	QC Limits
Mercury	0.00	0.00	NC	0-10

Associated samples MP19909: F79653-1, F79653-2, F79653-3, F79653-4, F79653-5, F79653-6, F79653-7, F79653-1F, F79653-2F, F79653-3F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19910
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date:				02/02/11		02/02/11	
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Mercury	1.0	.071	.05	-0.010	<1.0	-0.047	<1.0

Associated samples MP19910: F79653-4F, F79653-5F, F79653-6F, F79653-7F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19910
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/02/11 02/02/11

Metal	F79701-6 Original	DUP	RPD	QC Limits	F79701-6 Original	MS	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.0	0.0	NC	0-20	0.0	3.0	3	100.0	80-120

Associated samples MP19910: F79653-4F, F79653-5F, F79653-6F, F79653-7F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19910
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/02/11

Metal	F79701-6 Original	MSD	Spikelot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	2.9	3	96.7	3.4	20

Associated samples MP19910: F79653-4F, F79653-5F, F79653-6F, F79653-7F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

8.5.2

8

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19910
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/02/11

Metal	BSP Result	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	3.1	3	103.3	80-120

Associated samples MP19910: F79653-4F, F79653-5F, F79653-6F, F79653-7F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

8.5.3

8

SERIAL DILUTION RESULTS SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19910
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/02/11

Metal	F79701-6 Original	SDL 1:5	%DIF	QC Limits
Mercury	0.00	0.00	NC	0-10

Associated samples MP19910: F79653-4F, F79653-5F, F79653-6F, F79653-7F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19932
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:					02/07/11		02/07/11
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Aluminum	200	20	25				
Antimony	6.0	1	2				
Arsenic	10	1	2	-0.90	<10	-1.4	<10
Barium	200	1	5	-0.30	<200	-1.3	<200
Beryllium	4.0	.1	1				
Cadmium	5.0	.1	1	-0.10	<5.0	-0.10	<5.0
Calcium	1000	50	100				
Chromium	10	1	1	0.10	<10	-0.30	<10
Cobalt	50	1	1				
Copper	25	1	2				
Iron	300	34	35				
Lead	5.0	1	1	0.80	<5.0	0.0	<5.0
Magnesium	5000	50	100				
Manganese	15	1	1				
Molybdenum	50	1	2				
Nickel	40	1	2				
Potassium	10000	50	500				
Selenium	10	2	2	3.0	<10	3.8	<10
Silver	10	1	1	-0.50	<10	0.0	<10
Sodium	10000	750	1900				
Strontium	10	1	1				
Thallium	10	1	1.9				
Tin	50	1	1				
Titanium	10	1.1	2				
Vanadium	50	1	1				
Zinc	20	1	5				

Associated samples MP19932: F79653-1, F79653-2, F79653-3, F79653-4, F79653-5, F79653-6, F79653-7, F79653-1F, F79653-2F, F79653-3F, F79653-4F, F79653-5F, F79653-6F, F79653-7F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19932
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:			02/07/11					02/07/11	
Metal	F79608-1 Original	DUP	RPD	QC Limits	F79608-1 Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic	6.5	8.2	23.1 (a)	0-20	6.5	2480	2000	123.7N(c	80-120
Barium	25.2	27.0	6.9	0-20	25.2	2170	2000	107.2	80-120
Beryllium									
Cadmium	0.0	0.0	NC	0-20	0.0	46.9	50	93.8	80-120
Calcium									
Chromium	0.0	0.0 (b)	NC	0-20	0.0	203 (b)	200	101.5	80-120
Cobalt									
Copper									
Iron									
Lead	0.0	0.0 (b)	NC	0-20	0.0	479 (b)	500	95.8	80-120
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium	0.0	0.0 (b)	NC	0-20	0.0	2040 (b)	2000	102.0	80-120
Silver	0.0	0.0	NC	0-20	0.0	67.6	50	135.2N(c	80-120
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP19932: F79653-1, F79653-2, F79653-3, F79653-4, F79653-5, F79653-6, F79653-7, F79653-1F, F79653-2F, F79653-3F, F79653-4F, F79653-5F, F79653-6F, F79653-7F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) RPD acceptable due to low duplicate and sample concentrations.
(b) Elevated reporting limit(s) due to matrix interference.
(c) Spike recovery indicates possible matrix interference.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19932
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/07/11

Metal	F79608-1 Original	MSD	Spikelot MPFLICP1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	6.5	2420	2000	120.7N(a	2.4	20
Barium	25.2	2120	2000	104.7	2.3	20
Beryllium						
Cadmium	0.0	45.1	50	90.2	3.9	20
Calcium						
Chromium	0.0	207 (b)	200	103.5	2.0	20
Cobalt						
Copper						
Iron						
Lead	0.0	522 (b)	500	104.4	8.6	20
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium	0.0	2250 (b)	2000	112.5	9.8	20
Silver	0.0	65.1	50	130.2N(a	3.8	20
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP19932: F79653-1, F79653-2, F79653-3, F79653-4, F79653-5, F79653-6, F79653-7, F79653-1F, F79653-2F, F79653-3F, F79653-4F, F79653-5F, F79653-6F, F79653-7F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference.
(b) Elevated reporting limit(s) due to matrix interference.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19932
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/07/11

Metal	BSP Result	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	1900	2000	95.0	80-120
Barium	2020	2000	101.0	80-120
Beryllium				
Cadmium	49.7	50	99.4	80-120
Calcium				
Chromium	201	200	100.5	80-120
Cobalt				
Copper				
Iron				
Lead	481	500	96.2	80-120
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium	1910	2000	95.5	80-120
Silver	45.7	50	91.4	80-120
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP19932: F79653-1, F79653-2, F79653-3, F79653-4, F79653-5, F79653-6, F79653-7, F79653-1F, F79653-2F, F79653-3F, F79653-4F, F79653-5F, F79653-6F, F79653-7F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19932
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/07/11

Metal	F79608-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	6.50	9.80	50.8 (a)	0-10
Barium	25.2	31.4	24.6 (a)	0-10
Beryllium				
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	0.00	0.00	NC	0-10
Cobalt				
Copper				
Iron				
Lead	0.00	0.00	NC	0-10
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium	0.00	0.00	NC	0-10
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP19932: F79653-1, F79653-2, F79653-3, F79653-4, F79653-5, F79653-6, F79653-7, F79653-1F, F79653-2F, F79653-3F, F79653-4F, F79653-5F, F79653-6F, F79653-7F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19932
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/07/11

Metal	Sample ml	Final ml	F79608-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic	9.8	10	6.5	6.37	127.5	0.2	5	100	121.1*(a	80-120
Barium	9.8	10	25.2	24.696	278.7	0.2	12.5	250	101.6	80-120
Beryllium										
Cadmium	9.8	10	0	0	45.5	0.2	2.5	50	91.0	80-120
Calcium										
Chromium	9.8	10	0	0	50.6	0.2	2.5	50	101.2	80-120
Cobalt										
Copper										
Iron										
Lead	9.8	10	0	0	51.1	0.2	2.5	50	102.2	80-120
Magnesium										
Manganese										
Molybdenum										
Nickel										
Potassium										
Selenium	9.8	10	0	0	113	0.2	5	100	113.0	80-120
Silver	9.8	10	0	0	68.6	0.2	2.5	50	137.2*(a	80-120
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP19932: F79653-1, F79653-2, F79653-3, F79653-4, F79653-5, F79653-6, F79653-7, F79653-1F, F79653-2F, F79653-3F, F79653-4F, F79653-5F, F79653-6F, F79653-7F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested
(a) Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

Southeast ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Solids, Total Dissolved	GN43106	100	0.0	mg/l				

Associated Samples:
Batch GN43106: F79653-1, F79653-2, F79653-3, F79653-4, F79653-5, F79653-6, F79653-7
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F79653
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Solids, Total Dissolved	GN43106	F79678-1	mg/l	271	268	1.1	0-5%

Associated Samples:
Batch GN43106: F79653-1, F79653-2, F79653-3, F79653-4, F79653-5, F79653-6, F79653-7
(*) Outside of QC limits

9.2
9

Southeast ACCUTEST LABORATORIES

02/14/11

Technical Report for

Tetra Tech, Inc

Holloman AFB; Alamogordo, NM

SD-27 (GROUNDWATER)

Accutest Job Number: F79608

Sampling Dates: 01/25/11 - 01/26/11

Report to:

Tetra Tech
800 Oak Ridge Tpk. Suite A600
Oak Ridge, TN 37830
Jeremy.Bennett@tetratech.com

ATTN: Jeremy Bennett

Total number of pages in report: **315**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Sue Bell 407-425-6700

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK

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Accutest Laboratories

Sample Summary

Tetra Tech, Inc

Job No: F79608

Holloman AFB; Alamogordo, NM
Project No: SD-27 (GROUNDWATER)

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F79608-1	01/25/11	16:46 LT	01/27/11	AQ	Ground Water	MW27-01-012511
F79608-1D	01/25/11	16:46 LT	01/27/11	AQ	Water Dup/MSD	MW27-01-012511
F79608-1DF	01/25/11	16:46 LT	01/27/11	AQ	Water Dup/MSD	MW27-01-012511
F79608-1F	01/25/11	16:46 LT	01/27/11	AQ	Groundwater Filtered	MW27-01-012511
F79608-1S	01/25/11	16:46 LT	01/27/11	AQ	Water Matrix Spike	MW27-01-012511
F79608-1SF	01/25/11	16:46 LT	01/27/11	AQ	Water Matrix Spike	MW27-01-012511
F79608-2	01/25/11	17:00 LT	01/27/11	AQ	Ground Water	MW27-02-012511
F79608-2F	01/25/11	17:00 LT	01/27/11	AQ	Groundwater Filtered	MW27-02-012511
F79608-3	01/25/11	17:00 LT	01/27/11	AQ	Ground Water	MW27-DUP01-012511
F79608-3F	01/25/11	17:00 LT	01/27/11	AQ	Groundwater Filtered	MW27-DUP01-012511
F79608-4	01/25/11	16:40 LT	01/27/11	AQ	Ground Water	MW27-03-012511
F79608-4F	01/25/11	16:40 LT	01/27/11	AQ	Groundwater Filtered	MW27-03-012511
F79608-5	01/25/11	14:30 LT	01/27/11	AQ	Ground Water	MW27-04-012511

Sample Summary
(continued)

Tetra Tech, Inc

Job No: F79608

Holloman AFB; Alamogordo, NM
Project No: SD-27 (GROUNDWATER)

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F79608-5F	01/25/11	14:30 LT	01/27/11	AQ	Groundwater Filtered	MW27-04-012511
F79608-6	01/25/11	15:00 LT	01/27/11	AQ	Ground Water	MW27-05-012511
F79608-6F	01/25/11	15:00 LT	01/27/11	AQ	Groundwater Filtered	MW27-05-012511
F79608-7	01/26/11	11:30 LT	01/27/11	AQ	Trip Blank Water	TB01-012611

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Tetra Tech, Inc **Job** F79608

Site: Holloman AFB; Alamogordo, NM **Report Date:** 2/14/2011 10:48:13 AM

6 Samples and 1 Trip Blank were collected on 01/25/2011 and 01/26/2011 and were received at Accutest SE on 01/27/2011 properly preserved, at 3 Deg. C and intact. These Samples received an Accutest job number of F79608. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS by Method SW846 8260B

Matrix: AQ **Batch ID:** VJ3482

All samples were analyzed within the recommended method holding time.

Samples F79608-1MS, F79608-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

F79608-1: Confirmation run.

Matrix: AQ **Batch ID:** VJ3483

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F79653-5MS, F79653-5MSD were used as the QC samples indicated.

Blank Spike Recovery for Dichlorodifluoromethane is outside control limits.

Matrix Spike Recoverys for 2-Chloroethyl vinyl ether, Acetone, cis-1,4-Dichloro-2-Butene, Dichlorodifluoromethane, Ethyl methacrylate, Trans-1,4-Dichloro-2-Butene are outside control limits. Probable cause due to matrix interference.

Matrix Spike Duplicate Recoverys for 2-Chloroethyl vinyl ether, Acetone, cis-1,4-Dichloro-2-Butene, Dichlorodifluoromethane, Ethyl methacrylate, Trans-1,4-Dichloro-2-Butene, Trichloroethylene are outside control limits. Probable cause due to matrix interference.

RPDs for MSD for 1,2,4-Trichlorobenzene, Allyl chloride, Carbon disulfide, cis-1,4-Dichloro-2-Butene, Styrene, Trans-1,4-Dichloro-2-Butene are outside control limits for sample F79653-5MSD. Probable cause due to sample non-homogeneity.

Matrix: AQ **Batch ID:** VJ3485

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F79815-1MS, F79815-1MSD were used as the QC samples indicated.

Extractables by GCMS by Method SW846 8270D

Matrix: AQ **Batch ID:** OP35877

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Samples F79608-1MS, F79608-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Samples OP35877-MS, OP35877-MSD have surrogates outside control limits. Probable cause due to matrix interference.

Volatiles by GC by Method SW846 8015C

Matrix: AQ **Batch ID:** GCD4222

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F79608-1MS, F79608-1MSD were used as the QC samples indicated.

Volatiles by GC by Method SW846 8015C

Matrix: AQ **Batch ID:** GCD4223

All samples were analyzed within the recommended method holding time.

Samples F79608-3MS, F79608-3MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Extractables by GC by Method SW846 8015C

Matrix: AQ **Batch ID:** OP35874

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F79608-1MS, F79608-1MSD were used as the QC samples indicated.

F79608-2, F79608-3, F79608-4 for TPH (C10-C28): Petroleum hydrocarbon pattern extends beyond C28.

Metals by Method SW846 6010C

Matrix: AQ **Batch ID:** MP19932

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F79608-1MS, F79608-1MSD, F79608-1PS, F79608-1SDL, F79608-1DUP were used as the QC samples for metals.

Matrix Spike and Matrix Spike Duplicate Recoverys for Arsenic, Silver are outside control limits. Spike recovery indicates possible matrix interference.

RPD for Duplicate for Arsenic is outside control limits for sample MP19932-D1. RPD acceptable due to low duplicate and sample concentrations.

RPDs for Serial Dilution for Arsenic, Barium are outside control limits for sample MP19932-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

MP19932-PS1 for Silver: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP19932-PS1 for Arsenic: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

F79608-3 for Chromium: Elevated reporting limit(s) due to matrix interference.

F79608-1 for Lead: Elevated reporting limit(s) due to matrix interference.

F79608-2 for Selenium: Elevated reporting limit(s) due to matrix interference.

F79608-6 for Selenium: Elevated reporting limit(s) due to matrix interference.

F79608-6 for Lead: Elevated reporting limit(s) due to matrix interference.

F79608-6 for Chromium: Elevated reporting limit(s) due to matrix interference.

F79608-5 for Selenium: Elevated reporting limit(s) due to matrix interference.

F79608-5 for Lead: Elevated reporting limit(s) due to matrix interference.

F79608-5 for Chromium: Elevated reporting limit(s) due to matrix interference.

F79608-2 for Chromium: Elevated reporting limit(s) due to matrix interference.

F79608-1 for Selenium: Elevated reporting limit(s) due to matrix interference.

F79608-2 for Lead: Elevated reporting limit(s) due to matrix interference.

F79608-3 for Lead: Elevated reporting limit(s) due to matrix interference.

F79608-1 for Chromium: Elevated reporting limit(s) due to matrix interference.

F79608-4 for Chromium: Elevated reporting limit(s) due to matrix interference.

F79608-4 for Lead: Elevated reporting limit(s) due to matrix interference.

F79608-4 for Selenium: Elevated reporting limit(s) due to matrix interference.

F79608-3 for Selenium: Elevated reporting limit(s) due to matrix interference.

Matrix: AQ **Batch ID:** MP19933

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Metals by Method SW846 6010C

Matrix: AQ **Batch ID:** MP19933

Samples F79608-1FMS, F79608-1FMSD, F79608-1FPS, F79608-1FSDL, F79608-1FDUP were used as the QC samples for metals.

Matrix Spike and Matrix Spike Duplicate Recoverys for Silver are outside control limits. Spike recovery indicates possible matrix interference.

RPDs for Duplicate for Arsenic, Selenium are outside control limits for sample MP19933-D1. RPD acceptable due to low duplicate and sample concentrations.

RPD for Serial Dilution for Arsenic is outside control limits for sample MP19933-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

MP19933-PS1 for Silver: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP19933-PS1 for Arsenic: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

F79608-3F for Chromium: Elevated reporting limit(s) due to matrix interference.

F79608-5F for Chromium: Elevated reporting limit(s) due to matrix interference.

F79608-4F for Selenium: Elevated reporting limit(s) due to matrix interference.

F79608-4F for Lead: Elevated reporting limit(s) due to matrix interference.

F79608-6F for Lead: Elevated reporting limit(s) due to matrix interference.

F79608-4F for Chromium: Elevated reporting limit(s) due to matrix interference.

F79608-3F for Selenium: Elevated reporting limit(s) due to matrix interference.

F79608-3F for Lead: Elevated reporting limit(s) due to matrix interference.

F79608-6F for Selenium: Elevated reporting limit(s) due to matrix interference.

F79608-2F for Lead: Elevated reporting limit(s) due to matrix interference.

F79608-2F for Chromium: Elevated reporting limit(s) due to matrix interference.

F79608-1F for Selenium: Elevated reporting limit(s) due to matrix interference.

F79608-1F for Lead: Elevated reporting limit(s) due to matrix interference.

F79608-5F for Lead: Elevated reporting limit(s) due to matrix interference.

F79608-2F for Selenium: Elevated reporting limit(s) due to matrix interference.

F79608-5F for Selenium: Elevated reporting limit(s) due to matrix interference.

F79608-1F for Chromium: Elevated reporting limit(s) due to matrix interference.

F79608-6F for Chromium: Elevated reporting limit(s) due to matrix interference.

Metals by Method SW846 7470A

Matrix: AQ **Batch ID:** MP19901

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F79608-1DUP, F79608-1MS, F79608-1MSD, F79608-1SDL were used as the QC samples for metals.

Matrix: AQ **Batch ID:** MP19909

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F79608-1FDUP, F79608-1FMS, F79608-1FMSD, F79608-1FSDL were used as the QC samples for metals.

Wet Chemistry by Method SM19 2540C

Matrix: AQ **Batch ID:** GN43104

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample F79608-1DUP was used as the QC sample for Solids, Total Dissolved.
RPD for Duplicate for Solids, Total Dissolved is outside control limits for sample GN43104-D1. Probable cause due to matrix interference and/or sample non-homogeneity.

Monday, February 14, 2011

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

_____ Date: February 14, 2011

Ellen Pampel, Inorganic QA (signature on file)

Monday, February 14, 2011

Southeast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW27-01-012511		
Lab Sample ID:	F79608-1	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J062859.D	1	02/04/11	MM	n/a	n/a	VJ3483
Run #2 [a]	J062823.D	1	02/03/11	MM	n/a	n/a	VJ3482

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-01-012511		
Lab Sample ID:	F79608-1	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-01-012511		
Lab Sample ID:	F79608-1	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%	104%	87-116%
17060-07-0	1,2-Dichloroethane-D4	103%	105%	76-127%
2037-26-5	Toluene-D8	95%	94%	86-112%
460-00-4	4-Bromofluorobenzene	100%	97%	84-120%

(a) Confirmation run.

ND = Not detected MDL - Method Detection Limit
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E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-01-012511		
Lab Sample ID:	F79608-1	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L049661.D	1	02/03/11	NAF	01/28/11	OP35877	SL2544
Run #2							

	Initial Volume	Final Volume
Run #1	1020 ml	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	49	9.8	ug/l	
95-57-8	2-Chlorophenol	ND	4.9	0.49	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	4.9	0.49	ug/l	
120-83-2	2,4-Dichlorophenol	ND	4.9	0.49	ug/l	
105-67-9	2,4-Dimethylphenol	ND	4.9	1.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	25	9.8	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	9.8	2.0	ug/l	
95-48-7	2-Methylphenol	ND	4.9	0.53	ug/l	
	3&4-Methylphenol	ND	4.9	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	4.9	0.53	ug/l	
100-02-7	4-Nitrophenol	ND	25	4.9	ug/l	
87-86-5	Pentachlorophenol	ND	25	5.3	ug/l	
108-95-2	Phenol	ND	4.9	0.49	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	4.9	0.49	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.9	0.49	ug/l	
83-32-9	Acenaphthene	ND	4.9	0.49	ug/l	
208-96-8	Acenaphthylene	ND	4.9	0.49	ug/l	
62-53-3	Aniline	ND	4.9	0.51	ug/l	
120-12-7	Anthracene	ND	4.9	0.49	ug/l	
92-87-5	Benzidine	ND	25	4.6	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	0.49	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	0.49	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	0.49	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	0.49	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	0.49	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	4.9	0.49	ug/l	
85-68-7	Butyl benzyl phthalate	ND	4.9	1.1	ug/l	
100-51-6	Benzyl Alcohol	ND	4.9	0.98	ug/l	
91-58-7	2-Chloronaphthalene	ND	4.9	0.49	ug/l	
106-47-8	4-Chloroaniline	ND	4.9	0.49	ug/l	
86-74-8	Carbazole	ND	4.9	0.49	ug/l	
218-01-9	Chrysene	ND	4.9	0.49	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-01-012511		
Lab Sample ID:	F79608-1	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	4.9	0.49	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	4.9	0.53	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	4.9	0.53	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	4.9	0.49	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	4.9	0.98	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	4.9	0.49	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	4.9	0.98	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	4.9	0.98	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	4.9	0.49	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	4.9	0.49	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	9.8	0.98	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	0.51	ug/l	
132-64-9	Dibenzofuran	ND	4.9	0.49	ug/l	
84-74-2	Di-n-butyl phthalate	ND	4.9	0.85	ug/l	
117-84-0	Di-n-octyl phthalate	ND	4.9	1.1	ug/l	
84-66-2	Diethyl phthalate	ND	4.9	1.1	ug/l	
131-11-3	Dimethyl phthalate	ND	4.9	0.97	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	4.9	1.1	ug/l	
206-44-0	Fluoranthene	ND	4.9	0.49	ug/l	
86-73-7	Fluorene	ND	4.9	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	4.9	0.55	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.9	0.98	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	9.8	1.9	ug/l	
67-72-1	Hexachloroethane	ND	4.9	0.98	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	0.49	ug/l	
78-59-1	Isophorone	ND	4.9	0.49	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	0.49	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	0.56	ug/l	
88-74-4	2-Nitroaniline	ND	4.9	0.49	ug/l	
99-09-2	3-Nitroaniline	ND	4.9	0.49	ug/l	
100-01-6	4-Nitroaniline	ND	4.9	0.49	ug/l	
91-20-3	Naphthalene	ND	4.9	0.78	ug/l	
98-95-3	Nitrobenzene	ND	4.9	0.58	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	4.9	2.4	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	4.9	0.49	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.9	0.98	ug/l	
85-01-8	Phenanthrene	ND	4.9	0.49	ug/l	
129-00-0	Pyrene	ND	4.9	0.49	ug/l	
110-86-1	Pyridine	ND	9.8	1.6	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	4.9	0.49	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-01-012511		
Lab Sample ID:	F79608-1	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	42%		14-62%
4165-62-2	Phenol-d5	35%		10-40%
118-79-6	2,4,6-Tribromophenol	76%		33-118%
4165-60-0	Nitrobenzene-d5	69%		42-108%
321-60-8	2-Fluorobiphenyl	73%		40-106%
1718-51-0	Terphenyl-d14	79%		39-121%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-01-012511		
Lab Sample ID:	F79608-1	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8015C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD102843.D	1	02/03/11	WV	n/a	n/a	GCD4222
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	89%		57-129%
98-08-8	aaa-Trifluorotoluene	81%		58-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-01-012511		
Lab Sample ID:	F79608-1	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF38535.D	1	02/01/11	FEA	01/28/11	OP35874	GZF1607
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	0.24	0.095	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	81%		42-114%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-01-012511		
Lab Sample ID:	F79608-1	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	6.5 B	10	2.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	25.2 B	200	5.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	5.0 U	50	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/01/11	02/01/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	10 U	50	10	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8683
(2) Instrument QC Batch: MA8696
(3) Instrument QC Batch: MA8700
(4) Prep QC Batch: MP19901
(5) Prep QC Batch: MP19932

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW27-01-012511		
Lab Sample ID:	F79608-1	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	16500	10000	1000	mg/l	100	01/31/11 12:00	SJL	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW27-01-012511		
Lab Sample ID:	F79608-1F	**Date Sampled:**	01/25/11
Matrix:	AQ - Groundwater Filtered	**Date Received:**	01/27/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	8.7 B	10	2.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	27.1 B	200	5.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	5.0 U	50	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/02/11	02/02/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	10 U	50	10	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8687
(2) Instrument QC Batch: MA8696
(3) Instrument QC Batch: MA8700
(4) Prep QC Batch: MP19909
(5) Prep QC Batch: MP19933

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW27-02-012511		
Lab Sample ID:	F79608-2	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J062862.D	2	02/04/11	MM	n/a	n/a	VJ3483
Run #2	J062839.D	2	02/03/11	MM	n/a	n/a	VJ3482

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	20	ug/l	
75-05-8	Acetonitrile	ND	40	10	ug/l	
107-02-8	Acrolein	ND	40	10	ug/l	
107-13-1	Acrylonitrile	ND	20	6.0	ug/l	
107-05-1	Allyl chloride	ND	4.0	0.60	ug/l	
71-43-2	Benzene	9.6	2.0	0.40	ug/l	
100-44-7	Benzyl Chloride	ND	4.0	1.0	ug/l	
108-86-1	Bromobenzene	ND	2.0	0.50	ug/l	
74-97-5	Bromochloromethane	ND	2.0	0.44	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	0.40	ug/l	
75-25-2	Bromoform	ND	2.0	0.40	ug/l	
104-51-8	n-Butylbenzene	2.4	2.0	0.52	ug/l	
135-98-8	sec-Butylbenzene	11.8	2.0	0.44	ug/l	
98-06-6	tert-Butylbenzene	0.86	2.0	0.54	ug/l	J
108-90-7	Chlorobenzene	ND	2.0	0.40	ug/l	
75-00-3	Chloroethane	ND	4.0	1.0	ug/l	
67-66-3	Chloroform	ND	2.0	0.44	ug/l	
544-10-5	1-Chlorohexane	ND	4.0	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.44	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.40	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	10	2.4	ug/l	
75-15-0	Carbon disulfide	ND	4.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	0.46	ug/l	
563-58-6	1,1-Dichloropropene	ND	2.0	0.56	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.74	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	2.0	0.40	ug/l	
594-20-7	2,2-Dichloropropane	ND	2.0	0.88	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-02-012511		
Lab Sample ID:	F79608-2	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	2.0	0.40	ug/l	
75-71-8	Dichlorodifluoromethane	ND	4.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	0.52	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.40	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	20	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	2.0	0.40	ug/l	
95-50-1	o-Dichlorobenzene	ND	2.0	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	2.0	0.46	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.70	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.40	ug/l	
100-41-4	Ethylbenzene	122	2.0	0.40	ug/l	
97-63-2	Ethyl methacrylate	ND	10	2.0	ug/l	
76-13-1	Freon 113	ND	2.0	0.94	ug/l	
591-78-6	2-Hexanone	ND	20	8.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.0	1.6	ug/l	
110-54-3	Hexane	ND	4.0	1.2	ug/l	
98-82-8	Isopropylbenzene	31.8	2.0	0.40	ug/l	
99-87-6	p-Isopropyltoluene	15.8	2.0	0.42	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	4.0	ug/l	
126-98-7	Methacrylonitrile	ND	40	10	ug/l	
74-83-9	Methyl bromide	ND	4.0	1.0	ug/l	
74-87-3	Methyl chloride	ND	4.0	1.0	ug/l	
74-88-4	Methyl iodide	ND	2.0	0.40	ug/l	
80-62-6	Methyl methacrylate	ND	10	2.0	ug/l	
74-95-3	Methylene bromide	ND	4.0	0.50	ug/l	
75-09-2	Methylene chloride	ND [a]	10	4.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	4.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.68	ug/l	
91-20-3	Naphthalene	2.3 [a]	10	2.0	ug/l	J
76-01-7	Pentachloroethane	ND	20	4.0	ug/l	
107-12-0	Propionitrile	ND	40	10	ug/l	
103-65-1	n-Propylbenzene	36.4	2.0	0.40	ug/l	
100-42-5	Styrene	ND	2.0	0.40	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.0	0.40	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.40	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.44	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	4.0	0.60	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	1.0	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-02-012511		
Lab Sample ID:	F79608-2	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	101	4.0	0.54	ug/l	
108-67-8	1,3,5-Trimethylbenzene	41.0	4.0	0.42	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	0.40	ug/l	
79-01-6	Trichloroethylene	ND	2.0	0.52	ug/l	
75-69-4	Trichlorofluoromethane	ND	4.0	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	20	4.0	ug/l	
75-01-4	Vinyl chloride	ND	2.0	0.44	ug/l	
108-05-4	Vinyl Acetate	ND	20	4.0	ug/l	
	m,p-Xylene	23.8	4.0	0.64	ug/l	
95-47-6	o-Xylene	7.3	2.0	0.40	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%	105%	87-116%
17060-07-0	1,2-Dichloroethane-D4	101%	101%	76-127%
2037-26-5	Toluene-D8	97%	96%	86-112%
460-00-4	4-Bromofluorobenzene	99%	99%	84-120%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-02-012511		
Lab Sample ID:	F79608-2	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L049662.D	1	02/03/11	NAF	01/28/11	OP35877	SL2544
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	48	9.6	ug/l	
95-57-8	2-Chlorophenol	ND	4.8	0.48	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	4.8	0.48	ug/l	
120-83-2	2,4-Dichlorophenol	ND	4.8	0.48	ug/l	
105-67-9	2,4-Dimethylphenol	ND	4.8	1.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	24	9.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	9.6	1.9	ug/l	
95-48-7	2-Methylphenol	ND	4.8	0.52	ug/l	
	3&4-Methylphenol	ND	4.8	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	4.8	0.52	ug/l	
100-02-7	4-Nitrophenol	ND	24	4.8	ug/l	
87-86-5	Pentachlorophenol	ND	24	5.2	ug/l	
108-95-2	Phenol	ND	4.8	0.48	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	4.8	0.48	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.8	0.48	ug/l	
83-32-9	Acenaphthene	ND	4.8	0.48	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.48	ug/l	
62-53-3	Aniline	ND	4.8	0.50	ug/l	
120-12-7	Anthracene	ND	4.8	0.48	ug/l	
92-87-5	Benzidine	ND	24	4.5	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.48	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.48	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.48	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.48	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.48	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	4.8	0.48	ug/l	
85-68-7	Butyl benzyl phthalate	ND	4.8	1.1	ug/l	
100-51-6	Benzyl Alcohol	ND	4.8	0.96	ug/l	
91-58-7	2-Chloronaphthalene	ND	4.8	0.48	ug/l	
106-47-8	4-Chloroaniline	ND	4.8	0.48	ug/l	
86-74-8	Carbazole	ND	4.8	0.48	ug/l	
218-01-9	Chrysene	ND	4.8	0.48	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-02-012511		
Lab Sample ID:	F79608-2	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	4.8	0.48	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	4.8	0.52	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	4.8	0.52	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	4.8	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	4.8	0.96	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	4.8	0.48	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	4.8	0.96	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	4.8	0.96	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	4.8	0.48	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	4.8	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	9.6	0.96	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.50	ug/l	
132-64-9	Dibenzofuran	ND	4.8	0.48	ug/l	
84-74-2	Di-n-butyl phthalate	ND	4.8	0.84	ug/l	
117-84-0	Di-n-octyl phthalate	ND	4.8	1.1	ug/l	
84-66-2	Diethyl phthalate	ND	4.8	1.1	ug/l	
131-11-3	Dimethyl phthalate	ND	4.8	0.95	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	4.8	1.1	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.48	ug/l	
86-73-7	Fluorene	ND	4.8	0.48	ug/l	
118-74-1	Hexachlorobenzene	ND	4.8	0.54	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.8	0.96	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	9.6	1.8	ug/l	
67-72-1	Hexachloroethane	ND	4.8	0.96	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	0.48	ug/l	
78-59-1	Isophorone	ND	4.8	0.48	ug/l	
90-12-0	1-Methylnaphthalene	12.5	4.8	0.48	ug/l	
91-57-6	2-Methylnaphthalene	0.69	4.8	0.55	ug/l	J
88-74-4	2-Nitroaniline	ND	4.8	0.48	ug/l	
99-09-2	3-Nitroaniline	ND	4.8	0.48	ug/l	
100-01-6	4-Nitroaniline	ND	4.8	0.48	ug/l	
91-20-3	Naphthalene	0.90	4.8	0.77	ug/l	J
98-95-3	Nitrobenzene	ND	4.8	0.57	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	4.8	2.3	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	4.8	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.8	0.96	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.48	ug/l	
129-00-0	Pyrene	ND	4.8	0.48	ug/l	
110-86-1	Pyridine	ND	9.6	1.5	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	4.8	0.48	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-02-012511		
Lab Sample ID:	F79608-2	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	36%		14-62%
4165-62-2	Phenol-d5	29%		10-40%
118-79-6	2,4,6-Tribromophenol	79%		33-118%
4165-60-0	Nitrobenzene-d5	60%		42-108%
321-60-8	2-Fluorobiphenyl	65%		40-106%
1718-51-0	Terphenyl-d14	71%		39-121%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-02-012511		
Lab Sample ID:	F79608-2	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8015C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD102875.D	2	02/07/11	WV	n/a	n/a	GCD4223
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	1.15	0.20	0.10	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	123%		57-129%
98-08-8	aaa-Trifluorotoluene	93%		58-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-02-012511		
Lab Sample ID:	F79608-2	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF38538.D	1	02/01/11	FEA	01/28/11	OP35874	GZF1607
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28) [a]	0.609	0.24	0.096	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	80%		42-114%

(a) Petroleum hydrocarbon pattern extends beyond C28.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-02-012511		
Lab Sample ID:	F79608-2	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.3 B	10	2.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	23.9 B	200	5.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	5.0 U	50	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/01/11	02/01/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	10 U	50	10	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8683
(2) Instrument QC Batch: MA8696
(3) Instrument QC Batch: MA8700
(4) Prep QC Batch: MP19901
(5) Prep QC Batch: MP19932

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW27-02-012511		
Lab Sample ID:	F79608-2	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	11100	10000	1000	mg/l	100	01/31/11 12:00	SJL	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW27-02-012511		
Lab Sample ID:	F79608-2F	**Date Sampled:**	01/25/11
Matrix:	AQ - Groundwater Filtered	**Date Received:**	01/27/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.8 B	10	2.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	24.1 B	200	5.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	5.0 U	50	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/02/11	02/02/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	10 U	50	10	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8687
(2) Instrument QC Batch: MA8696
(3) Instrument QC Batch: MA8700
(4) Prep QC Batch: MP19909
(5) Prep QC Batch: MP19933

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW27-DUP01-012511		
Lab Sample ID:	F79608-3	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J062863.D	2	02/04/11	MM	n/a	n/a	VJ3483
Run #2	J062840.D	2	02/03/11	MM	n/a	n/a	VJ3482

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	20	ug/l	
75-05-8	Acetonitrile	ND	40	10	ug/l	
107-02-8	Acrolein	ND	40	10	ug/l	
107-13-1	Acrylonitrile	ND	20	6.0	ug/l	
107-05-1	Allyl chloride	ND	4.0	0.60	ug/l	
71-43-2	Benzene	8.9	2.0	0.40	ug/l	
100-44-7	Benzyl Chloride	ND	4.0	1.0	ug/l	
108-86-1	Bromobenzene	ND	2.0	0.50	ug/l	
74-97-5	Bromochloromethane	ND	2.0	0.44	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	0.40	ug/l	
75-25-2	Bromoform	ND	2.0	0.40	ug/l	
104-51-8	n-Butylbenzene	2.1	2.0	0.52	ug/l	
135-98-8	sec-Butylbenzene	11.0	2.0	0.44	ug/l	
98-06-6	tert-Butylbenzene	0.98	2.0	0.54	ug/l	J
108-90-7	Chlorobenzene	ND	2.0	0.40	ug/l	
75-00-3	Chloroethane	ND	4.0	1.0	ug/l	
67-66-3	Chloroform	ND	2.0	0.44	ug/l	
544-10-5	1-Chlorohexane	ND	4.0	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.44	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.40	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	10	2.4	ug/l	
75-15-0	Carbon disulfide	ND	4.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	0.46	ug/l	
563-58-6	1,1-Dichloropropene	ND	2.0	0.56	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.74	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	2.0	0.40	ug/l	
594-20-7	2,2-Dichloropropane	ND	2.0	0.88	ug/l	

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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-DUP01-012511		
Lab Sample ID:	F79608-3	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	2.0	0.40	ug/l	
75-71-8	Dichlorodifluoromethane	ND	4.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	0.52	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.40	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	20	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	2.0	0.40	ug/l	
95-50-1	o-Dichlorobenzene	ND	2.0	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	2.0	0.46	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.70	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.40	ug/l	
100-41-4	Ethylbenzene	130	2.0	0.40	ug/l	
97-63-2	Ethyl methacrylate	ND	10	2.0	ug/l	
76-13-1	Freon 113	ND	2.0	0.94	ug/l	
591-78-6	2-Hexanone	ND	20	8.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.0	1.6	ug/l	
110-54-3	Hexane	ND	4.0	1.2	ug/l	
98-82-8	Isopropylbenzene	31.1	2.0	0.40	ug/l	
99-87-6	p-Isopropyltoluene	15.2	2.0	0.42	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	4.0	ug/l	
126-98-7	Methacrylonitrile	ND	40	10	ug/l	
74-83-9	Methyl bromide	ND	4.0	1.0	ug/l	
74-87-3	Methyl chloride	ND	4.0	1.0	ug/l	
74-88-4	Methyl iodide	ND	2.0	0.40	ug/l	
80-62-6	Methyl methacrylate	ND	10	2.0	ug/l	
74-95-3	Methylene bromide	ND	4.0	0.50	ug/l	
75-09-2	Methylene chloride	ND [a]	10	4.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	4.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.68	ug/l	
91-20-3	Naphthalene	2.6 [a]	10	2.0	ug/l	J
76-01-7	Pentachloroethane	ND	20	4.0	ug/l	
107-12-0	Propionitrile	ND	40	10	ug/l	
103-65-1	n-Propylbenzene	35.2	2.0	0.40	ug/l	
100-42-5	Styrene	ND	2.0	0.40	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.0	0.40	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.40	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.44	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	4.0	0.60	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	1.0	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-DUP01-012511		
Lab Sample ID:	F79608-3	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	97.0	4.0	0.54	ug/l	
108-67-8	1,3,5-Trimethylbenzene	40.2	4.0	0.42	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	0.40	ug/l	
79-01-6	Trichloroethylene	ND	2.0	0.52	ug/l	
75-69-4	Trichlorofluoromethane	ND	4.0	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	20	4.0	ug/l	
75-01-4	Vinyl chloride	ND	2.0	0.44	ug/l	
108-05-4	Vinyl Acetate	ND	20	4.0	ug/l	
	m,p-Xylene	21.0	4.0	0.64	ug/l	
95-47-6	o-Xylene	6.6	2.0	0.40	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%	106%	87-116%
17060-07-0	1,2-Dichloroethane-D4	102%	104%	76-127%
2037-26-5	Toluene-D8	97%	97%	86-112%
460-00-4	4-Bromofluorobenzene	98%	100%	84-120%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-DUP01-012511		
Lab Sample ID:	F79608-3	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L049663.D	1	02/03/11	NAF	01/28/11	OP35877	SL2544
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	48	9.6	ug/l	
95-57-8	2-Chlorophenol	ND	4.8	0.48	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	4.8	0.48	ug/l	
120-83-2	2,4-Dichlorophenol	ND	4.8	0.48	ug/l	
105-67-9	2,4-Dimethylphenol	ND	4.8	1.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	24	9.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	9.6	1.9	ug/l	
95-48-7	2-Methylphenol	ND	4.8	0.52	ug/l	
	3&4-Methylphenol	ND	4.8	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	4.8	0.52	ug/l	
100-02-7	4-Nitrophenol	ND	24	4.8	ug/l	
87-86-5	Pentachlorophenol	ND	24	5.2	ug/l	
108-95-2	Phenol	ND	4.8	0.48	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	4.8	0.48	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.8	0.48	ug/l	
83-32-9	Acenaphthene	ND	4.8	0.48	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.48	ug/l	
62-53-3	Aniline	ND	4.8	0.50	ug/l	
120-12-7	Anthracene	ND	4.8	0.48	ug/l	
92-87-5	Benzidine	ND	24	4.5	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.48	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.48	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.48	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.48	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.48	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	4.8	0.48	ug/l	
85-68-7	Butyl benzyl phthalate	ND	4.8	1.1	ug/l	
100-51-6	Benzyl Alcohol	ND	4.8	0.96	ug/l	
91-58-7	2-Chloronaphthalene	ND	4.8	0.48	ug/l	
106-47-8	4-Chloroaniline	ND	4.8	0.48	ug/l	
86-74-8	Carbazole	ND	4.8	0.48	ug/l	
218-01-9	Chrysene	ND	4.8	0.48	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-DUP01-012511		
Lab Sample ID:	F79608-3	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	4.8	0.48	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	4.8	0.52	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	4.8	0.52	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	4.8	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	4.8	0.96	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	4.8	0.48	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	4.8	0.96	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	4.8	0.96	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	4.8	0.48	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	4.8	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	9.6	0.96	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.50	ug/l	
132-64-9	Dibenzofuran	ND	4.8	0.48	ug/l	
84-74-2	Di-n-butyl phthalate	ND	4.8	0.84	ug/l	
117-84-0	Di-n-octyl phthalate	ND	4.8	1.1	ug/l	
84-66-2	Diethyl phthalate	ND	4.8	1.1	ug/l	
131-11-3	Dimethyl phthalate	ND	4.8	0.95	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	4.8	1.1	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.48	ug/l	
86-73-7	Fluorene	ND	4.8	0.48	ug/l	
118-74-1	Hexachlorobenzene	ND	4.8	0.54	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.8	0.96	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	9.6	1.8	ug/l	
67-72-1	Hexachloroethane	ND	4.8	0.96	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	0.48	ug/l	
78-59-1	Isophorone	ND	4.8	0.48	ug/l	
90-12-0	1-Methylnaphthalene	14.4	4.8	0.48	ug/l	
91-57-6	2-Methylnaphthalene	0.74	4.8	0.55	ug/l	J
88-74-4	2-Nitroaniline	ND	4.8	0.48	ug/l	
99-09-2	3-Nitroaniline	ND	4.8	0.48	ug/l	
100-01-6	4-Nitroaniline	ND	4.8	0.48	ug/l	
91-20-3	Naphthalene	0.95	4.8	0.77	ug/l	J
98-95-3	Nitrobenzene	ND	4.8	0.57	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	4.8	2.3	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	4.8	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.8	0.96	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.48	ug/l	
129-00-0	Pyrene	ND	4.8	0.48	ug/l	
110-86-1	Pyridine	ND	9.6	1.5	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	4.8	0.48	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-DUP01-012511		
Lab Sample ID:	F79608-3	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	35%		14-62%
4165-62-2	Phenol-d5	29%		10-40%
118-79-6	2,4,6-Tribromophenol	84%		33-118%
4165-60-0	Nitrobenzene-d5	65%		42-108%
321-60-8	2-Fluorobiphenyl	65%		40-106%
1718-51-0	Terphenyl-d14	76%		39-121%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-DUP01-012511		
Lab Sample ID:	F79608-3	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8015C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD102876.D	2.5	02/07/11	WV	n/a	n/a	GCD4223
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	1.25	0.25	0.13	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	128%		57-129%
98-08-8	aaa-Trifluorotoluene	100%		58-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-DUP01-012511		
Lab Sample ID:	F79608-3	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF38539.D	1	02/01/11	FEA	01/28/11	OP35874	GZF1607
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28) [a]	0.584	0.24	0.095	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	86%		42-114%

(a) Petroleum hydrocarbon pattern extends beyond C28.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-DUP01-012511		
Lab Sample ID:	F79608-3	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.0 U	10	2.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	24.2 B	200	5.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	5.0 U	50	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/01/11	02/01/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	10 U	50	10	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8683
(2) Instrument QC Batch: MA8696
(3) Instrument QC Batch: MA8700
(4) Prep QC Batch: MP19901
(5) Prep QC Batch: MP19932

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW27-DUP01-012511		
Lab Sample ID:	F79608-3	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	13300	10000	1000	mg/l	100	01/31/11 12:00	SJL	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW27-DUP01-012511		
Lab Sample ID:	F79608-3F	**Date Sampled:**	01/25/11
Matrix:	AQ - Groundwater Filtered	**Date Received:**	01/27/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.0 U	10	2.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	23.6 B	200	5.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	5.0 U	50	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/02/11	02/02/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	10 U	50	10	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8687
(2) Instrument QC Batch: MA8696
(3) Instrument QC Batch: MA8700
(4) Prep QC Batch: MP19909
(5) Prep QC Batch: MP19933

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW27-03-012511		
Lab Sample ID:	F79608-4	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J062851.D	1	02/04/11	MM	n/a	n/a	VJ3483
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	0.88	1.0	0.20	ug/l	J
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	2.5	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	0.44	1.0	0.27	ug/l	J
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-03-012511		
Lab Sample ID:	F79608-4	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	5.8	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	2.8	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-03-012511		
Lab Sample ID:	F79608-4	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	2.1	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		87-116%
17060-07-0	1,2-Dichloroethane-D4	104%		76-127%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	101%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-03-012511		
Lab Sample ID:	F79608-4	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L049664.D	1	02/03/11	NAF	01/28/11	OP35877	SL2544
Run #2							

	Initial Volume	Final Volume
Run #1	1020 ml	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	49	9.8	ug/l	
95-57-8	2-Chlorophenol	ND	4.9	0.49	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	4.9	0.49	ug/l	
120-83-2	2,4-Dichlorophenol	ND	4.9	0.49	ug/l	
105-67-9	2,4-Dimethylphenol	ND	4.9	1.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	25	9.8	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	9.8	2.0	ug/l	
95-48-7	2-Methylphenol	ND	4.9	0.53	ug/l	
	3&4-Methylphenol	ND	4.9	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	4.9	0.53	ug/l	
100-02-7	4-Nitrophenol	ND	25	4.9	ug/l	
87-86-5	Pentachlorophenol	ND	25	5.3	ug/l	
108-95-2	Phenol	ND	4.9	0.49	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	4.9	0.49	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.9	0.49	ug/l	
83-32-9	Acenaphthene	ND	4.9	0.49	ug/l	
208-96-8	Acenaphthylene	ND	4.9	0.49	ug/l	
62-53-3	Aniline	ND	4.9	0.51	ug/l	
120-12-7	Anthracene	ND	4.9	0.49	ug/l	
92-87-5	Benzidine	ND	25	4.6	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	0.49	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	0.49	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	0.49	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	0.49	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	0.49	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	4.9	0.49	ug/l	
85-68-7	Butyl benzyl phthalate	ND	4.9	1.1	ug/l	
100-51-6	Benzyl Alcohol	ND	4.9	0.98	ug/l	
91-58-7	2-Chloronaphthalene	ND	4.9	0.49	ug/l	
106-47-8	4-Chloroaniline	ND	4.9	0.49	ug/l	
86-74-8	Carbazole	ND	4.9	0.49	ug/l	
218-01-9	Chrysene	ND	4.9	0.49	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-03-012511		
Lab Sample ID:	F79608-4	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	4.9	0.49	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	4.9	0.53	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	4.9	0.53	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	4.9	0.49	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	4.9	0.98	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	4.9	0.49	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	4.9	0.98	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	4.9	0.98	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	4.9	0.49	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	4.9	0.49	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	9.8	0.98	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	0.51	ug/l	
132-64-9	Dibenzofuran	ND	4.9	0.49	ug/l	
84-74-2	Di-n-butyl phthalate	ND	4.9	0.85	ug/l	
117-84-0	Di-n-octyl phthalate	ND	4.9	1.1	ug/l	
84-66-2	Diethyl phthalate	ND	4.9	1.1	ug/l	
131-11-3	Dimethyl phthalate	ND	4.9	0.97	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	4.9	1.1	ug/l	
206-44-0	Fluoranthene	ND	4.9	0.49	ug/l	
86-73-7	Fluorene	ND	4.9	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	4.9	0.55	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.9	0.98	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	9.8	1.9	ug/l	
67-72-1	Hexachloroethane	ND	4.9	0.98	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	0.49	ug/l	
78-59-1	Isophorone	ND	4.9	0.49	ug/l	
90-12-0	1-Methylnaphthalene	1.7	4.9	0.49	ug/l	J
91-57-6	2-Methylnaphthalene	ND	4.9	0.56	ug/l	
88-74-4	2-Nitroaniline	ND	4.9	0.49	ug/l	
99-09-2	3-Nitroaniline	ND	4.9	0.49	ug/l	
100-01-6	4-Nitroaniline	ND	4.9	0.49	ug/l	
91-20-3	Naphthalene	ND	4.9	0.78	ug/l	
98-95-3	Nitrobenzene	ND	4.9	0.58	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	4.9	2.4	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	4.9	0.49	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.9	0.98	ug/l	
85-01-8	Phenanthrene	ND	4.9	0.49	ug/l	
129-00-0	Pyrene	ND	4.9	0.49	ug/l	
110-86-1	Pyridine	ND	9.8	1.6	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	4.9	0.49	ug/l	

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RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-03-012511		
Lab Sample ID:	F79608-4	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	39%		14-62%
4165-62-2	Phenol-d5	33%		10-40%
118-79-6	2,4,6-Tribromophenol	75%		33-118%
4165-60-0	Nitrobenzene-d5	66%		42-108%
321-60-8	2-Fluorobiphenyl	68%		40-106%
1718-51-0	Terphenyl-d14	58%		39-121%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-03-012511		
Lab Sample ID:	F79608-4	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8015C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD102846.D	1	02/03/11	WV	n/a	n/a	GCD4222
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	0.0821	0.10	0.050	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	105%		57-129%
98-08-8	aaa-Trifluorotoluene	83%		58-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-03-012511		
Lab Sample ID:	F79608-4	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF38540.D	1	02/01/11	FEA	01/28/11	OP35874	GZF1607
Run #2							

	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28) [a]	0.226	0.24	0.097	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	85%		42-114%

(a) Petroleum hydrocarbon pattern extends beyond C28.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-03-012511		
Lab Sample ID:	F79608-4	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	3.3 B	10	2.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	35.8 B	200	5.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	5.0 U	50	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/01/11	02/01/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	10 U	50	10	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8683
(2) Instrument QC Batch: MA8696
(3) Instrument QC Batch: MA8700
(4) Prep QC Batch: MP19901
(5) Prep QC Batch: MP19932

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW27-03-012511		
Lab Sample ID:	F79608-4	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	25800	10000	1000	mg/l	100	01/31/11 12:00	SJL	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW27-03-012511		
Lab Sample ID:	F79608-4F	**Date Sampled:**	01/25/11
Matrix:	AQ - Groundwater Filtered	**Date Received:**	01/27/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.0 U	10	2.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	35.7 B	200	5.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	5.0 U	50	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/02/11	02/02/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	10 U	50	10	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8687
(2) Instrument QC Batch: MA8696
(3) Instrument QC Batch: MA8700
(4) Prep QC Batch: MP19909
(5) Prep QC Batch: MP19933

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW27-04-012511		
Lab Sample ID:	F79608-5	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J062860.D	1	02/04/11	MM	n/a	n/a	VJ3483
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	2.5	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	0.28	1.0	0.27	ug/l	J
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-04-012511		
Lab Sample ID:	F79608-5	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	1.5	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	4.1	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	0.30	1.0	0.21	ug/l	J
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	2.3	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-04-012511		
Lab Sample ID:	F79608-5	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	2.8	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	0.97	2.0	0.21	ug/l	J
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		87-116%
17060-07-0	1,2-Dichloroethane-D4	104%		76-127%
2037-26-5	Toluene-D8	94%		86-112%
460-00-4	4-Bromofluorobenzene	98%		84-120%

ND = Not detected MDL - Method Detection Limit
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E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-04-012511		
Lab Sample ID:	F79608-5	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L049665.D	1	02/03/11	NAF	01/28/11	OP35877	SL2544
Run #2							

	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	49	9.7	ug/l	
95-57-8	2-Chlorophenol	ND	4.9	0.49	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	4.9	0.49	ug/l	
120-83-2	2,4-Dichlorophenol	ND	4.9	0.49	ug/l	
105-67-9	2,4-Dimethylphenol	ND	4.9	1.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	24	9.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	9.7	1.9	ug/l	
95-48-7	2-Methylphenol	ND	4.9	0.52	ug/l	
	3&4-Methylphenol	ND	4.9	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	4.9	0.52	ug/l	
100-02-7	4-Nitrophenol	ND	24	4.9	ug/l	
87-86-5	Pentachlorophenol	ND	24	5.2	ug/l	
108-95-2	Phenol	ND	4.9	0.49	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	4.9	0.49	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.9	0.49	ug/l	
83-32-9	Acenaphthene	ND	4.9	0.49	ug/l	
208-96-8	Acenaphthylene	ND	4.9	0.49	ug/l	
62-53-3	Aniline	ND	4.9	0.50	ug/l	
120-12-7	Anthracene	ND	4.9	0.49	ug/l	
92-87-5	Benzidine	ND	24	4.6	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	0.49	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	0.49	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	0.49	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	0.49	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	0.49	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	4.9	0.49	ug/l	
85-68-7	Butyl benzyl phthalate	ND	4.9	1.1	ug/l	
100-51-6	Benzyl Alcohol	ND	4.9	0.97	ug/l	
91-58-7	2-Chloronaphthalene	ND	4.9	0.49	ug/l	
106-47-8	4-Chloroaniline	ND	4.9	0.49	ug/l	
86-74-8	Carbazole	ND	4.9	0.49	ug/l	
218-01-9	Chrysene	ND	4.9	0.49	ug/l	

ND = Not detected MDL - Method Detection Limit
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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-04-012511		
Lab Sample ID:	F79608-5	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	4.9	0.49	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	4.9	0.52	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	4.9	0.52	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	4.9	0.49	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	4.9	0.97	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	4.9	0.49	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	4.9	0.97	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	4.9	0.97	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	4.9	0.49	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	4.9	0.49	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	9.7	0.97	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	0.50	ug/l	
132-64-9	Dibenzofuran	ND	4.9	0.49	ug/l	
84-74-2	Di-n-butyl phthalate	ND	4.9	0.84	ug/l	
117-84-0	Di-n-octyl phthalate	ND	4.9	1.1	ug/l	
84-66-2	Diethyl phthalate	ND	4.9	1.1	ug/l	
131-11-3	Dimethyl phthalate	ND	4.9	0.96	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	4.9	1.1	ug/l	
206-44-0	Fluoranthene	ND	4.9	0.49	ug/l	
86-73-7	Fluorene	ND	4.9	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	4.9	0.54	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.9	0.97	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	9.7	1.8	ug/l	
67-72-1	Hexachloroethane	ND	4.9	0.97	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	0.49	ug/l	
78-59-1	Isophorone	ND	4.9	0.49	ug/l	
90-12-0	1-Methylnaphthalene	2.2	4.9	0.49	ug/l	J
91-57-6	2-Methylnaphthalene	ND	4.9	0.55	ug/l	
88-74-4	2-Nitroaniline	ND	4.9	0.49	ug/l	
99-09-2	3-Nitroaniline	ND	4.9	0.49	ug/l	
100-01-6	4-Nitroaniline	ND	4.9	0.49	ug/l	
91-20-3	Naphthalene	ND	4.9	0.78	ug/l	
98-95-3	Nitrobenzene	ND	4.9	0.57	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	4.9	2.3	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	4.9	0.49	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.9	0.97	ug/l	
85-01-8	Phenanthrene	ND	4.9	0.49	ug/l	
129-00-0	Pyrene	ND	4.9	0.49	ug/l	
110-86-1	Pyridine	ND	9.7	1.6	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	4.9	0.49	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-04-012511		
Lab Sample ID:	F79608-5	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	42%		14-62%
4165-62-2	Phenol-d5	36%		10-40%
118-79-6	2,4,6-Tribromophenol	79%		33-118%
4165-60-0	Nitrobenzene-d5	69%		42-108%
321-60-8	2-Fluorobiphenyl	71%		40-106%
1718-51-0	Terphenyl-d14	67%		39-121%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-04-012511		
Lab Sample ID:	F79608-5	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8015C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD102847.D	1	02/03/11	WV	n/a	n/a	GCD4222
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	0.128	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	108%		57-129%
98-08-8	aaa-Trifluorotoluene	91%		58-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-04-012511		
Lab Sample ID:	F79608-5	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF38541.D	1	02/01/11	FEA	01/28/11	OP35874	GZF1607
Run #2							

	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	0.149	0.24	0.097	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	79%		42-114%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-04-012511		
Lab Sample ID:	F79608-5	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	7.8 B	10	2.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	21.4 B	200	5.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	5.0 U	50	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/01/11	02/01/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	10 U	50	10	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8683
(2) Instrument QC Batch: MA8696
(3) Instrument QC Batch: MA8700
(4) Prep QC Batch: MP19901
(5) Prep QC Batch: MP19932

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW27-04-012511		
Lab Sample ID:	F79608-5	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	28300	10000	1000	mg/l	100	01/31/11 12:00	SJL	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW27-04-012511		
Lab Sample ID:	F79608-5F	**Date Sampled:**	01/25/11
Matrix:	AQ - Groundwater Filtered	**Date Received:**	01/27/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.0 U	10	2.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	20.5 B	200	5.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	5.0 U	50	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/02/11	02/02/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	10 U	50	10	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8687
(2) Instrument QC Batch: MA8696
(3) Instrument QC Batch: MA8700
(4) Prep QC Batch: MP19909
(5) Prep QC Batch: MP19933

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW27-05-012511		
Lab Sample ID:	F79608-6	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J062866.D	10	02/04/11	MM	n/a	n/a	VJ3483
Run #2	J062897.D	10	02/07/11	MM	n/a	n/a	VJ3485

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	250	100	ug/l	
75-05-8	Acetonitrile	ND	200	50	ug/l	
107-02-8	Acrolein	ND	200	50	ug/l	
107-13-1	Acrylonitrile	ND	100	30	ug/l	
107-05-1	Allyl chloride	ND	20	3.0	ug/l	
71-43-2	Benzene	776	10	2.0	ug/l	
100-44-7	Benzyl Chloride	ND	20	5.0	ug/l	
108-86-1	Bromobenzene	ND	10	2.5	ug/l	
74-97-5	Bromochloromethane	ND	10	2.2	ug/l	
75-27-4	Bromodichloromethane	ND	10	2.0	ug/l	
75-25-2	Bromoform	ND	10	2.0	ug/l	
104-51-8	n-Butylbenzene	ND	10	2.6	ug/l	
135-98-8	sec-Butylbenzene	3.0	10	2.2	ug/l	J
98-06-6	tert-Butylbenzene	ND	10	2.7	ug/l	
108-90-7	Chlorobenzene	ND	10	2.0	ug/l	
75-00-3	Chloroethane	ND	20	5.0	ug/l	
67-66-3	Chloroform	ND	10	2.2	ug/l	
544-10-5	1-Chlorohexane	ND	20	2.5	ug/l	
95-49-8	o-Chlorotoluene	ND	10	2.2	ug/l	
106-43-4	p-Chlorotoluene	ND	10	2.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	50	12	ug/l	
75-15-0	Carbon disulfide	ND	20	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	10	2.5	ug/l	
75-34-3	1,1-Dichloroethane	ND	10	2.5	ug/l	
75-35-4	1,1-Dichloroethylene	ND	10	2.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	10	2.8	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	20	5.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	10	3.7	ug/l	
107-06-2	1,2-Dichloroethane	ND	10	2.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	10	2.5	ug/l	
142-28-9	1,3-Dichloropropane	ND	10	2.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	10	4.4	ug/l	

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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-05-012511		
Lab Sample ID:	F79608-6	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	10	2.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	20	5.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	10	2.6	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	10	2.0	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	100	10	ug/l	
541-73-1	m-Dichlorobenzene	ND	10	2.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	10	2.5	ug/l	
106-46-7	p-Dichlorobenzene	ND	10	2.3	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	10	3.5	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	10	2.0	ug/l	
100-41-4	Ethylbenzene	41.0	10	2.0	ug/l	
97-63-2	Ethyl methacrylate	ND	50	10	ug/l	
76-13-1	Freon 113	ND	10	4.7	ug/l	
591-78-6	2-Hexanone	ND	100	40	ug/l	
87-68-3	Hexachlorobutadiene	ND [a]	20	8.0	ug/l	
110-54-3	Hexane	ND	20	5.9	ug/l	
98-82-8	Isopropylbenzene	9.1	10	2.0	ug/l	J
99-87-6	p-Isopropyltoluene	8.4	10	2.1	ug/l	J
108-10-1	4-Methyl-2-pentanone	ND	50	20	ug/l	
126-98-7	Methacrylonitrile	ND	200	50	ug/l	
74-83-9	Methyl bromide	ND	20	5.0	ug/l	
74-87-3	Methyl chloride	ND	20	5.0	ug/l	
74-88-4	Methyl iodide	ND	10	2.0	ug/l	
80-62-6	Methyl methacrylate	ND	50	10	ug/l	
74-95-3	Methylene bromide	ND	20	2.5	ug/l	
75-09-2	Methylene chloride	ND	50	20	ug/l	
78-93-3	Methyl ethyl ketone	ND	50	20	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	10	3.4	ug/l	
91-20-3	Naphthalene	48.5 [a]	50	10	ug/l	J
76-01-7	Pentachloroethane	ND	100	20	ug/l	
107-12-0	Propionitrile	ND	200	50	ug/l	
103-65-1	n-Propylbenzene	4.3	10	2.0	ug/l	J
100-42-5	Styrene	ND	10	2.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	10	2.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	10	2.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	2.3	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	10	2.2	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND [a]	10	5.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	20	3.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND [a]	10	5.0	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-05-012511		
Lab Sample ID:	F79608-6	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	255	20	2.7	ug/l	
108-67-8	1,3,5-Trimethylbenzene	91.6	20	2.1	ug/l	
127-18-4	Tetrachloroethylene	ND	10	2.5	ug/l	
108-88-3	Toluene	104	10	2.0	ug/l	
79-01-6	Trichloroethylene	ND	10	2.6	ug/l	
75-69-4	Trichlorofluoromethane	ND	20	5.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	100	20	ug/l	
75-01-4	Vinyl chloride	ND	10	2.2	ug/l	
108-05-4	Vinyl Acetate	ND	100	20	ug/l	
	m,p-Xylene	221	20	3.2	ug/l	
95-47-6	o-Xylene	376	10	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%	99%	87-116%
17060-07-0	1,2-Dichloroethane-D4	101%	95%	76-127%
2037-26-5	Toluene-D8	97%	96%	86-112%
460-00-4	4-Bromofluorobenzene	101%	99%	84-120%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-05-012511		
Lab Sample ID:	F79608-6	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L049666.D	1	02/03/11	NAF	01/28/11	OP35877	SL2544
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	48	9.5	ug/l	
95-57-8	2-Chlorophenol	ND	4.8	0.48	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	4.8	0.48	ug/l	
120-83-2	2,4-Dichlorophenol	ND	4.8	0.48	ug/l	
105-67-9	2,4-Dimethylphenol	7.2	4.8	1.0	ug/l	
51-28-5	2,4-Dinitrophenol	ND	24	9.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	9.5	1.9	ug/l	
95-48-7	2-Methylphenol	5.6	4.8	0.51	ug/l	
	3&4-Methylphenol	7.1	4.8	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	4.8	0.51	ug/l	
100-02-7	4-Nitrophenol	ND	24	4.8	ug/l	
87-86-5	Pentachlorophenol	ND	24	5.1	ug/l	
108-95-2	Phenol	18.1	4.8	0.48	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	4.8	0.48	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.8	0.48	ug/l	
83-32-9	Acenaphthene	ND	4.8	0.48	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.48	ug/l	
62-53-3	Aniline	ND	4.8	0.50	ug/l	
120-12-7	Anthracene	ND	4.8	0.48	ug/l	
92-87-5	Benzidine	ND	24	4.5	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.48	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.48	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.48	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.48	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.48	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	4.8	0.48	ug/l	
85-68-7	Butyl benzyl phthalate	ND	4.8	1.0	ug/l	
100-51-6	Benzyl Alcohol	ND	4.8	0.95	ug/l	
91-58-7	2-Chloronaphthalene	ND	4.8	0.48	ug/l	
106-47-8	4-Chloroaniline	ND	4.8	0.48	ug/l	
86-74-8	Carbazole	ND	4.8	0.48	ug/l	
218-01-9	Chrysene	ND	4.8	0.48	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-05-012511		
Lab Sample ID:	F79608-6	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	4.8	0.48	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	4.8	0.51	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	4.8	0.51	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	4.8	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	4.8	0.95	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	4.8	0.48	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	4.8	0.95	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	4.8	0.95	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	4.8	0.48	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	4.8	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	9.5	0.95	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.50	ug/l	
132-64-9	Dibenzofuran	ND	4.8	0.48	ug/l	
84-74-2	Di-n-butyl phthalate	0.84	4.8	0.83	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	4.8	1.0	ug/l	
84-66-2	Diethyl phthalate	ND	4.8	1.0	ug/l	
131-11-3	Dimethyl phthalate	ND	4.8	0.94	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	4.8	1.0	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.48	ug/l	
86-73-7	Fluorene	ND	4.8	0.48	ug/l	
118-74-1	Hexachlorobenzene	ND	4.8	0.53	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.8	0.95	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	9.5	1.8	ug/l	
67-72-1	Hexachloroethane	ND	4.8	0.95	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	0.48	ug/l	
78-59-1	Isophorone	ND	4.8	0.48	ug/l	
90-12-0	1-Methylnaphthalene	14.1	4.8	0.48	ug/l	
91-57-6	2-Methylnaphthalene	13.9	4.8	0.54	ug/l	
88-74-4	2-Nitroaniline	ND	4.8	0.48	ug/l	
99-09-2	3-Nitroaniline	ND	4.8	0.48	ug/l	
100-01-6	4-Nitroaniline	ND	4.8	0.48	ug/l	
91-20-3	Naphthalene	27.0	4.8	0.76	ug/l	
98-95-3	Nitrobenzene	ND	4.8	0.56	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	4.8	2.3	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	4.8	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.8	0.95	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.48	ug/l	
129-00-0	Pyrene	ND	4.8	0.48	ug/l	
110-86-1	Pyridine	ND	9.5	1.5	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	4.8	0.48	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-05-012511		
Lab Sample ID:	F79608-6	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	32%		14-62%
4165-62-2	Phenol-d5	27%		10-40%
118-79-6	2,4,6-Tribromophenol	82%		33-118%
4165-60-0	Nitrobenzene-d5	63%		42-108%
321-60-8	2-Fluorobiphenyl	66%		40-106%
1718-51-0	Terphenyl-d14	70%		39-121%

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J = Indicates an estimated value
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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-05-012511		
Lab Sample ID:	F79608-6	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8015C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD102877.D	10	02/07/11	WV	n/a	n/a	GCD4223
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	4.38	1.0	0.50	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	111%		57-129%
98-08-8	aaa-Trifluorotoluene	101%		58-120%

ND = Not detected MDL - Method Detection Limit
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E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-05-012511		
Lab Sample ID:	F79608-6	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF38542.D	1	02/01/11	FEA	01/28/11	OP35874	GZF1607
Run #2							

	Initial Volume	Final Volume
Run #1	1020 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	1.16	0.25	0.098	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	86%		42-114%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-05-012511		
Lab Sample ID:	F79608-6	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	9.3 B	10	2.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	30.6 B	200	5.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	6.4 B	50	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.055 B	1.0	0.050	ug/l	1	02/01/11	02/01/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	10 U	50	10	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8683
(2) Instrument QC Batch: MA8696
(3) Instrument QC Batch: MA8700
(4) Prep QC Batch: MP19901
(5) Prep QC Batch: MP19932

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW27-05-012511		
Lab Sample ID:	F79608-6	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/27/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	14000	10000	1000	mg/l	100	01/31/11 12:00	SJL	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW27-05-012511		
Lab Sample ID:	F79608-6F	**Date Sampled:**	01/25/11
Matrix:	AQ - Groundwater Filtered	**Date Received:**	01/27/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	9.0 B	10	2.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	27.5 B	200	5.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	5.0 U	50	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/02/11	02/02/11	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	10 U	50	10	ug/l	5	02/07/11	02/08/11	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	02/07/11	02/07/11	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8687
(2) Instrument QC Batch: MA8696
(3) Instrument QC Batch: MA8700
(4) Prep QC Batch: MP19909
(5) Prep QC Batch: MP19933

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	TB01-012611		
Lab Sample ID:	F79608-7	**Date Sampled:**	01/26/11
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/27/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J062858.D	1	02/04/11	MM	n/a	n/a	VJ3483
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB01-012611		
Lab Sample ID:	F79608-7	**Date Sampled:**	01/26/11
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/27/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB01-012611		
Lab Sample ID:	F79608-7	**Date Sampled:**	01/26/11
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/27/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		87-116%
17060-07-0	1,2-Dichloroethane-D4	101%		76-127%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	101%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB01-012611		
Lab Sample ID:	F79608-7	**Date Sampled:**	01/26/11
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/27/11
Method:	SW846 8015C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD102849.D	1	02/03/11	WV	n/a	n/a	GCD4222
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	87%		57-129%
98-08-8	aaa-Trifluorotoluene	81%		58-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody

Parameter Certification Exceptions

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

The following parameters included in this report are exceptions to NELAC certification.
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Freon 113	76-13-1	**SW846 8260B**	AQ	Certified by SOP MS005

Tetra Tech, Inc.
800 Oak Ridge Turnpike, Ste A-500
Oak Ridge, TN 37830
865/283-9900

CHAIN-OF-CUSTODY F79608

HAFB-SD-27-GW

Laboratory Name: **Accutest Laboratories** Address: **4405 Vineland Rd. Suite C-15 Orlando, FL 32811** Contact: **Sue Bell (813/741-3338)**

Project Name Holloman AFB Project Location **Holloman AFB, New Mexico**

Project No. **SD-27 (Groundwater)** Project Contact **Maureen McMyler** Site Telephone No.

Report to: Maureen McMyler 800 Oak Ridge Turnpike 865/535-2030

Bill to: Sheila Hall, 800 Oak Ridge Turnpike 865/283-9900

Project Manager/Supervisor **Mike Higgins**

Analysis and Method Desired

Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	VOCs by SW8260B	SVOCs by SW8270C	TPH-DRO by 8015BModified	GRO by SW8015B	RCRA 8 Metals by SW6010B/ SW7471A, TOTAL	RCRA 8 Metals by SW6010B/ SW7471A, DISSOLVED	Total Dissolved Solids by 2540 C		Notes
1	MW27-01-012511	1/25/2011	1646		X	GW	SD27-MW-01	13	3	2	2	3	1	1	1		
2	MW27-01-012511-MS	1/25/2011	1646		X	GW	SD27-MW-01	13	3	2	2	3	1	1	1		Matrix Spike
3	MW27-01-012511-MSD	1/25/2011	1646		X	GW	SD27-MW-01	13	3	2	2	3	1	1	1		Matrix Spike Duplicate
4	MW27-02-012511	1/25/2011	1700		X	GW	SD27-MW-02	13	3	2	2	3	1	1	1		
5	MW27-DUP01-012511	1/25/2011	1700		X	GW	SD27-MW-02	13	3	2	2	3	1	1	1		
6	MW27-03-012511	1/25/2011	1640		X	GW	SD27-MW-03	13	3	2	2	3	1	1	1		
7	MW27-04-012511	1/25/2011	1430		X	GW	SD27-MW-04	13	3	2	2	3	1	1	1		
8	MW27-05-012511	1/25/2011	1500		X	GW	SD27-MW-05	13	3	2	2	3	1	1	1		
9	TB01-012611	1/26/2011	1130		X	BW	TRIP BLANK	4	2			2					All VOCs in Cooler 1

Transfers Relinquished By (Signature)	Date/Time	Transfers Accepted By (Signature)	Date/Time
Maureen H Tony	1/26/11 1146	F.I	
FX		J. Lorne (ACSI)	1-27-11 09:00
		Laboratory	

Special Instructions:
Dissolved Metals: Lab to filter and preserve

FedEx Airbill No.:

Sampler's Signature

TAT: ____ Standard ____ Rush Due: _____ Seals Intact? ____ Y ____ N Received Good Condition ____ Y ____ N ____ Cold

3.6 3.8 3.0 2.8 3.0

4.2

4

F79608: Chain of Customy
Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F79608 CLIENT: TETRA TECH PROJECT: HOLLOMAN AFB

DATE/TIME RECEIVED: _____ {MM/DD/YY 24:00} NIMBER OF COOLERS RECEIVED: 5

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: _____

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET
- [ ] WET ICE PRESENT

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID_____ CORR. FACTOR_____
- [ ] OBSERVED TEMPS: 3.8 4.0 3.2 3.0 3.2
- [ ] CORRECTED TEMPS: 3.6 3.8 3.0 2.8 3.0

SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS: NO LABELS ON VIALS ID ON BAG

TECHNICIAN SIGNATURE/DATE JFoul 1-27-11 REVIEWER SIGNATURE/DATE ET 01/27/11

NF 12/10 receipt confirmation 122910.xls

4.2

4

F79608: Chain of Custody

Page 2 of 2

Southeast ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3482-MB	J062820.D	1	02/03/11	MM	n/a	n/a	VJ3482

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79608-1, F79608-2, F79608-3

CAS No.	Compound	Result	RL	MDL	Units	Q
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	104%	87-116%
17060-07-0	1,2-Dichloroethane-D4	101%	76-127%
2037-26-5	Toluene-D8	96%	86-112%
460-00-4	4-Bromofluorobenzene	100%	84-120%

Method Blank Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3483-MB	J062850.D	1	02/04/11	MM	n/a	n/a	VJ3483

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6, F79608-7

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	

Method Blank Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3483-MB	J062850.D	1	02/04/11	MM	n/a	n/a	VJ3483

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6, F79608-7

CAS No.	Compound	Result	RL	MDL	Units	Q
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.69	1.0	0.50	ug/l	J
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

Method Blank Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3483-MB	J062850.D	1	02/04/11	MM	n/a	n/a	VJ3483

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6, F79608-7

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	105%	87-116%
17060-07-0	1,2-Dichloroethane-D4	102%	76-127%
2037-26-5	Toluene-D8	96%	86-112%
460-00-4	4-Bromofluorobenzene	99%	84-120%

Method Blank Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3485-MB	J062894.D	1	02/07/11	MM	n/a	n/a	VJ3485

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79608-6

CAS No.	Compound	Result	RL	MDL	Units	Q
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	104%	87-116%
17060-07-0	1,2-Dichloroethane-D4	97%	76-127%
2037-26-5	Toluene-D8	94%	86-112%
460-00-4	4-Bromofluorobenzene	101%	84-120%

Blank Spike Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3482-BS	J062818.D	1	02/03/11	MM	n/a	n/a	VJ3482

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79608-1, F79608-2, F79608-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-09-2	Methylene chloride	25	23.4	94	69-125
91-20-3	Naphthalene	25	26.4	106	59-125

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	87-116%
17060-07-0	1,2-Dichloroethane-D4	101%	76-127%
2037-26-5	Toluene-D8	98%	86-112%
460-00-4	4-Bromofluorobenzene	103%	84-120%

Blank Spike Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3483-BS	J062849.D	1	02/04/11	MM	n/a	n/a	VJ3483

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6, F79608-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	108	86	59-134
75-05-8	Acetonitrile	250	226	90	57-123
107-02-8	Acrolein	125	135	108	33-157
107-13-1	Acrylonitrile	125	134	107	62-124
107-05-1	Allyl chloride	25	24.4	98	48-136
71-43-2	Benzene	25	25.6	102	83-124
100-44-7	Benzyl Chloride	25	23.1	92	61-118
108-86-1	Bromobenzene	25	26.4	106	83-115
74-97-5	Bromochloromethane	25	26.4	106	78-112
75-27-4	Bromodichloromethane	25	27.0	108	76-116
75-25-2	Bromoform	25	23.3	93	68-128
104-51-8	n-Butylbenzene	25	27.0	108	84-124
135-98-8	sec-Butylbenzene	25	27.7	111	86-127
98-06-6	tert-Butylbenzene	25	27.6	110	83-126
108-90-7	Chlorobenzene	25	25.9	104	87-115
75-00-3	Chloroethane	25	27.4	110	54-166
67-66-3	Chloroform	25	28.2	113	85-123
544-10-5	1-Chlorohexane	25	26.7	107	87-128
95-49-8	o-Chlorotoluene	25	27.1	108	84-121
106-43-4	p-Chlorotoluene	25	26.9	108	84-120
110-75-8	2-Chloroethyl vinyl ether	125	122	98	63-125
75-15-0	Carbon disulfide	25	25.8	103	67-147
56-23-5	Carbon tetrachloride	25	30.3	121	74-139
75-34-3	1,1-Dichloroethane	25	27.1	108	82-127
75-35-4	1,1-Dichloroethylene	25	24.9	100	75-133
563-58-6	1,1-Dichloropropene	25	30.7	123	87-127
96-12-8	1,2-Dibromo-3-chloropropane	25	22.9	92	61-118
106-93-4	1,2-Dibromoethane	25	25.5	102	80-115
107-06-2	1,2-Dichloroethane	25	25.6	102	76-122
78-87-5	1,2-Dichloropropane	25	26.5	106	81-120
142-28-9	1,3-Dichloropropane	25	25.6	102	81-113
594-20-7	2,2-Dichloropropane	25	29.5	118	77-138
124-48-1	Dibromochloromethane	25	26.4	106	74-116
75-71-8	Dichlorodifluoromethane	25	42.5	170*	34-158
156-59-2	cis-1,2-Dichloroethylene	25	27.3	109	81-114
10061-01-5	cis-1,3-Dichloropropene	25	27.6	110	83-119

Blank Spike Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3483-BS	J062849.D	1	02/04/11	MM	n/a	n/a	VJ3483

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6, F79608-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
1476-11-5	cis-1,4-Dichloro-2-Butene	25	15.7	63	41-130
541-73-1	m-Dichlorobenzene	25	25.4	102	86-115
95-50-1	o-Dichlorobenzene	25	26.1	104	85-115
106-46-7	p-Dichlorobenzene	25	25.2	101	87-113
156-60-5	trans-1,2-Dichloroethylene	25	26.3	105	82-126
10061-02-6	trans-1,3-Dichloropropene	25	28.3	113	87-123
100-41-4	Ethylbenzene	25	26.1	104	87-118
97-63-2	Ethyl methacrylate	25	25.1	100	68-110
76-13-1	Freon 113	25	28.8	115	74-139
591-78-6	2-Hexanone	125	115	92	58-125
87-68-3	Hexachlorobutadiene	25	28.2	113	71-133
110-54-3	Hexane	25	29.9	120	71-134
98-82-8	Isopropylbenzene	25	30.4	122	87-131
99-87-6	p-Isopropyltoluene	25	28.4	114	83-125
108-10-1	4-Methyl-2-pentanone	125	113	90	62-125
126-98-7	Methacrylonitrile	250	223	89	62-133
74-83-9	Methyl bromide	25	27.7	111	55-151
74-87-3	Methyl chloride	25	31.3	125	55-173
74-88-4	Methyl iodide	25	26.8	107	72-125
80-62-6	Methyl methacrylate	25	23.5	94	63-115
74-95-3	Methylene bromide	25	25.7	103	81-116
75-09-2	Methylene chloride	25	23.3	93	69-125
78-93-3	Methyl ethyl ketone	125	107	86	61-127
1634-04-4	Methyl Tert Butyl Ether	25	24.9	100	75-116
91-20-3	Naphthalene	25	25.7	103	59-125
76-01-7	Pentachloroethane	25	27.0	108	82-111
107-12-0	Propionitrile	250	236	94	69-119
103-65-1	n-Propylbenzene	25	27.9	112	86-125
100-42-5	Styrene	25	28.9	116	78-118
630-20-6	1,1,1,2-Tetrachloroethane	25	25.7	103	81-119
71-55-6	1,1,1-Trichloroethane	25	29.7	119	79-133
79-34-5	1,1,2,2-Tetrachloroethane	25	24.1	96	71-120
79-00-5	1,1,2-Trichloroethane	25	25.0	100	80-114
87-61-6	1,2,3-Trichlorobenzene	25	25.0	100	64-126
96-18-4	1,2,3-Trichloropropane	25	22.0	88	77-115
120-82-1	1,2,4-Trichlorobenzene	25	26.8	107	68-123

Blank Spike Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3483-BS	J062849.D	1	02/04/11	MM	n/a	n/a	VJ3483

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6, F79608-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-63-6	1,2,4-Trimethylbenzene	25	26.6	106	82-120
108-67-8	1,3,5-Trimethylbenzene	25	29.4	118	83-123
127-18-4	Tetrachloroethylene	25	29.1	116	80-131
108-88-3	Toluene	25	26.0	104	86-116
79-01-6	Trichloroethylene	25	30.5	122	85-124
75-69-4	Trichlorofluoromethane	25	29.6	118	66-156
110-57-6	Trans-1,4-Dichloro-2-Butene	25	16.9	68	51-137
75-01-4	Vinyl chloride	25	28.9	116	57-153
108-05-4	Vinyl Acetate	125	154	123	38-159
	m,p-Xylene	50	53.0	106	86-121
95-47-6	o-Xylene	25	26.0	104	83-121

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	87-116%
17060-07-0	1,2-Dichloroethane-D4	102%	76-127%
2037-26-5	Toluene-D8	99%	86-112%
460-00-4	4-Bromofluorobenzene	101%	84-120%

Blank Spike Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3485-BS	J062895.D	1	02/07/11	MM	n/a	n/a	VJ3485

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79608-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
87-68-3	Hexachlorobutadiene	25	29.0	116	71-133
91-20-3	Naphthalene	25	24.6	98	59-125
87-61-6	1,2,3-Trichlorobenzene	25	24.7	99	64-126
120-82-1	1,2,4-Trichlorobenzene	25	27.2	109	68-123

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	87-116%
17060-07-0	1,2-Dichloroethane-D4	99%	76-127%
2037-26-5	Toluene-D8	97%	86-112%
460-00-4	4-Bromofluorobenzene	103%	84-120%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79608-1MS	J062824.D	1	02/03/11	MM	n/a	n/a	VJ3482
F79608-1MSD	J062825.D	1	02/03/11	MM	n/a	n/a	VJ3482
F79608-1 [a]	J062823.D	1	02/03/11	MM	n/a	n/a	VJ3482

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79608-1, F79608-2, F79608-3

CAS No.	Compound	F79608-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
75-09-2	Methylene chloride	ND		25	25.9	104	25.4	102	2	69-125/11
91-20-3	Naphthalene	ND		25	25.2	101	27.7	111	9	59-125/15

CAS No.	Surrogate Recoveries	MS	MSD	F79608-1	Limits
1868-53-7	Dibromofluoromethane	99%	98%	104%	87-116%
17060-07-0	1,2-Dichloroethane-D4	105%	101%	105%	76-127%
2037-26-5	Toluene-D8	96%	99%	94%	86-112%
460-00-4	4-Bromofluorobenzene	96%	99%	97%	84-120%

(a) Confirmation run.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79653-5MS	J062864.D	1	02/04/11	MM	n/a	n/a	VJ3483
F79653-5MSD	J062865.D	1	02/04/11	MM	n/a	n/a	VJ3483
F79653-5	J062855.D	1	02/04/11	MM	n/a	n/a	VJ3483

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6, F79608-7

CAS No.	Compound	F79653-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		125	60.6	48*	60.5	48*	0	59-134/14
75-05-8	Acetonitrile	ND		250	194	78	201	80	4	57-123/15
107-02-8	Acrolein	ND		125	114	91	105	84	8	33-157/21
107-13-1	Acrylonitrile	ND		125	129	103	117	94	10	62-124/13
107-05-1	Allyl chloride	ND		25	18.0	72	15.7	63	14*	48-136/13
71-43-2	Benzene	ND		25	26.8	107	26.1	104	3	83-124/11
100-44-7	Benzyl Chloride	ND		25	21.6	86	20.3	81	6	61-118/12
108-86-1	Bromobenzene	ND		25	27.8	111	27.7	111	0	83-115/10
74-97-5	Bromochloromethane	ND		25	27.8	111	26.6	106	4	78-112/10
75-27-4	Bromodichloromethane	ND		25	28.2	113	25.9	104	9	76-116/10
75-25-2	Bromoform	ND		25	22.1	88	20.4	82	8	68-128/11
104-51-8	n-Butylbenzene	ND		25	26.2	105	26.8	107	2	84-124/10
135-98-8	sec-Butylbenzene	ND		25	27.6	110	28.3	113	3	86-127/10
98-06-6	tert-Butylbenzene	ND		25	28.3	113	29.0	116	2	83-126/10
108-90-7	Chlorobenzene	ND		25	26.8	107	26.7	107	0	87-115/9
75-00-3	Chloroethane	ND		25	31.9	128	31.5	126	1	54-166/20
67-66-3	Chloroform	1.5		25	31.2	119	30.2	115	3	85-123/10
544-10-5	1-Chlorohexane	ND		25	27.2	109	26.6	106	2	87-128/10
95-49-8	o-Chlorotoluene	ND		25	27.4	110	28.0	112	2	84-121/10
106-43-4	p-Chlorotoluene	ND		25	27.2	109	27.7	111	2	84-120/10
110-75-8	2-Chloroethyl vinyl ether	ND		125	ND	0*	ND	0*	nc	63-125/24
75-15-0	Carbon disulfide	ND		25	22.2	89	19.1	76	15*	67-147/12
56-23-5	Carbon tetrachloride	2.9		25	34.8	128	31.3	114	11	74-139/13
75-34-3	1,1-Dichloroethane	ND		25	27.7	111	27.0	108	3	82-127/10
75-35-4	1,1-Dichloroethylene	ND		25	26.2	105	25.8	103	2	75-133/13
563-58-6	1,1-Dichloropropene	ND		25	31.7	127	31.0	124	2	87-127/10
96-12-8	1,2-Dibromo-3-chloropropane	ND		25	23.8	95	23.9	96	0	61-118/15
106-93-4	1,2-Dibromoethane	ND		25	26.5	106	26.7	107	1	80-115/10
107-06-2	1,2-Dichloroethane	ND		25	27.5	110	27.1	108	1	76-122/11
78-87-5	1,2-Dichloropropane	ND		25	27.7	111	27.5	110	1	81-120/11
142-28-9	1,3-Dichloropropane	ND		25	27.0	108	27.1	108	0	81-113/11
594-20-7	2,2-Dichloropropane	ND		25	31.5	126	30.0	120	5	77-138/12
124-48-1	Dibromochloromethane	ND		25	26.5	106	24.4	98	8	74-116/11
75-71-8	Dichlorodifluoromethane	ND		25	40.4	162*	40.3	161*	0	34-158/22
156-59-2	cis-1,2-Dichloroethylene	ND		25	28.5	114	27.6	110	3	81-114/10
10061-01-5	cis-1,3-Dichloropropene	ND		25	24.5	98	22.8	91	7	83-119/10

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79653-5MS	J062864.D	1	02/04/11	MM	n/a	n/a	VJ3483
F79653-5MSD	J062865.D	1	02/04/11	MM	n/a	n/a	VJ3483
F79653-5	J062855.D	1	02/04/11	MM	n/a	n/a	VJ3483

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6, F79608-7

CAS No.	Compound	F79653-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1476-11-5	cis-1,4-Dichloro-2-Butene	ND		25	ND	0*	1.4	6*	200*	41-130/33
541-73-1	m-Dichlorobenzene	ND		25	25.9	104	26.1	104	1	86-115/9
95-50-1	o-Dichlorobenzene	ND		25	26.8	107	27.2	109	1	85-115/9
106-46-7	p-Dichlorobenzene	ND		25	25.7	103	25.6	102	0	87-113/10
156-60-5	trans-1,2-Dichloroethylene	ND		25	27.5	110	25.7	103	7	82-126/10
10061-02-6	trans-1,3-Dichloropropene	ND		25	24.3	97	22.9	92	6	87-123/10
100-41-4	Ethylbenzene	ND		25	27.0	108	27.0	108	0	87-118/10
97-63-2	Ethyl methacrylate	ND		25	28.9	116*	28.0	112*	3	68-110/11
76-13-1	Freon 113	ND		25	29.5	118	28.3	113	4	74-139/13
591-78-6	2-Hexanone	ND		125	110	88	114	91	4	58-125/14
87-68-3	Hexachlorobutadiene	ND		25	27.1	108	29.1	116	7	71-133/12
110-54-3	Hexane	ND		25	30.3	121	28.3	113	7	71-134/11
98-82-8	Isopropylbenzene	ND		25	31.5	126	31.4	126	0	87-131/10
99-87-6	p-Isopropyltoluene	ND		25	28.4	114	28.7	115	1	83-125/9
108-10-1	4-Methyl-2-pentanone	ND		125	133	106	136	109	2	62-125/13
126-98-7	Methacrylonitrile	ND		250	226	90	226	90	0	62-133/17
74-83-9	Methyl bromide	ND		25	30.1	120	28.0	112	7	55-151/21
74-87-3	Methyl chloride	ND		25	30.8	123	32.3	129	5	55-173/22
74-88-4	Methyl iodide	ND		25	29.1	116	27.4	110	6	72-125/11
80-62-6	Methyl methacrylate	ND		25	26.0	104	25.2	101	3	63-115/10
74-95-3	Methylene bromide	ND		25	26.9	108	27.1	108	1	81-116/10
75-09-2	Methylene chloride	ND		25	23.7	95	23.1	92	3	69-125/11
78-93-3	Methyl ethyl ketone	ND		125	84.5	68	86.4	69	2	61-127/13
1634-04-4	Methyl Tert Butyl Ether	ND		25	28.2	113	27.8	111	1	75-116/10
91-20-3	Naphthalene	ND		25	28.2	113	29.0	116	3	59-125/15
76-01-7	Pentachloroethane	ND		25	26.9	108	25.2	101	7	82-111/8
107-12-0	Propionitrile	ND		250	237	95	244	98	3	69-119/12
103-65-1	n-Propylbenzene	ND		25	28.0	112	27.9	112	0	86-125/10
100-42-5	Styrene	ND		25	26.1	104	22.0	88	17*	78-118/11
630-20-6	1,1,1,2-Tetrachloroethane	ND		25	27.1	108	26.3	105	3	81-119/10
71-55-6	1,1,1-Trichloroethane	ND		25	31.6	126	31.1	124	2	79-133/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		25	24.9	100	25.1	100	1	71-120/11
79-00-5	1,1,2-Trichloroethane	ND		25	26.2	105	26.6	106	2	80-114/11
87-61-6	1,2,3-Trichlorobenzene	ND		25	23.3	93	26.5	106	13	64-126/16
96-18-4	1,2,3-Trichloropropane	ND		25	23.9	96	24.7	99	3	77-115/12
120-82-1	1,2,4-Trichlorobenzene	ND		25	25.1	100	28.2	113	12*	68-123/11

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79653-5MS	J062864.D	1	02/04/11	MM	n/a	n/a	VJ3483
F79653-5MSD	J062865.D	1	02/04/11	MM	n/a	n/a	VJ3483
F79653-5	J062855.D	1	02/04/11	MM	n/a	n/a	VJ3483

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6, F79608-7

CAS No.	Compound	F79653-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-63-6	1,2,4-Trimethylbenzene	ND		25	27.0	108	25.9	104	4	82-120/10
108-67-8	1,3,5-Trimethylbenzene	ND		25	29.7	119	30.2	121	2	83-123/10
127-18-4	Tetrachloroethylene	ND		25	30.6	122	29.8	119	3	80-131/12
108-88-3	Toluene	ND		25	27.0	108	27.0	108	0	86-116/10
79-01-6	Trichloroethylene	9.3		25	40.2	124	40.9	126*	2	85-124/10
75-69-4	Trichlorofluoromethane	ND		25	30.2	121	28.9	116	4	66-156/15
110-57-6	Trans-1,4-Dichloro-2-Butene	ND		25	ND	0*	2.2	9*	200*	51-137/24
75-01-4	Vinyl chloride	ND		25	29.4	118	29.2	117	1	57-153/22
108-05-4	Vinyl Acetate	ND		125	149	119	146	117	2	38-159/11
	m,p-Xylene	ND		50	55.2	110	55.1	110	0	86-121/10
95-47-6	o-Xylene	ND		25	27.1	108	26.6	106	2	83-121/10

CAS No.	Surrogate Recoveries	MS	MSD	F79653-5	Limits
1868-53-7	Dibromofluoromethane	103%	100%	106%	87-116%
17060-07-0	1,2-Dichloroethane-D4	106%	103%	102%	76-127%
2037-26-5	Toluene-D8	99%	100%	95%	86-112%
460-00-4	4-Bromofluorobenzene	100%	100%	100%	84-120%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79815-1MS	J062899.D	1	02/07/11	MM	n/a	n/a	VJ3485
F79815-1MSD	J062900.D	1	02/07/11	MM	n/a	n/a	VJ3485
F79815-1	J062898.D	1	02/07/11	MM	n/a	n/a	VJ3485

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79608-6

CAS No.	Compound	F79815-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
87-68-3	Hexachlorobutadiene	ND		25	26.5	106	27.4	110	3	71-133/12
91-20-3	Naphthalene	ND		25	23.4	94	25.9	104	10	59-125/15
87-61-6	1,2,3-Trichlorobenzene	ND		25	22.6	90	25.4	102	12	64-126/16
120-82-1	1,2,4-Trichlorobenzene	ND		25	25.5	102	27.1	108	6	68-123/11

CAS No.	Surrogate Recoveries	MS	MSD	F79815-1	Limits
1868-53-7	Dibromofluoromethane	100%	100%	104%	87-116%
17060-07-0	1,2-Dichloroethane-D4	101%	100%	99%	76-127%
2037-26-5	Toluene-D8	97%	99%	96%	86-112%
460-00-4	4-Bromofluorobenzene	99%	99%	101%	84-120%

Instrument Performance Check (BFB)

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-BFB
Lab File ID: J062642.D
Instrument ID: GCMSJ
Injection Date: 01/27/11
Injection Time: 08:59

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	31360	27.0		Pass
75	30.0 - 60.0% of mass 95	52645	45.3		Pass
95	Base peak, 100% relative abundance	116250	100.0		Pass
96	5.0 - 9.0% of mass 95	8597	7.40		Pass
173	Less than 2.0% of mass 174	268	0.23	(0.27) [a]	Pass
174	50.0 - 100.0% of mass 95	100946	86.8		Pass
175	5.0 - 9.0% of mass 174	7136	6.14	(7.07) [a]	Pass
176	95.0 - 101.0% of mass 174	97904	84.2	(97.0) [a]	Pass
177	5.0 - 9.0% of mass 176	6666	5.73	(6.81) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VJ3475-IC3475	J062646.D	01/27/11	11:38	02:39	Initial cal 1
VJ3475-IC3475	J062647.D	01/27/11	12:02	03:03	Initial cal 2
VJ3475-IC3475	J062648.D	01/27/11	12:25	03:26	Initial cal 3
VJ3475-ICC3475	J062649.D	01/27/11	13:01	04:02	Initial cal 4
VJ3475-IC3475	J062650.D	01/27/11	13:28	04:29	Initial cal 5
VJ3475-IC3475	J062651.D	01/27/11	13:59	05:00	Initial cal 6
VJ3475-ICV3475	J062652.D	01/27/11	14:31	05:32	Initial cal verification 4

Instrument Performance Check (BFB)

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3482-BFB
Lab File ID: J062816.D
Instrument ID: GCMSJ
Injection Date: 02/03/11
Injection Time: 14:03

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	36642	26.7		Pass
75	30.0 - 60.0% of mass 95	60458	44.0		Pass
95	Base peak, 100% relative abundance	137333	100.0		Pass
96	5.0 - 9.0% of mass 95	9945	7.24		Pass
173	Less than 2.0% of mass 174	711	0.52	(0.64) [a]	Pass
174	50.0 - 100.0% of mass 95	110885	80.7		Pass
175	5.0 - 9.0% of mass 174	8307	6.05	(7.49) [a]	Pass
176	95.0 - 101.0% of mass 174	111122	80.9	(100.2) [a]	Pass
177	5.0 - 9.0% of mass 176	7304	5.32	(6.57) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VJ3482-CC3475	J062817.D	02/03/11	14:35	00:32	Continuing cal 5
VJ3482-BS	J062818.D	02/03/11	15:07	01:04	Blank Spike
VJ3482-MB	J062820.D	02/03/11	15:59	01:56	Method Blank
ZZZZZZ	J062821.D	02/03/11	16:23	02:20	(unrelated sample)
ZZZZZZ	J062822.D	02/03/11	16:46	02:43	(unrelated sample)
F79608-1	J062823.D	02/03/11	17:08	03:05	MW27-01-012511
F79608-1MS	J062824.D	02/03/11	17:31	03:28	Matrix Spike
F79608-1MSD	J062825.D	02/03/11	17:54	03:51	Matrix Spike Duplicate
ZZZZZZ	J062826.D	02/03/11	18:17	04:14	(unrelated sample)
ZZZZZZ	J062827.D	02/03/11	18:40	04:37	(unrelated sample)
ZZZZZZ	J062828.D	02/03/11	19:03	05:00	(unrelated sample)
ZZZZZZ	J062829.D	02/03/11	19:26	05:23	(unrelated sample)
ZZZZZZ	J062830.D	02/03/11	19:49	05:46	(unrelated sample)
ZZZZZZ	J062831.D	02/03/11	20:12	06:09	(unrelated sample)
ZZZZZZ	J062832.D	02/03/11	20:35	06:32	(unrelated sample)
ZZZZZZ	J062833.D	02/03/11	20:58	06:55	(unrelated sample)
ZZZZZZ	J062834.D	02/03/11	21:21	07:18	(unrelated sample)
ZZZZZZ	J062835.D	02/03/11	21:44	07:41	(unrelated sample)
F79608-2	J062839.D	02/03/11	23:17	09:14	MW27-02-012511
F79608-3	J062840.D	02/03/11	23:40	09:37	MW27-DUP01-012511

Instrument Performance Check (BFB)

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3483-BFB
Lab File ID: J062847.D
Instrument ID: GCMSJ
Injection Date: 02/04/11
Injection Time: 09:14

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	27613	22.7		Pass
75	30.0 - 60.0% of mass 95	52930	43.6		Pass
95	Base peak, 100% relative abundance	121434	100.0		Pass
96	5.0 - 9.0% of mass 95	8276	6.82		Pass
173	Less than 2.0% of mass 174	468	0.39	(0.46) [a]	Pass
174	50.0 - 100.0% of mass 95	102512	84.4		Pass
175	5.0 - 9.0% of mass 174	7093	5.84	(6.92) [a]	Pass
176	95.0 - 101.0% of mass 174	99016	81.5	(96.6) [a]	Pass
177	5.0 - 9.0% of mass 176	6914	5.69	(6.98) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VJ3483-CC3475	J062848.D	02/04/11	09:37	00:23	Continuing cal 4
VJ3483-BS	J062849.D	02/04/11	10:11	00:57	Blank Spike
VJ3483-MB	J062850.D	02/04/11	10:34	01:20	Method Blank
F79608-4	J062851.D	02/04/11	10:59	01:45	MW27-03-012511
ZZZZZZ	J062852.D	02/04/11	11:21	02:07	(unrelated sample)
ZZZZZZ	J062853.D	02/04/11	11:44	02:30	(unrelated sample)
ZZZZZZ	J062854.D	02/04/11	12:07	02:53	(unrelated sample)
F79653-5	J062855.D	02/04/11	12:30	03:16	(used for QC only; not part of job F79608)
ZZZZZZ	J062856.D	02/04/11	12:53	03:39	(unrelated sample)
ZZZZZZ	J062857.D	02/04/11	13:16	04:02	(unrelated sample)
F79608-7	J062858.D	02/04/11	13:39	04:25	TB01-012611
F79608-1	J062859.D	02/04/11	14:02	04:48	MW27-01-012511
F79608-5	J062860.D	02/04/11	14:25	05:11	MW27-04-012511
ZZZZZZ	J062861.D	02/04/11	14:48	05:34	(unrelated sample)
F79608-2	J062862.D	02/04/11	15:11	05:57	MW27-02-012511
F79608-3	J062863.D	02/04/11	15:34	06:20	MW27-DUP01-012511
F79653-5MS	J062864.D	02/04/11	15:57	06:43	Matrix Spike
F79653-5MSD	J062865.D	02/04/11	16:20	07:06	Matrix Spike Duplicate
F79608-6	J062866.D	02/04/11	16:43	07:29	MW27-05-012511
ZZZZZZ	J062870.D	02/04/11	18:15	09:01	(unrelated sample)
ZZZZZZ	J062871.D	02/04/11	18:37	09:23	(unrelated sample)
ZZZZZZ	J062872.D	02/04/11	19:01	09:47	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3485-BFB
Lab File ID: J062890.D
Instrument ID: GCMSJ
Injection Date: 02/07/11
Injection Time: 13:31

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	35912	24.7		Pass
75	30.0 - 60.0% of mass 95	61941	42.7		Pass
95	Base peak, 100% relative abundance	145136	100.0		Pass
96	5.0 - 9.0% of mass 95	10279	7.08		Pass
173	Less than 2.0% of mass 174	577	0.40	(0.46) [a]	Pass
174	50.0 - 100.0% of mass 95	124400	85.7		Pass
175	5.0 - 9.0% of mass 174	8566	5.90	(6.89) [a]	Pass
176	95.0 - 101.0% of mass 174	119120	82.1	(95.8) [a]	Pass
177	5.0 - 9.0% of mass 176	7949	5.48	(6.67) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VJ3485-CC3475	J062891.D	02/07/11	13:58	00:27	Continuing cal 4
VJ3485-MB	J062894.D	02/07/11	16:12	02:41	Method Blank
VJ3485-BS	J062895.D	02/07/11	16:34	03:03	Blank Spike
ZZZZZZ	J062896.D	02/07/11	17:14	03:43	(unrelated sample)
F79608-6	J062897.D	02/07/11	17:37	04:06	MW27-05-012511
F79815-1	J062898.D	02/07/11	18:00	04:29	(used for QC only; not part of job F79608)
F79815-1MS	J062899.D	02/07/11	18:23	04:52	Matrix Spike
F79815-1MSD	J062900.D	02/07/11	18:46	05:15	Matrix Spike Duplicate
ZZZZZZ	J062901.D	02/07/11	19:09	05:38	(unrelated sample)
ZZZZZZ	J062902.D	02/07/11	19:32	06:01	(unrelated sample)
ZZZZZZ	J062903.D	02/07/11	19:55	06:24	(unrelated sample)
ZZZZZZ	J062904.D	02/07/11	20:18	06:47	(unrelated sample)
ZZZZZZ	J062905.D	02/07/11	20:41	07:10	(unrelated sample)
ZZZZZZ	J062906.D	02/07/11	21:04	07:33	(unrelated sample)
ZZZZZZ	J062907.D	02/07/11	21:27	07:56	(unrelated sample)
ZZZZZZ	J062908.D	02/07/11	21:50	08:19	(unrelated sample)
ZZZZZZ	J062909.D	02/07/11	22:14	08:43	(unrelated sample)
ZZZZZZ	J062910.D	02/07/11	22:37	09:06	(unrelated sample)
ZZZZZZ	J062911.D	02/07/11	23:00	09:29	(unrelated sample)
ZZZZZZ	J062913.D	02/07/11	23:46	10:15	(unrelated sample)
ZZZZZZ	J062914.D	02/08/11	00:09	10:38	(unrelated sample)
ZZZZZZ	J062917.D	02/08/11	01:19	11:48	(unrelated sample)

Volatile Internal Standard Area Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	VJ3482-CC3475	**Injection Date:**	02/03/11
Lab File ID:	J062817.D	**Injection Time:**	14:35
Instrument ID:	GCMSJ	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Initial Cal [a]	1889885	7.43	1301966	10.50	707616	12.87	169868	5.08
Check Std [b]	2182337	7.43	1503898	10.50	800019	12.87	164288	5.09
Upper Limit [c]	4364674	7.93	3007796	11.00	1600038	13.37	328576	5.59
Lower Limit [d]	1091169	6.93	751949	10.00	400010	12.37	82144	4.59

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
VJ3482-BS	2185940	7.43	1501929	10.50	782719	12.86	177966	5.07
VJ3482-MB	1873782	7.42	1351958	10.50	673496	12.86	158902	5.07
ZZZZZZ	1834181	7.43	1338173	10.50	672930	12.86	143376	5.07
ZZZZZZ	1709629	7.42	1255468	10.50	624339	12.86	138190	5.09
F79608-1 [e]	1599918	7.43	1186898	10.50	601832	12.86	165100	5.08
F79608-1MS	1652534	7.43	1230881	10.50	667603	12.86	148288	5.07
F79608-1MSD	1726015	7.42	1191421	10.50	632836	12.86	149083	5.07
ZZZZZZ	1827283	7.42	1319690	10.50	673777	12.86	155482	5.08
ZZZZZZ	1959867	7.43	1416876	10.50	720247	12.86	166636	5.07
ZZZZZZ	1904788	7.43	1378047	10.50	691849	12.86	164982	5.08
ZZZZZZ	2324333	7.43	1198283	10.50	648666	12.87	181837	5.09
ZZZZZZ	2150924	7.42	1537178	10.50	806036	12.86	196132	5.07
ZZZZZZ	2193216	7.42	1586304	10.50	840834	12.86	187804	5.08
ZZZZZZ	2233001	7.42	1571893	10.50	830776	12.86	203925	5.08
ZZZZZZ	2106268	7.42	1529968	10.50	789292	12.86	175219	5.06
ZZZZZZ	2273064	7.43	1578183	10.50	844271	12.86	202694	5.08
ZZZZZZ	2191827	7.42	1571730	10.50	837717	12.86	211148	5.07
F79608-2	2015984	7.43	1442641	10.50	762807	12.86	180892	5.07
F79608-3	1925133	7.43	1373034	10.50	714324	12.86	176304	5.07

IS 1 = Fluorobenzene
IS 2 = Chlorobenzene-D5
IS 3 = 1,4-Dichlorobenzene-d4
IS 4 = Tert Butyl Alcohol-D10

(a) Initial Cal is: VJ3475-ICC3475 J062649.D 01/27/11 13:01
(b) Check Std Limit = -50 to + 100% of initial cal area.
(c) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(d) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(e) Confirmation run.

Volatile Internal Standard Area Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	VJ3483-CC3475	**Injection Date:**	02/04/11
Lab File ID:	J062848.D	**Injection Time:**	09:37
Instrument ID:	GCMSJ	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Initial Cal [a]	1889885	7.43	1301966	10.50	707616	12.87	169868	5.08
Check Std [b]	2009132	7.43	1350584	10.50	722610	12.86	176961	5.08
Upper Limit [c]	4018264	7.93	2701168	11.00	1445220	13.36	353922	5.58
Lower Limit [d]	1004566	6.93	675292	10.00	361305	12.36	88481	4.58

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
VJ3483-BS	2045735	7.43	1410470	10.50	742003	12.86	182539	5.09
VJ3483-MB	1974151	7.43	1410125	10.50	717338	12.86	170879	5.07
F79608-4	1934226	7.43	1395727	10.50	704810	12.86	207504	5.08
ZZZZZZ	1900523	7.43	1371660	10.50	689322	12.86	140659	5.07
ZZZZZZ	1712893	7.43	1234593	10.50	645336	12.86	322659	5.07
ZZZZZZ	1824469	7.43	1335412	10.50	677444	12.86	390281*	5.08
F79653-5	1840916	7.43	1341499	10.50	680316	12.86	179949	5.08
ZZZZZZ	1683902	7.42	1218563	10.50	610310	12.86	154672	5.08
ZZZZZZ	1767185	7.43	1275311	10.50	629702	12.86	129306	5.08
F79608-7	1653695	7.43	1189725	10.50	586588	12.86	127166	5.08
F79608-1	1616955	7.43	1184500	10.50	591019	12.86	162579	5.09
F79608-5	1568315	7.43	1150940	10.50	590867	12.86	166514	5.09
ZZZZZZ	1894760	7.43	1034054	10.51	533722	12.87	143897	5.09
F79608-2	2040543	7.43	1433430	10.50	763324	12.86	194972	5.08
F79608-3	2054927	7.43	1436275	10.50	770138	12.86	182448	5.08
F79653-5MS	2100130	7.42	1448267	10.50	774566	12.86	207006	5.08
F79653-5MSD	2049847	7.42	1405684	10.50	745805	12.86	197992	5.07
F79608-6	1931262	7.42	1375879	10.50	702972	12.86	163154	5.07
ZZZZZZ	1542316	7.43	1142787	10.50	599624	12.86	358953*	5.07
ZZZZZZ	1638728	7.43	1203873	10.50	616717	12.86	358618*	5.07
ZZZZZZ	1517907	7.43	1099427	10.50	572624	12.86	373136*	5.08

IS 1 = Fluorobenzene
IS 2 = Chlorobenzene-D5
IS 3 = 1,4-Dichlorobenzene-d4
IS 4 = Tert Butyl Alcohol-D10

(a) Initial Cal is: VJ3475-ICC3475 J062649.D 01/27/11 13:01
(b) Check Std Limit = -50 to + 100% of initial cal area.
(c) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(d) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	VJ3485-CC3475	**Injection Date:**	02/07/11
Lab File ID:	J062891.D	**Injection Time:**	13:58
Instrument ID:	GCMSJ	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Initial Cal [a]	1889885	7.43	1301966	10.50	707616	12.87	169868	5.08
Check Std [b]	1791048	7.43	1271444	10.50	663312	12.86	113307	5.09
Upper Limit [c]	3582096	7.93	2542888	11.00	1326624	13.36	226614	5.59
Lower Limit [d]	895524	6.93	635722	10.00	331656	12.36	56654	4.59

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
VJ3485-MB	1777731	7.43	1305026	10.50	642701	12.86	126916	5.09
VJ3485-BS	1711574	7.42	1231555	10.50	639182	12.86	119239	5.07
ZZZZZZ	1780045	7.43	1288499	10.50	626311	12.86	119451	5.09
F79608-6	1664185	7.42	1208955	10.50	609350	12.86	109693	5.07
F79815-1	1654993	7.42	1195143	10.50	595027	12.86	117888	5.07
F79815-1MS	1654001	7.43	1191598	10.50	635540	12.86	123715	5.07
F79815-1MSD	1813869	7.43	1253903	10.50	674390	12.86	142804	5.08
ZZZZZZ	1660492	7.43	1219471	10.50	606773	12.86	123956	5.07
ZZZZZZ	1633731	7.43	1193693	10.50	577256	12.86	120663	5.09
ZZZZZZ	1693776	7.43	1269600	10.50	636740	12.86	123754	5.07
ZZZZZZ	1678991	7.43	1238883	10.50	620591	12.86	131950	5.07
ZZZZZZ	1642894	7.43	1217439	10.50	594816	12.86	132716	5.07
ZZZZZZ	1636149	7.43	1191603	10.50	592866	12.86	129007	5.08
ZZZZZZ	1566678	7.43	1165615	10.50	570411	12.86	124358	5.08
ZZZZZZ	1558932	7.42	1141697	10.50	558495	12.86	119784	5.07
ZZZZZZ	1440529	7.43	1072786	10.50	583714	12.86	140236	5.07
ZZZZZZ	1874329	7.42	1368513	10.50	689698	12.86	176245	5.07
ZZZZZZ	1881493	7.43	1372453	10.50	702235	12.86	174982	5.08
ZZZZZZ	1806055	7.42	1343680	10.50	679874	12.86	164317	5.08
ZZZZZZ	1775552	7.43	1312664	10.50	671122	12.86	162353	5.07
ZZZZZZ	1781138	7.43	1315085	10.50	668836	12.86	162859	5.07

IS 1 = Fluorobenzene
IS 2 = Chlorobenzene-D5
IS 3 = 1,4-Dichlorobenzene-d4
IS 4 = Tert Butyl Alcohol-D10

(a) Initial Cal is: VJ3475-ICC3475 J062649.D 01/27/11 13:01
(b) Check Std Limit = -50 to + 100% of initial cal area.
(c) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(d) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Method: SW846 8260B **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
F79608-1	J062859.D	104.0	103.0	95.0	100.0
F79608-1	J062823.D	104.0	105.0	94.0	97.0
F79608-2	J062862.D	105.0	101.0	97.0	99.0
F79608-2	J062839.D	105.0	101.0	96.0	99.0
F79608-3	J062863.D	104.0	102.0	97.0	98.0
F79608-3	J062840.D	106.0	104.0	97.0	100.0
F79608-4	J062851.D	105.0	104.0	96.0	101.0
F79608-5	J062860.D	105.0	104.0	94.0	98.0
F79608-6	J062897.D	99.0	95.0	96.0	99.0
F79608-6	J062866.D	105.0	101.0	97.0	101.0
F79608-7	J062858.D	104.0	101.0	96.0	101.0
F79608-1MS	J062824.D	99.0	105.0	96.0	96.0
F79608-1MSD	J062825.D	98.0	101.0	99.0	99.0
F79653-5MS	J062864.D	103.0	106.0	99.0	100.0
F79653-5MSD	J062865.D	100.0	103.0	100.0	100.0
F79815-1MS	J062899.D	100.0	101.0	97.0	99.0
F79815-1MSD	J062900.D	100.0	100.0	99.0	99.0
VJ3482-BS	J062818.D	101.0	101.0	98.0	103.0
VJ3482-MB	J062820.D	104.0	101.0	96.0	100.0
VJ3483-BS	J062849.D	102.0	102.0	99.0	101.0
VJ3483-MB	J062850.D	105.0	102.0	96.0	99.0
VJ3485-BS	J062895.D	100.0	99.0	97.0	103.0
VJ3485-MB	J062894.D	104.0	97.0	94.0	101.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	87-116%
S2 = 1,2-Dichloroethane-D4	76-127%
S3 = Toluene-D8	86-112%
S4 = 4-Bromofluorobenzene	84-120%

Initial Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICC3475
Lab FileID: J062649.D


```
                    Response Factor Report  MSVOA6

Method       : C:\MSDCHEM\1\METHODS\8260-JAPP9.M (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Fri Jan 28 10:52:13 2011
Response via : Initial Calibration

Calibration Files
1   =J062646.D   2   =J062647.D   3   =J062648.D   4   =J062649.D
5      =J062650.D    6      =J062651.D

      Compound              1     2     3     4     5     6     Avg    %RSD
-------------------------------------------------------------------------------

1) I   Fluorobenzene         ----------------ISTD---------------------
2)     Dichlorodifluoromet 0.222 0.194 0.249 0.253 0.234 0.234 0.231   9.16
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9992
             Response Ratio = 0.00000 + 0.25217 *A + -0.00967 *A^2

3) P   Chloromethane       0.650 0.479 0.545 0.525 0.460 0.456 0.519  14.15
4) C   Vinyl Chloride      0.344 0.309 0.403 0.394 0.339 0.341 0.355  10.16
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9973
             Response Ratio = 0.00000 + 0.39787 *A + -0.03035 *A^2

5)     Bromomethane        0.259 0.191 0.180 0.156 0.131 0.127 0.174  28.10
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9964
             Response Ratio = 0.00000 + 0.17024 *A + -0.02279 *A^2

6)     Chloroethane        0.177 0.161 0.181 0.163 0.129 0.124 0.156  15.42
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9941
             Response Ratio = 0.00000 + 0.17510 *A + -0.02667 *A^2

7)     Trichlorofluorometh 0.398 0.380 0.462 0.464 0.403 0.390 0.416   8.92
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9985
             Response Ratio = 0.00000 + 0.48043 *A + -0.04661 *A^2

8)     Ethyl Ether         0.262 0.281 0.280 0.281 0.246 0.253 0.267   5.76
9)     1,2-Dichlorotrifluo 0.276 0.252 0.316 0.306 0.273 0.273 0.283   8.40
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9984
             Response Ratio = 0.00000 + 0.30995 *A + -0.01959 *A^2

10) C  1,1-Dichloroethene  0.420 0.419 0.505 0.506 0.461 0.458 0.461   8.36
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9992
             Response Ratio = 0.00000 + 0.51107 *A + -0.02803 *A^2

11)    Freon 113           0.224 0.223 0.269 0.268 0.242 0.238 0.244   8.32
12)    Carbon Disulfide    0.867 0.762 0.893 0.874 0.759 0.748 0.817   8.22
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9982
             Response Ratio = 0.00000 + 0.89802 *A + -0.07863 *A^2

13)    Iodomethane         0.427 0.415 0.476 0.492 0.433 0.445 0.448   6.70
14)    Allyl chloride      0.590 0.659 0.823 0.756 0.727 0.666 0.703  11.67
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9996
             Response Ratio = 0.00000 + 0.83839 *A + -0.08519 *A^2

15)    Methylene Chloride  1.900 0.982 0.763 0.742 0.664 0.661 0.952  50.29
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9987
             Response Ratio = 0.00000 + 0.76414 *A + -0.05472 *A^2

16)    Acetone             0.061 0.047 0.052 0.063 0.051 0.055 0.055  11.45
```

Initial Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICC3475
Lab FileID: J062649.D

17)		Methyl acetate	0.053	0.050	0.047	0.049	0.045	0.047	0.049	5.56
18)		trans-1,2-Dichloroe	0.601	0.558	0.659	0.668	0.618	0.613	0.620	6.46
19)		Hexane	0.403	0.368	0.446	0.442	0.399	0.394	0.409	7.34
20)		Methyl Tert Butyl E	0.914	0.847	0.838	0.880	0.839	0.886	0.867	3.58
21)		Acetonitrile	0.031	0.029	0.030	0.030	0.026	0.027	0.029	6.25
22)		Di-isopropyl ether	1.641	1.657	1.804	1.803	1.641	1.614	1.693	5.10
23)		Chloroprene	1.259	1.322	1.412	1.480	1.332	1.335	1.357	5.74
24)	P	1,1-Dichloroethane	0.746	0.696	0.795	0.818	0.741	0.726	0.754	6.01
25)		Acrylonitrile	0.252	0.264	0.282	0.296	0.266	0.267	0.271	5.74
26)		ETBE	1.345	1.346	1.391	1.411	1.270	1.274	1.340	4.36
27)		Vinyl acetate	0.672	0.713	0.706	0.692	0.583	0.545	0.652	10.84
28)		cis-1,2-Dichloroeth	0.380	0.353	0.401	0.432	0.398	0.403	0.395	6.63
29)		2,2-Dichloropropane	0.413	0.385	0.468	0.514	0.487	0.505	0.462	11.28
30)		Bromochloromethane	0.183	0.185	0.199	0.210	0.194	0.202	0.196	5.16
31)		Cyclohexane	0.694	0.641	0.843	0.827	0.752	0.727	0.747	10.38
32)	C	Chloroform	0.601	0.564	0.627	0.651	0.594	0.593	0.605	4.98
33)		Ethyl acetate	0.494	0.530	0.500	0.484	0.410	0.415	0.472	10.33
34)		Tetrahydrofuran	0.160	0.112	0.099	0.101	0.093	0.094	0.110	23.24

---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9992
Response Ratio = 0.00000 + 0.10092 *A + -0.00401 *A^2

35)	S	Dibromofluoromethan	0.264	0.260	0.252	0.249	0.248	0.247	0.253	2.77
36)		Carbon Tetrachlorid	0.392	0.365	0.462	0.505	0.491	0.510	0.454	13.54
37)		1,1,1-Trichloroetha	0.404	0.380	0.460	0.488	0.470	0.486	0.448	10.14
38)		2-Butanone	0.243	0.218	0.232	0.262	0.211	0.218	0.231	8.31
39)		1,1-Dichloropropene	0.423	0.381	0.492	0.526	0.490	0.492	0.467	11.52
40)		Propionitrile	0.052	0.054	0.051	0.052	0.045	0.045	0.050	7.98
41)		Methacrylonitrile	0.245	0.267	0.258	0.241	0.194	0.178	0.231	15.56

---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9973
Response Ratio = 0.00000 + 0.26682 *A + -0.00454 *A^2

42)		Benzene	1.477	1.328	1.468	1.447	1.202	1.093	1.336	11.91

---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9986
Response Ratio = 0.00000 + 1.58489 *A + -0.24965 *A^2

43)		TAME	0.865	0.845	0.911	0.953	0.858	0.863	0.882	4.66
44)	S	1,2-Dichloroethane-	0.291	0.292	0.296	0.278	0.281	0.292	0.288	2.41
45)		1,2-Dichloroethane	0.507	0.487	0.518	0.541	0.507	0.516	0.513	3.43
46)		Trichloroethene	0.306	0.304	0.368	0.388	0.353	0.345	0.344	9.74
47)		Methylcyclohexane	0.481	0.464	0.621	0.611	0.552	0.529	0.543	12.00

---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9993
Response Ratio = 0.00000 + 0.63959 *A + -0.05628 *A^2

48)		Dibromomethane	0.202	0.206	0.214	0.225	0.208	0.211	0.211	3.77
49)	C	1,2-Dichloropropane	0.442	0.427	0.482	0.488	0.438	0.421	0.449	6.32
50)		Bromodichloromethan	0.412	0.398	0.458	0.491	0.457	0.457	0.445	7.68
51)		Methyl methacrylate	0.314	0.342	0.392	0.402	0.369	0.373	0.365	8.94
52)		2-Chloroethyl vinyl	0.205	0.243	0.251	0.250	0.202	0.189	0.223	12.51
53)		cis-1,3-Dichloropro	0.529	0.543	0.609	0.648	0.585	0.572	0.581	7.55
54)	I	Chlorobenzene-d5	----------ISTD----------							
55)	S	Toluene-d8	1.253	1.254	1.274	1.309	1.363	1.413	1.311	4.95
56)	C	Toluene	1.859	1.796	2.081	2.186	1.986	1.887	1.966	7.50

---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9994
Response Ratio = 0.00000 + 2.26874 *A + -0.19167 *A^2

57)		2-Nitropropane	0.105	0.119	0.136	0.148	0.142	0.147	0.133	13.09
58)		4-Methyl-2-pentanon	0.491	0.543	0.549	0.549	0.466	0.444	0.507	9.20
59)		trans-1,3-Dichlorop	0.617	0.604	0.697	0.756	0.718	0.738	0.688	9.21
60)		Tetrachloroethene	0.485	0.432	0.541	0.573	0.542	0.561	0.522	10.25

Initial Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICC3475
Lab FileID: J062649.D

```
61)      Ethyl methacrylate  0.396 0.487 0.583 0.646 0.608 0.638 0.560  17.58
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9989
               Response Ratio = 0.00000 + 0.59704 *A + 0.01866 *A^2

62)      1,1,2-Trichloroetha 0.374 0.363 0.386 0.409 0.376 0.382 0.382   4.02
63)      Dibromochloromethan 0.428 0.405 0.476 0.537 0.522 0.551 0.486  12.36
64)      1,3-Dichloropropane 0.717 0.726 0.785 0.834 0.775 0.785 0.770   5.59
65)      1,2-Dibromoethane   0.421 0.422 0.452 0.497 0.471 0.490 0.459   7.18
66)      2-hexanone          0.394 0.393 0.448 0.497 0.398 0.388 0.420  10.40
67)      1-Chlorohexane      0.586 0.586 0.802 0.829 0.760 0.737 0.717  14.82
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9993
               Response Ratio = 0.00000 + 0.84643 *A + -0.05540 *A^2

68) C    Ethylbenzene        2.084 1.930 2.246 2.219 1.887 1.731 2.016  10.03
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9990
               Response Ratio = 0.00000 + 2.41122 *A + -0.34492 *A^2

69) P    Chlorobenzene       1.331 1.182 1.362 1.394 1.195 1.130 1.266   8.68
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9986
               Response Ratio = 0.00000 + 1.46506 *A + -0.17071 *A^2

70)      1,1,1,2-Tetrachloro 0.351 0.403 0.483 0.522 0.504 0.507 0.462  14.84
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9996
               Response Ratio = 0.00000 + 0.50671 *A

71)      m,p-Xylene          1.469 1.446 1.681 1.617 1.301 1.161 1.446  13.39
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9979
               Response Ratio = 0.00000 + 1.80374 *A + -0.16335 *A^2

72)      o-Xylene            1.354 1.458 1.806 1.847 1.646 1.551 1.610  12.03
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9993
               Response Ratio = 0.00000 + 1.94248 *A + -0.19753 *A^2

73)      Styrene             1.075 1.222 1.506 1.583 1.408 1.338 1.355  13.76
74) P    Bromoform           0.236 0.269 0.308 0.357 0.340 0.367 0.313  16.63
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9986
               Response Ratio = 0.00000 + 0.31546 *A + 0.02462 *A^2

75)      Isopropylbenzene    1.459 1.507 1.971 1.989 1.766 1.653 1.724  13.12
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9993
               Response Ratio = 0.00000 + 2.11041 *A + -0.23065 *A^2


76) I    1,4-Dichlorobenzene-d ----------------ISTD---------------------
77) S    4-Bromofluorobenzen 0.946 0.959 0.939 0.939 0.988 1.004 0.962   2.85
78)      cis-1,4-Dichloro-2- 0.081 0.153 0.198 0.297 0.288 0.320 0.223  42.45
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9968
               Response Ratio = 0.00000 + 0.23374 *A + 0.04281 *A^2

79)      n-Propylbenzene     4.189 4.180 4.874 4.528 3.708 3.352 4.139  13.24
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9981
               Response Ratio = 0.00000 + 5.05675 *A + -0.86922 *A^2

80)      Bromobenzene        1.175 1.072 1.159 1.165 1.011 0.991 1.096   7.52
81) P    1,1,2,2-Tetrachloro 1.039 1.030 1.012 1.056 0.952 0.966 1.009   4.14
82)      1,3,5-Trimethylbenz 2.875 3.043 3.536 3.318 2.779 2.552 3.017  11.98
83)      2-Chlorotoluene     2.919 2.961 3.310 3.170 2.702 2.527 2.931   9.85
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9987
               Response Ratio = 0.00000 + 3.42544 *A + -0.45906 *A^2
```

Initial Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICC3475
Lab FileID: J062649.D

```
 84)     trans-1,4-Dichloro- 0.121 0.177 0.205 0.323 0.302 0.339 0.245  36.48
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9953
               Response Ratio = 0.00000 + 0.25049 *A + 0.04372 *A^2

 85)     1,2,3-Trichloroprop 0.293 0.257 0.254 0.263 0.239 0.246 0.259   7.34
 86)     Cyclohexanone       0.019 0.024 0.025 0.028 0.028 0.029 0.026  13.97
 87)     4-Chlorotoluene     2.688 2.677 3.135 3.093 2.740 2.593 2.821   8.24
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9993
               Response Ratio = 0.00000 + 3.27863 *A + -0.34869 *A^2

 88)     tert-Butylbenzene   1.495 1.568 1.917 1.896 1.729 1.679 1.714   9.92
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9995
               Response Ratio = 0.00000 + 1.96139 *A + -0.14461 *A^2

 89)     1,2,4-Trimethylbenz 2.870 3.095 3.590 3.488 3.037 2.858 3.156   9.89
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9991
               Response Ratio = 0.00000 + 3.73194 *A + -0.44542 *A^2

 90)     Pentachloroethane   0.534 0.590 0.656 0.721 0.685 0.701 0.648  11.09
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9992
               Response Ratio = 0.00000 + 0.69303 *A

 91)     sec-Butylbenzene    3.712 3.789 4.659 4.368 3.719 3.380 3.938  12.11
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9990
               Response Ratio = 0.00000 + 4.84322 *A + -0.74224 *A^2

 92)     4-Isopropyltoluene  2.552 2.786 3.554 3.405 2.933 2.731 2.994  13.31
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9989
               Response Ratio = 0.00000 + 3.68274 *A + -0.48445 *A^2

 93)     1,3-Dichlorobenzene 2.152 1.973 2.185 2.191 1.950 1.871 2.054   6.76
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9993
               Response Ratio = 0.00000 + 2.28732 *A + -0.21279 *A^2

 94)     1,4-Dichlorobenzene 2.107 1.934 2.164 2.179 1.905 1.844 2.022   7.17
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9988
               Response Ratio = 0.00000 + 2.25694 *A + -0.21286 *A^2

 95)     n-Butylbenzene      1.635 1.766 2.246 2.130 1.833 1.705 1.886  13.03
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9989
               Response Ratio = 0.00000 + 2.31234 *A + -0.30918 *A^2

 96)     Benzyl Chloride     0.283 0.350 0.380 0.437 0.385 0.383 0.370  13.83
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9978
               Response Ratio = 0.00000 + 0.42564 *A + -0.02221 *A^2

 97)     1,2-Dichlorobenzene 1.967 1.909 2.068 2.077 1.850 1.775 1.941   6.18
 98)     1,2-Dibromo-3-Chlor 0.124 0.148 0.141 0.154 0.152 0.165 0.147   9.39
 99)     Hexachlorobutadiene 0.719 0.570 0.755 0.734 0.692 0.713 0.697   9.46
100)     1,2,4-Trichlorobenz 1.311 1.230 1.438 1.437 1.259 1.240 1.319   7.27
101)     Naphthalene         2.157 2.180 2.557 2.684 2.393 2.329 2.383   8.73
102)     1,2,3-Trichlorobenz 1.312 1.082 1.258 1.262 1.143 1.138 1.199   7.54

103) I   Tert Butyl Alcohol-d1 ----------------ISTD---------------------
104)     Ethanol             0.191 0.222 0.157 0.153 0.136 0.134 0.166  20.81
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9985
               Response Ratio = 0.00000 + 0.15898 *A + -0.00328 *A^2

105)     acrolein            2.487 2.271 2.197 2.112 2.033 2.088 2.198   7.49
106)     Tert Butyl Alcohol  1.853 1.830 1.689 1.615 1.622 1.632 1.707   6.31
```

Initial Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICC3475
Lab FileID: J062649.D

107)	tert Amyl alcohol	1.108	1.288	1.371	1.432	1.370	1.380	1.325	8.74
108)	Isobutyl alcohol	0.721	0.720	0.745	0.722	0.676	0.641	0.704	5.44
109)	1,4-Dioxane	0.130	0.147	0.155	0.164	0.162	0.158	0.153	8.25

(#) = Out of Range

8260-JAPP9.M Fri Jan 28 11:35:47 2011

Initial Calibration Verification

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICV3475
Lab FileID: J062652.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\012711\J062652.D          Vial: 10
Acq On    : 27 Jan 2011   2:31 pm                   Operator: MelissaM
Sample    : icv3475-4                               Inst    : MSVOA6
Misc      : ms16326,vj3475,,,,,                     Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\MSDCHEM\1\METHODS\8260-JAPP9.M (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Fri Jan 28 10:52:13 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.001  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	114	0.00	7.43
		Amount	Calc.	%Drift			
2	Dichlorodifluoromethane	40.000	47.582	-19.0	130	0.00	2.77
		AvgRF	CCRF	%Dev			
3 P	Chloromethane	0.519	0.521	-0.4	113	0.00	2.93
		Amount	Calc.	%Drift			
4 C	Vinyl Chloride	40.000	38.110	4.7	103	0.00	3.06
5	Bromomethane	40.000	42.215	-5.5	116	0.00	3.43
6	Chloroethane	40.000	38.656	3.4	104	0.01	3.57
7	Trichlorofluoromethane	40.000	40.957	-2.4	111	0.00	3.76
		AvgRF	CCRF	%Dev			
8	Ethyl Ether	0.267	0.267	0.0	108	0.00	4.00
		Amount	Calc.	%Drift			
9	1,2-Dichlorotrifluoroetha	40.000	42.180	-5.4	115	0.00	4.22
10 C	1,1-Dichloroethene	40.000	37.708	5.7	104	0.00	4.25
		AvgRF	CCRF	%Dev			
11	Freon 113	0.244	0.253	-3.7	107	0.00	4.33
		Amount	Calc.	%Drift			
12	Carbon Disulfide	40.000	37.919	5.2	103	0.00	4.32
		AvgRF	CCRF	%Dev			
13	Iodomethane	0.448	0.472	-5.4	109	0.00	4.42
		Amount	Calc.	%Drift			
14	Allyl chloride	40.000	36.954	7.6	108	0.00	4.73
15	Methylene Chloride	40.000	39.838	0.4	110	0.00	4.84
		AvgRF	CCRF	%Dev			
16	Acetone	0.055	0.048	12.7	86	0.00	4.86
17	Methyl acetate	0.049	0.048	2.0	112	0.01	4.98
18	trans-1,2-Dichloroethene	0.620	0.621	-0.2	106	0.00	5.01
19	Hexane	0.409	0.430	-5.1	111	0.00	5.07
20	Methyl Tert Butyl Ether	0.867	0.929	-7.2	120	0.00	5.12
21	Acetonitrile	0.029	0.027	6.9	105	0.00	5.33
22	Di-isopropyl ether	1.693	1.780	-5.1	112	0.00	5.48

Initial Calibration Verification

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICV3475
Lab FileID: J062652.D

23		Chloroprene	1.357	1.374	-1.3	106	0.00	5.61
24	P	1,1-Dichloroethane	0.754	0.766	-1.6	106	0.00	5.63
25		Acrylonitrile	0.271	0.275	-1.5	106	0.00	5.61
26		ETBE	1.340	1.345	-0.4	108	0.00	5.85
27		Vinyl acetate	0.652	0.772	-18.4	127	0.00	5.82
28		cis-1,2-Dichloroethene	0.395	0.413	-4.6	109	0.00	6.17
29		2,2-Dichloropropane	0.462	0.533	-15.4	118	0.00	6.30
30		Bromochloromethane	0.196	0.202	-3.1	110	0.00	6.37
31		Cyclohexane	0.747	0.777	-4.0	107	0.00	6.44
32	C	Chloroform	0.605	0.647	-6.9	113	0.00	6.42
33		Ethyl acetate	0.472	0.529	-12.1	124	0.00	6.50
		----------	Amount	Calc.	%Drift	----------		
34		Tetrahydrofuran	40.000	38.480	3.8	106	0.00	6.60
		----------	AvgRF	CCRF	%Dev	----------		
35	S	Dibromofluoromethane	0.253	0.254	-0.4	116	0.00	6.61
36		Carbon Tetrachloride	0.454	0.523	-15.2	118	0.00	6.63
37		1,1,1-Trichloroethane	0.448	0.507	-13.2	118	0.00	6.69
38		2-Butanone	0.231	0.206	10.8	90	0.00	6.70
39		1,1-Dichloropropene	0.467	0.515	-10.3	111	0.00	6.78
40		Propionitrile	0.050	0.048	4.0	107	0.00	7.00
		----------	Amount	Calc.	%Drift	----------		
41		Methacrylonitrile	400.000	371.459	7.1	102	0.00	7.03
42		Benzene	40.000	38.020	4.9	104	0.00	7.03
		----------	AvgRF	CCRF	%Dev	----------		
43		TAME	0.882	0.920	-4.3	110	0.00	7.12
44	S	1,2-Dichloroethane-d4	0.288	0.309	-7.3	126	0.00	7.15
45		1,2-Dichloroethane	0.513	0.535	-4.3	113	0.00	7.22
46		Trichloroethene	0.344	0.377	-9.6	111	0.00	7.61
		----------	Amount	Calc.	%Drift	----------		
47		Methylcyclohexane	40.000	41.016	-2.5	113	0.00	7.64
		----------	AvgRF	CCRF	%Dev	----------		
48		Dibromomethane	0.211	0.221	-4.7	111	0.00	8.01
49	C	1,2-Dichloropropane	0.449	0.458	-2.0	107	0.00	8.10
50		Bromodichloromethane	0.445	0.479	-7.6	111	0.00	8.15
51		Methyl methacrylate	0.365	0.376	-3.0	107	0.00	8.26
52		2-Chloroethyl vinyl ether	0.223	0.228	-2.2	104	0.00	8.68
53		cis-1,3-Dichloropropene	0.581	0.637	-9.6	112	0.00	8.77
54	I	Chlorobenzene-d5	1.000	1.000	0.0	111	0.00	10.50
55	S	Toluene-d8	1.311	1.326	-1.1	113	0.00	8.96
		----------	Amount	Calc.	%Drift	----------		
56	C	Toluene	40.000	39.829	0.4	107	0.00	9.02
		----------	AvgRF	CCRF	%Dev	----------		
57		2-Nitropropane	0.133	0.134	-0.8	100	0.00	9.21
58		4-Methyl-2-pentanone	0.507	0.481	5.1	97	0.00	9.34
59		trans-1,3-Dichloropropene	0.688	0.807	-17.3	119	0.00	9.39
60		Tetrachloroethene	0.522	0.594	-13.8	115	0.00	9.42
		----------	Amount	Calc.	%Drift	----------		
61		Ethyl methacrylate	40.000	41.522	-3.8	110	0.00	9.52
		----------	AvgRF	CCRF	%Dev	----------		

Initial Calibration Verification

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICV3475
Lab FileID: J062652.D

62		1,1,2-Trichloroethane	0.382	0.396	-3.7	108	0.00	9.56
63		Dibromochloromethane	0.486	0.545	-12.1	113	0.00	9.75
64		1,3-Dichloropropane	0.770	0.804	-4.4	107	0.00	9.84
65		1,2-Dibromoethane	0.459	0.494	-7.6	111	0.00	10.01
66		2-hexanone	0.420	0.395	6.0	88	0.00	10.15
		----------	Amount	Calc.	%Drift		----------	
67		1-Chlorohexane	40.000	38.626	3.4	104	0.00	10.47
68	C	Ethylbenzene	40.000	39.570	1.1	106	0.00	10.53
69	P	Chlorobenzene	40.000	40.494	-1.2	107	0.00	10.52
70		1,1,1,2-Tetrachloroethane	40.000	41.572	-3.9	112	0.00	10.57
71		m,p-Xylene	80.000	79.090	1.1	105	0.00	10.67
72		o-Xylene	40.000	40.446	-1.1	109	0.00	11.11
		----------	AvgRF	CCRF	%Dev		----------	
73		Styrene	1.355	1.506	-11.1	106	0.00	11.15
		----------	Amount	Calc.	%Drift		----------	
74	P	Bromoform	40.000	41.634	-4.1	109	0.00	11.19
75		Isopropylbenzene	40.000	45.989	-15.0	122	0.00	11.42
		----------	AvgRF	CCRF	%Dev		----------	
76	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	109	0.00	12.87
77	S	4-Bromofluorobenzene	0.962	0.978	-1.7	114	0.00	11.71
		----------	Amount	Calc.	%Drift		----------	
78		cis-1,4-Dichloro-2-butene	40.000	41.837	-4.6	104	0.00	11.75
79		n-Propylbenzene	40.000	40.160	-0.4	106	0.00	11.84
		----------	AvgRF	CCRF	%Dev		----------	
80		Bromobenzene	1.096	1.157	-5.6	109	0.00	11.84
81	P	1,1,2,2-Tetrachloroethane	1.009	1.016	-0.7	105	0.00	11.88
82		1,3,5-Trimethylbenzene	3.017	3.182	-5.5	105	0.00	12.03
		----------	Amount	Calc.	%Drift		----------	
83		2-Chlorotoluene	40.000	40.939	-2.3	108	0.00	12.02
84		trans-1,4-Dichloro-2-Bute	40.000	39.191	2.0	95	0.00	12.06
		----------	AvgRF	CCRF	%Dev		----------	
85		1,2,3-Trichloropropane	0.259	0.248	4.2	103	0.00	12.04
86		Cyclohexanone	0.026	0.030	-15.4	116	0.00	12.09
		----------	Amount	Calc.	%Drift		----------	
87		4-Chlorotoluene	40.000	41.594	-4.0	110	0.00	12.18
88		tert-Butylbenzene	40.000	41.230	-3.1	110	0.00	12.36
89		1,2,4-Trimethylbenzene	40.000	40.575	-1.4	107	0.00	12.43
90		Pentachloroethane	40.000	42.879	-7.2	113	0.00	12.40
91		sec-Butylbenzene	40.000	39.980	0.1	106	0.00	12.55
92		4-Isopropyltoluene	40.000	41.859	-4.6	110	0.00	12.68
93		1,3-Dichlorobenzene	40.000	41.896	-4.7	110	0.00	12.79
94		1,4-Dichlorobenzene	40.000	41.688	-4.2	109	0.00	12.88
95		n-Butylbenzene	40.000	39.463	1.3	105	0.00	13.12
96		Benzyl Chloride	40.000	40.155	-0.4	102	0.00	13.12
		----------	AvgRF	CCRF	%Dev		----------	
97		1,2-Dichlorobenzene	1.941	2.103	-8.3	111	0.00	13.32
98		1,2-Dibromo-3-Chloropropa	0.147	0.157	-6.8	111	0.00	14.07
99		Hexachlorobutadiene	0.697	0.798	-14.5	119	0.00	14.66
100		1,2,4-Trichlorobenzene	1.319	1.473	-11.7	112	0.00	14.69

Initial Calibration Verification

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICV3475
Lab FileID: J062652.D

101		Naphthalene	2.383	2.701	-13.3	110	0.00	14.96
102		1,2,3-Trichlorobenzene	1.199	1.324	-10.4	115	0.00	15.12
103	I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	115	0.01	5.09
		----------	Amount	Calc.	%Drift		----------	
104		Ethanol	800.000	838.068	-4.8	117	0.01	4.16
		----------	AvgRF	CCRF	%Dev		----------	
105		acrolein	2.198	2.391	-8.8	131	0.00	4.57
106		Tert Butyl Alcohol	1.707	1.549	9.3	111	0.01	5.17
107		tert Amyl alcohol	1.325	1.342	-1.3	108	0.00	7.26
108		Isobutyl alcohol	0.704	0.647	8.1	103	0.00	7.14
109		1,4-Dioxane	0.153	0.164	-7.2	115	0.00	8.34

(#) = Out of Range SPCC's out = 0 CCC's out = 0
J062649.D 8260-JAPP9.M Fri Jan 28 11:34:22 2011

Continuing Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3482-CC3475
Lab FileID: J062817.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\020311\J062817.D Vial: 1
Acq On : 3 Feb 2011 2:35 pm Operator: MelissaM
Sample : cc3475-5 Inst : MSVOA6
Misc : ms16326,vj3482,,,,, Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\8260-JAPP9.M (RTE Integrator)
Title : SW-846 Method 5030B/8260B & EPA 624
Last Update : Fri Jan 28 10:52:13 2011
Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	104	0.00	7.43
		Amount	Calc.	%Drift			
2	Dichlorodifluoromethane	70.000	58.035	17.1	89	0.01	2.78
		AvgRF	CCRF	%Dev			
3 P	Chloromethane	0.519	0.479	7.7	108	0.00	2.93
		Amount	Calc.	%Drift			
4 C	Vinyl Chloride	70.000	70.250	-0.4	109	0.00	3.06
5	Bromomethane	70.000	67.501	3.6	106	0.00	3.43
6	Chloroethane	70.000	78.825	-12.6	121	0.00	3.57
7	Trichlorofluoromethane	70.000	65.233	6.8	101	0.00	3.76
		AvgRF	CCRF	%Dev			
8	Ethyl Ether	0.267	0.251	6.0	106	0.00	4.00
		Amount	Calc.	%Drift			
9	1,2-Dichlorotrifluoroetha	70.000	68.144	2.7	105	0.00	4.22
10 C	1,1-Dichloroethene	70.000	66.254	5.4	101	0.00	4.25
		AvgRF	CCRF	%Dev			
11	Freon 113	0.244	0.234	4.1	101	0.00	4.33
		Amount	Calc.	%Drift			
12	Carbon Disulfide	70.000	70.999	-1.4	109	0.00	4.33
		AvgRF	CCRF	%Dev			
13	Iodomethane	0.448	0.437	2.5	105	0.00	4.42
		Amount	Calc.	%Drift			
14	Allyl chloride	70.000	65.241	6.8	97	0.00	4.73
15	Methylene Chloride	70.000	65.866	5.9	102	0.00	4.84
		AvgRF	CCRF	%Dev			
16	Acetone	0.055	0.044	20.0#	90	0.00	4.85
17	Methyl acetate	0.049	0.042	14.3	97	0.00	4.97
18	trans-1,2-Dichloroethene	0.620	0.581	6.3	97	0.00	5.01
19	Hexane	0.409	0.388	5.1	101	0.00	5.07
20	Methyl Tert Butyl Ether	0.867	0.757	12.7	93	0.00	5.12
21	Acetonitrile	0.029	0.025	13.8	97	0.00	5.34
22	Di-isopropyl ether	1.693	1.577	6.9	100	0.00	5.48

Continuing Calibration Summary

Job Number: F79608 **Sample:** VJ3482-CC3475
Account: TETTNOAK Tetra Tech, Inc **Lab FileID:** J062817.D
Project: Holloman AFB; Alamogordo, NM

23		Chloroprene	1.357	1.265	6.8	98	0.00	5.60
24	P	1,1-Dichloroethane	0.754	0.717	4.9	100	0.00	5.63
25		Acrylonitrile	0.271	0.253	6.6	98	0.00	5.60
26		ETBE	1.340	1.226	8.5	100	0.00	5.85
27		Vinyl acetate	0.652	0.561	14.0	100	0.00	5.82
28		cis-1,2-Dichloroethene	0.395	0.375	5.1	98	0.00	6.17
29		2,2-Dichloropropane	0.462	0.438	5.2	93	0.00	6.31
30		Bromochloromethane	0.196	0.183	6.6	98	0.00	6.38
31		Cyclohexane	0.747	0.733	1.9	101	0.00	6.44
32	C	Chloroform	0.605	0.564	6.8	99	0.00	6.43
33		Ethyl acetate	0.472	0.417	11.7	105	0.00	6.50
		----------	Amount	Calc.	%Drift	----------		
34		Tetrahydrofuran	70.000	71.165	-1.7	108	0.00	6.60
		----------	AvgRF	CCRF	%Dev	----------		
35	S	Dibromofluoromethane	0.253	0.241	4.7	101	0.00	6.61
36		Carbon Tetrachloride	0.454	0.437	3.7	92	0.00	6.63
37		1,1,1-Trichloroethane	0.448	0.418	6.7	92	0.00	6.68
38		2-Butanone	0.231	0.192	16.9	94	0.00	6.70
39		1,1-Dichloropropene	0.467	0.454	2.8	96	0.00	6.78
40		Propionitrile	0.050	0.044	12.0	102	0.00	7.00
		----------	Amount	Calc.	%Drift	----------		
41		Methacrylonitrile	700.000	645.496	7.8	102	0.00	7.03
42		Benzene	70.000	68.935	1.5	105	0.00	7.03
		----------	AvgRF	CCRF	%Dev	----------		
43		TAME	0.882	0.830	5.9	100	0.00	7.12
44	S	1,2-Dichloroethane-d4	0.288	0.278	3.5	102	0.00	7.15
45		1,2-Dichloroethane	0.513	0.473	7.8	97	0.00	7.21
46		Trichloroethene	0.344	0.339	1.5	99	0.00	7.61
		----------	Amount	Calc.	%Drift	----------		
47		Methylcyclohexane	70.000	67.065	4.2	102	0.00	7.64
		----------	AvgRF	CCRF	%Dev	----------		
48		Dibromomethane	0.211	0.201	4.7	100	0.00	8.01
49	C	1,2-Dichloropropane	0.449	0.440	2.0	104	0.00	8.10
50		Bromodichloromethane	0.445	0.439	1.3	100	0.00	8.15
51		Methyl methacrylate	0.365	0.354	3.0	100	0.00	8.26
52		2-Chloroethyl vinyl ether	0.223	0.195	12.6	100	0.00	8.68
53		cis-1,3-Dichloropropene	0.581	0.570	1.9	101	0.00	8.77
54	I	Chlorobenzene-d5	1.000	1.000	0.0	110	0.00	10.50
55	S	Toluene-d8	1.311	1.315	-0.3	106	0.00	8.96
		----------	Amount	Calc.	%Drift	----------		
56	C	Toluene	70.000	62.669	10.5	101	0.00	9.02
		----------	AvgRF	CCRF	%Dev	----------		
57		2-Nitropropane	0.133	0.125	6.0	97	0.00	9.21
58		4-Methyl-2-pentanone	0.507	0.425	16.2	100	0.00	9.34
59		trans-1,3-Dichloropropene	0.688	0.659	4.2	101	0.00	9.39
60		Tetrachloroethene	0.522	0.487	6.7	99	0.00	9.42
		----------	Amount	Calc.	%Drift	----------		
61		Ethyl methacrylate	70.000	64.361	8.1	103	0.00	9.52
		----------	AvgRF	CCRF	%Dev	----------		

Continuing Calibration Summary

Job Number: F79608 **Sample:** VJ3482-CC3475
Account: TETTNOAK Tetra Tech, Inc **Lab FileID:** J062817.D
Project: Holloman AFB; Alamogordo, NM

62		1,1,2-Trichloroethane	0.382	0.355	7.1	104	0.00	9.56
63		Dibromochloromethane	0.486	0.468	3.7	99	0.00	9.75
64		1,3-Dichloropropane	0.770	0.727	5.6	103	0.00	9.84
65		1,2-Dibromoethane	0.459	0.430	6.3	100	0.00	10.01
66		2-hexanone	0.420	0.350	16.7	97	0.00	10.15
		----------	Amount	Calc.	%Drift		----------	
67		1-Chlorohexane	70.000	64.996	7.1	104	0.00	10.47
68	C	Ethylbenzene	70.000	62.180	11.2	103	0.00	10.53
69	P	Chlorobenzene	70.000	63.069	9.9	104	0.00	10.52
70		1,1,1,2-Tetrachloroethane	70.000	63.105	9.9	100	0.00	10.57
71		m,p-Xylene	140.000	119.950	14.3	102	0.00	10.67
72		o-Xylene	70.000	63.164	9.8	102	0.00	11.11
		----------	AvgRF	CCRF	%Dev		----------	
73		Styrene	1.355	1.301	4.0	102	0.00	11.15
		----------	Amount	Calc.	%Drift		----------	
74	P	Bromoform	70.000	58.638	16.2	93	0.00	11.20
75		Isopropylbenzene	70.000	63.041	9.9	102	0.00	11.42
		----------	AvgRF	CCRF	%Dev		----------	
76	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	108	0.00	12.87
77	S	4-Bromofluorobenzene	0.962	1.004	-4.4	109	0.00	11.71
		----------	Amount	Calc.	%Drift		----------	
78		cis-1,4-Dichloro-2-butene	70.000	64.612	7.7	100	0.00	11.75
79		n-Propylbenzene	70.000	64.012	8.6	105	0.00	11.84
		----------	AvgRF	CCRF	%Dev		----------	
80		Bromobenzene	1.096	0.919	16.1	98	0.00	11.84
81	P	1,1,2,2-Tetrachloroethane	1.009	0.918	9.0	104	0.00	11.88
82		1,3,5-Trimethylbenzene	3.017	2.705	10.3	105	0.00	12.03
		----------	Amount	Calc.	%Drift		----------	
83		2-Chlorotoluene	70.000	64.939	7.2	105	0.00	12.02
84		trans-1,4-Dichloro-2-Bute	70.000	62.983	10.0	98	0.00	12.06
		----------	AvgRF	CCRF	%Dev		----------	
85		1,2,3-Trichloropropane	0.259	0.226	12.7	102	0.00	12.04
86		Cyclohexanone	0.026	0.020	23.1#	79	0.00	12.09
		----------	Amount	Calc.	%Drift		----------	
87		4-Chlorotoluene	70.000	65.581	6.3	104	0.00	12.18
88		tert-Butylbenzene	70.000	64.736	7.5	102	0.00	12.36
89		1,2,4-Trimethylbenzene	70.000	64.567	7.8	103	0.00	12.43
90		Pentachloroethane	70.000	64.551	7.8	100	0.00	12.40
91		sec-Butylbenzene	70.000	63.914	8.7	103	0.00	12.55
92		4-Isopropyltoluene	70.000	65.255	6.8	104	0.00	12.68
93		1,3-Dichlorobenzene	70.000	63.711	9.0	101	0.00	12.79
94		1,4-Dichlorobenzene	70.000	63.925	8.7	102	0.00	12.88
95		n-Butylbenzene	70.000	65.776	6.0	105	0.00	13.12
96		Benzyl Chloride	70.000	61.454	12.2	98	0.00	13.12
		----------	AvgRF	CCRF	%Dev		----------	
97		1,2-Dichlorobenzene	1.941	1.727	11.0	100	0.00	13.32
98		1,2-Dibromo-3-Chloropropa	0.147	0.135	8.2	96	0.00	14.07
99		Hexachlorobutadiene	0.697	0.593	14.9	92	0.00	14.66
100		1,2,4-Trichlorobenzene	1.319	1.182	10.4	101	0.00	14.69

Continuing Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3482-CC3475
Lab FileID: J062817.D

101	Naphthalene	2.383	2.076	12.9	93	0.00	14.96
102	1,2,3-Trichlorobenzene	1.199	1.041	13.2	98	0.00	15.12
103 I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	91	0.00	5.09
	----------	Amount	Calc.	%Drift	----------		
104	Ethanol	1400.000	1242.509	11.2	84	-0.02	4.13
	----------	AvgRF	CCRF	%Dev	----------		
105	acrolein	2.198	2.333	-6.1	104	0.00	4.57
106	Tert Butyl Alcohol	1.707	1.528	10.5	86	0.00	5.15
107	tert Amyl alcohol	1.325	1.311	1.1	87	0.00	7.26
108	Isobutyl alcohol	0.704	0.687	2.4	92	0.00	7.14
109	1,4-Dioxane	0.153	0.122	20.3#	68	-0.01	8.33

(#) = Out of Range SPCC's out = 0 CCC's out = 0
J062650.D 8260-JAPP9.M Fri Feb 04 10:56:26 2011

Continuing Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3483-CC3475
Lab FileID: J062848.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\020411\J062848.D          Vial: 1
Acq On    :  4 Feb 2011   9:37 am                   Operator: MelissaM
Sample    : cc3475-4                                Inst    : MSVOA6
Misc      : ms16326,vj3483,,,,,                     Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\MSDCHEM\1\METHODS\8260-JAPP9.M (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Fri Jan 28 10:52:13 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.001  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	106	0.00	7.43
		Amount	Calc.	%Drift			
2	Dichlorodifluoromethane	40.000	35.778	10.6	92	0.00	2.77
		AvgRF	CCRF	%Dev			
3 P	Chloromethane	0.519	0.514	1.0	104	0.00	2.93
		Amount	Calc.	%Drift			
4 C	Vinyl Chloride	40.000	38.842	2.9	98	0.00	3.05
5	Bromomethane	40.000	40.563	-1.4	105	0.00	3.43
6	Chloroethane	40.000	43.756	-9.4	109	0.01	3.57
7	Trichlorofluoromethane	40.000	37.602	6.0	96	0.01	3.77
		AvgRF	CCRF	%Dev			
8	Ethyl Ether	0.267	0.294	-10.1	111	0.00	4.00
		Amount	Calc.	%Drift			
9	1,2-Dichlorotrifluoroetha	40.000	40.842	-2.1	104	0.00	4.22
10 C	1,1-Dichloroethene	40.000	39.866	0.3	102	0.00	4.26
		AvgRF	CCRF	%Dev			
11	Freon 113	0.244	0.258	-5.7	102	0.00	4.33
		Amount	Calc.	%Drift			
12	Carbon Disulfide	40.000	41.094	-2.7	104	0.00	4.33
		AvgRF	CCRF	%Dev			
13	Iodomethane	0.448	0.481	-7.4	104	0.00	4.42
		Amount	Calc.	%Drift			
14	Allyl chloride	40.000	38.405	4.0	104	0.00	4.73
15	Methylene Chloride	40.000	39.712	0.7	102	0.00	4.84
		AvgRF	CCRF	%Dev			
16	Acetone	0.055	0.051	7.3	85	0.00	4.86
17	Methyl acetate	0.049	0.049	0.0	107	0.01	4.98
18	trans-1,2-Dichloroethene	0.620	0.668	-7.7	106	0.00	5.01
19	Hexane	0.409	0.438	-7.1	106	0.00	5.08
20	Methyl Tert Butyl Ether	0.867	0.938	-8.2	113	0.00	5.12
21	Acetonitrile	0.029	0.027	6.9	99	0.00	5.33
22	Di-isopropyl ether	1.693	1.791	-5.8	106	0.00	5.48

Continuing Calibration Summary

Job Number: F79608 **Sample:** VJ3483-CC3475
Account: TETTNOAK Tetra Tech, Inc **Lab FileID:** J062848.D
Project: Holloman AFB; Alamogordo, NM

23		Chloroprene	1.357	1.433	-5.6	103	0.01	5.62
24	P	1,1-Dichloroethane	0.754	0.825	-9.4	107	0.00	5.63
25		Acrylonitrile	0.271	0.287	-5.9	103	0.01	5.62
26		ETBE	1.340	1.414	-5.5	107	0.00	5.85
27		Vinyl acetate	0.652	0.652	0.0	100	0.00	5.83
28		cis-1,2-Dichloroethene	0.395	0.452	-14.4	111	0.00	6.17
29		2,2-Dichloropropane	0.462	0.527	-14.1	109	0.00	6.32
30		Bromochloromethane	0.196	0.223	-13.8	113	0.00	6.38
31		Cyclohexane	0.747	0.815	-9.1	105	0.00	6.44
32	C	Chloroform	0.605	0.689	-13.9	112	0.00	6.43
33		Ethyl acetate	0.472	0.453	4.0	100	0.00	6.50
		----------	Amount	Calc.	%Drift	----------		
34		Tetrahydrofuran	40.000	44.190	-10.5	113	0.00	6.60
		----------	AvgRF	CCRF	%Dev	----------		
35	S	Dibromofluoromethane	0.253	0.253	0.0	108	0.00	6.61
36		Carbon Tetrachloride	0.454	0.534	-17.6	112	0.00	6.63
37		1,1,1-Trichloroethane	0.448	0.517	-15.4	113	0.00	6.69
38		2-Butanone	0.231	0.219	5.2	89	0.00	6.70
39		1,1-Dichloropropene	0.467	0.540	-15.6	109	0.00	6.79
40		Propionitrile	0.050	0.051	-2.0	105	0.00	7.00
		----------	Amount	Calc.	%Drift	----------		
41		Methacrylonitrile	400.000	387.403	3.1	99	0.00	7.03
42		Benzene	40.000	42.708	-6.8	108	0.00	7.04
		----------	AvgRF	CCRF	%Dev	----------		
43		TAME	0.882	0.969	-9.9	108	0.00	7.12
44	S	1,2-Dichloroethane-d4	0.288	0.301	-4.5	115	0.00	7.15
45		1,2-Dichloroethane	0.513	0.561	-9.4	110	0.00	7.22
46		Trichloroethene	0.344	0.400	-16.3	110	0.00	7.60
		----------	Amount	Calc.	%Drift	----------		
47		Methylcyclohexane	40.000	42.574	-6.4	110	0.00	7.64
		----------	AvgRF	CCRF	%Dev	----------		
48		Dibromomethane	0.211	0.233	-10.4	110	0.00	8.02
49	C	1,2-Dichloropropane	0.449	0.492	-9.6	107	0.00	8.10
50		Bromodichloromethane	0.445	0.517	-16.2	112	0.00	8.15
51		Methyl methacrylate	0.365	0.387	-6.0	103	0.00	8.27
52		2-Chloroethyl vinyl ether	0.223	0.210	5.8	89	0.00	8.68
53		cis-1,3-Dichloropropene	0.581	0.658	-13.3	108	0.00	8.77
54	I	Chlorobenzene-d5	1.000	1.000	0.0	104	0.00	10.50
55	S	Toluene-d8	1.311	1.321	-0.8	105	0.00	8.97
		----------	Amount	Calc.	%Drift	----------		
56	C	Toluene	40.000	42.646	-6.6	107	0.00	9.02
		----------	AvgRF	CCRF	%Dev	----------		
57		2-Nitropropane	0.133	0.142	-6.8	100	0.00	9.20
58		4-Methyl-2-pentanone	0.507	0.509	-0.4	96	0.00	9.34
59		trans-1,3-Dichloropropene	0.688	0.781	-13.5	107	0.00	9.39
60		Tetrachloroethene	0.522	0.582	-11.5	106	0.00	9.42
		----------	Amount	Calc.	%Drift	----------		
61		Ethyl methacrylate	40.000	43.092	-7.7	106	0.00	9.52
		----------	AvgRF	CCRF	%Dev	----------		

Continuing Calibration Summary

Job Number: F79608 **Sample:** VJ3483-CC3475
Account: TETTNOAK Tetra Tech, Inc **Lab FileID:** J062848.D
Project: Holloman AFB; Alamogordo, NM

62		1,1,2-Trichloroethane	0.382	0.417	-9.2	106	0.00	9.56
63		Dibromochloromethane	0.486	0.562	-15.6	109	0.00	9.75
64		1,3-Dichloropropane	0.770	0.855	-11.0	106	0.00	9.84
65		1,2-Dibromoethane	0.459	0.506	-10.2	106	0.00	10.01
66		2-hexanone	0.420	0.420	0.0	88	0.00	10.15
		----------	Amount	Calc.	%Drift	----------		
67		1-Chlorohexane	40.000	42.517	-6.3	106	0.00	10.47
68	C	Ethylbenzene	40.000	42.133	-5.3	104	0.00	10.53
69	P	Chlorobenzene	40.000	42.092	-5.2	103	0.00	10.52
70		1,1,1,2-Tetrachloroethane	40.000	42.880	-7.2	108	0.00	10.57
71		m,p-Xylene	80.000	84.836	-6.0	104	0.00	10.67
72		o-Xylene	40.000	42.565	-6.4	106	0.00	11.10
		----------	AvgRF	CCRF	%Dev	----------		
73		Styrene	1.355	1.594	-17.6	104	0.00	11.15
		----------	Amount	Calc.	%Drift	----------		
74	P	Bromoform	40.000	40.316	-0.8	98	0.00	11.20
75		Isopropylbenzene	40.000	42.239	-5.6	105	0.00	11.42
		----------	AvgRF	CCRF	%Dev	----------		
76	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	102	0.00	12.86
77	S	4-Bromofluorobenzene	0.962	0.978	-1.7	106	0.00	11.71
		----------	Amount	Calc.	%Drift	----------		
78		cis-1,4-Dichloro-2-butene	40.000	33.753	15.6	76	0.00	11.75
79		n-Propylbenzene	40.000	42.519	-6.3	104	0.00	11.84
		----------	AvgRF	CCRF	%Dev	----------		
80		Bromobenzene	1.096	1.167	-6.5	102	0.00	11.84
81	P	1,1,2,2-Tetrachloroethane	1.009	1.037	-2.8	100	0.00	11.88
82		1,3,5-Trimethylbenzene	3.017	3.403	-12.8	105	0.00	12.02
		----------	Amount	Calc.	%Drift	----------		
83		2-Chlorotoluene	40.000	43.047	-7.6	105	0.00	12.02
84		trans-1,4-Dichloro-2-Bute	40.000	35.831	10.4	80	0.00	12.06
		----------	AvgRF	CCRF	%Dev	----------		
85		1,2,3-Trichloropropane	0.259	0.267	-3.1	104	0.00	12.04
86		Cyclohexanone	0.026	0.027	-3.8	97	0.00	12.09
		----------	Amount	Calc.	%Drift	----------		
87		4-Chlorotoluene	40.000	43.453	-8.6	107	0.00	12.18
88		tert-Butylbenzene	40.000	43.472	-8.7	107	0.00	12.36
89		1,2,4-Trimethylbenzene	40.000	43.676	-9.2	107	0.00	12.43
90		Pentachloroethane	40.000	42.679	-6.7	105	0.00	12.40
91		sec-Butylbenzene	40.000	42.719	-6.8	105	0.00	12.54
92		4-Isopropyltoluene	40.000	43.002	-7.5	105	0.00	12.68
93		1,3-Dichlorobenzene	40.000	40.815	-2.0	101	0.00	12.79
94		1,4-Dichlorobenzene	40.000	41.219	-3.0	101	0.00	12.88
95		n-Butylbenzene	40.000	42.593	-6.5	105	0.00	13.12
96		Benzyl Chloride	40.000	39.088	2.3	93	0.00	13.12
		----------	AvgRF	CCRF	%Dev	----------		
97		1,2-Dichlorobenzene	1.941	2.038	-5.0	100	0.00	13.32
98		1,2-Dibromo-3-Chloropropa	0.147	0.152	-3.4	100	0.00	14.07
99		Hexachlorobutadiene	0.697	0.698	-0.1	97	0.00	14.66
100		1,2,4-Trichlorobenzene	1.319	1.403	-6.4	100	0.00	14.69

Continuing Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3483-CC3475
Lab FileID: J062848.D

101	Naphthalene	2.383	2.539	-6.5	97	0.00	14.96
102	1,2,3-Trichlorobenzene	1.199	1.200	-0.1	97	0.00	15.12
103 I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	104	0.00	5.08
	----------	Amount	Calc.	%Drift		----------	
104	Ethanol	800.000	995.395	-24.4#	124	0.01	4.16
	----------	AvgRF	CCRF	%Dev		----------	
105	acrolein	2.198	2.170	1.3	107	0.00	4.57
106	Tert Butyl Alcohol	1.707	1.755	-2.8	113	0.00	5.15
107	tert Amyl alcohol	1.325	1.405	-6.0	102	0.00	7.26
108	Isobutyl alcohol	0.704	0.698	0.9	101	0.00	7.14
109	1,4-Dioxane	0.153	0.175	-14.4	111	0.00	8.34

(#) = Out of Range SPCC's out = 0 CCC's out = 0
J062649.D 8260-JAPP9.M Fri Feb 04 15:23:59 2011

Continuing Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3485-CC3475
Lab FileID: J062891.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\020711\J062891.D          Vial: 1
Acq On    :  7 Feb 2011   1:58 pm                   Operator: MelissaM
Sample    : CC3475-4                                Inst    : MSVOA6
Misc      : ms16482,vj3485,,,,,                     Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\MSDCHEM\1\METHODS\8260-JAPP9.M (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Fri Jan 28 10:52:13 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.001  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	95	0.00	7.43
	----------	Amount	Calc.	%Drift	----------		
2	Dichlorodifluoromethane	40.000	56.112	-40.3#	127	0.00	2.77
	----------	AvgRF	CCRF	%Dev	----------		
3 P	Chloromethane	0.519	0.617	-18.9	111	0.01	2.94
	----------	Amount	Calc.	%Drift	----------		
4 C	Vinyl Chloride	40.000	46.717	-16.8	104	0.00	3.05
5	Bromomethane	40.000	54.061	-35.2#	119	0.00	3.43
6	Chloroethane	40.000	54.095	-35.2#	115	0.01	3.57
7	Trichlorofluoromethane	40.000	39.582	1.0	90	0.00	3.75
	----------	AvgRF	CCRF	%Dev	----------		
8	Ethyl Ether	0.267	0.286	-7.1	97	0.00	3.99
	----------	Amount	Calc.	%Drift	----------		
9	1,2-Dichlorotrifluoroetha	40.000	44.074	-10.2	100	-0.02	4.20
10 C	1,1-Dichloroethene	40.000	43.077	-7.7	98	0.00	4.25
	----------	AvgRF	CCRF	%Dev	----------		
11	Freon 113	0.244	0.275	-12.7	97	0.00	4.33
	----------	Amount	Calc.	%Drift	----------		
12	Carbon Disulfide	40.000	45.243	-13.1	101	0.00	4.31
	----------	AvgRF	CCRF	%Dev	----------		
13	Iodomethane	0.448	0.504	-12.5	97	0.00	4.42
	----------	Amount	Calc.	%Drift	----------		
14	Allyl chloride	40.000	40.887	-2.2	99	0.00	4.72
15	Methylene Chloride	40.000	46.341	-15.9	106	0.00	4.84
	----------	AvgRF	CCRF	%Dev	----------		
16	Acetone	0.055	0.041	25.5#	61	0.00	4.85
17	Methyl acetate	0.049	0.045	8.2	87	0.00	4.96
18	trans-1,2-Dichloroethene	0.620	0.704	-13.5	100	0.00	5.00
19	Hexane	0.409	0.460	-12.5	99	0.00	5.08
20	Methyl Tert Butyl Ether	0.867	0.839	3.2	90	0.00	5.11
21	Acetonitrile	0.029	0.022	24.1#	72	0.00	5.34
22	Di-isopropyl ether	1.693	1.877	-10.9	99	0.00	5.48

Continuing Calibration Summary

Job Number: F79608 **Sample:** VJ3485-CC3475
Account: TETTNOAK Tetra Tech, Inc **Lab FileID:** J062891.D
Project: Holloman AFB; Alamogordo, NM

23		Chloroprene	1.357	1.433	-5.6	92	0.00	5.61
24	P	1,1-Dichloroethane	0.754	0.870	-15.4	101	0.00	5.62
25		Acrylonitrile	0.271	0.287	-5.9	92	0.00	5.61
26		ETBE	1.340	1.439	-7.4	97	0.00	5.85
27		Vinyl acetate	0.652	0.651	0.2	89	0.00	5.82
28		cis-1,2-Dichloroethene	0.395	0.457	-15.7	100	0.00	6.17
29		2,2-Dichloropropane	0.462	0.525	-13.6	97	0.00	6.30
30		Bromochloromethane	0.196	0.217	-10.7	98	0.00	6.37
31		Cyclohexane	0.747	0.873	-16.9	100	0.00	6.43
32	C	Chloroform	0.605	0.686	-13.4	100	0.00	6.43
33		Ethyl acetate	0.472	0.444	5.9	87	0.00	6.50
		----------	Amount	Calc.	%Drift	----------		
34		Tetrahydrofuran	40.000	38.142	4.6	87	0.00	6.60
		----------	AvgRF	CCRF	%Dev	----------		
35	S	Dibromofluoromethane	0.253	0.247	2.4	94	0.00	6.61
36		Carbon Tetrachloride	0.454	0.507	-11.7	95	0.00	6.63
37		1,1,1-Trichloroethane	0.448	0.495	-10.5	96	0.00	6.68
38		2-Butanone	0.231	0.185	19.9	67	0.00	6.70
39		1,1-Dichloropropene	0.467	0.538	-15.2	97	0.00	6.79
40		Propionitrile	0.050	0.045	10.0	82	0.00	7.00
		----------	Amount	Calc.	%Drift	----------		
41		Methacrylonitrile	400.000	390.952	2.3	89	0.00	7.03
42		Benzene	40.000	46.271	-15.7	103	0.00	7.03
		----------	AvgRF	CCRF	%Dev	----------		
43		TAME	0.882	0.969	-9.9	96	0.00	7.12
44	S	1,2-Dichloroethane-d4	0.288	0.288	0.0	98	0.00	7.15
45		1,2-Dichloroethane	0.513	0.541	-5.5	95	0.00	7.22
46		Trichloroethene	0.344	0.405	-17.7	99	0.00	7.61
		----------	Amount	Calc.	%Drift	----------		
47		Methylcyclohexane	40.000	44.412	-11.0	101	0.00	7.64
		----------	AvgRF	CCRF	%Dev	----------		
48		Dibromomethane	0.211	0.223	-5.7	94	0.00	8.01
49	C	1,2-Dichloropropane	0.449	0.527	-17.4	102	0.00	8.11
50		Bromodichloromethane	0.445	0.503	-13.0	97	0.00	8.15
51		Methyl methacrylate	0.365	0.370	-1.4	87	0.00	8.27
52		2-Chloroethyl vinyl ether	0.223	0.226	-1.3	85	0.00	8.68
53		cis-1,3-Dichloropropene	0.581	0.668	-15.0	98	0.00	8.77
54	I	Chlorobenzene-d5	1.000	1.000	0.0	98	0.00	10.50
55	S	Toluene-d8	1.311	1.279	2.4	95	0.00	8.97
		----------	Amount	Calc.	%Drift	----------		
56	C	Toluene	40.000	41.770	-4.4	98	0.00	9.02
		----------	AvgRF	CCRF	%Dev	----------		
57		2-Nitropropane	0.133	0.127	4.5	84	0.00	9.21
58		4-Methyl-2-pentanone	0.507	0.475	6.3	84	0.00	9.34
59		trans-1,3-Dichloropropene	0.688	0.737	-7.1	95	0.00	9.39
60		Tetrachloroethene	0.522	0.550	-5.4	94	0.00	9.42
		----------	Amount	Calc.	%Drift	----------		
61		Ethyl methacrylate	40.000	39.926	0.2	92	0.00	9.52
		----------	AvgRF	CCRF	%Dev	----------		

Continuing Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM
Sample: VJ3485-CC3475
Lab FileID: J062891.D

62		1,1,2-Trichloroethane	0.382	0.393	-2.9	94	0.00	9.56
63		Dibromochloromethane	0.486	0.509	-4.7	93	0.00	9.75
64		1,3-Dichloropropane	0.770	0.800	-3.9	94	0.00	9.84
65		1,2-Dibromoethane	0.459	0.464	-1.1	91	0.00	10.01
66		2-hexanone	0.420	0.368	12.4	72	0.00	10.15
		----------	Amount	Calc.	%Drift		----------	
67		1-Chlorohexane	40.000	42.501	-6.3	100	0.00	10.47
68	C	Ethylbenzene	40.000	42.211	-5.5	98	0.00	10.53
69	P	Chlorobenzene	40.000	42.507	-6.3	98	0.00	10.52
70		1,1,1,2-Tetrachloroethane	40.000	40.872	-2.2	97	0.00	10.57
71		m,p-Xylene	80.000	85.901	-7.4	99	0.00	10.67
72		o-Xylene	40.000	41.865	-4.7	98	0.00	11.10
		----------	AvgRF	CCRF	%Dev		----------	
73		Styrene	1.355	1.570	-15.9	97	0.00	11.15
		----------	Amount	Calc.	%Drift		----------	
74	P	Bromoform	40.000	36.109	9.7	82	0.00	11.20
75		Isopropylbenzene	40.000	41.896	-4.7	99	0.00	11.42
		----------	AvgRF	CCRF	%Dev		----------	
76	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	94	0.00	12.86
77	S	4-Bromofluorobenzene	0.962	0.973	-1.1	97	0.00	11.71
		----------	Amount	Calc.	%Drift		----------	
78		cis-1,4-Dichloro-2-butene	40.000	28.342	29.1#	58	0.00	11.75
79		n-Propylbenzene	40.000	45.258	-13.1	100	0.00	11.84
		----------	AvgRF	CCRF	%Dev		----------	
80		Bromobenzene	1.096	1.161	-5.9	93	0.00	11.84
81	P	1,1,2,2-Tetrachloroethane	1.009	1.003	0.6	89	0.00	11.88
82		1,3,5-Trimethylbenzene	3.017	3.516	-16.5	99	0.00	12.02
		----------	Amount	Calc.	%Drift		----------	
83		2-Chlorotoluene	40.000	45.217	-13.0	101	0.00	12.02
84		trans-1,4-Dichloro-2-Bute	40.000	30.384	24.0#	61	0.00	12.06
		----------	AvgRF	CCRF	%Dev		----------	
85		1,2,3-Trichloropropane	0.259	0.244	5.8	87	0.00	12.04
86		Cyclohexanone	0.026	0.017	34.6#	57	0.00	12.09
		----------	Amount	Calc.	%Drift		----------	
87		4-Chlorotoluene	40.000	44.537	-11.3	100	0.00	12.18
88		tert-Butylbenzene	40.000	44.078	-10.2	100	0.00	12.36
89		1,2,4-Trimethylbenzene	40.000	44.489	-11.2	100	0.00	12.43
90		Pentachloroethane	40.000	43.034	-7.6	97	0.00	12.40
91		sec-Butylbenzene	40.000	44.223	-10.6	99	0.00	12.55
92		4-Isopropyltoluene	40.000	44.346	-10.9	99	0.00	12.69
93		1,3-Dichlorobenzene	40.000	41.448	-3.6	94	0.00	12.79
94		1,4-Dichlorobenzene	40.000	41.270	-3.2	92	0.00	12.88
95		n-Butylbenzene	40.000	44.814	-12.0	100	0.00	13.12
96		Benzyl Chloride	40.000	39.760	0.6	87	0.00	13.12
		----------	AvgRF	CCRF	%Dev		----------	
97		1,2-Dichlorobenzene	1.941	2.026	-4.4	91	0.00	13.32
98		1,2-Dibromo-3-Chloropropa	0.147	0.132	10.2	80	0.00	14.07
99		Hexachlorobutadiene	0.697	0.687	1.4	88	0.00	14.66
100		1,2,4-Trichlorobenzene	1.319	1.371	-3.9	89	0.00	14.69

Continuing Calibration Summary

Job Number: F79608 **Sample:** VJ3485-CC3475
Account: TETTNOAK Tetra Tech, Inc **Lab FileID:** J062891.D
Project: Holloman AFB; Alamogordo, NM

101	Naphthalene	2.383	2.350	1.4	82	0.00	14.96
102	1,2,3-Trichlorobenzene	1.199	1.148	4.3	85	0.00	15.12
103 I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	67	0.00	5.09
	----------	Amount	Calc.	%Drift	----------		
104	Ethanol	800.000	613.342	23.3#	51	-0.02	4.13
	----------	AvgRF	CCRF	%Dev	----------		
105	acrolein	2.198	2.728	-24.1#	86	0.00	4.57
106	Tert Butyl Alcohol	1.707	1.682	1.5	69	0.00	5.16
107	tert Amyl alcohol	1.325	1.476	-11.4	69	0.00	7.26
108	Isobutyl alcohol	0.704	0.801	-13.8	74	0.00	7.14
109	1,4-Dioxane	0.153	0.096	37.3#	39#	0.00	8.34

(#) = Out of Range SPCC's out = 0 CCC's out = 0
J062649.D 8260-JAPP9.M Tue Feb 08 10:44:12 2011

Southeast ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35877-MB	L049656.D	1	02/03/11	NAF	01/28/11	OP35877	SL2544

The QC reported here applies to the following samples: **Method:** SW846 8270D

F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	50	10	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.50	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	0.50	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	0.50	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	1.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	25	10	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.0	ug/l	
95-48-7	2-Methylphenol	ND	5.0	0.54	ug/l	
	3&4-Methylphenol	ND	5.0	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	25	5.0	ug/l	
87-86-5	Pentachlorophenol	ND	25	5.4	ug/l	
108-95-2	Phenol	ND	5.0	0.50	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	0.50	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.50	ug/l	
83-32-9	Acenaphthene	ND	5.0	0.50	ug/l	
208-96-8	Acenaphthylene	ND	5.0	0.50	ug/l	
62-53-3	Aniline	ND	5.0	0.52	ug/l	
120-12-7	Anthracene	ND	5.0	0.50	ug/l	
92-87-5	Benzidine	ND	25	4.7	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	0.50	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	0.50	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	0.50	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	0.50	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	0.50	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.50	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	1.1	ug/l	
100-51-6	Benzyl Alcohol	ND	5.0	1.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.50	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.50	ug/l	
86-74-8	Carbazole	ND	5.0	0.50	ug/l	
218-01-9	Chrysene	ND	5.0	0.50	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.50	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.54	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.54	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.50	ug/l	

Method Blank Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35877-MB	L049656.D	1	02/03/11	NAF	01/28/11	OP35877	SL2544

The QC reported here applies to the following samples: **Method:** SW846 8270D

F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	5.0	1.0	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.0	0.50	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	0.50	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	10	1.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	0.52	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.50	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.87	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	1.1	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	1.1	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.99	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	1.1	ug/l	
206-44-0	Fluoranthene	ND	5.0	0.50	ug/l	
86-73-7	Fluorene	ND	5.0	0.50	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.56	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.0	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.9	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	0.50	ug/l	
78-59-1	Isophorone	ND	5.0	0.50	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	0.50	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	0.57	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.50	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.50	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.50	ug/l	
91-20-3	Naphthalene	ND	5.0	0.80	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.59	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	5.0	2.4	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.50	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	1.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	0.50	ug/l	
129-00-0	Pyrene	ND	5.0	0.50	ug/l	
110-86-1	Pyridine	ND	10	1.6	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.50	ug/l	

Method Blank Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35877-MB	L049656.D	1	02/03/11	NAF	01/28/11	OP35877	SL2544

The QC reported here applies to the following samples: **Method:** SW846 8270D

F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	39%	14-62%
4165-62-2	Phenol-d5	25%	10-40%
118-79-6	2,4,6-Tribromophenol	75%	33-118%
4165-60-0	Nitrobenzene-d5	70%	42-108%
321-60-8	2-Fluorobiphenyl	71%	40-106%
1718-51-0	Terphenyl-d14	83%	39-121%

Method Blank Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35877-MB	L049675.D	1	02/04/11	NAF	01/28/11	OP35877	SL2545

The QC reported here applies to the following samples: **Method:** SW846 8270D

F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	50	10	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.50	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	0.50	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	0.50	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	1.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	25	10	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.0	ug/l	
95-48-7	2-Methylphenol	ND	5.0	0.54	ug/l	
	3&4-Methylphenol	ND	5.0	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	25	5.0	ug/l	
87-86-5	Pentachlorophenol	ND	25	5.4	ug/l	
108-95-2	Phenol	ND	5.0	0.50	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	0.50	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.50	ug/l	
83-32-9	Acenaphthene	ND	5.0	0.50	ug/l	
208-96-8	Acenaphthylene	ND	5.0	0.50	ug/l	
62-53-3	Aniline	ND	5.0	0.52	ug/l	
120-12-7	Anthracene	ND	5.0	0.50	ug/l	
92-87-5	Benzidine	ND	25	4.7	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	0.50	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	0.50	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	0.50	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	0.50	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	0.50	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.50	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	1.1	ug/l	
100-51-6	Benzyl Alcohol	ND	5.0	1.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.50	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.50	ug/l	
86-74-8	Carbazole	ND	5.0	0.50	ug/l	
218-01-9	Chrysene	ND	5.0	0.50	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.50	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.54	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.54	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.50	ug/l	

Method Blank Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35877-MB	L049675.D	1	02/04/11	NAF	01/28/11	OP35877	SL2545

The QC reported here applies to the following samples: **Method:** SW846 8270D

F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	5.0	1.0	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.0	0.50	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	0.50	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	10	1.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	0.52	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.50	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.87	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	1.1	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	1.1	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.99	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	1.1	ug/l	
206-44-0	Fluoranthene	ND	5.0	0.50	ug/l	
86-73-7	Fluorene	ND	5.0	0.50	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.56	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.0	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.9	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	0.50	ug/l	
78-59-1	Isophorone	ND	5.0	0.50	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	0.50	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	0.57	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.50	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.50	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.50	ug/l	
91-20-3	Naphthalene	ND	5.0	0.80	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.59	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	5.0	2.4	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.50	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	1.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	0.50	ug/l	
129-00-0	Pyrene	ND	5.0	0.50	ug/l	
110-86-1	Pyridine	ND	10	1.6	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.50	ug/l	

Method Blank Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35877-MB	L049675.D	1	02/04/11	NAF	01/28/11	OP35877	SL2545

The QC reported here applies to the following samples: **Method:** SW846 8270D

F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	38%	14-62%
4165-62-2	Phenol-d5	25%	10-40%
118-79-6	2,4,6-Tribromophenol	74%	33-118%
4165-60-0	Nitrobenzene-d5	71%	42-108%
321-60-8	2-Fluorobiphenyl	72%	40-106%
1718-51-0	Terphenyl-d14	82%	39-121%

Blank Spike Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35877-BS	L049655.D	1	02/03/11	NAF	01/28/11	OP35877	SL2544

The QC reported here applies to the following samples: **Method:** SW846 8270D

F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	16.9	17	10-50
95-57-8	2-Chlorophenol	50	34.5	69	44-103
59-50-7	4-Chloro-3-methyl phenol	50	36.8	74	53-105
120-83-2	2,4-Dichlorophenol	50	38.2	76	53-108
105-67-9	2,4-Dimethylphenol	50	31.8	64	37-91
51-28-5	2,4-Dinitrophenol	100	68.9	69	37-111
534-52-1	4,6-Dinitro-o-cresol	100	82.0	82	62-115
95-48-7	2-Methylphenol	50	29.4	59	35-91
	3&4-Methylphenol	100	48.7	49	32-85
88-75-5	2-Nitrophenol	50	38.1	76	49-111
100-02-7	4-Nitrophenol	100	24.6	25	13-55
87-86-5	Pentachlorophenol	100	81.4	81	57-118
108-95-2	Phenol	50	12.5	25	13-54
95-95-4	2,4,5-Trichlorophenol	50	37.5	75	59-106
88-06-2	2,4,6-Trichlorophenol	50	37.3	75	58-107
83-32-9	Acenaphthene	50	38.0	76	58-106
208-96-8	Acenaphthylene	50	39.0	78	58-105
62-53-3	Aniline	50	33.6	67	43-98
120-12-7	Anthracene	50	41.9	84	65-108
92-87-5	Benzidine	50	28.6	57	15-73
56-55-3	Benzo(a)anthracene	50	41.8	84	63-111
50-32-8	Benzo(a)pyrene	50	41.8	84	62-106
205-99-2	Benzo(b)fluoranthene	50	41.8	84	63-109
191-24-2	Benzo(g,h,i)perylene	50	42.0	84	61-111
207-08-9	Benzo(k)fluoranthene	50	44.3	89	64-111
101-55-3	4-Bromophenyl phenyl ether	50	42.3	85	64-107
85-68-7	Butyl benzyl phthalate	50	42.5	85	59-114
100-51-6	Benzyl Alcohol	50	30.7	61	34-98
91-58-7	2-Chloronaphthalene	50	36.0	72	54-105
106-47-8	4-Chloroaniline	50	38.1	76	53-103
86-74-8	Carbazole	50	43.4	87	66-109
218-01-9	Chrysene	50	41.8	84	64-111
111-91-1	bis(2-Chloroethoxy)methane	50	37.1	74	48-101
111-44-4	bis(2-Chloroethyl)ether	50	37.4	75	51-108
108-60-1	bis(2-Chloroisopropyl)ether	50	37.3	75	43-106
7005-72-3	4-Chlorophenyl phenyl ether	50	39.0	78	61-107

Blank Spike Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35877-BS	L049655.D	1	02/03/11	NAF	01/28/11	OP35877	SL2544

The QC reported here applies to the following samples: **Method:** SW846 8270D

F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-50-1	1,2-Dichlorobenzene	50	37.3	75	41-102
122-66-7	1,2-Diphenylhydrazine	50	40.4	81	61-110
541-73-1	1,3-Dichlorobenzene	50	36.2	72	38-100
106-46-7	1,4-Dichlorobenzene	50	36.3	73	40-100
121-14-2	2,4-Dinitrotoluene	50	41.7	83	60-109
606-20-2	2,6-Dinitrotoluene	50	40.2	80	58-104
91-94-1	3,3'-Dichlorobenzidine	50	38.4	77	57-105
53-70-3	Dibenzo(a,h)anthracene	50	40.5	81	62-112
132-64-9	Dibenzofuran	50	39.4	79	61-108
84-74-2	Di-n-butyl phthalate	50	43.5	87	62-109
117-84-0	Di-n-octyl phthalate	50	44.6	89	60-120
84-66-2	Diethyl phthalate	50	42.1	84	62-109
131-11-3	Dimethyl phthalate	50	40.5	81	63-106
117-81-7	bis(2-Ethylhexyl)phthalate	50	43.4	87	59-116
206-44-0	Fluoranthene	50	41.9	84	65-114
86-73-7	Fluorene	50	39.8	80	61-106
118-74-1	Hexachlorobenzene	50	41.3	83	62-107
87-68-3	Hexachlorobutadiene	50	37.5	75	38-107
77-47-4	Hexachlorocyclopentadiene	50	35.5	71	19-84
67-72-1	Hexachloroethane	50	35.7	71	35-101
193-39-5	Indeno(1,2,3-cd)pyrene	50	41.1	82	61-113
78-59-1	Isophorone	50	31.2	62	56-111
90-12-0	1-Methylnaphthalene	50	36.7	73	52-102
91-57-6	2-Methylnaphthalene	50	39.9	80	56-112
88-74-4	2-Nitroaniline	50	48.3	97	60-109
99-09-2	3-Nitroaniline	50	39.3	79	52-107
100-01-6	4-Nitroaniline	50	42.2	84	59-111
91-20-3	Naphthalene	50	38.0	76	50-104
98-95-3	Nitrobenzene	50	36.5	73	52-105
62-75-9	N-Nitrosodimethylamine	50	18.9	38	20-71
621-64-7	N-Nitroso-di-n-propylamine	50	35.8	72	51-104
86-30-6	N-Nitrosodiphenylamine	50	43.1	86	57-110
85-01-8	Phenanthrene	50	41.9	84	65-108
129-00-0	Pyrene	50	42.2	84	60-113
110-86-1	Pyridine	50	18.6	37	15-67
120-82-1	1,2,4-Trichlorobenzene	50	34.7	69	45-104

Blank Spike Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35877-BS	L049655.D	1	02/03/11	NAF	01/28/11	OP35877	SL2544

The QC reported here applies to the following samples: **Method:** SW846 8270D

F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	42%	14-62%
4165-62-2	Phenol-d5	26%	10-40%
118-79-6	2,4,6-Tribromophenol	86%	33-118%
4165-60-0	Nitrobenzene-d5	75%	42-108%
321-60-8	2-Fluorobiphenyl	76%	40-106%
1718-51-0	Terphenyl-d14	85%	39-121%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35877-MS	L049658.D	1	02/03/11	NAF	01/28/11	OP35877	SL2544
OP35877-MSD	L049659.D	1	02/03/11	NAF	01/28/11	OP35877	SL2544
F79608-1	L049661.D	1	02/03/11	NAF	01/28/11	OP35877	SL2544

The QC reported here applies to the following samples: **Method:** SW846 8270D

F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6

CAS No.	Compound	F79608-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		192	78.4	41	81.3	42	4	10-50/40
95-57-8	2-Chlorophenol	ND		96.2	66.6	69	72.3	75	8	44-103/29
59-50-7	4-Chloro-3-methyl phenol	ND		96.2	70.1	73	77.2	80	10	53-105/24
120-83-2	2,4-Dichlorophenol	ND		96.2	68.5	71	77.9	81	13	53-108/26
105-67-9	2,4-Dimethylphenol	ND		96.2	61.8	64	66.0	69	7	37-91/28
51-28-5	2,4-Dinitrophenol	ND		192	131	68	141	73	7	37-111/30
534-52-1	4,6-Dinitro-o-cresol	ND		192	156	81	160	83	3	62-115/26
95-48-7	2-Methylphenol	ND		96.2	66.9	70	72.9	76	9	35-91/30
	3&4-Methylphenol	ND		192	121	63	132	69	9	32-85/29
88-75-5	2-Nitrophenol	ND		96.2	67.6	70	76.6	80	12	49-111/30
100-02-7	4-Nitrophenol	ND		192	97.3	51	92.3	48	5	13-55/31
87-86-5	Pentachlorophenol	ND		192	150	78	152	79	1	57-118/26
108-95-2	Phenol	ND		96.2	49.9	52	50.2	52	1	13-54/34
95-95-4	2,4,5-Trichlorophenol	ND		96.2	69.0	72	73.9	77	7	59-106/23
88-06-2	2,4,6-Trichlorophenol	ND		96.2	68.3	71	74.9	78	9	58-107/24
83-32-9	Acenaphthene	ND		96.2	71.1	74	76.9	80	8	58-106/21
208-96-8	Acenaphthylene	ND		96.2	72.4	75	78.4	82	8	58-105/21
62-53-3	Aniline	ND		96.2	62.2	65	62.9	65	1	43-98/28
120-12-7	Anthracene	ND		96.2	77.0	80	79.3	82	3	65-108/19
92-87-5	Benzidine	ND		96.2	28.8	30	31.5	33	9	15-73/23
56-55-3	Benzo(a)anthracene	ND		96.2	75.5	79	77.2	80	2	63-111/19
50-32-8	Benzo(a)pyrene	ND		96.2	77.4	80	79.1	82	2	62-106/20
205-99-2	Benzo(b)fluoranthene	ND		96.2	77.8	81	80.1	83	3	63-109/20
191-24-2	Benzo(g,h,i)perylene	ND		96.2	75.9	79	78.4	82	3	61-111/21
207-08-9	Benzo(k)fluoranthene	ND		96.2	80.4	84	82.5	86	3	64-111/20
101-55-3	4-Bromophenyl phenyl ether	ND		96.2	79.4	83	80.8	84	2	64-107/20
85-68-7	Butyl benzyl phthalate	ND		96.2	78.2	81	80.3	84	3	59-114/20
100-51-6	Benzyl Alcohol	ND		96.2	68.5	71	73.9	77	8	34-98/27
91-58-7	2-Chloronaphthalene	ND		96.2	66.3	69	72.8	76	9	54-105/24
106-47-8	4-Chloroaniline	ND		96.2	64.7	67	68.7	71	6	53-103/22
86-74-8	Carbazole	ND		96.2	80.9	84	82.7	86	2	66-109/20
218-01-9	Chrysene	ND		96.2	77.8	81	78.9	82	1	64-111/19
111-91-1	bis(2-Chloroethoxy)methane	ND		96.2	67.8	71	75.9	79	11	48-101/28
111-44-4	bis(2-Chloroethyl)ether	ND		96.2	68.0	71	74.7	78	9	51-108/27
108-60-1	bis(2-Chloroisopropyl)ether	ND		96.2	67.9	71	74.7	78	10	43-106/27
7005-72-3	4-Chlorophenyl phenyl ether	ND		96.2	72.9	76	76.5	80	5	61-107/20

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35877-MS	L049658.D	1	02/03/11	NAF	01/28/11	OP35877	SL2544
OP35877-MSD	L049659.D	1	02/03/11	NAF	01/28/11	OP35877	SL2544
F79608-1	L049661.D	1	02/03/11	NAF	01/28/11	OP35877	SL2544

The QC reported here applies to the following samples: **Method:** SW846 8270D

F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6

CAS No.	Compound	F79608-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-50-1	1,2-Dichlorobenzene	ND		96.2	68.0	71	74.1	77	9	41-102/28
122-66-7	1,2-Diphenylhydrazine	ND		96.2	76.5	80	78.9	82	3	61-110/20
541-73-1	1,3-Dichlorobenzene	ND		96.2	66.3	69	72.0	75	8	38-100/28
106-46-7	1,4-Dichlorobenzene	ND		96.2	66.6	69	73.0	76	9	40-100/28
121-14-2	2,4-Dinitrotoluene	ND		96.2	74.9	78	77.0	80	3	60-109/20
606-20-2	2,6-Dinitrotoluene	ND		96.2	72.8	76	77.1	80	6	58-104/21
91-94-1	3,3'-Dichlorobenzidine	ND		96.2	64.1	67	63.0	66	2	57-105/25
53-70-3	Dibenzo(a,h)anthracene	ND		96.2	75.1	78	77.6	81	3	62-112/20
132-64-9	Dibenzofuran	ND		96.2	72.3	75	76.9	80	6	61-108/20
84-74-2	Di-n-butyl phthalate	ND		96.2	79.7	83	81.1	84	2	62-109/20
117-84-0	Di-n-octyl phthalate	ND		96.2	81.4	85	84.2	88	3	60-120/24
84-66-2	Diethyl phthalate	ND		96.2	77.8	81	79.7	83	2	62-109/19
131-11-3	Dimethyl phthalate	ND		96.2	75.2	78	78.2	81	4	63-106/19
117-81-7	bis(2-Ethylhexyl)phthalate	ND		96.2	78.7	82	80.7	84	3	59-116/21
206-44-0	Fluoranthene	ND		96.2	77.6	81	78.4	82	1	65-114/21
86-73-7	Fluorene	ND		96.2	73.1	76	77.9	81	6	61-106/19
118-74-1	Hexachlorobenzene	ND		96.2	75.7	79	78.4	82	4	62-107/20
87-68-3	Hexachlorobutadiene	ND		96.2	67.8	71	76.0	79	11	38-107/30
77-47-4	Hexachlorocyclopentadiene	ND		96.2	64.4	67	70.0	73	8	19-84/35
67-72-1	Hexachloroethane	ND		96.2	66.0	69	72.1	75	9	35-101/29
193-39-5	Indeno(1,2,3-cd)pyrene	ND		96.2	74.9	78	76.5	80	2	61-113/20
78-59-1	Isophorone	ND		96.2	57.4	60	64.1	67	11	56-111/26
90-12-0	1-Methylnaphthalene	ND		96.2	66.8	69	75.3	78	12	52-102/25
91-57-6	2-Methylnaphthalene	ND		96.2	73.4	76	81.4	85	10	56-112/26
88-74-4	2-Nitroaniline	ND		96.2	73.5	76	78.3	81	6	60-109/20
99-09-2	3-Nitroaniline	ND		96.2	65.5	68	64.3	67	2	52-107/21
100-01-6	4-Nitroaniline	ND		96.2	75.9	79	78.9	82	4	59-111/21
91-20-3	Naphthalene	ND		96.2	69.0	72	76.5	80	10	50-104/28
98-95-3	Nitrobenzene	ND		96.2	66.2	69	74.5	77	12	52-105/28
62-75-9	N-Nitrosodimethylamine	ND		96.2	54.4	57	52.9	55	3	20-71/32
621-64-7	N-Nitroso-di-n-propylamine	ND		96.2	64.8	67	70.9	74	9	51-104/28
86-30-6	N-Nitrosodiphenylamine	ND		96.2	80.1	83	82.2	85	3	57-110/19
85-01-8	Phenanthrene	ND		96.2	78.2	81	80.0	83	2	65-108/20
129-00-0	Pyrene	ND		96.2	78.2	81	79.7	83	2	60-113/20
110-86-1	Pyridine	ND		96.2	44.6	46	40.8	42	9	15-67/40
120-82-1	1,2,4-Trichlorobenzene	ND		96.2	63.5	66	70.4	73	10	45-104/28

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35877-MS	L049658.D	1	02/03/11	NAF	01/28/11	OP35877	SL2544
OP35877-MSD	L049659.D	1	02/03/11	NAF	01/28/11	OP35877	SL2544
F79608-1	L049661.D	1	02/03/11	NAF	01/28/11	OP35877	SL2544

The QC reported here applies to the following samples: **Method:** SW846 8270D

F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6

CAS No.	Surrogate Recoveries	MS	MSD	F79608-1	Limits
367-12-4	2-Fluorophenol	63%*	67%*	42%	14-62%
4165-62-2	Phenol-d5	55%*	55%*	35%	10-40%
118-79-6	2,4,6-Tribromophenol	84%	85%	76%	33-118%
4165-60-0	Nitrobenzene-d5	70%	79%	69%	42-108%
321-60-8	2-Fluorobiphenyl	73%	79%	73%	40-106%
1718-51-0	Terphenyl-d14	83%	83%	79%	39-121%

Instrument Performance Check (DFTPP)

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: SL2540-DFTPP
Lab File ID: L049582.D
Instrument ID: GCMSL
Injection Date: 01/28/11
Injection Time: 10:16

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	27092	43.6		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	22900	36.9		Pass
70	Less than 2.0% of mass 69	152	0.24	(0.66) [a]	Pass
127	40.0 - 60.0% of mass 198	29913	48.1		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	62131	100.0		Pass
199	5.0 - 9.0% of mass 198	4151	6.68		Pass
275	10.0 - 30.0% of mass 198	12982	20.9		Pass
365	1.0 - 100.0% of mass 198	1412	2.27		Pass
441	Present, but less than mass 443	66	0.11	(0.69) [b]	Pass
442	40.0 - 100.0% of mass 198	48583	78.2		Pass
443	17.0 - 23.0% of mass 442	9596	15.4	(19.8) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
SL2540-IC2540	L049583.D	01/28/11	10:35	00:19	Initial cal 5
SL2540-IC2540	L049584.D	01/28/11	11:03	00:47	Initial cal 25
SL2540-IC2540	L049585.D	01/28/11	11:31	01:15	Initial cal 50
SL2540-ICC2540	L049586.D	01/28/11	12:00	01:44	Initial cal 75
SL2540-IC2540	L049587.D	01/28/11	12:28	02:12	Initial cal 100
SL2540-IC2540	L049588.D	01/28/11	12:57	02:41	Initial cal 125
SL2540-ICV2540	L049589.D	01/28/11	13:25	03:09	Initial cal verification 50
OP35737-MB	L049590.D	01/28/11	13:53	03:37	Method Blank
ZZZZZZ	L049591.D	01/28/11	14:21	04:05	(unrelated sample)
F79346-2	L049592.D	01/28/11	14:49	04:33	(used for QC only; not part of job F79608)
OP35832-BS2	L049593.D	01/28/11	15:17	05:01	Blank Spike
OP35832-MB	L049594.D	01/28/11	15:46	05:30	Method Blank
ZZZZZZ	L049595.D	01/28/11	16:14	05:58	(unrelated sample)
F79450-5	L049596.D	01/28/11	16:42	06:26	(used for QC only; not part of job F79608)
ZZZZZZ	L049597.D	01/28/11	17:10	06:54	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: SL2542-DFTPP
Lab File ID: L049613.D
Instrument ID: GCMSL
Injection Date: 02/01/11
Injection Time: 14:56

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	33453	32.0		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	41236	39.5		Pass
70	Less than 2.0% of mass 69	226	0.22	(0.55) [a]	Pass
127	40.0 - 60.0% of mass 198	49095	47.0		Pass
197	Less than 1.0% of mass 198	12	0.01		Pass
198	Base peak, 100% relative abundance	104391	100.0		Pass
199	5.0 - 9.0% of mass 198	7050	6.75		Pass
275	10.0 - 30.0% of mass 198	24068	23.1		Pass
365	1.0 - 100.0% of mass 198	2257	2.16		Pass
441	Present, but less than mass 443	34	0.03	(0.21) [b]	Pass
442	40.0 - 100.0% of mass 198	82050	78.6		Pass
443	17.0 - 23.0% of mass 442	16105	15.4	(19.6) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
SL2542-IC2542	L049614.D	02/01/11	15:13	00:17	Initial cal 5
SL2542-IC2542	L049615.D	02/01/11	15:43	00:47	Initial cal 25
SL2542-IC2542	L049616.D	02/01/11	16:11	01:15	Initial cal 50
SL2542-ICC2542	L049617.D	02/01/11	16:39	01:43	Initial cal 75
SL2542-IC2542	L049618.D	02/01/11	17:08	02:12	Initial cal 100
SL2542-IC2542	L049619.D	02/01/11	17:36	02:40	Initial cal 125
SL2542-IC2542	L049620.D	02/01/11	18:04	03:08	Initial cal 5
SL2542-IC2542	L049621.D	02/01/11	18:32	03:36	Initial cal 25
SL2542-IC2542	L049622.D	02/01/11	19:01	04:05	Initial cal 50
SL2542-IC2542	L049623.D	02/01/11	19:29	04:33	Initial cal 75
SL2542-IC2542	L049624.D	02/01/11	19:57	05:01	Initial cal 100
SL2542-IC2542	L049625.D	02/01/11	20:25	05:29	Initial cal 125
SL2542-ICV2542	L049626.D	02/01/11	20:53	05:57	Initial cal verification 50
SL2542-ICV2542	L049627.D	02/01/11	21:22	06:26	Initial cal verification 50
SL2542-ICV2542	L049628.D	02/01/11	21:50	06:54	Initial cal verification 50
OP35832-BS	L049629.D	02/01/11	22:18	07:22	Blank Spike
OP35832-MB	L049630.D	02/01/11	22:46	07:50	Method Blank
ZZZZZZ	L049631.D	02/01/11	23:14	08:18	(unrelated sample)
ZZZZZZ	L049632.D	02/01/11	23:42	08:46	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: SL2542-DFTPP
Lab File ID: L049613.D
Instrument ID: GCMSL
Injection Date: 02/01/11
Injection Time: 14:56

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	L049633.D	02/02/11	00:10	09:14	(unrelated sample)
F79450-5	L049634.D	02/02/11	00:38	09:42	(used for QC only; not part of job F79608)
ZZZZZZ	L049635.D	02/02/11	01:06	10:10	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: SL2544-DFTPP
Lab File ID: L049653.D
Instrument ID: GCMSL
Injection Date: 02/03/11
Injection Time: 10:27

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	32628	32.2		Pass
68	Less than 2.0% of mass 69	24	0.02	(0.06) [a]	Pass
69	Mass 69 relative abundance	40096	39.6		Pass
70	Less than 2.0% of mass 69	191	0.19	(0.48) [a]	Pass
127	40.0 - 60.0% of mass 198	47878	47.2		Pass
197	Less than 1.0% of mass 198	10	0.01		Pass
198	Base peak, 100% relative abundance	101338	100.0		Pass
199	5.0 - 9.0% of mass 198	6940	6.85		Pass
275	10.0 - 30.0% of mass 198	23715	23.4		Pass
365	1.0 - 100.0% of mass 198	2290	2.26		Pass
441	Present, but less than mass 443	512	0.51	(3.22) [b]	Pass
442	40.0 - 100.0% of mass 198	80952	79.9		Pass
443	17.0 - 23.0% of mass 442	15915	15.7	(19.7) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
SL2544-CC2542	L049654.D	02/03/11	10:46	00:19	Continuing cal 75
OP35877-BS	L049655.D	02/03/11	11:14	00:47	Blank Spike
OP35877-MB	L049656.D	02/03/11	11:42	01:15	Method Blank
ZZZZZZ	L049657.D	02/03/11	12:11	01:44	(unrelated sample)
OP35877-MS	L049658.D	02/03/11	12:39	02:12	Matrix Spike
OP35877-MSD	L049659.D	02/03/11	13:07	02:40	Matrix Spike Duplicate
ZZZZZZ	L049660.D	02/03/11	13:36	03:09	(unrelated sample)
F79608-1	L049661.D	02/03/11	14:04	03:37	MW27-01-012511
F79608-2	L049662.D	02/03/11	14:32	04:05	MW27-02-012511
F79608-3	L049663.D	02/03/11	15:00	04:33	MW27-DUP01-012511
F79608-4	L049664.D	02/03/11	15:29	05:02	MW27-03-012511
F79608-5	L049665.D	02/03/11	15:57	05:30	MW27-04-012511
F79608-6	L049666.D	02/03/11	16:25	05:58	MW27-05-012511

Instrument Performance Check (DFTPP)

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: SL2545-DFTPP
Lab File ID: L049669.D
Instrument ID: GCMSL
Injection Date: 02/04/11
Injection Time: 08:30

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	27478	31.9		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	34692	40.2		Pass
70	Less than 2.0% of mass 69	205	0.24	(0.59) [a]	Pass
127	40.0 - 60.0% of mass 198	40590	47.1		Pass
197	Less than 1.0% of mass 198	13	0.02		Pass
198	Base peak, 100% relative abundance	86219	100.0		Pass
199	5.0 - 9.0% of mass 198	6134	7.11		Pass
275	10.0 - 30.0% of mass 198	19356	22.4		Pass
365	1.0 - 100.0% of mass 198	1809	2.10		Pass
441	Present, but less than mass 443	20	0.02	(0.15) [b]	Pass
442	40.0 - 100.0% of mass 198	65446	75.9		Pass
443	17.0 - 23.0% of mass 442	12916	15.0	(19.7) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
SL2545-CC2542	L049670.D	02/04/11	08:47	00:17	Continuing cal 50
SL2545-CC2540	L049671.D	02/04/11	09:15	00:45	Continuing cal 50
OP35888-BS2	L049672.D	02/04/11	09:43	01:13	Blank Spike
OP35888-MB	L049673.D	02/04/11	10:12	01:42	Method Blank
ZZZZZZ	L049674.D	02/04/11	10:40	02:10	(unrelated sample)
OP35877-MB	L049675.D	02/04/11	11:12	02:42	Method Blank
ZZZZZZ	L049676.D	02/04/11	11:40	03:10	(unrelated sample)
ZZZZZZ	L049677.D	02/04/11	12:09	03:39	(unrelated sample)

Semivolatile Internal Standard Area Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	SL2544-CC2542	**Injection Date:**	02/03/11
Lab File ID:	L049654.D	**Injection Time:**	10:46
Instrument ID:	GCMSL	**Method:**	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Initial Cal [a]	199163	4.73	702401	5.82	381173	8.03	679990	10.49	556803	15.39	545869	17.88
Check Std [b]	285559	4.73	982801	5.82	532819	8.03	929110	10.49	733405	15.39	733685	17.88
Upper Limit [c]	571118	5.23	1965602	6.32	1065638	8.53	1858220	10.99	1466810	15.89	1467370	18.38
Lower Limit [d]	142780	4.23	491401	5.32	266410	7.53	464555	9.99	366703	14.89	366843	17.38

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP35877-BS	244407	4.73	849367	5.82	462593	8.03	786862	10.48	642790	15.38	599923	17.87
OP35877-MB	244946	4.72	842766	5.82	454727	8.02	757466	10.48	656352	15.37	585984	17.87
ZZZZZZ	236483	4.73	815261	5.81	441687	8.02	742177	10.48	639878	15.37	568979	17.87
OP35877-MS	230841	4.73	801654	5.82	436319	8.02	735186	10.48	599625	15.38	539012	17.87
OP35877-MSD	226194	4.73	776990	5.82	426165	8.02	726717	10.48	590190	15.38	530273	17.87
ZZZZZZ	244173	4.73	844436	5.82	456176	8.02	756013	10.48	655995	15.37	576162	17.87
F79608-1	206000	4.72	714028	5.82	377427	8.02	632591	10.48	541153	15.37	474731	17.87
F79608-2	211740	4.73	732205	5.82	403113	8.02	670387	10.48	584050	15.37	514636	17.87
F79608-3	237750	4.73	805429	5.81	459068	8.02	752741	10.48	664303	15.38	600461	17.87
F79608-4	172199	4.72	589253	5.82	317408	8.02	540906	10.48	462224	15.37	405691	17.86
F79608-5	212130	4.72	725002	5.81	388518	8.02	641105	10.48	537255	15.37	461337	17.87
F79608-6	227380	4.72	754716	5.82	422179	8.02	713409	10.48	623379	15.37	561847	17.87

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Initial Cal is: SL2542-ICC2542 L049617.D 02/01/11 16:39
(b) Check Std Limit = -50 to + 100% of initial cal area.
(c) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(d) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	SL2545-CC2542	**Injection Date:**	02/04/11
Lab File ID:	L049670.D	**Injection Time:**	08:47
Instrument ID:	GCMSL	**Method:**	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Initial Cal [a]	199163	4.73	702401	5.82	381173	8.03	679990	10.49	556803	15.39	545869	17.88
Check Std [b]	192271	4.72	683622	5.82	369967	8.02	642641	10.49	541737	15.38	539661	17.87
Upper Limit [c]	384542	5.22	1367244	6.32	739934	8.52	1285282	10.99	1083474	15.88	1079322	18.37
Lower Limit [d]	96136	4.22	341811	5.32	184984	7.52	321321	9.99	270869	14.88	269831	17.37

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP35888-BS2	280816	4.73	960132	5.81	523521	8.02	875556	10.48	728219	15.38	630419	17.87
OP35888-MB	270674	4.72	935601	5.82	502337	8.02	824105	10.48	696187	15.37	611678	17.87
ZZZZZZ	298126	4.73	1029401	5.82	561216	8.02	909036	10.48	816531	15.38	743453	17.87
OP35877-MB	249395	4.72	843504	5.82	457619	8.02	771631	10.48	651828	15.37	581041	17.87
ZZZZZZ	267106	4.72	910290	5.82	488990	8.02	827261	10.48	708978	15.37	616995	17.87
ZZZZZZ	199548	4.72	676026	5.82	359469	8.02	620802	10.48	538452	15.37	474822	17.87

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Initial Cal is: SL2542-ICC2542 L049617.D 02/01/11 16:39
(b) Check Std Limit = -50 to + 100% of initial cal area.
(c) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(d) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Surrogate Recovery Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Method: SW846 8270D **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
F79608-1	L049661.D	42.0	35.0	76.0	69.0	73.0	79.0
F79608-2	L049662.D	36.0	29.0	79.0	60.0	65.0	71.0
F79608-3	L049663.D	35.0	29.0	84.0	65.0	65.0	76.0
F79608-4	L049664.D	39.0	33.0	75.0	66.0	68.0	58.0
F79608-5	L049665.D	42.0	36.0	79.0	69.0	71.0	67.0
F79608-6	L049666.D	32.0	27.0	82.0	63.0	66.0	70.0
OP35877-BS	L049655.D	42.0	26.0	86.0	75.0	76.0	85.0
OP35877-MB	L049656.D	39.0	25.0	75.0	70.0	71.0	83.0
OP35877-MB	L049675.D	38.0	25.0	74.0	71.0	72.0	82.0
OP35877-MS	L049658.D	63.0*	55.0*	84.0	70.0	73.0	83.0
OP35877-MSD	L049659.D	67.0*	55.0*	85.0	79.0	79.0	83.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	14-62%
S2 = Phenol-d5	10-40%
S3 = 2,4,6-Tribromophenol	33-118%
S4 = Nitrobenzene-d5	42-108%
S5 = 2-Fluorobiphenyl	40-106%
S6 = Terphenyl-d14	39-121%

Initial Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: SL2540-ICC2540
Lab FileID: L049586.D

Response Factor Report MSBNA02

```
Method       : C:\msdchem\2\METHODS\8270op.m (RTE Integrator)
Title        : OP Pesticides by 8270c
Last Update  : Fri Jan 28 13:24:40 2011
Response via : Initial Calibration

Calibration Files
5   =L049583.D   25  =L049584.D   50  =L049585.D   75  =L049586.D
100    =L049587.D    125    =L049588.D

      Compound              5     25    50    75    100   125   Avg    %RSD
-------------------------------------------------------------------------------

1) I   1,4-Dichlorobenzene-d ----------------ISTD---------------------
2)     O,O,O-Triethylphosp 0.679 0.657 0.627 0.594 0.555 0.540 0.608   9.15

3) I   Naphthalene-d8        ----------------ISTD---------------------

4) I   Acenaphthene-d10      ----------------ISTD---------------------
5)     Thionazin           0.252 0.253 0.256 0.250 0.240 0.231 0.247   3.89
6)     Sulfotep            0.173 0.186 0.179 0.172 0.160 0.156 0.171   6.71
7)     Phorate             0.637 0.675 0.661 0.646 0.614 0.604 0.640   4.24

8)     Phenanthrene-d10      ----------------ISTD---------------------
9)     Dimethoate          0.299 0.316 0.322 0.314 0.303 0.298 0.309   3.20
10)    Disulfoton          0.338 0.358 0.359 0.341 0.320 0.314 0.338   5.53
11)    Methyl Parathion    0.146 0.215 0.244 0.243 0.237 0.235 0.220  17.22
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9991
             Response Ratio = 0.00000 + 0.24238 *A + -0.00214 *A^2

12)    Ethyl Parathion     0.091 0.130 0.140 0.142 0.136 0.133 0.129  14.77

13) I  Chrysene-d12          ----------------ISTD---------------------
14)    Famphur             0.424 0.490 0.506 0.509 0.482 0.472 0.481   6.47

15) I  Perylene-d12          ----------------ISTD---------------------
-------------------------------------------------------------------------------
(#) = Out of Range

         8270op.m          Fri Jan 28 15:50:01 2011
```

Initial Calibration Verification

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: SL2540-ICV2540
Lab FileID: L049589.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\2\DATA\012811\L049589.D          Vial: 8
Acq On    : 28 Jan 2011   1:25 pm                   Operator: nancyf
Sample    : icv2540-50                              Inst    : MSBNA02
Misc      : op35737,sl2540,1000,,,1,1,water         Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\msdchem\2\METHODS\8270op.m (RTE Integrator)
Title        : OP Pesticides by 8270c
Last Update  : Fri Jan 28 13:24:40 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	122	0.00	4.74
2		O,O,O-Triethylphosphoroth	50.000	50.832	-1.7	121	0.00	5.57
3	I	Naphthalene-d8	40.000	40.000	0.0	118	0.00	5.84
4	I	Acenaphthene-d10	40.000	40.000	0.0	119	0.00	8.04
5		Thionazin	50.000	52.302	-4.6	120	0.00	8.93
6		Sulfotep	50.000	54.413	-8.8	124	0.00	9.50
7		Phorate	50.000	51.527	-3.1	118	0.00	9.69
8		Phenanthrene-d10	40.000	40.000	0.0	119	0.00	10.51
9		Dimethoate	50.000	51.915	-3.8	118	0.00	9.96
10		Disulfoton	50.000	53.537	-7.1	120	0.00	10.62
		----------	Amount	Calc.	%Drift		----------	
11		Methyl Parathion	50.000	52.193	-4.4	122	0.00	11.29
		----------	Amount	Calc.	%Drift		----------	
12		Ethyl Parathion	50.000	55.147	-10.3	120	0.00	12.04
13	I	Chrysene-d12	40.000	40.000	0.0	114	0.00	15.40
14		Famphur	50.000	51.068	-2.1	110	0.00	14.40
15	I	Perylene-d12	40.000	40.000	0.0	104	0.00	17.90

(#) = Out of Range SPCC's out = 0 CCC's out = 0
L049585.D 8270op.m Fri Jan 28 15:50:29 2011

Initial Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: SL2542-ICC2542
Lab FileID: L049617.D

Response Factor Report MSBNA02

Method : C:\msdchem\2\METHODS\app9D.m (RTE Integrator)
Title : SW846 8270D OR EPA 625
Last Update : Wed Feb 02 08:32:51 2011
Response via : Initial Calibration

Calibration Files
5 =L049620.D 25 =L049621.D 50 =L049622.D 75 =L049623.D
100 =L049624.D 125 =L049625.D icv =L049626.D 10 =L049108.D
200 =L049115.D =

Compound	5	25	50	75	100	125	icv	10	200	Avg	%RSD
1) I 1,4-Dichlorobenzene-d ----------ISTD----------											
2) 1,4-Dioxane	0.574	0.586	0.582	0.562	0.540	0.533				0.563	3.92
3) N-nitrosodimethylamine	0.514	0.534	0.529	0.509	0.487	0.482				0.509	4.17
4) Pyridine	1.487	1.471	1.490	1.454	1.357	1.366				1.438	4.19
5) Benzaldehyde	1.196	1.153	1.058	0.876	0.676	0.520				0.913	29.82
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9982											
Response Ratio = 0.00000 + 1.38358 *A + -0.55499 *A^2											
6) Aniline	2.198	2.164	2.030	1.968	1.822	1.763				1.991	8.86
7) 2-Fluorophenol	1.321	1.286	1.205	1.160	1.045	0.994				1.169	11.09
8) bis(2-Chloroethyl)ether	1.471	1.355	1.293	1.253	1.167	1.141				1.280	9.55
9) Phenol-d5	1.751	1.619	1.442	1.377	1.257	1.196				1.440	14.74
10) Phenol	1.868	1.665	1.537	1.550	1.405	1.362				1.564	11.77
11) 2-Chlorophenol	1.464	1.409	1.386	1.352	1.262	1.216				1.349	6.91
12) 1,3-Dichlorobenzene	1.644	1.592	1.504	1.447	1.338	1.279				1.467	9.67
13) 1,4-Dichlorobenzene	1.622	1.521	1.444	1.392	1.303	1.240				1.420	9.89
14) 1,2-Dichlorobenzene	1.600	1.477	1.378	1.312	1.189	1.129				1.347	13.10
15) Benzyl alcohol	0.933	0.974	0.948	0.924	0.858	0.825				0.910	6.25
16) bis(2-chloroisopropyl)ether	1.611	1.555	1.462	1.422	1.317	1.289				1.443	8.83
17) 2-Methylphenol	1.322	1.271	1.227	1.210	0.858	1.128				1.169	14.15
18) Acetophenone	2.091	1.849	1.804	1.744	1.660	1.648				1.799	9.07
19) Hexachloroethane	0.574	0.547	0.538	0.519	0.486	0.483				0.524	6.83
20) N-Nitroso-di-n-propylamine	1.056	1.039	0.980	0.967	0.896	0.882				0.970	7.36
21) 3&4-Methylphenol	1.360	1.379	1.317	1.300	1.216	1.194				1.294	5.79

Initial Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: SL2542-ICC2542
Lab FileID: L049617.D

```
22) I   Naphthalene-d8        ----------------ISTD--------------------
23)  Nitrobenzene-d5
           0.381 0.413 0.405 0.391 0.374 0.368                      0.389    4.52
24)  Nitrobenzene
           0.429 0.415 0.396 0.379 0.358 0.344                      0.387    8.47
25)  Isophorone
           0.784 0.798 0.765 0.732 0.692 0.674                      0.741    6.79
26)  2-Nitrophenol
           0.196 0.230 0.229 0.223 0.211 0.205                      0.216    6.39
27)  2,4-Dimethylphenol
           0.387 0.383 0.369 0.352 0.337 0.321                      0.358    7.29
28)  bis(2-Chloroethoxy)methane
           0.485 0.474 0.449 0.424 0.400 0.379                      0.435    9.56
29)  Benzoic Acid
           0.110 0.303 0.326 0.321 0.331 0.335                      0.288   30.45
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9993
              Response Ratio = 0.00000 + 0.30610 *A + 0.00949 *A^2

30)  2,4-Dichlorophenol
           0.340 0.351 0.336 0.318 0.301 0.286                      0.322    7.69
31)  1,2,4-Trichlorobenzene
           0.418 0.402 0.377 0.355 0.333 0.317                      0.367   10.76
32)  Naphthalene
           1.131 1.068 0.981 0.930 0.858 0.799                      0.961   13.03
33)  alpha-terpineol
           0.279 0.270 0.256 0.243 0.233 0.223                      0.251    8.65
34)  4-Chloroaniline
           0.478 0.487 0.457 0.434 0.407 0.380                      0.440    9.38
35)  2,6-Dichlorophenol
           0.335 0.337 0.317 0.304 0.287 0.270                      0.308    8.62
36)  Hexachlorobutadiene
           0.208 0.194 0.185 0.177 0.168 0.159                      0.182    9.67
37)  Caprolactam
           0.119 0.136 0.140 0.136 0.131 0.136                      0.133    5.68
38)  4-Chloro-3-methylphenol
           0.313 0.337 0.326 0.316 0.300 0.292                      0.314    5.31
39)  2-Methylnaphthalene
           0.753 0.741 0.698 0.658 0.613 0.582                      0.674   10.21
40)  1-Methylnaphthalene
           0.753 0.737 0.692 0.656 0.617 0.581                      0.673   10.03
41)  1,2,4,5-Tetrachlorobenzene
           0.378 0.359 0.323 0.305 0.282 0.267                      0.319   13.56

42) I   Acenaphthene-d10      ----------------ISTD--------------------
43)  Hexachlorocyclopentadiene
           0.272 0.361 0.365 0.359 0.340 0.335                      0.339   10.30
44)  2,4,6-Trichlorophenol
           0.448 0.451 0.443 0.432 0.412 0.403                      0.431    4.61
45)  2,4,5-Trichlorophenol
           0.449 0.479 0.465 0.458 0.434 0.423                      0.451    4.48
46)  2-Fluorobiphenyl
           1.557 1.445 1.343 1.296 1.232 1.166                      1.340   10.66
47)  1,1'-Biphenyl
           1.842 1.653 1.593 1.505 1.447 1.409                      1.575   10.10
48)  2-Chloronaphthalene
           1.367 1.265 1.196 1.134 1.076 1.012                      1.175   10.98
49)  2-Nitroaniline
           0.279 0.347 0.356 0.354 0.343 0.339                      0.336    8.62
50)  m-Dinitrobenzene
```

```
            0.211 0.257 0.262 0.263 0.261 0.258                    0.252    8.04
51)  Acenaphthylene
            2.077 1.979 1.859 1.758 1.661 1.588                    1.821   10.31
52)  Dimethylphthalate
            1.505 1.447 1.375 1.334 1.264 1.226                    1.358    7.84
53)  2,6-Dinitrotoluene
            0.301 0.352 0.342 0.342 0.332 0.327                    0.333    5.30
54)  Acenaphthene
            1.282 1.220 1.143 1.107 1.051 1.006                    1.135    9.11
55)  3-Nitroaniline
            0.337 0.390 0.393 0.390 0.382 0.375                    0.378    5.59
56)  2,4-Dinitrophenol
            0.055 0.167 0.219 0.226 0.237 0.249                    0.192   38.01
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9988
               Response Ratio = 0.00000 + 0.18422 *A + 0.02109 *A^2

57)  Dibenzofuran
            1.860 1.767 1.639 1.584 1.492 1.424                    1.628   10.11
58)  2,4-Dinitrotoluene
            0.327 0.413 0.402 0.405 0.386 0.380                    0.386    8.14
59)  4-Nitrophenol
            0.137 0.164 0.162 0.163 0.161 0.162                    0.158    6.52
60)  2,3,4,6-Tetrachlorophenol
            0.331 0.357 0.357 0.346 0.339 0.333                    0.344    3.36
61)  Fluorene
            1.471 1.419 1.350 1.308 1.234 1.181                    1.327    8.27
62)  4-Chlorophenyl-phenylether
            0.705 0.671 0.638 0.610 0.586 0.563                    0.629    8.47
63)  Diethylphthalate
            1.311 1.333 1.289 1.257 1.201 1.147                    1.256    5.61
64)  4-Nitroaniline
            0.282 0.365 0.374 0.380 0.374 0.380                    0.359   10.61

65) I   Phenanthrene-d10      ----------------ISTD---------------------
66)  4,6-Dinitro-2-methylphenol
            0.084 0.149 0.163 0.162 0.166 0.162                    0.148   21.53
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9991
               Response Ratio = 0.00000 + 0.16095 *A + 0.00075 *A^2

67)  Diphenylamine
            0.721 0.710 0.679 0.629 0.611 0.570                    0.653    9.14
68)  n-Nitrosodiphenylamine
            0.601 0.592 0.566 0.524 0.509 0.475                    0.544    9.14
69)  1,2-Diphenylhydrazine
            0.795 0.771 0.746 0.687 0.668 0.627                    0.716    9.07
70)  2,4,6-Tribromophenol
            0.095 0.094 0.093 0.086 0.083 0.078                    0.088    7.59
71)  4-Bromophenyl-phenylether
            0.216 0.218 0.211 0.198 0.193 0.183                    0.203    6.88
72)  Hexachlorobenzene
            0.245 0.227 0.215 0.200 0.194 0.184                    0.211   10.71
73)  Simazine
            0.086 0.100 0.100 0.098 0.096 0.094                    0.095    5.36
74)  Atrazine
            0.219 0.214 0.213 0.202 0.194 0.192                    0.206    5.58
75)  Pentachlorophenol
                  0.116 0.130 0.130 0.133 0.130                    0.128    5.24
76)  Phenanthrene
            1.161 1.081 1.027 0.965 0.924 0.863                    1.004   10.83
77)  Anthracene
```

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```
            1.150 1.127 1.062 0.996 0.953 0.886                    1.029    9.98
 78)  Carbazole
            1.129 1.083 1.027 0.967 0.926 0.875                    1.001    9.65
 79)  Di-n-butylphthalate
            1.083 1.189 1.136 1.084 1.031 0.955                    1.079    7.53
 80)  Fluoranthene
            1.104 1.130 1.082 1.027 0.982 0.924                    1.042    7.54

 81) I   Chrysene-d12          ----------------ISTD---------------------
 82)  Benzidine
            0.563 0.779 0.825 0.791 0.762 0.730                    0.742   12.52
 83)  Pyrene
            1.401 1.356 1.316 1.254 1.204 1.178                    1.285    6.83
 84)  Terphenyl-d14
            0.763 0.795 0.794 0.747 0.729 0.709                    0.756    4.61
 85)  Butylbenzylphthalate
            0.457 0.570 0.597 0.583 0.566 0.563                    0.556    9.01
 86)  3,3'-Dichlorobenzidine
            0.343 0.420 0.420 0.407 0.391 0.378                    0.393    7.53
 87)  Benzo[a]anthracene
            1.100 1.162 1.162 1.146 1.108 1.098                    1.129    2.73
 88)  Chrysene
            1.171 1.108 1.051 1.001 0.976 0.954                    1.043    8.00
 89)  bis(2-Ethylhexyl)phthalate
            0.592 0.749 0.784 0.758 0.739 0.733                    0.726    9.34

 90) I   Perylene-d12          ----------------ISTD---------------------
 91)  Di-n-octylphthalate
            0.975 1.329 1.367 1.306 1.222 1.175                    1.229   11.63
 92)  Benzo[b]fluoranthene
            1.120 1.164 1.150 1.096 1.052 1.031                    1.102    4.83
 93)  Benzo[k]fluoranthene
            1.175 1.187 1.093 1.067 0.986 0.961                    1.078    8.67
 94)  Benzo[a]pyrene
            1.059 1.142 1.106 1.075 1.013 0.996                    1.065    5.18
 95)  Indeno[1,2,3-cd]pyrene
            0.855 0.982 0.993 0.970 0.956 0.931                    0.948    5.28
 96)  Dibenz[a,h]anthracene
            0.883 0.992 1.017 0.972 0.935 0.892                    0.948    5.74
 97)  Benzo[g,h,i]perylene
            1.080 1.129 1.100 1.051 1.023 0.976                    1.060    5.22

 98) I   1,4-Dichlorobenzene-d ----------------ISTD---------------------
 99)  2-Picoline
            1.496 1.456 1.379 1.343 1.258 1.218                    1.358    8.00
100)  N-Nitrosomethylethylamine
            0.576 0.536 0.514 0.496 0.501 0.498                    0.520    6.01
101)  Methyl methanesulfonate
            0.779 0.745 0.700 0.692 0.681 0.656                    0.709    6.34
102)  N-Nitrosodiethylamine
            0.674 0.673 0.637 0.618 0.608 0.593                    0.634    5.35
103)  Ethyl methanesulfonate
            1.064 1.058 0.993 0.952 0.923 0.888                    0.980    7.34
104)  Pentachloroethane
            0.545 0.517 0.491 0.473 0.459 0.444                    0.488    7.73
105)  N-Nitrosopyrrolidine
            0.717 0.747 0.734 0.728 0.708 0.679                    0.719    3.33
106)  N-Nitrosomorpholine
            0.673 0.636 0.585 0.570 0.555 0.541                    0.593    8.61
107)  O-Toluidine
```

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```
            2.212 2.041 1.930 1.831 1.699 1.628                    1.890   11.51

108) I   Naphthalene-d8A       ----------------ISTD--------------------
109)  N-Nitrosopiperidine
            0.205 0.202 0.192 0.187 0.184 0.182                    0.192    5.08
110)  A,A-Dimethylphenethylamine
            0.796 0.849 0.806 0.774 0.752 0.739                    0.786    5.10
111)  Hexachloropropene
            0.198 0.205 0.195 0.188 0.179 0.172                    0.189    6.40
112)  p-Phenylenediamine
            0.468 0.465 0.426 0.392 0.343 0.326                    0.403   14.96
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9981
               Response Ratio = 0.00000 + 0.48706 *A + -0.05298 *A^2

113)  N-Nitrosodi-n-butylamine
            0.325 0.328 0.305 0.287 0.280 0.279                    0.301    7.33
114)  Isosafrole
            0.300 0.304 0.281 0.273 0.260 0.252                    0.278    7.56

115) I   Acenaphthene-d10A     ----------------ISTD--------------------
116)  Safrole
            0.566 0.556 0.529 0.503 0.493 0.480                    0.521    6.69
117)  1-Chloronaphthalene
            1.282 1.166 1.044 1.013 0.951 0.930                    1.064   12.72
118)  Diphenyl Ether
            0.918 0.856 0.797 0.757 0.723 0.693                    0.791   10.67
119)  1,4-Naphthoquinone
            0.434 0.483 0.446 0.403 0.342 0.332                    0.407   14.65
120)  Pentachlorobenzene
            0.542 0.499 0.467 0.451 0.423 0.413                    0.466   10.40
121)  1-Naphthylamine
            1.287 1.273 1.186 1.120 1.078 1.068                    1.169    8.21
122)  2-Naphthylamine
            1.334 1.298 1.219 1.149 1.106 1.075                    1.197    8.78
123)  5-Nitro-o-toluidine
            0.301 0.383 0.375 0.373 0.375 0.376                    0.364    8.55

124) I   Phenanthrene-d10A     ----------------ISTD--------------------
125)  1,3,5-Trinitrobenzene
            0.081 0.148 0.161 0.160 0.158 0.156                    0.144   21.52
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9995
               Response Ratio = 0.00000 + 0.16026 *A + -0.00119 *A^2

126)  Diallate
            0.230 0.236 0.223 0.208 0.200 0.191                    0.214    8.31
127)  Phenacetin
            0.339 0.392 0.369 0.354 0.356 0.355                    0.361    4.96
128)  4-aminobiphenyl
            0.809 0.831 0.760 0.706 0.653 0.624                    0.730   11.50
129)  Pentachloronitrobenzene
            0.073 0.080 0.075 0.071 0.070 0.068                    0.073    6.00
130)  Pronamide
            0.292 0.330 0.322 0.308 0.300 0.294                    0.308    5.08
131)  4-Nitroquinoline 1-Oxide
            0.019 0.058 0.075 0.083 0.103 0.102                    0.073   43.23
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9941
               Response Ratio = 0.00000 + 0.05762 *A + 0.01513 *A^2

132)  Methapyrilene
            0.184 0.226 0.223 0.214 0.216 0.212                    0.212    7.03
```

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```
133)  Isodrin
            0.126 0.125 0.118 0.112 0.108 0.106                    0.116    7.21

134) I   Chrysene-d12A         ----------------ISTD---------------------
135)  Aramite
            0.090 0.123 0.123 0.127 0.124 0.120                    0.118   11.57
136)  p-(Dimethylamine)azobenzene
            0.280 0.330 0.314 0.310 0.298 0.291                    0.304    5.85
137)  Chlorobenzilate
            0.335 0.369 0.344 0.337 0.321 0.309                    0.336    6.09
138)  Kepone
            0.062 0.088 0.089 0.088 0.087 0.089                    0.084   12.97
139)  3,3'-Dimethylbenzidine
            0.634 0.738 0.717 0.728 0.696 0.674                    0.698    5.56
140)  2-Acetylaminofluorene
            0.358 0.498 0.498 0.489 0.494 0.487                    0.471   11.75

141) I   Perylene-d12A         ----------------ISTD---------------------
142)  7,12-Dimethylbenz(a)anthracene
            0.503 0.538 0.510 0.501 0.472 0.465                    0.498    5.34
143)  Hexachlorophene
                                                                   0.000   -1.00
144)  3-Methylcholanthrene
            0.498 0.539 0.531 0.519 0.501 0.498                    0.514    3.49
145)  Dibenz(a,j)acridine
            0.769 0.849 0.827 0.803 0.794 0.772                    0.802    3.90
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           app9D.m           Wed Feb 02 09:16:41 2011
```

Initial Calibration Verification

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: SL2542-ICV2542
Lab FileID: L049626.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\2\DATA\020111\L049626.D          Vial: 14
Acq On    :  1 Feb 2011   8:53 pm                   Operator: nancyf
Sample    : icv2542-50                              Inst    : MSBNA02
Misc      : op35473,sl2542,1000,,,1,1,water         Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\msdchem\2\METHODS\app9D.m (RTE Integrator)
Title        : SW846 8270D OR EPA 625
Last Update  : Wed Feb 02 08:32:51 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	164	0.00	4.73
2		1,4-Dioxane	50.000	43.823	12.4	0	0.00	2.27
3		N-nitrosodimethylamine	50.000	46.267	7.5	0	0.00	2.57
4		Pyridine		----------NA----------				
		----------	Amount	Calc.	%Drift		----------	
5	P	Benzaldehyde	50.000	-40.000	180.0#	0	0.00	4.40
		----------	Amount	Calc.	%Drift		----------	
6		Aniline		----------NA----------				
7	S	2-Fluorophenol		----------NA----------				
8	P	bis(2-Chloroethyl)ether	50.000	47.803	4.4	0	0.00	4.53
9	S	Phenol-d5		----------NA----------				
10	P	Phenol	50.000	55.752	-11.5	0	0.00	4.51
11	P	2-Chlorophenol	50.000	48.414	3.2	0	0.00	4.58
12		1,3-Dichlorobenzene	50.000	46.868	6.3	0	0.00	4.69
13	C	1,4-Dichlorobenzene	50.000	46.960	6.1	0	0.00	4.74
14		1,2-Dichlorobenzene	50.000	50.386	-0.8	0	0.00	4.86
15		Benzyl alcohol		----------NA----------				
16	P	bis(2-chloroisopropyl)eth	50.000	48.357	3.3	0	0.00	4.94
17	P	2-Methylphenol	50.000	49.133	1.7	0	0.02	4.95
18	P	Acetophenone	50.000	45.064	9.9	0	0.00	5.04
19	P	Hexachloroethane	50.000	48.625	2.8	0	0.00	5.13
20	P	N-Nitroso-di-n-propylamin	50.000	45.407	9.2	0	0.00	5.05
21	P	3&4-Methylphenol	100.000	87.161	12.8	0	0.00	5.08
22	I	Naphthalene-d8	40.000	40.000	0.0	159	0.00	5.82
23	S	Nitrobenzene-d5		----------NA----------				
24	P	Nitrobenzene	50.000	49.741	0.5	0	0.00	5.18
25	P	Isophorone	50.000	41.264	17.5	0	0.00	5.39
26	P	2-Nitrophenol	50.000	52.400	-4.8	0	0.00	5.46
27	P	2,4-Dimethylphenol	50.000	46.087	7.8	0	0.00	5.52
28	P	bis(2-Chloroethoxy)methan	50.000	48.192	3.6	0	0.00	5.58
		----------	Amount	Calc.	%Drift		----------	
29		Benzoic Acid	100.000	91.796	8.2	0	0.02	5.68
		----------	Amount	Calc.	%Drift		----------	
30	P	2,4-Dichlorophenol	50.000	49.652	0.7	0	0.00	5.70
31		1,2,4-Trichlorobenzene	50.000	45.626	8.7	0	0.00	5.76
32	P	Naphthalene	50.000	47.881	4.2	0	0.00	5.84
33		alpha-terpineol		----------NA----------				

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34	P	4-Chloroaniline		----------NA----------				
35		2,6-Dichlorophenol	50.000	51.255	-2.5	0	0.00	5.91
36	P	Hexachlorobutadiene	50.000	49.248	1.5	0	0.00	5.97
37	P	Caprolactam	50.000	51.738	-3.5	0	0.00	6.29
38	P	4-Chloro-3-methylphenol	50.000	49.600	0.8	0	0.00	6.47
39	P	2-Methylnaphthalene		----------NA----------				
40		1-Methylnaphthalene	50.000	47.578	4.8	0	0.00	6.73
41	P	1,2,4,5-Tetrachlorobenzen	50.000	45.494	9.0	0	0.00	6.82
42	I	Acenaphthene-d10	40.000	40.000	0.0	167	0.00	8.02
43	P	Hexachlorocyclopentadiene	50.000	51.351	-2.7	0	0.00	6.81
44	P	2,4,6-Trichlorophenol	50.000	46.791	6.4	0	0.00	6.98
45	P	2,4,5-Trichlorophenol	50.000	46.874	6.3	0	0.00	7.04
46	S	2-Fluorobiphenyl		----------NA----------				
47	P	1,1'-Biphenyl	50.000	43.424	13.2	0	0.00	7.21
48	P	2-Chloronaphthalene	50.000	44.634	10.7	0	0.00	7.23
49	P	2-Nitroaniline		----------NA----------				
50		m-Dinitrobenzene		----------NA----------				
51	P	Acenaphthylene	50.000	47.284	5.4	0	0.00	7.81
52	P	Dimethylphthalate	50.000	47.362	5.3	0	0.00	7.67
53	P	2,6-Dinitrotoluene	50.000	46.461	7.1	0	0.00	7.75
54	P	Acenaphthene	50.000	46.933	6.1	0	0.00	8.08
55	P	3-Nitroaniline		----------NA----------				
		----------	Amount	Calc.	%Drift		----------	
56	P	2,4-Dinitrophenol	100.000	86.923	13.1	0	0.00	8.16
		----------	Amount	Calc.	%Drift		----------	
57	P	Dibenzofuran		----------NA----------				
58	P	2,4-Dinitrotoluene	50.000	51.528	-3.1	0	0.00	8.36
59	P	4-Nitrophenol	100.000	90.231	9.8	0	0.01	8.38
60	P	2,3,4,6-Tetrachlorophenol	50.000	47.508	5.0	0	0.00	8.57
61	P	Fluorene	50.000	46.020	8.0	0	0.00	8.90
62	P	4-Chlorophenyl-phenylethe	50.000	46.405	7.2	0	0.00	8.93
63	P	Diethylphthalate	50.000	47.176	5.6	0	0.00	8.80
64	P	4-Nitroaniline		----------NA----------				
65	I	Phenanthrene-d10	40.000	40.000	0.0	155	0.00	10.49
		----------	Amount	Calc.	%Drift		----------	
66	P	4,6-Dinitro-2-methylpheno	100.000	102.705	-2.7	0	0.00	9.03
		----------	Amount	Calc.	%Drift		----------	
67		Diphenylamine	50.000	40.781	18.4	0	0.00	9.14
68	P	n-Nitrosodiphenylamine	50.000	48.938	2.1	0	0.00	9.14
69		1,2-Diphenylhydrazine	50.000	48.641	2.7	0	0.00	9.19
70	S	2,4,6-Tribromophenol		----------NA----------				
71	P	4-Bromophenyl-phenylether	50.000	50.009	-0.0	0	0.00	9.75
72	P	Hexachlorobenzene	50.000	47.696	4.6	0	0.00	9.83
73		Simazine		----------NA----------				
74	P	Atrazine	50.000	50.480	-1.0	0	0.00	10.14
75	P	Pentachlorophenol	100.000	95.098	4.9	0	0.00	10.21
76	P	Phenanthrene	50.000	47.861	4.3	0	0.00	10.53
77	P	Anthracene	50.000	48.137	3.7	0	0.00	10.62
78	P	Carbazole		----------NA----------				
79	P	Di-n-butylphthalate	50.000	48.769	2.5	0	0.00	11.74
80	P	Fluoranthene	50.000	47.479	5.0	0	0.00	12.69
81	I	Chrysene-d12	40.000	40.000	0.0	145	0.00	15.39
82		Benzidine		----------NA----------				

Initial Calibration Verification

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: SL2542-ICV2542
Lab FileID: L049626.D

83	P	Pyrene	50.000	50.977	-2.0	0	0.00	13.09
84	S	Terphenyl-d14		----------NA----------				
85	P	Butylbenzylphthalate	50.000	52.241	-4.5	0	0.00	14.53
86	P	3,3'-Dichlorobenzidine		----------NA----------				
87	P	Benzo[a]anthracene	50.000	49.401	1.2	0	0.00	15.37
88	P	Chrysene	50.000	50.457	-0.9	0	0.00	15.44
89	P	bis(2-Ethylhexyl)phthalat	50.000	52.616	-5.2	0	0.00	15.71
90	I	Perylene-d12	40.000	40.000	0.0	135	0.00	17.88
91	P	Di-n-octylphthalate	50.000	54.984	-10.0	0	0.00	16.90
92	P	Benzo[b]fluoranthene	50.000	49.240	1.5	0	0.00	17.27
93	P	Benzo[k]fluoranthene	50.000	50.197	-0.4	0	0.00	17.32
94	P	Benzo[a]pyrene	50.000	48.779	2.4	0	0.00	17.79
95	P	Indeno[1,2,3-cd]pyrene	50.000	46.851	6.3	0	0.00	19.45
96	P	Dibenz[a,h]anthracene	50.000	47.905	4.2	0	0.00	19.51
97	P	Benzo[g,h,i]perylene	50.000	45.499	9.0	0	0.00	19.81
98	I	1,4-Dichlorobenzene-d4A	40.000	40.000	0.0	169	0.00	4.73
99		2-Picoline		----------NA----------				
100		N-Nitrosomethylethylamine		----------NA----------				
101		Methyl methanesulfonate		----------NA----------				
102		N-Nitrosodiethylamine		----------NA----------				
103		Ethyl methanesulfonate		----------NA----------				
104		Pentachloroethane		----------NA----------				
105		N-Nitrosopyrrolidine		----------NA----------				
106		N-Nitrosomorpholine		----------NA----------				
107		O-Toluidine		----------NA----------				
108	I	Naphthalene-d8A	40.000	40.000	0.0	167	0.00	5.82
109		N-Nitrosopiperidine		----------NA----------				
110		A,A-Dimethylphenethylamin		----------NA----------				
111		Hexachloropropene		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
112		p-Phenylenediamine		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
113		N-Nitrosodi-n-butylamine		----------NA----------				
114		Isosafrole		----------NA----------				
115	I	Acenaphthene-d10A	40.000	40.000	0.0	174	0.00	8.02
116		Safrole		----------NA----------				
117		1-Chloronaphthalene		----------NA----------				
118		Diphenyl Ether		----------NA----------				
119		1,4-Naphthoquinone		----------NA----------				
120		Pentachlorobenzene		----------NA----------				
121		1-Naphthylamine		----------NA----------				
122		2-Naphthylamine		----------NA----------				
123		5-Nitro-o-toluidine		----------NA----------				
124	I	Phenanthrene-d10A	40.000	40.000	0.0	173	0.00	10.49
		----------	Amount	Calc.	%Drift	----------		
125		1,3,5-Trinitrobenzene		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
126		Diallate		----------NA----------				
127		Phenacetin		----------NA----------				
128		4-aminobiphenyl		----------NA----------				
129		Pentachloronitrobenzene		----------NA----------				

Initial Calibration Verification

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: SL2542-ICV2542
Lab FileID: L049626.D

```
130     Pronamide                           ----------NA----------

            ----------------------- Amount  Calc.    %Drift   -------------
131     4-Nitroquinoline 1-Oxide            ----------NA----------

            ----------------------- Amount  Calc.    %Drift   -------------
132     Methapyrilene                       ----------NA----------
133     Isodrin                             ----------NA----------

134 I   Chrysene-d12A               40.000  40.000      0.0  151   0.00   15.39
135     Aramite                             ----------NA----------
136     p-(Dimethylamine)azobenze           ----------NA----------
137     Chlorobenzilate                     ----------NA----------
138     Kepone                              ----------NA----------
139     3,3'-Dimethylbenzidine              ----------NA----------
140     2-Acetylaminofluorene               ----------NA----------

141 I   Perylene-d12A               40.000  40.000      0.0  154   0.00   17.88
142     7,12-Dimethylbenz(a)anthr           ----------NA----------
143     Hexachlorophene                     ----------NA----------
144     3-Methylcholanthrene                ----------NA----------
145     Dibenz(a,j)acridine                 ----------NA----------
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range               SPCC's out = 0  CCC's out = 0
     L049626.D  app9D.m          Wed Feb 02 09:15:18 2011
```

6.7.4

6

Initial Calibration Verification

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: SL2542-ICV2542
Lab FileID: L049627.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\2\DATA\020111\L049627.D          Vial: 15
Acq On    :  1 Feb 2011   9:22 pm                   Operator: nancyf
Sample    : icv2542-50                              Inst    : MSBNA02
Misc      : op35473,sl2542,1000,,,1,1,water         Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\msdchem\2\METHODS\app9D.m (RTE Integrator)
Title        : SW846 8270D OR EPA 625
Last Update  : Wed Feb 02 08:32:51 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	152	0.00	4.73
2		1,4-Dioxane		NA				
3		N-nitrosodimethylamine		NA				
4		Pyridine	50.000	49.826	0.3	0	0.03	2.62
		----------	Amount	Calc.	%Drift	----------		
5	P	Benzaldehyde		NA				
		----------	Amount	Calc.	%Drift	----------		
6		Aniline	50.000	44.244	11.5	0	0.00	4.49
7	S	2-Fluorophenol		NA				
8	P	bis(2-Chloroethyl)ether		NA				
9	S	Phenol-d5		NA				
10	P	Phenol		NA				
11	P	2-Chlorophenol		NA				
12		1,3-Dichlorobenzene		NA				
13	C	1,4-Dichlorobenzene		NA				
14		1,2-Dichlorobenzene		NA				
15		Benzyl alcohol	50.000	52.964	-5.9	0	0.00	4.85
16	P	bis(2-chloroisopropyl)eth		NA				
17	P	2-Methylphenol		NA				
18	P	Acetophenone		NA				
19	P	Hexachloroethane		NA				
20	P	N-Nitroso-di-n-propylamin		NA				
21	P	3&4-Methylphenol		NA				
22	I	Naphthalene-d8	40.000	40.000	0.0	153	0.00	5.82
23	S	Nitrobenzene-d5		NA				
24	P	Nitrobenzene		NA				
25	P	Isophorone		NA				
26	P	2-Nitrophenol		NA				
27	P	2,4-Dimethylphenol		NA				
28	P	bis(2-Chloroethoxy)methan		NA				
		----------	Amount	Calc.	%Drift	----------		
29		Benzoic Acid		NA				
		----------	Amount	Calc.	%Drift	----------		
30	P	2,4-Dichlorophenol		NA				
31		1,2,4-Trichlorobenzene		NA				
32	P	Naphthalene		NA				
33		alpha-terpineol	50.000	43.358	13.3	0	0.00	5.85

Initial Calibration Verification

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: SL2542-ICV2542
Lab FileID: L049627.D

34	P	4-Chloroaniline	50.000	47.348	5.3	0	0.00	5.90
35		2,6-Dichlorophenol		----------NA----------				
36	P	Hexachlorobutadiene		----------NA----------				
37	P	Caprolactam		----------NA----------				
38	P	4-Chloro-3-methylphenol		----------NA----------				
39	P	2-Methylnaphthalene	50.000	49.281	1.4	0	0.00	6.60
40		1-Methylnaphthalene		----------NA----------				
41	P	1,2,4,5-Tetrachlorobenzen		----------NA----------				
42	I	Acenaphthene-d10	40.000	40.000	0.0	152	0.00	8.02
43	P	Hexachlorocyclopentadiene		----------NA----------				
44	P	2,4,6-Trichlorophenol		----------NA----------				
45	P	2,4,5-Trichlorophenol		----------NA----------				
46	S	2-Fluorobiphenyl		----------NA----------				
47	P	1,1'-Biphenyl		----------NA----------				
48	P	2-Chloronaphthalene		----------NA----------				
49	P	2-Nitroaniline	50.000	49.927	0.1	0	0.00	7.39
50		m-Dinitrobenzene	50.000	48.566	2.9	0	-0.01	7.69
51	P	Acenaphthylene		----------NA----------				
52	P	Dimethylphthalate		----------NA----------				
53	P	2,6-Dinitrotoluene		----------NA----------				
54	P	Acenaphthene		----------NA----------				
55	P	3-Nitroaniline	50.000	52.159	-4.3	0	0.00	8.00
		----------	Amount	Calc.	%Drift	----------		
56	P	2,4-Dinitrophenol		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
57	P	Dibenzofuran	50.000	47.482	5.0	0	0.00	8.34
58	P	2,4-Dinitrotoluene		----------NA----------				
59	P	4-Nitrophenol		----------NA----------				
60	P	2,3,4,6-Tetrachlorophenol		----------NA----------				
61	P	Fluorene		----------NA----------				
62	P	4-Chlorophenyl-phenylethe		----------NA----------				
63	P	Diethylphthalate		----------NA----------				
64	P	4-Nitroaniline	50.000	53.081	-6.2	0	0.00	8.97
65	I	Phenanthrene-d10	40.000	40.000	0.0	147	0.00	10.49
		----------	Amount	Calc.	%Drift	----------		
66	P	4,6-Dinitro-2-methylpheno		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
67		Diphenylamine		----------NA----------				
68	P	n-Nitrosodiphenylamine		----------NA----------				
69		1,2-Diphenylhydrazine		----------NA----------				
70	S	2,4,6-Tribromophenol		----------NA----------				
71	P	4-Bromophenyl-phenylether		----------NA----------				
72	P	Hexachlorobenzene		----------NA----------				
73		Simazine	50.000	21.007	58.0#	0	-0.03	10.06
74	P	Atrazine		----------NA----------				
75	P	Pentachlorophenol		----------NA----------				
76	P	Phenanthrene		----------NA----------				
77	P	Anthracene		----------NA----------				
78	P	Carbazole	50.000	49.464	1.1	0	0.00	10.96
79	P	Di-n-butylphthalate		----------NA----------				
80	P	Fluoranthene		----------NA----------				
81	I	Chrysene-d12	40.000	40.000	0.0	155	-0.01	15.38
82		Benzidine	50.000	56.125	-12.3	0	0.00	13.04

Initial Calibration Verification

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: SL2542-ICV2542
Lab FileID: L049627.D

83	P	Pyrene		----------NA----------				
84	S	Terphenyl-d14		----------NA----------				
85	P	Butylbenzylphthalate		----------NA----------				
86	P	3,3'-Dichlorobenzidine	50.000	50.691	-1.4	0	0.00	15.42
87	P	Benzo[a]anthracene		----------NA----------				
88	P	Chrysene		----------NA----------				
89	P	bis(2-Ethylhexyl)phthalat		----------NA----------				
90	I	Perylene-d12	40.000	40.000	0.0	135	0.00	17.87
91	P	Di-n-octylphthalate		----------NA----------				
92	P	Benzo[b]fluoranthene		----------NA----------				
93	P	Benzo[k]fluoranthene		----------NA----------				
94	P	Benzo[a]pyrene		----------NA----------				
95	P	Indeno[1,2,3-cd]pyrene		----------NA----------				
96	P	Dibenz[a,h]anthracene		----------NA----------				
97	P	Benzo[g,h,i]perylene		----------NA----------				
98	I	1,4-Dichlorobenzene-d4A	40.000	40.000	0.0	157	0.00	4.73
99		2-Picoline		----------NA----------				
100		N-Nitrosomethylethylamine		----------NA----------				
101		Methyl methanesulfonate		----------NA----------				
102		N-Nitrosodiethylamine		----------NA----------				
103		Ethyl methanesulfonate		----------NA----------				
104		Pentachloroethane		----------NA----------				
105		N-Nitrosopyrrolidine		----------NA----------				
106		N-Nitrosomorpholine		----------NA----------				
107		O-Toluidine		----------NA----------				
108	I	Naphthalene-d8A	40.000	40.000	0.0	161	0.00	5.82
109		N-Nitrosopiperidine		----------NA----------				
110		A,A-Dimethylphenethylamin		----------NA----------				
111		Hexachloropropene		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
112		p-Phenylenediamine		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
113		N-Nitrosodi-n-butylamine		----------NA----------				
114		Isosafrole		----------NA----------				
115	I	Acenaphthene-d10A	40.000	40.000	0.0	158	0.00	8.02
116		Safrole		----------NA----------				
117		1-Chloronaphthalene		----------NA----------				
118		Diphenyl Ether	50.000	52.806	-5.6	0	0.00	7.36
119		1,4-Naphthoquinone		----------NA----------				
120		Pentachlorobenzene		----------NA----------				
121		1-Naphthylamine		----------NA----------				
122		2-Naphthylamine		----------NA----------				
123		5-Nitro-o-toluidine		----------NA----------				
124	I	Phenanthrene-d10A	40.000	40.000	0.0	165	0.00	10.49
		----------	Amount	Calc.	%Drift	----------		
125		1,3,5-Trinitrobenzene		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
126		Diallate		----------NA----------				
127		Phenacetin		----------NA----------				
128		4-aminobiphenyl		----------NA----------				
129		Pentachloronitrobenzene		----------NA----------				

Initial Calibration Verification

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: SL2542-ICV2542
Lab FileID: L049627.D

```
130     Pronamide                           ----------NA----------

            ----------------------- Amount  Calc.    %Drift   -------------
131     4-Nitroquinoline 1-Oxide            ----------NA----------

            ----------------------- Amount  Calc.    %Drift   -------------
132     Methapyrilene                       ----------NA----------
133     Isodrin                             ----------NA----------

134 I   Chrysene-d12A               40.000  40.000      0.0  161   0.00   15.38
135     Aramite                             ----------NA----------
136     p-(Dimethylamine)azobenze           ----------NA----------
137     Chlorobenzilate                     ----------NA----------
138     Kepone                              ----------NA----------
139     3,3'-Dimethylbenzidine              ----------NA----------
140     2-Acetylaminofluorene               ----------NA----------

141 I   Perylene-d12A               40.000  40.000      0.0  153   0.00   17.87
142     7,12-Dimethylbenz(a)anthr           ----------NA----------
143     Hexachlorophene                     ----------NA----------
144     3-Methylcholanthrene                ----------NA----------
145     Dibenz(a,j)acridine                 ----------NA----------
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range              SPCC's out = 0  CCC's out = 1
     L049626.D  app9D.m          Wed Feb 02 09:15:19 2011
```

6.7.5

6

Initial Calibration Verification

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: SL2542-ICV2542
Lab FileID: L049628.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\2\DATA\020111\L049628.D          Vial: 16
Acq On    :  1 Feb 2011   9:50 pm                   Operator: nancyf
Sample    : icv2542-50 app                          Inst    : MSBNA02
Misc      : op35473,sl2542,1000,,,1,1,water         Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\msdchem\2\METHODS\app9D.m (RTE Integrator)
Title        : SW846 8270D OR EPA 625
Last Update  : Wed Feb 02 08:32:51 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	119	0.00	4.73
2		1,4-Dioxane		NA				
3		N-nitrosodimethylamine		NA				
4		Pyridine		NA				
			Amount	Calc.	%Drift			
5	P	Benzaldehyde		NA				
			Amount	Calc.	%Drift			
6		Aniline		NA				
7	S	2-Fluorophenol		NA				
8	P	bis(2-Chloroethyl)ether		NA				
9	S	Phenol-d5		NA				
10	P	Phenol		NA				
11	P	2-Chlorophenol		NA				
12		1,3-Dichlorobenzene		NA				
13	C	1,4-Dichlorobenzene		NA				
14		1,2-Dichlorobenzene		NA				
15		Benzyl alcohol		NA				
16	P	bis(2-chloroisopropyl)eth		NA				
17	P	2-Methylphenol		NA				
18	P	Acetophenone		NA				
19	P	Hexachloroethane		NA				
20	P	N-Nitroso-di-n-propylamin		NA				
21	P	3&4-Methylphenol		NA				
22	I	Naphthalene-d8	40.000	40.000	0.0	114	0.00	5.82
23	S	Nitrobenzene-d5		NA				
24	P	Nitrobenzene		NA				
25	P	Isophorone		NA				
26	P	2-Nitrophenol		NA				
27	P	2,4-Dimethylphenol		NA				
28	P	bis(2-Chloroethoxy)methan		NA				
			Amount	Calc.	%Drift			
29		Benzoic Acid		NA				
			Amount	Calc.	%Drift			
30	P	2,4-Dichlorophenol		NA				
31		1,2,4-Trichlorobenzene		NA				
32	P	Naphthalene		NA				
33		alpha-terpineol		NA				

Initial Calibration Verification

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: SL2542-ICV2542
Lab FileID: L049628.D

34	P	4-Chloroaniline		----------NA----------				
35		2,6-Dichlorophenol		----------NA----------				
36	P	Hexachlorobutadiene		----------NA----------				
37	P	Caprolactam		----------NA----------				
38	P	4-Chloro-3-methylphenol		----------NA----------				
39	P	2-Methylnaphthalene		----------NA----------				
40		1-Methylnaphthalene		----------NA----------				
41	P	1,2,4,5-Tetrachlorobenzen		----------NA----------				
42	I	Acenaphthene-d10	40.000	40.000	0.0	115	0.00	8.02
43	P	Hexachlorocyclopentadiene		----------NA----------				
44	P	2,4,6-Trichlorophenol		----------NA----------				
45	P	2,4,5-Trichlorophenol		----------NA----------				
46	S	2-Fluorobiphenyl		----------NA----------				
47	P	1,1'-Biphenyl		----------NA----------				
48	P	2-Chloronaphthalene		----------NA----------				
49	P	2-Nitroaniline		----------NA----------				
50		m-Dinitrobenzene		----------NA----------				
51	P	Acenaphthylene		----------NA----------				
52	P	Dimethylphthalate		----------NA----------				
53	P	2,6-Dinitrotoluene		----------NA----------				
54	P	Acenaphthene		----------NA----------				
55	P	3-Nitroaniline		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
56	P	2,4-Dinitrophenol		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
57	P	Dibenzofuran		----------NA----------				
58	P	2,4-Dinitrotoluene		----------NA----------				
59	P	4-Nitrophenol		----------NA----------				
60	P	2,3,4,6-Tetrachlorophenol		----------NA----------				
61	P	Fluorene		----------NA----------				
62	P	4-Chlorophenyl-phenylethe		----------NA----------				
63	P	Diethylphthalate		----------NA----------				
64	P	4-Nitroaniline		----------NA----------				
65	I	Phenanthrene-d10	40.000	40.000	0.0	105	0.00	10.49
		----------	Amount	Calc.	%Drift	----------		
66	P	4,6-Dinitro-2-methylpheno		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
67		Diphenylamine		----------NA----------				
68	P	n-Nitrosodiphenylamine		----------NA----------				
69		1,2-Diphenylhydrazine		----------NA----------				
70	S	2,4,6-Tribromophenol		----------NA----------				
71	P	4-Bromophenyl-phenylether		----------NA----------				
72	P	Hexachlorobenzene		----------NA----------				
73		Simazine		----------NA----------				
74	P	Atrazine		----------NA----------				
75	P	Pentachlorophenol		----------NA----------				
76	P	Phenanthrene		----------NA----------				
77	P	Anthracene		----------NA----------				
78	P	Carbazole		----------NA----------				
79	P	Di-n-butylphthalate		----------NA----------				
80	P	Fluoranthene		----------NA----------				
81	I	Chrysene-d12	40.000	40.000	0.0	117	-0.01	15.38
82		Benzidine		----------NA----------				

Initial Calibration Verification

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: SL2542-ICV2542
Lab FileID: L049628.D

83	P	Pyrene		----------NA----------				
84	S	Terphenyl-d14		----------NA----------				
85	P	Butylbenzylphthalate		----------NA----------				
86	P	3,3'-Dichlorobenzidine		----------NA----------				
87	P	Benzo[a]anthracene		----------NA----------				
88	P	Chrysene		----------NA----------				
89	P	bis(2-Ethylhexyl)phthalat		----------NA----------				
90	I	Perylene-d12	40.000	40.000	0.0	106	0.00	17.87
91	P	Di-n-octylphthalate		----------NA----------				
92	P	Benzo[b]fluoranthene		----------NA----------				
93	P	Benzo[k]fluoranthene		----------NA----------				
94	P	Benzo[a]pyrene		----------NA----------				
95	P	Indeno[1,2,3-cd]pyrene		----------NA----------				
96	P	Dibenz[a,h]anthracene		----------NA----------				
97	P	Benzo[g,h,i]perylene		----------NA----------				
98	I	1,4-Dichlorobenzene-d4A	40.000	40.000	0.0	123	0.00	4.73
99		2-Picoline	50.000	52.802	-5.6	0	0.00	3.25
100		N-Nitrosomethylethylamine	50.000	50.735	-1.5	0	0.00	3.35
101		Methyl methanesulfonate	50.000	51.430	-2.9	0	0.00	3.61
102		N-Nitrosodiethylamine	50.000	52.959	-5.9	0	0.00	3.91
103		Ethyl methanesulfonate	50.000	50.885	-1.8	0	0.00	4.15
104		Pentachloroethane	50.000	52.050	-4.1	0	0.00	4.51
105		N-Nitrosopyrrolidine	50.000	53.362	-6.7	0	0.00	5.03
106		N-Nitrosomorpholine	50.000	51.195	-2.4	0	0.00	5.05
107		O-Toluidine	50.000	52.428	-4.9	0	0.00	5.07
108	I	Naphthalene-d8A	40.000	40.000	0.0	120	0.00	5.82
109		N-Nitrosopiperidine	50.000	53.699	-7.4	0	-0.02	5.31
110		A,A-Dimethylphenethylamin	50.000	53.374	-6.7	0	0.00	5.66
111		Hexachloropropene	50.000	54.625	-9.3	0	0.00	5.93
		----------	Amount	Calc.	%Drift		----------	
112		p-Phenylenediamine	50.000	46.715	6.6	0	0.00	6.28
		----------	Amount	Calc.	%Drift		----------	
113		N-Nitrosodi-n-butylamine	50.000	42.538	14.9	0	0.00	6.26
114		Isosafrole	50.000	53.033	-6.1	0	0.00	6.50
115	I	Acenaphthene-d10A	40.000	40.000	0.0	119	0.00	8.02
116		Safrole	50.000	53.671	-7.3	0	-0.02	7.17
117		1-Chloronaphthalene	50.000	51.238	-2.5	0	0.00	7.25
118		Diphenyl Ether		----------NA----------				
119		1,4-Naphthoquinone	50.000	50.326	-0.7	0	0.00	7.47
120		Pentachlorobenzene	50.000	53.384	-6.8	0	0.00	8.29
121		1-Naphthylamine	50.000	52.345	-4.7	0	-0.03	8.47
122		2-Naphthylamine	50.000	51.957	-3.9	0	0.00	8.60
123		5-Nitro-o-toluidine	50.000	55.378	-10.8	0	0.00	8.95
124	I	Phenanthrene-d10A	40.000	40.000	0.0	118	0.00	10.49
		----------	Amount	Calc.	%Drift		----------	
125		1,3,5-Trinitrobenzene	50.000	60.642	-21.3#	0	0.00	9.64
		----------	Amount	Calc.	%Drift		----------	
126		Diallate	50.000	52.577	-5.2	0	0.00	9.66
127		Phenacetin	50.000	52.657	-5.3	0	-0.03	9.74
128		4-aminobiphenyl	50.000	53.266	-6.5	0	0.00	10.22
129		Pentachloronitrobenzene	50.000	54.136	-8.3	0	0.00	10.21

Initial Calibration Verification

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: SL2542-ICV2542
Lab FileID: L049628.D

			Amount	Calc.	%Drift			
130		Pronamide	50.000	54.485	-9.0	0	0.00	10.41
131		4-Nitroquinoline 1-Oxide	50.000	48.362	3.3	0	0.00	11.96
132		Methapyrilene	50.000	82.973	-65.9#	0	0.00	12.20
133		Isodrin	50.000	52.571	-5.1	0	0.00	12.41
134	I	Chrysene-d12A	40.000	40.000	0.0	122	0.00	15.38
135		Aramite	50.000	57.159	-14.3	0	0.00	13.73
136		p-(Dimethylamine)azobenze	50.000	54.898	-9.8	0	0.00	13.79
137		Chlorobenzilate	50.000	52.615	-5.2	0	0.00	13.92
138		Kepone	50.000	52.832	-5.7	0	0.00	14.38
139		3,3'-Dimethylbenzidine	50.000	57.349	-14.7	0	0.00	14.43
140		2-Acetylaminofluorene	50.000	54.869	-9.7	0	0.00	14.90
141	I	Perylene-d12A	40.000	40.000	0.0	121	0.00	17.87
142		7,12-Dimethylbenz(a)anthr	50.000	52.843	-5.7	0	0.00	17.28
143		Hexachlorophene		----------NA----------				
144		3-Methylcholanthrene	50.000	52.922	-5.8	0	0.00	18.37
145		Dibenz(a,j)acridine	50.000	52.622	-5.2	0	0.00	19.23

(#) = Out of Range SPCC's out = 0 CCC's out = 1
L049626.D app9D.m Wed Feb 02 09:15:20 2011

6.7.6

6

Continuing Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: SL2544-CC2542
Lab FileID: L049654.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\2\DATA\020311\L049654.D          Vial: 2
Acq On    :  3 Feb 2011  10:46 am                   Operator: nancyf
Sample    : cc2542-75                               Inst    : MSBNA02
Misc      : op35473,sl2544,1000,,,1,1,water         Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\msdchem\2\METHODS\app9D.m (RTE Integrator)
Title        : SW846 8270D OR EPA 625
Last Update  : Fri Feb 04 08:49:41 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	143	0.00	4.73
2		1,4-Dioxane	0.563	0.599	-6.4	153	-0.01	2.25
3		N-nitrosodimethylamine	0.509	0.535	-5.1	151	-0.01	2.55
4		Pyridine	1.438	1.503	-4.5	148	-0.01	2.57
		----------	Amount	Calc.	%Drift	----------		
5	P	Benzaldehyde	37.500	-40.000	206.7#	163	0.00	4.40
		----------	AvgRF	CCRF	%Dev	----------		
6		Aniline	1.991	1.886	5.3	137	-0.01	4.49
7	S	2-Fluorophenol	1.169	1.112	4.9	137	0.00	3.78
8	P	bis(2-Chloroethyl)ether	1.280	1.260	1.6	144	0.00	4.53
9	S	Phenol-d5	1.440	1.289	10.5	134	-0.02	4.50
10	P	Phenol	1.564	1.408	10.0	130	0.00	4.51
11	P	2-Chlorophenol	1.349	1.345	0.3	143	0.00	4.58
12		1,3-Dichlorobenzene	1.467	1.423	3.0	141	0.00	4.68
13	C	1,4-Dichlorobenzene	1.420	1.372	3.4	141	0.00	4.74
14		1,2-Dichlorobenzene	1.347	1.287	4.5	141	0.00	4.86
15		Benzyl alcohol	0.910	0.932	-2.4	145	0.00	4.84
16	P	bis(2-chloroisopropyl)eth	1.443	1.378	4.5	139	0.00	4.94
17	P	2-Methylphenol	1.169	1.191	-1.9	141	0.02	4.95
18	P	Acetophenone	1.799	1.779	1.1	146	0.00	5.05
19	P	Hexachloroethane	0.524	0.527	-0.6	146	0.00	5.13
20	P	N-Nitroso-di-n-propylamin	0.970	0.953	1.8	141	0.00	5.05
21	P	3&4-Methylphenol	1.294	1.290	0.3	142	0.00	5.07
22	I	Naphthalene-d8	1.000	1.000	0.0	140	0.00	5.82
23	S	Nitrobenzene-d5	0.389	0.400	-2.8	143	0.01	5.17
24	P	Nitrobenzene	0.387	0.385	0.5	142	0.00	5.19
25	P	Isophorone	0.741	0.743	-0.3	142	0.00	5.39
26	P	2-Nitrophenol	0.216	0.232	-7.4	145	0.00	5.46
27	P	2,4-Dimethylphenol	0.358	0.355	0.8	141	0.00	5.52
28	P	bis(2-Chloroethoxy)methan	0.435	0.432	0.7	142	0.00	5.59
		----------	Amount	Calc.	%Drift	----------		
29		Benzoic Acid	75.000	81.246	-8.3	153	0.00	5.66
		----------	AvgRF	CCRF	%Dev	----------		
30	P	2,4-Dichlorophenol	0.322	0.322	0.0	142	0.00	5.70
31		1,2,4-Trichlorobenzene	0.367	0.358	2.5	141	0.00	5.77
32	P	Naphthalene	0.961	0.909	5.4	137	0.00	5.84
33		alpha-terpineol	0.251	0.248	1.2	143	0.00	5.86

Continuing Calibration Summary

Job Number: F79608 **Sample:** SL2544-CC2542
Account: TETTNOAK Tetra Tech, Inc **Lab FileID:** L049654.D
Project: Holloman AFB; Alamogordo, NM

34	P	4-Chloroaniline	0.440	0.441	-0.2	142	0.00	5.91
35		2,6-Dichlorophenol	0.308	0.306	0.6	141	0.00	5.92
36	P	Hexachlorobutadiene	0.182	0.183	-0.5	144	0.00	5.98
37	P	Caprolactam	0.133	0.140	-5.3	144	0.00	6.29
38	P	4-Chloro-3-methylphenol	0.314	0.318	-1.3	141	0.00	6.47
39	P	2-Methylnaphthalene	0.674	0.651	3.4	138	0.00	6.61
40		1-Methylnaphthalene	0.673	0.661	1.8	141	0.00	6.73
41	P	1,2,4,5-Tetrachlorobenzen	0.319	0.304	4.7	139	0.00	6.82
42	I	Acenaphthene-d10	1.000	1.000	0.0	140	0.00	8.03
43	P	Hexachlorocyclopentadiene	0.339	0.356	-5.0	139	0.00	6.81
44	P	2,4,6-Trichlorophenol	0.431	0.440	-2.1	143	0.00	6.98
45	P	2,4,5-Trichlorophenol	0.451	0.465	-3.1	142	0.00	7.04
46	S	2-Fluorobiphenyl	1.340	1.299	3.1	140	0.00	7.08
47	P	1,1'-Biphenyl	1.575	1.549	1.7	144	0.00	7.21
48	P	2-Chloronaphthalene	1.175	1.146	2.5	141	0.00	7.23
49	P	2-Nitroaniline	0.336	0.365	-8.6	144	0.00	7.39
50		m-Dinitrobenzene	0.252	0.269	-6.7	143	0.00	7.70
51	P	Acenaphthylene	1.821	1.752	3.8	139	0.00	7.81
52	P	Dimethylphthalate	1.358	1.331	2.0	140	0.00	7.68
53	P	2,6-Dinitrotoluene	0.333	0.351	-5.4	143	0.00	7.75
54	P	Acenaphthene	1.135	1.102	2.9	139	0.00	8.08
55	P	3-Nitroaniline	0.378	0.403	-6.6	144	0.00	8.01
		----------	Amount	Calc.	%Drift		----------	
56	P	2,4-Dinitrophenol	75.000	81.271	-8.4	152	0.00	8.16
		----------	AvgRF	CCRF	%Dev		----------	
57	P	Dibenzofuran	1.628	1.523	6.4	134	0.00	8.35
58	P	2,4-Dinitrotoluene	0.386	0.397	-2.8	137	0.00	8.37
59	P	4-Nitrophenol	0.158	0.158	0.0	136	0.00	8.36
60	P	2,3,4,6-Tetrachlorophenol	0.344	0.357	-3.8	144	0.00	8.58
61	P	Fluorene	1.327	1.301	2.0	139	0.00	8.90
62	P	4-Chlorophenyl-phenylethe	0.629	0.616	2.1	141	0.00	8.93
63	P	Diethylphthalate	1.256	1.259	-0.2	140	0.00	8.80
64	P	4-Nitroaniline	0.359	0.387	-7.8	143	0.03	8.99
65	I	Phenanthrene-d10	1.000	1.000	0.0	137	0.00	10.49
		----------	Amount	Calc.	%Drift		----------	
66	P	4,6-Dinitro-2-methylpheno	75.000	79.344	-5.8	145	0.00	9.04
		----------	AvgRF	CCRF	%Dev		----------	
67		Diphenylamine	0.653	0.647	0.9	141	0.00	9.15
68	P	n-Nitrosodiphenylamine	0.544	0.539	0.9	141	0.00	9.15
69		1,2-Diphenylhydrazine	0.716	0.708	1.1	141	0.00	9.20
70	S	2,4,6-Tribromophenol	0.088	0.089	-1.1	141	0.00	9.31
71	P	4-Bromophenyl-phenylether	0.203	0.207	-2.0	143	0.00	9.76
72	P	Hexachlorobenzene	0.211	0.206	2.4	141	0.00	9.83
73		Simazine	0.095	0.099	-4.2	138	-0.01	10.08
74	P	Atrazine	0.206	0.210	-1.9	142	0.00	10.14
75	P	Pentachlorophenol	0.128	0.142	-10.9	149	0.00	10.21
76	P	Phenanthrene	1.004	0.952	5.2	135	0.00	10.54
77	P	Anthracene	1.029	1.000	2.8	137	0.00	10.62
78	P	Carbazole	1.001	0.970	3.1	137	0.00	10.96
79	P	Di-n-butylphthalate	1.079	1.080	-0.1	136	0.00	11.74
80	P	Fluoranthene	1.042	1.012	2.9	135	0.00	12.70
81	I	Chrysene-d12	1.000	1.000	0.0	132	0.00	15.39
82		Benzidine	0.742	0.823	-10.9	137	0.00	13.04

Continuing Calibration Summary

Job Number: F79608 **Sample:** SL2544-CC2542
Account: TETTNOAK Tetra Tech, Inc **Lab FileID:** L049654.D
Project: Holloman AFB; Alamogordo, NM

83	P	Pyrene	1.285	1.271	1.1	134	0.00	13.10
84	S	Terphenyl-d14	0.756	0.770	-1.9	136	0.00	13.51
85	P	Butylbenzylphthalate	0.556	0.608	-9.4	137	0.00	14.54
86	P	3,3'-Dichlorobenzidine	0.393	0.418	-6.4	135	0.00	15.43
87	P	Benzo[a]anthracene	1.129	1.166	-3.3	134	0.00	15.37
88	P	Chrysene	1.043	1.020	2.2	134	0.00	15.45
89	P	bis(2-Ethylhexyl)phthalat	0.726	0.796	-9.6	138	0.00	15.72
90	I	Perylene-d12	1.000	1.000	0.0	134	0.00	17.88
91	P	Di-n-octylphthalate	1.229	1.325	-7.8	136	0.00	16.90
92	P	Benzo[b]fluoranthene	1.102	1.112	-0.9	136	0.00	17.28
93	P	Benzo[k]fluoranthene	1.078	1.052	2.4	132	0.00	17.33
94	P	Benzo[a]pyrene	1.065	1.088	-2.2	136	0.00	17.79
95	P	Indeno[1,2,3-cd]pyrene	0.948	0.985	-3.9	136	0.00	19.46
96	P	Dibenz[a,h]anthracene	0.948	0.977	-3.1	135	0.00	19.52
97	P	Benzo[g,h,i]perylene	1.060	1.065	-0.5	136	0.00	19.82
98	I	1,4-Dichlorobenzene-d4A	1.000	1.000	0.0	148	0.00	4.73
99		2-Picoline		----------NA----------				
100		N-Nitrosomethylethylamine		----------NA----------				
101		Methyl methanesulfonate		----------NA----------				
102		N-Nitrosodiethylamine		----------NA----------				
103		Ethyl methanesulfonate		----------NA----------				
104		Pentachloroethane		----------NA----------				
105		N-Nitrosopyrrolidine		----------NA----------				
106		N-Nitrosomorpholine		----------NA----------				
107		O-Toluidine		----------NA----------				
108	I	Naphthalene-d8A	1.000	1.000	0.0	147	0.00	5.82
109		N-Nitrosopiperidine		----------NA----------				
110		A,A-Dimethylphenethylamin		----------NA----------				
111		Hexachloropropene		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
112		p-Phenylenediamine		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
113		N-Nitrosodi-n-butylamine		----------NA----------				
114		Isosafrole		----------NA----------				
115	I	Acenaphthene-d10A	1.000	1.000	0.0	145	0.00	8.03
116		Safrole		----------NA----------				
117		1-Chloronaphthalene		----------NA----------				
118		Diphenyl Ether		----------NA----------				
119		1,4-Naphthoquinone		----------NA----------				
120		Pentachlorobenzene		----------NA----------				
121		1-Naphthylamine		----------NA----------				
122		2-Naphthylamine		----------NA----------				
123		5-Nitro-o-toluidine		----------NA----------				
124	I	Phenanthrene-d10A	1.000	1.000	0.0	153	0.00	10.49
		----------	Amount	Calc.	%Drift	----------		
125		1,3,5-Trinitrobenzene		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
126		Diallate		----------NA----------				
127		Phenacetin		----------NA----------				
128		4-aminobiphenyl		----------NA----------				
129		Pentachloronitrobenzene		----------NA----------				

Continuing Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: SL2544-CC2542
Lab FileID: L049654.D

```
130     Pronamide                           ----------NA----------

            ----------------------- Amount  Calc.    %Drift   -------------
131     4-Nitroquinoline 1-Oxide            ----------NA----------

            ----------------------- AvgRF   CCRF      %Dev   --------------
132     Methapyrilene                       ----------NA----------
133     Isodrin                             ----------NA----------

134 I   Chrysene-d12A               1.000   1.000      0.0  137   0.00   15.39
135     Aramite                             ----------NA----------
136     p-(Dimethylamine)azobenze           ----------NA----------
137     Chlorobenzilate                     ----------NA----------
138     Kepone                              ----------NA----------
139     3,3'-Dimethylbenzidine              ----------NA----------
140     2-Acetylaminofluorene               ----------NA----------

141 I   Perylene-d12A               1.000   1.000      0.0  153   0.00   17.88
142     7,12-Dimethylbenz(a)anthr           ----------NA----------
143     Hexachlorophene                     ----------NA----------
144     3-Methylcholanthrene                ----------NA----------
145     Dibenz(a,j)acridine                 ----------NA----------
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range              SPCC's out = 0  CCC's out = 0
     L049623.D  app9D.m          Fri Feb 04 09:21:03 2011
```

6.7.7

6

Continuing Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: SL2545-CC2542
Lab FileID: L049670.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\DATA\020411\L049670.D Vial: 2
Acq On : 4 Feb 2011 8:47 am Operator: nancyf
Sample : cc2542-50 Inst : MSBNA02
Misc : op35888,sl2545,1000,,,1,1,water Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\msdchem\2\METHODS\app9D.m (RTE Integrator)
Title : SW846 8270D OR EPA 625
Last Update : Fri Feb 04 12:26:22 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	97	0.00	4.72
2		1,4-Dioxane	0.563	0.589	-4.6	101	-0.02	2.24
3		N-nitrosodimethylamine	0.509	0.534	-4.9	101	-0.01	2.55
4		Pyridine	1.438	1.521	-5.8	101	-0.01	2.57
		----------	Amount	Calc.	%Drift		----------	
5	P	Benzaldehyde	37.500	35.108	6.4	93	0.00	4.40
		----------	AvgRF	CCRF	%Dev		----------	
6		Aniline	1.991	1.950	2.1	96	-0.01	4.48
7	S	2-Fluorophenol	1.169	1.198	-2.5	100	0.00	3.77
8	P	bis(2-Chloroethyl)ether	1.280	1.329	-3.8	102	0.00	4.53
9	S	Phenol-d5	1.440	1.416	1.7	99	-0.02	4.49
10	P	Phenol	1.564	1.439	8.0	90	0.00	4.50
11	P	2-Chlorophenol	1.349	1.387	-2.8	99	0.00	4.58
12		1,3-Dichlorobenzene	1.467	1.502	-2.4	100	0.00	4.68
13	C	1,4-Dichlorobenzene	1.420	1.452	-2.3	101	0.00	4.74
14		1,2-Dichlorobenzene	1.347	1.375	-2.1	101	0.00	4.86
15		Benzyl alcohol	0.910	0.950	-4.4	99	0.00	4.84
16	P	bis(2-chloroisopropyl)eth	1.443	1.421	1.5	96	0.00	4.94
17	P	2-Methylphenol	1.169	1.221	-4.4	97	0.01	4.94
18	P	Acetophenone	1.799	1.810	-0.6	100	0.00	5.04
19	P	Hexachloroethane	0.524	0.552	-5.3	103	0.00	5.13
20	P	N-Nitroso-di-n-propylamin	0.970	0.990	-2.1	99	0.00	5.05
21	P	3&4-Methylphenol	1.294	1.327	-2.6	99	0.00	5.07
22	I	Naphthalene-d8	1.000	1.000	0.0	97	0.00	5.82
23	S	Nitrobenzene-d5	0.389	0.400	-2.8	100	0.01	5.17
24	P	Nitrobenzene	0.387	0.384	0.8	99	0.00	5.18
25	P	Isophorone	0.741	0.745	-0.5	99	0.00	5.39
26	P	2-Nitrophenol	0.216	0.228	-5.6	100	0.00	5.46
27	P	2,4-Dimethylphenol	0.358	0.356	0.6	99	0.00	5.51
28	P	bis(2-Chloroethoxy)methan	0.435	0.436	-0.2	100	0.00	5.58
		----------	Amount	Calc.	%Drift		----------	
29		Benzoic Acid	75.000	75.914	-1.2	99	-0.01	5.64
		----------	AvgRF	CCRF	%Dev		----------	
30	P	2,4-Dichlorophenol	0.322	0.327	-1.6	100	0.00	5.70
31		1,2,4-Trichlorobenzene	0.367	0.369	-0.5	101	0.00	5.77
32	P	Naphthalene	0.961	0.956	0.5	100	0.00	5.84
33		alpha-terpineol	0.251	0.252	-0.4	101	0.00	5.86

Continuing Calibration Summary

Job Number: F79608 **Sample:** SL2545-CC2542
Account: TETTNOAK Tetra Tech, Inc **Lab FileID:** L049670.D
Project: Holloman AFB; Alamogordo, NM

34	P	4-Chloroaniline	0.440	0.451	-2.5	101	0.00	5.90
35		2,6-Dichlorophenol	0.308	0.308	0.0	99	0.00	5.91
36	P	Hexachlorobutadiene	0.182	0.185	-1.6	101	0.00	5.97
37	P	Caprolactam	0.133	0.136	-2.3	97	0.00	6.27
38	P	4-Chloro-3-methylphenol	0.314	0.324	-3.2	100	0.00	6.46
39	P	2-Methylnaphthalene	0.674	0.677	-0.4	100	0.00	6.60
40		1-Methylnaphthalene	0.673	0.677	-0.6	100	0.00	6.72
41	P	1,2,4,5-Tetrachlorobenzen	0.319	0.314	1.6	100	0.00	6.82
42	I	Acenaphthene-d10	1.000	1.000	0.0	97	0.00	8.02
43	P	Hexachlorocyclopentadiene	0.339	0.337	0.6	91	0.00	6.81
44	P	2,4,6-Trichlorophenol	0.431	0.441	-2.3	99	0.00	6.98
45	P	2,4,5-Trichlorophenol	0.451	0.464	-2.9	98	0.00	7.03
46	S	2-Fluorobiphenyl	1.340	1.329	0.8	100	0.00	7.08
47	P	1,1'-Biphenyl	1.575	1.567	0.5	101	0.00	7.21
48	P	2-Chloronaphthalene	1.175	1.169	0.5	100	0.00	7.23
49	P	2-Nitroaniline	0.336	0.358	-6.5	98	0.00	7.38
50		m-Dinitrobenzene	0.252	0.266	-5.6	98	0.00	7.69
51	P	Acenaphthylene	1.821	1.800	1.2	99	0.00	7.81
52	P	Dimethylphthalate	1.358	1.354	0.3	99	0.00	7.67
53	P	2,6-Dinitrotoluene	0.333	0.353	-6.0	100	0.00	7.74
54	P	Acenaphthene	1.135	1.139	-0.4	100	0.00	8.08
55	P	3-Nitroaniline	0.378	0.402	-6.3	100	0.00	8.00
		----------	Amount	Calc.	%Drift		----------	
56	P	2,4-Dinitrophenol	75.000	75.532	-0.7	97	0.00	8.15
		----------	AvgRF	CCRF	%Dev		----------	
57	P	Dibenzofuran	1.628	1.586	2.6	97	0.00	8.35
58	P	2,4-Dinitrotoluene	0.386	0.407	-5.4	98	0.00	8.36
59	P	4-Nitrophenol	0.158	0.156	1.3	93	-0.01	8.35
60	P	2,3,4,6-Tetrachlorophenol	0.344	0.356	-3.5	100	0.00	8.57
61	P	Fluorene	1.327	1.335	-0.6	99	0.00	8.90
62	P	4-Chlorophenyl-phenylethe	0.629	0.629	0.0	100	0.00	8.93
63	P	Diethylphthalate	1.256	1.298	-3.3	100	0.00	8.79
64	P	4-Nitroaniline	0.359	0.380	-5.8	97	0.02	8.98
65	I	Phenanthrene-d10	1.000	1.000	0.0	95	0.00	10.49
		----------	Amount	Calc.	%Drift		----------	
66	P	4,6-Dinitro-2-methylpheno	75.000	77.251	-3.0	97	0.00	9.02
		----------	AvgRF	CCRF	%Dev		----------	
67		Diphenylamine	0.653	0.666	-2.0	100	0.00	9.14
68	P	n-Nitrosodiphenylamine	0.544	0.555	-2.0	100	0.00	9.14
69		1,2-Diphenylhydrazine	0.716	0.723	-1.0	99	0.00	9.19
70	S	2,4,6-Tribromophenol	0.088	0.089	-1.1	98	0.00	9.31
71	P	4-Bromophenyl-phenylether	0.203	0.211	-3.9	101	0.00	9.76
72	P	Hexachlorobenzene	0.211	0.212	-0.5	100	0.00	9.83
73		Simazine	0.095	0.095	0.0	92	-0.02	10.07
74	P	Atrazine	0.206	0.204	1.0	96	0.00	10.13
75	P	Pentachlorophenol	0.128	0.134	-4.7	97	0.00	10.20
76	P	Phenanthrene	1.004	1.012	-0.8	99	0.00	10.53
77	P	Anthracene	1.029	1.042	-1.3	99	0.00	10.62
78	P	Carbazole	1.001	1.014	-1.3	99	0.00	10.96
79	P	Di-n-butylphthalate	1.079	1.141	-5.7	100	0.00	11.74
80	P	Fluoranthene	1.042	1.075	-3.2	99	0.00	12.69
81	I	Chrysene-d12	1.000	1.000	0.0	97	0.00	15.38
82		Benzidine	0.742	0.772	-4.0	95	0.00	13.03

Continuing Calibration Summary

Job Number: F79608 **Sample:** SL2545-CC2542
Account: TETTNOAK Tetra Tech, Inc **Lab FileID:** L049670.D
Project: Holloman AFB; Alamogordo, NM

83	P	Pyrene	1.285	1.262	1.8	98	0.00	13.09
84	S	Terphenyl-d14	0.756	0.764	-1.1	99	0.00	13.50
85	P	Butylbenzylphthalate	0.556	0.603	-8.5	100	0.00	14.54
86	P	3,3'-Dichlorobenzidine	0.393	0.411	-4.6	98	0.00	15.42
87	P	Benzo[a]anthracene	1.129	1.170	-3.6	99	0.00	15.37
88	P	Chrysene	1.043	1.043	0.0	101	0.00	15.43
89	P	bis(2-Ethylhexyl)phthalat	0.726	0.788	-8.5	101	0.00	15.72
90	I	Perylene-d12	1.000	1.000	0.0	99	0.00	17.87
91	P	Di-n-octylphthalate	1.229	1.323	-7.6	100	0.00	16.90
92	P	Benzo[b]fluoranthene	1.102	1.114	-1.1	100	0.00	17.27
93	P	Benzo[k]fluoranthene	1.078	1.095	-1.6	101	0.00	17.32
94	P	Benzo[a]pyrene	1.065	1.098	-3.1	101	0.00	17.78
95	P	Indeno[1,2,3-cd]pyrene	0.948	0.976	-3.0	99	0.00	19.45
96	P	Dibenz[a,h]anthracene	0.948	1.009	-6.4	103	0.00	19.51
97	P	Benzo[g,h,i]perylene	1.060	1.103	-4.1	104	0.00	19.81
98	I	1,4-Dichlorobenzene-d4A	1.000	1.000	0.0	100	0.00	4.72
99		2-Picoline		----------NA----------				
100		N-Nitrosomethylethylamine		----------NA----------				
101		Methyl methanesulfonate		----------NA----------				
102		N-Nitrosodiethylamine		----------NA----------				
103		Ethyl methanesulfonate		----------NA----------				
104		Pentachloroethane		----------NA----------				
105		N-Nitrosopyrrolidine		----------NA----------				
106		N-Nitrosomorpholine		----------NA----------				
107		O-Toluidine		----------NA----------				
108	I	Naphthalene-d8A	1.000	1.000	0.0	102	0.00	5.82
109		N-Nitrosopiperidine		----------NA----------				
110		A,A-Dimethylphenethylamin		----------NA----------				
111		Hexachloropropene		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
112		p-Phenylenediamine		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
113		N-Nitrosodi-n-butylamine		----------NA----------				
114		Isosafrole		----------NA----------				
115	I	Acenaphthene-d10A	1.000	1.000	0.0	101	0.00	8.02
116		Safrole		----------NA----------				
117		1-Chloronaphthalene		----------NA----------				
118		Diphenyl Ether		----------NA----------				
119		1,4-Naphthoquinone		----------NA----------				
120		Pentachlorobenzene		----------NA----------				
121		1-Naphthylamine		----------NA----------				
122		2-Naphthylamine		----------NA----------				
123		5-Nitro-o-toluidine		----------NA----------				
124	I	Phenanthrene-d10A	1.000	1.000	0.0	106	0.00	10.49
		----------	Amount	Calc.	%Drift	----------		
125		1,3,5-Trinitrobenzene		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
126		Diallate		----------NA----------				
127		Phenacetin		----------NA----------				
128		4-aminobiphenyl		----------NA----------				
129		Pentachloronitrobenzene		----------NA----------				

Continuing Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: SL2545-CC2542
Lab FileID: L049670.D

```
130     Pronamide                           ----------NA----------

            ----------------------- Amount  Calc.    %Drift   -------------
131     4-Nitroquinoline 1-Oxide            ----------NA----------

            ----------------------- AvgRF   CCRF      %Dev   --------------
132     Methapyrilene                       ----------NA----------
133     Isodrin                             ----------NA----------

134 I   Chrysene-d12A               1.000   1.000      0.0  101   0.00   15.38
135     Aramite                             ----------NA----------
136     p-(Dimethylamine)azobenze           ----------NA----------
137     Chlorobenzilate                     ----------NA----------
138     Kepone                              ----------NA----------
139     3,3'-Dimethylbenzidine              ----------NA----------
140     2-Acetylaminofluorene               ----------NA----------

141 I   Perylene-d12A               1.000   1.000      0.0  113   0.00   17.87
142     7,12-Dimethylbenz(a)anthr           ----------NA----------
143     Hexachlorophene                     ----------NA----------
144     3-Methylcholanthrene                ----------NA----------
145     Dibenz(a,j)acridine                 ----------NA----------
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range              SPCC's out = 0  CCC's out = 0
     L049623.D  app9D.m          Fri Feb 04 12:28:55 2011
```

6.7.8

6

Continuing Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: SL2545-CC2540
Lab FileID: L049671.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\2\DATA\020411\L049671.D          Vial: 3
Acq On    :  4 Feb 2011   9:15 am                   Operator: nancyf
Sample    : cc2540-50                               Inst    : MSBNA02
Misc      : op35888,sl2545,1000,,,1,1,water         Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\msdchem\2\METHODS\8270op.m (RTE Integrator)
Title        : OP Pesticides by 8270c
Last Update  : Fri Feb 04 09:38:52 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	181	0.00	4.72
2		O,O,O-Triethylphosphoroth	0.608	0.619	-1.8	179	0.00	5.56
3	I	Naphthalene-d8	1.000	1.000	0.0	165	0.00	5.82
4	I	Acenaphthene-d10	1.000	1.000	0.0	175	0.00	8.02
5		Thionazin	0.247	0.269	-8.9	184	0.00	8.91
6		Sulfotep	0.171	0.189	-10.5	185	0.00	9.48
7		Phorate	0.640	0.694	-8.4	184	0.00	9.66
8		Phenanthrene-d10	1.000	1.000	0.0	193	0.00	10.48
9		Dimethoate	0.309	0.284	8.1	170	0.00	9.94
10		Disulfoton	0.338	0.335	0.9	180	0.00	10.60
		----------	Amount	Calc.	%Drift		----------	
11		Methyl Parathion	50.000	44.175	11.7	168	0.00	11.26
		----------	AvgRF	CCRF	%Dev		----------	
12		Ethyl Parathion	0.129	0.136	-5.4	187	0.00	12.01
13	I	Chrysene-d12	1.000	1.000	0.0	192	0.00	15.37
14		Famphur	0.481	0.437	9.1	165	0.00	14.37
15	I	Perylene-d12	1.000	1.000	0.0	179	0.00	17.87

(#) = Out of Range SPCC's out = 0 CCC's out = 0
L049585.D 8270op.m Fri Feb 04 14:16:38 2011

Southeast ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GCD4222-MB	CD102842.D	1	02/03/11	WV	n/a	n/a	GCD4222

The QC reported here applies to the following samples: **Method:** SW846 8015C

F79608-1, F79608-4, F79608-5, F79608-7

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	88%	57-129%
98-08-8	aaa-Trifluorotoluene	85%	58-120%

Method Blank Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GCD4223-MB	CD102872.D	1	02/07/11	WV	n/a	n/a	GCD4223

The QC reported here applies to the following samples: **Method:** SW846 8015C

F79608-2, F79608-3, F79608-6

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	93%	57-129%
98-08-8	aaa-Trifluorotoluene	85%	58-120%

Blank Spike Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GCD4222-BS	CD102841.D	1	02/03/11	WV	n/a	n/a	GCD4222

The QC reported here applies to the following samples: **Method:** SW846 8015C

F79608-1, F79608-4, F79608-5, F79608-7

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH-GRO (C6-C10)	0.4	0.368	92	75-129

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	106%	57-129%
98-08-8	aaa-Trifluorotoluene	104%	58-120%

Blank Spike Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GCD4223-BS	CD102871.D	1	02/07/11	WV	n/a	n/a	GCD4223

The QC reported here applies to the following samples: **Method:** SW846 8015C

F79608-2, F79608-3, F79608-6

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH-GRO (C6-C10)	0.4	0.394	99	75-129

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	107%	57-129%
98-08-8	aaa-Trifluorotoluene	106%	58-120%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79608-1MS	CD102862.D	1	02/03/11	WV	n/a	n/a	GCD4222
F79608-1MSD	CD102863.D	1	02/03/11	WV	n/a	n/a	GCD4222
F79608-1	CD102843.D	1	02/03/11	WV	n/a	n/a	GCD4222

The QC reported here applies to the following samples: **Method:** SW846 8015C

F79608-1, F79608-4, F79608-5, F79608-7

CAS No.	Compound	F79608-1 mg/l	Q	Spike mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND		0.4	0.336	84	0.337	84	0	75-129/13

CAS No.	Surrogate Recoveries	MS	MSD	F79608-1	Limits
460-00-4	4-Bromofluorobenzene	100%	106%	89%	57-129%
98-08-8	aaa-Trifluorotoluene	99%	103%	81%	58-120%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79608-3MS	CD102878.D	2.5	02/07/11	WV	n/a	n/a	GCD4223
F79608-3MSD	CD102879.D	2.5	02/07/11	WV	n/a	n/a	GCD4223
F79608-3	CD102876.D	2.5	02/07/11	WV	n/a	n/a	GCD4223

The QC reported here applies to the following samples: **Method:** SW846 8015C

F79608-2, F79608-3, F79608-6

CAS No.	Compound	F79608-3 mg/l	Q	Spike mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	1.25		1	2.22	97	2.19	94	1	75-129/13

CAS No.	Surrogate Recoveries	MS	MSD	F79608-3	Limits
460-00-4	4-Bromofluorobenzene	119%	120%	128%	57-129%
98-08-8	aaa-Trifluorotoluene	111%	109%	100%	58-120%

Volatile Surrogate Recovery Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Method: SW846 8015C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S2 [a]
F79608-1	CD102843.D	89.0	81.0
F79608-2	CD102875.D	123.0	93.0
F79608-3	CD102876.D	128.0	100.0
F79608-4	CD102846.D	105.0	83.0
F79608-5	CD102847.D	108.0	91.0
F79608-6	CD102877.D	111.0	101.0
F79608-7	CD102849.D	87.0	81.0
F79608-1MS	CD102862.D	100.0	99.0
F79608-1MSD	CD102863.D	106.0	103.0
F79608-3MS	CD102878.D	119.0	111.0
F79608-3MSD	CD102879.D	120.0	109.0
GCD4222-BS	CD102841.D	106.0	104.0
GCD4222-MB	CD102842.D	88.0	85.0
GCD4223-BS	CD102871.D	107.0	106.0
GCD4223-MB	CD102872.D	93.0	85.0

Surrogate Compounds	Recovery Limits
S1 = 4-Bromofluorobenzene	57-129%
S2 = aaa-Trifluorotoluene	58-120%

(a) Recovery from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	GCD4222-ICC4222	**Injection Date:**	02/03/11
Lab File ID:	CD102835.D	**Injection Time:**	10:48
Instrument ID:	GCCD	**Method:**	SW846 8015C

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	11.90	11.90	7.48	7.48

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
GCD4222-BS	CD102841.D	02/03/11	14:03		11.90		7.48
GCD4222-MB	CD102842.D	02/03/11	14:27		11.90		7.48
F79608-1	CD102843.D	02/03/11	14:51		11.90		7.48
F79608-4	CD102846.D	02/03/11	16:04		11.90		7.48
F79608-5	CD102847.D	02/03/11	16:29		11.90		7.48
F79608-7	CD102849.D	02/03/11	17:18		11.90		7.48
GCD4222-RT	CD102850.D	02/03/11	17:42	11.90	11.90	7.49	7.49

Surrogate Compounds

S1 = 4-Bromofluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	GCD4222-CC4222	**Injection Date:**	02/03/11
Lab File ID:	CD102860.D	**Injection Time:**	21:46
Instrument ID:	GCCD	**Method:**	SW846 8015C

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	11.90	11.90	7.48	7.48

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
F79608-1MS	CD102862.D	02/03/11	22:35		11.90		7.48
F79608-1MSD	CD102863.D	02/03/11	23:00		11.90		7.48
F79701-8MS	CD102864.D	02/03/11	23:24		11.90		7.47
F79701-8MSD	CD102865.D	02/03/11	23:48		11.90		7.47
GCD4222-ECC4222	CD102866.D	02/04/11	00:13	11.90	11.90	7.47	7.47

Surrogate Compounds

S1 = 4-Bromofluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	GCD4223-CC4222	**Injection Date:**	02/07/11
Lab File ID:	CD102870.D	**Injection Time:**	08:40
Instrument ID:	GCCD	**Method:**	SW846 8015C

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	11.88	11.88	7.45	7.45

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
GCD4223-BS	CD102871.D	02/07/11	09:04		11.88		7.45
GCD4223-MB	CD102872.D	02/07/11	09:29		11.88		7.45
ZZZZZZ	CD102873.D	02/07/11	10:28		11.88		7.45
ZZZZZZ	CD102874.D	02/07/11	11:16		11.89		7.47
F79608-2	CD102875.D	02/07/11	11:41		11.88		7.46
F79608-3	CD102876.D	02/07/11	12:04		11.88		7.46
F79608-6	CD102877.D	02/07/11	12:29		11.88		7.45
F79608-3MS	CD102878.D	02/07/11	12:54		11.88		7.46
F79608-3MSD	CD102879.D	02/07/11	13:18		11.88		7.46
GCD4223-ECC4222	CD102880.D	02/07/11	13:43	11.88	11.88	7.46	7.46

Surrogate Compounds

S1 = 4-Bromofluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

Initial Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GCD4222-ICC4222
Lab FileID: CD102835.D

```
                          Response Factor Report  VOA2

  Method       : C:\HPCHEM\1\METHODS\GROW-CD.M (Chemstation Integrator)
  Title        : EPA 8015B/TPHGRO by GC-PID/FID
  Last Update  : Thu Feb 03 12:46:41 2011
  Response via : Initial Calibration

  Calibration Files
  1   =CD102833.D  2   =CD102834.D  3   =CD102835.D  4   =CD102836.D
  5      =CD102837.D   6      =CD102838.D

        Compound              1     2     3     4     5     6     Avg    %RSD
  ---------------------------------------------------------------------------
  1) S   a,a,a-TFT           1.440 1.654 1.654 1.716 1.829 1.642 1.656 E3   7.66
  2) S   BFB                 3.726 4.305 4.397 4.618 4.888 4.473 4.401 E3   8.82

Signal #2

  4) S   a,a,a-TFT #2        4.920 5.842 6.037 6.551 6.981 6.356 6.115 E4  11.58
  5) S   BFB #2              2.589 3.007 3.030 3.163 3.470 3.192 3.075 E4   9.42
  6) H   TPH-GRO (C6-C10)    5.713 5.165 4.843 5.047 5.067 4.864 5.117 E4   6.21
             ---- Linear regression ----  Coefficient =  0.9985
               Response Ratio = 668386.17373 + 48665.03801 *A

 ---------------------------------------------------------------------------
 (#) = Out of Range

           GROW-CD.M         Sat Feb 05 12:27:09 2011
```

7.6.1

7

Initial Calibration Verification

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GCD4222-ICV4222
Lab FileID: CD102840.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\HPCHEM\1\DATA\020311\CD102840.D\FID1B.CH  Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\020311\CD102840.D\FID2A.CH
Acq On    :  3 Feb 2011   1:06 pm                    Operator: wilfredo
Sample    : icv4222-3                                Inst    : VOA2
Misc      : gc11841,gcd4222,,,,,                     Multiplr: 1.00
IntFile Signal #1: PID.E        IntFile Signal #2: events2.e

Method       : C:\HPCHEM\1\METHODS\GROW-CD.M (Chemstation Integrator)
Title        : EPA 8015B/TPHGRO by GC-PID/FID
Last Update  : Thu Feb 03 12:46:41 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	a,a,a-TFT	20.000	20.716	-3.6	104	0.01	7.37- 7.57
2 S	BFB	20.000	20.435	-2.2	102	0.01	11.79-11.99
*****	Signal #2 *****						
4 S	a,a,a-TFT #2	20.000	20.719	-3.6	105	0.00	7.37- 7.57
5 S	BFB #2	20.000	21.453	-7.3	109	0.01	11.79-11.99
6 H	TPH-GRO (C6-C10)	400.000	359.274	10.2	94	0.00	4.03-12.91

(#) = Out of Range SPCC's out = 0 CCC's out = 0
CD102835.D GROW-CD.M Sat Feb 05 12:22:33 2011

7.6.2

7

Continuing Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GCD4222-CC4222
Lab FileID: CD102851.D

```
                    Evaluate Continuing Calibration Report

 Signal #1 : C:\HPCHEM\1\DATA\020311\CD102851.D\FID1B.CH  Vial: 22
 Signal #2 : C:\HPCHEM\1\DATA\020311\CD102851.D\FID2A.CH
 Acq On    :  3 Feb 2011   6:07 pm                    Operator: wilfredo
 Sample    : cc4222-3                                 Inst    : VOA2
 Misc      : gc11841,gcd4222,,,,,                     Multiplr: 1.00
 IntFile Signal #1: PID.E        IntFile Signal #2: events2.e

 Method       : C:\HPCHEM\1\METHODS\GROW-CD.M (Chemstation Integrator)
 Title        : EPA 8015B/TPHGRO by GC-PID/FID
 Last Update  : Thu Feb 03 12:46:41 2011
 Response via : Multiple Level Calibration

 Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
 Max. RRF Dev :  20%     Max. Rel. Area : 150%

        Compound                Amount  Calc.    %Drift Area% Dev(min)RT Window
 ---------------------------------------------------------------------------
 1 S   a,a,a-TFT               20.000  19.639      1.8   98   0.01    7.37- 7.57
 2 S   BFB                     20.000  20.122     -0.6  101   0.00   11.79-11.99

*****  Signal #2   *****

 4 S   a,a,a-TFT #2            20.000  19.042      4.8   96   0.01    7.37- 7.57
 5 S   BFB #2                  20.000  20.569     -2.8  104   0.00   11.79-11.99
 6 H   TPH-GRO (C6-C10)       400.000 388.736      2.8  101   0.00    4.03-12.91
---------------------------------------------------------------------------
---------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    CD102835.D GROW-CD.M        Sat Feb 05 12:22:34 2011
```

7.6.3

7

Continuing Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GCD4222-CC4222
Lab FileID: CD102860.D

```
                    Evaluate Continuing Calibration Report

 Signal #1 : C:\HPCHEM\1\DATA\020311\CD102860.D\FID1B.CH  Vial: 31
 Signal #2 : C:\HPCHEM\1\DATA\020311\CD102860.D\FID2A.CH
 Acq On    :  3 Feb 2011   9:46 pm                    Operator: wilfredo
 Sample    : cc4222-3                                 Inst    : VOA2
 Misc      : gc11841,gcd4222,,,,,                     Multiplr: 1.00
 IntFile Signal #1: PID.E        IntFile Signal #2: events2.e

 Method       : C:\HPCHEM\1\METHODS\GROW-CD.M (Chemstation Integrator)
 Title        : EPA 8015B/TPHGRO by GC-PID/FID
 Last Update  : Thu Feb 03 12:46:41 2011
 Response via : Multiple Level Calibration

 Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
 Max. RRF Dev :  20%     Max. Rel. Area : 150%

        Compound                Amount  Calc.    %Drift Area% Dev(min)RT Window
 ---------------------------------------------------------------------------
 1 S   a,a,a-TFT               20.000  20.386     -1.9  102   0.00    7.37- 7.57
 2 S   BFB                     20.000  20.630     -3.1  103   0.00   11.79-11.99

*****  Signal #2   *****

 4 S   a,a,a-TFT #2            20.000  20.093     -0.5  102   0.00    7.37- 7.57
 5 S   BFB #2                  20.000  20.871     -4.4  106   0.00   11.79-11.99
 6 H   TPH-GRO (C6-C10)       400.000 397.593      0.6  103   0.00    4.03-12.91
---------------------------------------------------------------------------
---------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    CD102835.D GROW-CD.M        Sat Feb 05 12:22:34 2011
```

7.6.4

7

Continuing Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GCD4222-ECC4222
Lab FileID: CD102866.D

```
                    Evaluate Continuing Calibration Report

 Signal #1 : C:\HPCHEM\1\DATA\020311\CD102866.D\FID1B.CH  Vial: 35
 Signal #2 : C:\HPCHEM\1\DATA\020311\CD102866.D\FID2A.CH
 Acq On    :  4 Feb 2011  12:13 am                    Operator: wilfredo
 Sample    : ecc4222-3                                Inst    : VOA2
 Misc      : gc11841,gcd4222,,,,,                     Multiplr: 1.00
 IntFile Signal #1: PID.E        IntFile Signal #2: events2.e

 Method       : C:\HPCHEM\1\METHODS\GROW-CD.M (Chemstation Integrator)
 Title        : EPA 8015B/TPHGRO by GC-PID/FID
 Last Update  : Thu Feb 03 12:46:41 2011
 Response via : Multiple Level Calibration

 Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
 Max. RRF Dev :  20%     Max. Rel. Area : 150%

        Compound                Amount  Calc.    %Drift Area% Dev(min)RT Window
 ---------------------------------------------------------------------------
 1 S   a,a,a-TFT               20.000  20.734     -3.7  104   0.00    7.37- 7.57
 2 S   BFB                     20.000  20.739     -3.7  104   0.00   11.79-11.99

*****  Signal #2   *****

 4 S   a,a,a-TFT #2            20.000  20.837     -4.2  106   0.00    7.37- 7.57
 5 S   BFB #2                  20.000  21.019     -5.1  107   0.00   11.79-11.99
 6 H   TPH-GRO (C6-C10)       400.000 404.474     -1.1  105   0.00    4.03-12.91
---------------------------------------------------------------------------
---------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    CD102835.D GROW-CD.M        Sat Feb 05 12:22:34 2011
```

7.6.5

7

Continuing Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GCD4223-CC4222
Lab FileID: CD102870.D

```
                    Evaluate Continuing Calibration Report

 Signal #1 : C:\HPCHEM\1\DATA\020711\CD102870.D\FID1B.CH  Vial: 3
 Signal #2 : C:\HPCHEM\1\DATA\020711\CD102870.D\FID2A.CH
 Acq On    :  7 Feb 2011   8:40 am                    Operator: wilfredo
 Sample    : cc4222-4                                 Inst    : VOA2
 Misc      : gc11841,gcd4223,,,,,                     Multiplr: 1.00
 IntFile Signal #1: PID.E        IntFile Signal #2: events2.e

 Method       : C:\HPCHEM\1\METHODS\GROW-CD.M (Chemstation Integrator)
 Title        : EPA 8015B/TPHGRO by GC-PID/FID
 Last Update  : Tue Feb 08 15:13:39 2011
 Response via : Multiple Level Calibration

 Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
 Max. RRF Dev :  20%     Max. Rel. Area : 150%

        Compound                Amount  Calc.    %Drift Area% Dev(min)RT Window
 ---------------------------------------------------------------------------
 1 S   a,a,a-TFT               20.000  18.352      8.2   89   0.00    7.35- 7.55
 2 S   BFB                     20.000  18.267      8.7   87   0.00   11.78-11.98

*****  Signal #2   *****

 4 S   a,a,a-TFT #2            20.000  19.329      3.4   90   0.00    7.35- 7.55
 5 S   BFB #2                  20.000  18.970      5.2   92   0.00   11.78-11.98
 6 H   TPH-GRO (C6-C10)       600.000 611.382     -1.9  100   0.00    4.00-12.88
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    CD102836.D GROW-CD.M        Tue Feb 08 15:29:02 2011
```

7.6.6

7

Continuing Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GCD4223-ECC4222
Lab FileID: CD102880.D

```
                    Evaluate Continuing Calibration Report

 Signal #1 : C:\HPCHEM\1\DATA\020711\CD102880.D\FID1B.CH  Vial: 13
 Signal #2 : C:\HPCHEM\1\DATA\020711\CD102880.D\FID2A.CH
 Acq On    :  7 Feb 2011   1:43 pm                    Operator: wilfredo
 Sample    : ecc4222-3                                Inst    : VOA2
 Misc      : gc11841,gcd4223,,,,,                     Multiplr: 1.00
 IntFile Signal #1: PID.E        IntFile Signal #2: events2.e

 Method       : C:\HPCHEM\1\METHODS\GROW-CD.M (Chemstation Integrator)
 Title        : EPA 8015B/TPHGRO by GC-PID/FID
 Last Update  : Tue Feb 08 15:13:39 2011
 Response via : Multiple Level Calibration

 Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
 Max. RRF Dev :  20%     Max. Rel. Area : 150%

        Compound                Amount  Calc.    %Drift Area% Dev(min)RT Window
 ---------------------------------------------------------------------------
 1 S   a,a,a-TFT               20.000  19.650      1.8   98   0.01    7.35- 7.55
 2 S   BFB                     20.000  19.787      1.1   99   0.00   11.78-11.98

*****  Signal #2   *****

 4 S   a,a,a-TFT #2            20.000  19.808      1.0  100   0.01    7.35- 7.55
 5 S   BFB #2                  20.000  20.690     -3.5  105   0.00   11.78-11.98
 6 H   TPH-GRO (C6-C10)       400.000 375.350      6.2   98   0.00    4.00-12.88
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    CD102835.D GROW-CD.M        Tue Feb 08 15:28:46 2011
```

7.6.7

7

Southeast ACCUTEST LABORATORIES

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35874-MB	ZF38531.D	1	02/01/11	FEA	01/28/11	OP35874	GZF1607

The QC reported here applies to the following samples: **Method:** SW846 8015C

F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	0.25	0.10	mg/l	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	98%	42-114%

Method Blank Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35874-MB	ZF38559.D	1	02/02/11	FEA	01/28/11	OP35874	GZF1608

The QC reported here applies to the following samples: **Method:** SW846 8015C

F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	0.25	0.10	mg/l	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	96%	42-114%

Blank Spike Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35874-BS	ZF38530.D	1	02/01/11	FEA	01/28/11	OP35874	GZF1607

The QC reported here applies to the following samples: **Method:** SW846 8015C

F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH (C10-C28)	1	0.888	89	59-114

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	90%	42-114%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35874-MS	ZF38560.D	1	02/02/11	FEA	01/28/11	OP35874	GZF1608
OP35874-MSD	ZF38537.D	1	02/01/11	FEA	01/28/11	OP35874	GZF1607
F79608-1	ZF38535.D	1	02/01/11	FEA	01/28/11	OP35874	GZF1607

The QC reported here applies to the following samples: **Method:** SW846 8015C

F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6

CAS No.	Compound	F79608-1 mg/l	Q	Spike mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	ND		1.92	1.56	81	1.67	87	7	59-114/34

CAS No.	Surrogate Recoveries	MS	MSD	F79608-1	Limits
84-15-1	o-Terphenyl	83%	89%	81%	42-114%

Semivolatile Surrogate Recovery Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Method: SW846 8015C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]
F79608-1	ZF38535.D	81.0
F79608-2	ZF38538.D	80.0
F79608-3	ZF38539.D	86.0
F79608-4	ZF38540.D	85.0
F79608-5	ZF38541.D	79.0
F79608-6	ZF38542.D	86.0
OP35874-BS	ZF38530.D	90.0
OP35874-MB	ZF38531.D	98.0
OP35874-MB	ZF38559.D	96.0
OP35874-MS	ZF38560.D	83.0
OP35874-MSD	ZF38537.D	89.0

Surrogate Compounds	Recovery Limits
S1 = o-Terphenyl	42-114%

(a) Recovery from GC signal #1

GC Surrogate Retention Time Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	GZF1607-CC1595	**Injection Date:**	02/01/11
Lab File ID:	ZF38528.D	**Injection Time:**	13:45
Instrument ID:	GCZF	**Method:**	SW846 8015C

	S1 [a] **RT**
Check Std	6.22

Lab Sample ID	**Lab File ID**	**Date Analyzed**	**Time Analyzed**	**S1** [a] **RT**
OP35874-BS	ZF38530.D	02/01/11	14:27	6.22
OP35874-MB	ZF38531.D	02/01/11	14:48	6.22
ZZZZZZ	ZF38532.D	02/01/11	15:16	6.22

Surrogate Compounds

S1 = o-Terphenyl

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	GZF1607-CC1595	**Injection Date:**	02/01/11
Lab File ID:	ZF38533.D	**Injection Time:**	15:37
Instrument ID:	GCZF	**Method:**	SW846 8015C

	S1 [a] **RT**
Check Std	6.22

Lab Sample ID	**Lab File ID**	**Date Analyzed**	**Time Analyzed**	**S1** [a] **RT**
F79608-1	ZF38535.D	02/01/11	17:07	6.22
OP35874-MSD	ZF38537.D	02/01/11	17:48	6.22
F79608-2	ZF38538.D	02/01/11	18:09	6.22
F79608-3	ZF38539.D	02/01/11	18:30	6.22
F79608-4	ZF38540.D	02/01/11	18:51	6.22
F79608-5	ZF38541.D	02/01/11	19:11	6.22
F79608-6	ZF38542.D	02/01/11	19:32	6.22
GZF1607-RT	ZF38543.D	02/01/11	19:53	6.22

Surrogate Compounds

S1 = o-Terphenyl

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	GZF1608-CC1595	**Injection Date:**	02/02/11
Lab File ID:	ZF38557.D	**Injection Time:**	11:20
Instrument ID:	GCZF	**Method:**	SW846 8015C

	S1 [a] **RT**
Check Std	6.22

Lab Sample ID	**Lab File ID**	**Date Analyzed**	**Time Analyzed**	**S1** [a] **RT**
OP35874-MB	ZF38559.D	02/02/11	12:02	6.22
OP35874-MS	ZF38560.D	02/02/11	12:23	6.22
OP35871-MB	ZF38561.D	02/02/11	12:44	6.22
OP35871-MSD	ZF38562.D	02/02/11	13:04	0.00

Surrogate Compounds

S1 = o-Terphenyl

(a) Retention time from GC signal #1

Initial Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GZF1595-ICC1595
Lab FileID: ZF38256.D

```
                    Response Factor Report  FID 3

 Method       : C:\HPCHEM\1\METHODS\F_DRO.M (Chemstation Integrator)
 Title        : TPH by SW846 8015C
 Last Update  : Tue Dec 21 12:47:55 2010
 Response via : Initial Calibration

 Calibration Files
 200 =ZF38254.D   500 =ZF38255.D   1000=ZF38256.D   2000=ZF38257.D
 3000   =ZF38258.D    4000   =ZF38259.D

       Compound              200   500   1000  2000  3000  4000  Avg    %RSD
 ---------------------------------------------------------------------------
 1) S   O-TERPHENYL         2.395 2.373 2.308 2.288 2.287 2.207 2.310 E4   2.91
 2) H   TPH (C10-C28)       2.124 2.065 2.020 2.013 1.999 1.948 2.028 E4   2.97
---------------------------------------------------------------------------
(#) = Out of Range

          F_DRO.M           Wed Dec 22 08:30:25 2010
```

8.6.1

8

Initial Calibration Verification

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GZF1595-ICV1595
Lab FileID: ZF38260.D

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\1221DRO\ZF38260.D          Vial: 9
Acq On    : 21 Dec 2010  12:43 pm                   Operator: marke
Sample    : icv1595-1000                            Inst    : FID 3
Misc      : op35367,gzf1595,30.0,,,1,1,soil         Multiplr: 1.00
IntFile   : events.e

Method       : C:\HPCHEM\1\METHODS\F_DRO.M (Chemstation Integrator)
Title        : TPH by SW846 8015C
Last Update  : Tue Dec 21 12:47:55 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%

       Compound                Amount  Calc.    %Drift Area% Dev(min)RT Window
 ---------------------------------------------------------------------------
 1 S   O-TERPHENYL                        ----------NA----------
 2 H   TPH (C10-C28)          1000.000 1002.742     -0.3  101   0.00    3.05- 8.58
---------------------------------------------------------------------------
---------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    ZF38256.D  F_DRO.M          Wed Dec 22 08:30:11 2010
```

8.6.2

8

Continuing Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GZF1607-CC1595
Lab FileID: ZF38528.D

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\0201DRO\ZF38528.D          Vial: 2
Acq On    :  1 Feb 2011   1:45 pm                   Operator: enoca
Sample    : cc1595-1000                             Inst    : FID 3
Misc      : op35874,gzf1607,1000,,,1,1,water        Multiplr: 1.00
IntFile   : events.e

Method       : C:\HPCHEM\1\METHODS\F_DRO.M (Chemstation Integrator)
Title        : TPH by SW846 8015C
Last Update  : Fri Jan 07 13:39:25 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	25.000	24.941	0.2	100	-0.02	6.14- 6.34
2 H	TPH (C10-C28)	1000.000	1035.741	-3.6	104	0.00	3.02- 8.57

(#) = Out of Range SPCC's out = 0 CCC's out = 0
ZF38256.D F_DRO.M Tue Feb 01 16:03:03 2011

8.6.3

8

Continuing Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GZF1607-CC1595
Lab FileID: ZF38533.D

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\0201DRO\ZF38533.D          Vial: 2
Acq On    :  1 Feb 2011   3:37 pm                   Operator: enoca
Sample    : cc1595-1000                             Inst    : FID 3
Misc      : op35874,gzf1607,900,,,1,1,water         Multiplr: 1.00
IntFile   : events.e

Method       : C:\HPCHEM\1\METHODS\F_DRO.M (Chemstation Integrator)
Title        : TPH by SW846 8015C
Last Update  : Fri Jan 07 13:39:25 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	25.000	27.426	-9.7	110	-0.02	6.14- 6.34
2 H	TPH (C10-C28)	1000.000	1134.257	-13.4	114	0.00	3.02- 8.57

(#) = Out of Range SPCC's out = 0 CCC's out = 0
ZF38256.D F_DRO.M Tue Feb 01 16:07:11 2011

8.6.4

8

Continuing Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GZF1607-CC1595
Lab FileID: ZF38544.D

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\0201DRO\ZF38544.D          Vial: 2
Acq On    :  1 Feb 2011   8:14 pm                   Operator: enoca
Sample    : cc1595-1000                              Inst    : FID 3
Misc      : op35874,gzf1607,1030,,,1,1,water         Multiplr: 1.00
IntFile   : events.e

Method       : C:\HPCHEM\1\METHODS\F_DRO.M (Chemstation Integrator)
Title        : TPH by SW846 8015C
Last Update  : Fri Jan 07 13:39:25 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	25.000	25.634	-2.5	103	-0.02	6.14- 6.34
2 H	TPH (C10-C28)	1000.000	1077.769	-7.8	108	0.00	3.02- 8.57

(#) = Out of Range SPCC's out = 0 CCC's out = 0
ZF38256.D F_DRO.M Wed Feb 02 10:49:16 2011

8.6.5

8

Continuing Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GZF1608-CC1595
Lab FileID: ZF38557.D

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\0202DRO\ZF38557.D          Vial: 2
Acq On    :  2 Feb 2011  11:20 am                   Operator: enoca
Sample    : cc1595-1000                             Inst    : FID 3
Misc      : op35874,gzf1608,1000,,,1,1,water        Multiplr: 1.00
IntFile   : events.e

Method       : C:\HPCHEM\1\METHODS\F_DRO.M (Chemstation Integrator)
Title        : TPH by SW846 8015C
Last Update  : Fri Jan 07 13:39:25 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	25.000	26.744	-7.0	107	-0.02	6.14- 6.34
2 H	TPH (C10-C28)	1000.000	1112.819	-11.3	112	0.00	3.02- 8.57

(#) = Out of Range SPCC's out = 0 CCC's out = 0
ZF38256.D F_DRO.M Wed Feb 02 14:05:43 2011

8.6.6

8

Continuing Calibration Summary

Job Number: F79608
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: GZF1608-CC1595
Lab FileID: ZF38563.D

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\0202DRO\ZF38563.D          Vial: 2
Acq On    :  2 Feb 2011   1:25 pm                   Operator: enoca
Sample    : cc1595-1000                             Inst    : FID 3
Misc      : op35871,gzf1608,30.0,,,1,1,soil         Multiplr: 1.00
IntFile   : events.e

Method       : C:\HPCHEM\1\METHODS\F_DRO.M (Chemstation Integrator)
Title        : TPH by SW846 8015C
Last Update  : Fri Jan 07 13:39:25 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	25.000	26.786	-7.1	107	-0.02	6.14- 6.34
2 H	TPH (C10-C28)	1000.000	1118.449	-11.8	112	0.00	3.02- 8.57

(#) = Out of Range SPCC's out = 0 CCC's out = 0
ZF38256.D F_DRO.M Wed Feb 02 14:05:43 2011

8.6.7

8

Southeast ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30201W1.PRN Date Analyzed: 02/01/11 Methods: SW846 7470A
Analyst: LM Run ID: MA8683
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:22	MA8683-STD1	1		STD01REP1
10:24	MA8683-STD2	1		STD02REP1
10:26	MA8683-STD3	1		STD03REP1
10:29	MA8683-STD4	1		STD04REP1
10:32	MA8683-STD5	1		STD05REP1
10:35	MA8683-STD6	1		STD06REP1
10:39	MA8683-HSTD1	1		
10:42	MA8683-ICV1	1		
10:45	MA8683-ICB1	1		
10:49	MA8683-CRI1	1		
11:01	MA8683-CCV1	1		
11:03	MA8683-CCB1	1		
11:06	MP19899-MB1	1		
11:10	MP19899-B1	1		
11:13	F79564-1F	1		(sample used for QC only; not part of login F79608)
11:16	MP19899-D1	1		
11:19	MP19899-SD1	5		
11:22	MP19899-S1	1		
11:24	MP19899-S2	1		
11:26	ZZZZZZ	1		
11:29	ZZZZZZ	1		
11:32	ZZZZZZ	1		
11:34	MA8683-CCV2	1		
11:37	MA8683-CCB2	1		
11:40	ZZZZZZ	1		
11:42	ZZZZZZ	1		
11:45	ZZZZZZ	1		
11:50	ZZZZZZ	1		
11:55	ZZZZZZ	1		
11:57	ZZZZZZ	1		
12:00	ZZZZZZ	1		
12:03	MP19899-MB2A	1		
12:07	MP19898-MB1	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30201W1.PRN Date Analyzed: 02/01/11 Methods: SW846 7470A
Analyst: LM Run ID: MA8683
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:11	MP19898-B1	1		
12:14	MA8683-CCV3	1		
12:16	MA8683-CCB3	1		
12:19	F79564-1	1		(sample used for QC only; not part of login F79608)
12:21	MP19898-D1	1		
12:25	MP19898-SD1	5		
12:28	MP19898-S1	1		
12:30	MP19898-S2	1		
12:33	ZZZZZZ	1		
12:35	ZZZZZZ	1		
12:39	ZZZZZZ	1		
12:41	ZZZZZZ	1		
12:44	ZZZZZZ	1		
12:46	MA8683-CCV4	1		
12:49	MA8683-CCB4	1		
12:51	ZZZZZZ	1		
12:53	ZZZZZZ	1		
12:58	ZZZZZZ	1		
13:01	ZZZZZZ	1		
13:03	ZZZZZZ	1		
13:06	MP19900-MB1	1		
13:08	MP19900-B1	1		
13:11	F79568-5	1		(sample used for QC only; not part of login F79608)
13:13	MP19900-D1	1		
13:16	MP19900-SD1	5		
13:20	MA8683-CCV5	1		
13:23	MA8683-CCB5	1		
13:26	MP19900-S1	1		
13:28	MP19900-S2	1		
13:32	ZZZZZZ	1		
13:36	ZZZZZZ	1		
13:38	ZZZZZZ	1		
13:41	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30201W1.PRN Date Analyzed: 02/01/11 Methods: SW846 7470A
Analyst: LM Run ID: MA8683
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:44	ZZZZZZ	1		
13:47	ZZZZZZ	1		
13:49	ZZZZZZ	1		
13:53	ZZZZZZ	1		
13:56	MA8683-CCV6	1		
13:58	MA8683-CCB6	1		
14:01	ZZZZZZ	1		
14:03	ZZZZZZ	1		
14:06	ZZZZZZ	1		
14:08	ZZZZZZ	1		
14:11	MP19900-MB2A	1		
14:15	MP19901-MB1	1		
14:17	MP19901-B1	1		
14:20	F79608-1	1		
14:23	MP19901-D1	1		
14:26	MP19901-SD1	5		
14:28	MA8683-CCV7	1		
14:31	MA8683-CCB7	1		
14:34	MP19901-S1	1		
14:37	MP19901-S2	1		
14:39	F79608-2	1		
14:43	F79608-3	1		
14:47	F79608-4	1		
14:50	F79608-5	1		
14:53	F79608-6	1		
---------->	Last reportable sample/prep for job F79608			
14:55	MA8683-CRI2	1		
14:58	MA8683-CCV8	1		
15:01	MA8683-CCB8	1		
---------->	Last reportable CCB for job F79608			

Refer to raw data for calibration curve and standards.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30201W1.PRN Date Analyzed: 02/01/11 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA8683 Units: ug/l

Time:			10:45		11:03		11:37		12:16	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	1.0	.071	-0.053	<1.0	-0.034	<1.0	0.012	<1.0	0.020	<1.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30201W1.PRN Date Analyzed: 02/01/11 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA8683 Units: ug/l

Time:			12:49		13:23		13:58		14:31	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	1.0	.071	-0.044	<1.0	-0.042	<1.0	0.0080	<1.0	-0.026	<1.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30201W1.PRN Date Analyzed: 02/01/11 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA8683 Units: ug/l

Time:			15:01	
Sample ID:			CCB8	
Metal	RL	IDL	raw	final
Mercury	1.0	.071	-0.0030	<1.0

(*) Outside of QC limits
(anr) Analyte not requested

9.1.1
9

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30201W1.PRN Date Analyzed: 02/01/11 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA8683 Units: ug/l

Time:		10:42			11:01			11:34	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	2.9	96.7	3.0	3.0	100.0	3	2.9	96.7

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30201W1.PRN Date Analyzed: 02/01/11 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA8683 Units: ug/l

Time:		12:14			12:46			13:20	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	2.9	96.7	3	2.9	96.7	3	2.8	93.3

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30201W1.PRN Date Analyzed: 02/01/11 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA8683 Units: ug/l

Time:		13:56			14:28			14:58	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	2.9	96.7	3	2.9	96.7	3	2.8	93.3

(*) Outside of QC limits
(anr) Analyte not requested

9.1.2
9

HIGH STANDARD CHECK SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30201W1.PRN Date Analyzed: 02/01/11 Methods: SW846 7470A
QC Limits: 95 to 105 % Recovery Run ID: MA8683 Units: ug/l

Time:		10:39	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Mercury	6	6.1	101.7

(*) Outside of QC limits
(anr) Analyte not requested

9.1.3

9

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30201W1.PRN Date Analyzed: 02/01/11 Methods: SW846 7470A
QC Limits: 80 to 120 % Recovery Run ID: MA8683 Units: ug/l

Time:			10:49		14:55	
Sample ID:	CRI	CRIA	CRI1		CRI2	
Metal	True	True	Results	% Rec	Results	% Rec
Mercury	0.20		0.19	95.0	0.22	110.0

(*) Outside of QC limits
(anr) Analyte not requested

9.1.4

9

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
Analyst: LM Run ID: MA8687
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:31	MA8687-STD1	1		STD01REP1
10:33	MA8687-STD2	1		STD02REP1
10:36	MA8687-STD3	1		STD03REP1
10:38	MA8687-STD4	1		STD04REP1
10:40	MA8687-STD5	1		STD05REP1
10:43	MA8687-STD6	1		STD06REP1
10:45	MA8687-HSTD1	1		
10:47	MA8687-ICV1	1		
10:50	MA8687-ICB1	1		
10:52	MA8687-CRI1	1		
10:55	MA8687-CCV1	1		
10:58	MA8687-CCB1	1		
11:13	MA8687-CCV2	1		
11:15	MA8687-CCB2	1		
11:24	MP19910-MB1	1		
11:27	MP19910-B1	1		
11:29	F79701-6	1		(sample used for QC only; not part of login F79608)
11:31	MP19910-D1	1		
11:33	MP19910-SD1	5		
11:36	MP19910-S1	1		
11:38	MP19910-S2	1		
11:41	ZZZZZZ	1		
11:43	ZZZZZZ	1		
11:45	ZZZZZZ	1		
11:48	MA8687-CCV3	1		
11:50	MA8687-CCB3	1		
11:52	ZZZZZZ	1		
11:54	ZZZZZZ	1		
11:57	ZZZZZZ	1		
11:59	ZZZZZZ	1		
12:01	ZZZZZZ	1		
12:04	ZZZZZZ	1		
12:08	MP19910-MB2A	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
Analyst: LM Run ID: MA8687
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:10	ZZZZZZ	1		
12:13	MP19909-MB1	1		
12:15	MA8687-CCV4	1		
12:18	MA8687-CCB4	1		
12:20	MP19909-B1	1		
12:22	F79608-1F	1		
12:25	MP19909-D1	1		
12:27	MP19909-SD1	5		
12:29	MP19909-S1	1		
12:31	MP19909-S2	1		
12:34	F79608-2F	1		
12:36	F79608-3F	1		
12:39	F79608-4F	1		
12:41	F79608-5F	1		
12:43	MA8687-CCV5	1		
12:46	MA8687-CCB5	1		
12:48	F79608-6F	1		
12:50	ZZZZZZ	1		
12:53	ZZZZZZ	1		
12:55	ZZZZZZ	1		
12:57	ZZZZZZ	1		
12:59	ZZZZZZ	1		
13:02	ZZZZZZ	1		
13:04	ZZZZZZ	1		
13:06	ZZZZZZ	1		
13:09	ZZZZZZ	1		
13:11	MA8687-CCV6	1		
13:14	MA8687-CCB6	1		
13:16	ZZZZZZ	1		
13:18	ZZZZZZ	1		
13:20	ZZZZZZ	1		
13:23	ZZZZZZ	1		
13:25	MP19909-MB2A	1		

----------> Last reportable sample/prep for job F79608

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
Analyst: LM Run ID: MA8687
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:27	ZZZZZZ	1		
13:31	MA8687-CRI2	1		
13:34	MA8687-CCV7	1		
13:36	MA8687-CCB7	1		

----------> Last reportable CCB for job F79608
Refer to raw data for calibration curve and standards.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA8687 Units: ug/l

Time:			10:50		10:58		11:15		11:50	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	1.0	.071	-0.029	<1.0	-0.019	<1.0	-0.046	<1.0	-0.043	<1.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA8687 Units: ug/l

Time:			12:18		12:46		13:14		13:36	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	1.0	.071	-0.023	<1.0	-0.0070	<1.0	0.011	<1.0	-0.025	<1.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA8687 Units: ug/l

Time:		10:47			10:55			11:13	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3.0	3.0	100.0	3.0	3.0	100.0	3.0	3.0	100.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA8687 Units: ug/l

Time:		11:48			12:15			12:43	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	3.1	103.3	3	3.1	103.3	3	3.1	103.3

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA8687 Units: ug/l

Time:		13:11			13:34	
Sample ID:	CCV	CCV6		CCV	CCV7	
Metal	True	Results	% Rec	True	Results	% Rec
Mercury	3	3.1	103.3	3	3.1	103.3

(*) Outside of QC limits
(anr) Analyte not requested

9.2.2
9

HIGH STANDARD CHECK SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
QC Limits: 95 to 105 % Recovery Run ID: MA8687 Units: ug/l

Time:		10:45	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Mercury	6.0	6.0	100.0

(*) Outside of QC limits
(anr) Analyte not requested

9.2.3

9

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20202W3.PRN Date Analyzed: 02/02/11 Methods: SW846 7470A
QC Limits: 80 to 120 % Recovery Run ID: MA8687 Units: ug/l

Time:			10:52		13:31	
Sample ID:	CRI	CRIA	CRI1		CRI2	
Metal	True	True	Results	% Rec	Results	% Rec
Mercury	0.20		0.19	95.0	0.19	95.0

(*) Outside of QC limits
(anr) Analyte not requested

9.2.4

9

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:23	MA8696-STD1	1		STDA
09:26	MA8696-STD2	1		STDB
09:30	MA8696-STD3	1		STDC
09:34	MA8696-HSTD1	1		
09:38	MA8696-ICV1	1		
09:48	MA8696-ICB1	1		
09:52	MA8696-ICB2	1		
09:56	MA8696-CRIA1	1		
10:01	MA8696-CRIA2	1		
10:14	MA8696-ICSA1	1		
10:20	MA8696-ICSAB1	1		
10:31	MA8696-CCV1	1		
10:38	MA8696-CCB1	1		
12:19	MA8696-CCV2	1		
12:23	MA8696-CCB2	1		
13:00	F79564-1	5		(sample used for QC only; not part of login F79608)
13:05	MP19913-D1	5		
13:09	MA8696-CCV3	1		
13:13	MA8696-CCB3	1		
13:29	MA8696-CCV4	1		
13:34	MA8696-CCB4	1		
13:38	MP19913-S1	5		
13:42	MP19913-S2	5		
13:47	MP19913-PS1	5		
13:51	MP19913-SD1	25		
13:55	ZZZZZZ	5		
14:00	ZZZZZZ	5		
14:04	ZZZZZZ	5		
14:08	ZZZZZZ	5		
14:13	ZZZZZZ	5		
14:17	F79564-1F	5		(sample used for QC only; not part of login F79608)
14:21	MA8696-CCV5	1		
14:25	MA8696-CCB5	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:29	MP19917-D1	5		
14:34	MP19917-S1	5		
14:38	MP19917-S2	5		
14:42	MP19917-PS1	5		
14:46	MP19917-SD1	25		
14:51	ZZZZZZ	5		
14:55	ZZZZZZ	5		
15:00	ZZZZZZ	5		
15:04	ZZZZZZ	5		
15:08	ZZZZZZ	5		
15:13	MA8696-CCV6	1		
15:16	MA8696-CCB6	1		
15:21	ZZZZZZ	4		
15:25	ZZZZZZ	2		
15:29	ZZZZZZ	5		
15:33	ZZZZZZ	5		
15:37	ZZZZZZ	10		
15:42	ZZZZZZ	10		
15:46	ZZZZZZ	5		
15:50	ZZZZZZ	10		
15:54	ZZZZZZ	4		
15:59	F79566-7	5		(sample used for QC only; not part of login F79608)
16:03	MA8696-CCV7	1		
16:07	MA8696-CCB7	1		
16:11	MP19923-D1	5		
16:15	MP19923-S1	5		
16:19	MP19923-S2	5		
16:23	MP19923-SD1	25		
16:27	MP19932-MB1	1		
16:32	MP19932-B1	1		
16:35	F79608-1	1		
16:40	MP19932-D1	1		
16:44	MP19932-SD1	5		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:49	MP19932-PS1	1		
16:53	MA8696-CCV8	1		
16:57	MA8696-CCB8	1		
17:01	MP19932-S1	1		
17:06	MP19932-S2	1		
17:10	F79608-2	1		
17:14	F79608-3	1		
17:19	F79608-4	1		
17:23	F79608-5	1		
17:28	F79608-6	1		
17:32	ZZZZZZ	1		
17:36	ZZZZZZ	1		
17:41	ZZZZZZ	1		
17:45	MA8696-CCV9	1		
17:49	MA8696-CCB9	1		
17:54	ZZZZZZ	1		
17:58	ZZZZZZ	1		
18:03	ZZZZZZ	1		
18:07	ZZZZZZ	1		
18:12	ZZZZZZ	1		
18:16	ZZZZZZ	1		
18:21	ZZZZZZ	1		
18:25	ZZZZZZ	1		
18:30	ZZZZZZ	1		
18:34	ZZZZZZ	1		
18:39	MA8696-CCV10	1		
18:43	MA8696-CCB10	1		
18:47	ZZZZZZ	1		
18:51	MP19932-MB2A	1		
18:56	MP19933-MB1	1		
19:00	MP19933-B1	1		
19:04	F79608-1F	1		
19:08	MP19933-D1	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	19:13	MP19933-SD1	5		
	19:17	MP19933-PS1	1		
	19:22	MP19933-S1	1		
	19:26	MP19933-S2	1		
	19:30	MA8696-CCV11	1		
	19:34	MA8696-CCB11	1		
	19:38	F79608-2F	1		
	19:43	F79608-3F	1		
	19:47	F79608-4F	1		
	19:52	F79608-5F	1		
	19:56	F79608-6F	1		
	20:00	ZZZZZZ	1		
	20:05	ZZZZZZ	1		
	20:09	ZZZZZZ	1		
	20:13	ZZZZZZ	1		
	20:17	ZZZZZZ	1		
	20:22	MA8696-CCV12	1		
	20:26	MA8696-CCB12	1		
	20:30	ZZZZZZ	1		
	20:34	ZZZZZZ	1		
	20:38	ZZZZZZ	1		
	20:42	ZZZZZZ	1		
	20:47	ZZZZZZ	1		
	20:51	ZZZZZZ	1		
	20:55	ZZZZZZ	1		
	20:59	ZZZZZZ	1		
	21:03	MP19933-MB2A	1		
	21:08	MP19933-MB3A	1		
---------->	Last reportable sample/prep for job F79608				
	21:12	MA8696-CCV13	1		
	21:16	MA8696-CCB13	1		
	21:20	MP19931-MB1	1		
	21:24	MP19931-B1	1		
	21:28	F79839-1	1		(sample used for QC only; not part of login F79608)

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:32	MP19931-D1	1		
21:37	MP19931-SD1	5		
21:41	MP19931-PS1	1		
21:45	MP19931-S1	1		
21:49	MP19931-S2	1		
21:52	ZZZZZZ	1		
21:56	ZZZZZZ	1		
22:01	MA8696-CCV14	1		
22:04	MA8696-CCB14	1		
22:09	ZZZZZZ	1		
22:13	ZZZZZZ	1		
22:17	ZZZZZZ	1		
22:21	ZZZZZZ	1		
22:25	ZZZZZZ	1		
22:29	ZZZZZZ	1		
22:33	ZZZZZZ	1		
22:38	ZZZZZZ	1		
22:42	ZZZZZZ	1		
22:46	ZZZZZZ	1		
22:50	MA8696-CCV15	1		
22:54	MA8696-CCB15	1		
22:59	ZZZZZZ	1		
23:03	ZZZZZZ	1		
23:07	ZZZZZZ	1		
23:11	ZZZZZZ	1		
23:15	ZZZZZZ	1		
23:19	ZZZZZZ	1		
23:24	ZZZZZZ	1		
23:28	MA8696-CRIA3	1		
23:32	MA8696-ICSA2	1		
23:36	MA8696-ICSAB2	1		
23:40	MA8696-CCV16	1		
23:44	MA8696-CCB16	1		

----------> Last reportable CCB for job F79608

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
23:49	MA8696-CCV17	1		
23:53	MA8696-CCB17	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
09:23	MA8696-STD1	1704	26193	8908	1060
09:26	MA8696-STD2	1619	24341	8745	888
09:30	MA8696-STD3	1555	23738	8577	824
09:34	MA8696-HSTD1	1571	23694	8568	829
09:38	MA8696-ICV1	1627	24299	8626	891
09:48	MA8696-ICB1	1730 R	25979 R	8815 R	1071 R
09:52	MA8696-ICB2	1718	26030	8808	999999 !
09:56	MA8696-CRIA1	1693	25322	8717	1014
10:01	MA8696-CRIA2	1688	25317	8693	1005
10:14	MA8696-ICSA1	1498	21925	8376	751
10:20	MA8696-ICSAB1	1481	21852	8298	738
10:31	MA8696-CCV1	1636	24327	8579	891
10:38	MA8696-CCB1	1692	25318	8766	1042
12:19	MA8696-CCV2	1693	24851	8935	906
12:23	MA8696-CCB2	1759	26090	8835	1069
13:00	F79564-1	1452	21045	7853	735
13:05	MP19913-D1	1419	20794	8155	721
13:09	MA8696-CCV3	1663	24559	8390	892
13:13	MA8696-CCB3	1757	26610	8662	1067
13:29	MA8696-CCV4	1681	24888	8409	898
13:34	MA8696-CCB4	1788	26800	8684	1082
13:38	MP19913-S1	1445	21117	7969	716
13:42	MP19913-S2	1446	21083	7910	719
13:47	MP19913-PS1	1448	20674	7822	729
13:51	MP19913-SD1	1622	23280	8210	876
13:55	ZZZZZZ	1366	20144	7803	686
14:00	ZZZZZZ	1378	19743	7493	687
14:04	ZZZZZZ	1412	20527	7741	714
14:08	ZZZZZZ	1409	20416	7754	714
14:13	ZZZZZZ	1417	21102	7887	719
14:17	F79564-1F	1383	20296	7679	701
14:21	MA8696-CCV5	1680	24896	8440	892
14:25	MA8696-CCB5	1784	26654	8600	1073

INTERNAL STANDARD SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
14:29	MP19917-D1	1421	20728	7838	718
14:34	MP19917-S1	1447	21099	7798	720
14:38	MP19917-S2	1458	21330	7914	726
14:42	MP19917-PS1	1444	21151	7837	724
14:46	MP19917-SD1	1622	23815	8338	878
14:51	ZZZZZZ	1391	20153	7436	689
14:55	ZZZZZZ	1392	20283	7635	696
15:00	ZZZZZZ	1379	20258	7619	695
15:04	ZZZZZZ	1434	20446	7720	729
15:08	ZZZZZZ	1433	20999	7841	729
15:13	MA8696-CCV6	1696	25190	8553	901
15:16	MA8696-CCB6	1759	26468	8535	1062
15:21	ZZZZZZ	1680	25187	8453	959
15:25	ZZZZZZ	1673	24944	8522	935
15:29	ZZZZZZ	1685	25101	8544	945
15:33	ZZZZZZ	1683	25130	8560	948
15:37	ZZZZZZ	1717	25448	8524	974
15:42	ZZZZZZ	1708	25208	8524	974
15:46	ZZZZZZ	1718	25332	8545	966
15:50	ZZZZZZ	1747	25823	8576	1002
15:54	ZZZZZZ	1775	26434	8646	1036
15:59	F79566-7	1712	25280	8458	988
16:03	MA8696-CCV7	1710	25111	8503	906
16:07	MA8696-CCB7	1815	27829	8536	1090
16:11	MP19923-D1	1769	26287	8649	1012
16:15	MP19923-S1	1770	25433	8439	992
16:19	MP19923-S2	1708	25206	8390	957
16:23	MP19923-SD1	1784	26389	8660	1059
16:27	MP19932-MB1	1773	26993	8755	1065
16:32	MP19932-B1	1721	25347	8554	953
16:35	F79608-1	1186	17282	7211	557 !
16:40	MP19932-D1	1178	17297	7124	550 !
16:44	MP19932-SD1	1446	21294	8000	739

INTERNAL STANDARD SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
16:49	MP19932-PS1	1177	17449	7141	552 !
16:53	MA8696-CCV8	1636	24865	8600	880
16:57	MA8696-CCB8	1747	26307	8704	1065
17:01	MP19932-S1	1178	17510	7127	546 !
17:06	MP19932-S2	1179	17437	7157	545 !
17:10	F79608-2	1212	18114	7470	590 !
17:14	F79608-3	1209	18015	7478	585 !
17:19	F79608-4	1088	16130	6860	506 !
17:23	F79608-5	1074	15512 !	6875	498 !
17:28	F79608-6	1187	17624	7436	573 !
17:32	ZZZZZZ	1080	15849	7049	504 !
17:36	ZZZZZZ	754 !	11330 !	5609	314 !
17:41	ZZZZZZ	713 !	10919 !	5518	290 !
17:45	MA8696-CCV9	1646	24864	8886	896
17:49	MA8696-CCB9	1764	26325	8801	1080
17:54	ZZZZZZ	805 !	12200 !	5925	273 !
17:58	ZZZZZZ	1193	17847	7520	581 !
18:03	ZZZZZZ	750 !	11453 !	5603	313 !
18:07	ZZZZZZ	1160	17392	7421	564 !
18:12	ZZZZZZ	1087	15716	6820	503 !
18:16	ZZZZZZ	753 !	11923 !	5708	315 !
18:21	ZZZZZZ	743 !	11305 !	5893	310 !
18:25	ZZZZZZ	658 !	10611 !	5533	266 !
18:30	ZZZZZZ	1186	17811	7703	578 !
18:34	ZZZZZZ	733 !	11359 !	5709	306 !
18:39	MA8696-CCV10	1620	24862	8947	886
18:43	MA8696-CCB10	1727	26257	8949	1067
18:47	ZZZZZZ	1167	17643	7481	576 !
18:51	MP19932-MB2A	1707	26046	8898	1048
18:56	MP19933-MB1	1697	26203	8818	1042
19:00	MP19933-B1	1638	24822	8875	927
19:04	F79608-1F	1122	16722	7114	542 !
19:08	MP19933-D1	1125	16925	7247	544 !

INTERNAL STANDARD SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
19:13	MP19933-SD1	1406	20896	8217	736
19:17	MP19933-PS1	1114	16855	7216	536 !
19:22	MP19933-S1	1148	17370	7318	541 !
19:26	MP19933-S2	1137	17256	7364	537 !
19:30	MA8696-CCV11	1575	23967	8678	867
19:34	MA8696-CCB11	1688	25929	8938	1048
19:38	F79608-2F	1178	17451	7345	585 !
19:43	F79608-3F	1146	17578	7506	568 !
19:47	F79608-4F	1038	15536 !	6989	493 !
19:52	F79608-5F	1031 !	15585 !	6901	487 !
19:56	F79608-6F	1125	17439	7385	558 !
20:00	ZZZZZZ	1517	24373	8677	861
20:05	ZZZZZZ	1555	23676	8621	894
20:09	ZZZZZZ	1556	23793	8645	872
20:13	ZZZZZZ	1600	24352	8840	936
20:17	ZZZZZZ	1584	24269	8638	918
20:22	MA8696-CCV12	1600	24159	8943	873
20:26	MA8696-CCB12	1690	25818	8798	1042
20:30	ZZZZZZ	1584	24160	8639	913
20:34	ZZZZZZ	1670	25597	8904	1000
20:38	ZZZZZZ	1597	24420	8750	922
20:42	ZZZZZZ	1606	24718	8741	940
20:47	ZZZZZZ	1598	24409	8593	924
20:51	ZZZZZZ	1590	24384	8747	919
20:55	ZZZZZZ	1660	25500	8892	1001
20:59	ZZZZZZ	1585	24159	8661	914
21:03	MP19933-MB2A	1702	26265	8927	1048
21:08	MP19933-MB3A	1713	26266	8952	1055
21:12	MA8696-CCV13	1596	24036	8598	873
21:16	MA8696-CCB13	1706	25872	8870	1053
21:20	MP19931-MB1	1686	26567	8760	1033
21:24	MP19931-B1	1616	24197	8543	918
21:28	F79839-1	1725	25802	9403	834

INTERNAL STANDARD SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
21:32	MP19931-D1	1769	26240	9640	827
21:37	MP19931-SD1	1721	25580	9041	965
21:41	MP19931-PS1	1707	25208	9220	824
21:45	MP19931-S1	1701	25280	9247	805
21:49	MP19931-S2	1711	25451	9434	797
21:52	ZZZZZZ	1665	24565	8990	786
21:56	ZZZZZZ	1669	24645	8991	831
22:01	MA8696-CCV14	1668	24875	8852	911
22:04	MA8696-CCB14	1747	26254	8944	1074
22:09	ZZZZZZ	1682	24865	9090	827
22:13	ZZZZZZ	1744	25635	9218	871
22:17	ZZZZZZ	1764	26165	9455	852
22:21	ZZZZZZ	1757	26076	9231	915
22:25	ZZZZZZ	1763	26252	9231	928
22:29	ZZZZZZ	1844	27319	9925	890
22:33	ZZZZZZ	2037	30045	10884	880
22:38	ZZZZZZ	2045	30130	10838	866
22:42	ZZZZZZ	1759	25999	9601	823
22:46	ZZZZZZ	1784	26377	9472	868
22:50	MA8696-CCV15	1629	24197	8665	889
22:54	MA8696-CCB15	1741	26269	8858	1073
22:59	ZZZZZZ	1736	25978	8847	1019
23:03	ZZZZZZ	1692	25152	8622	993
23:07	ZZZZZZ	1742	26109	8889	1018
23:11	ZZZZZZ	1774	26560	9060	1039
23:15	ZZZZZZ	1718	25572	8914	973
23:19	ZZZZZZ	1743	25964	8784	1024
23:24	ZZZZZZ	1682	24973	8686	924
23:28	MA8696-CRIA3	1740	25917	8839	1024
23:32	MA8696-ICSA2	1485	21837	8311	746
23:36	MA8696-ICSAB2	1478	21870	8330	738
23:40	MA8696-CCV16	1629	24154	8607	887
23:44	MA8696-CCB16	1741	26169	8803	1068

INTERNAL STANDARD SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
23:49	MA8696-CCV17	1628	24335	8643	886
23:53	MA8696-CCB17	1727	26193	8826	1058

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	60-125 %
Istd#2	Yttrium (3600)	60-125 %
Istd#3	Yttrium (3710)	60-125 %
Istd#4	Indium	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8696 Units: ug/l

Time:			09:48		09:52		10:38		12:23	
Sample ID:			ICB1		ICB2		CCB1		CCB2	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	0.70	<10			-0.70	<10	-1.4	<10
Barium	200	1	0.20	<200			0.50	<200	0.90	<200
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	0.10	<5.0			0.30	<5.0	0.10	<5.0
Calcium	1000	50	anr							
Chromium	10	1	-0.40	<10			-0.10	<10	-0.40	<10
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	0.80	<5.0			0.90	<5.0	0.70	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2			-0.10	<10	1.3	<10	1.5	<10
Silver	10	1	0.10	<10			0.0	<10	-0.10	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8696 Units: ug/l

Time:			13:13		13:34		14:25		15:16	
Sample ID:			CCB3		CCB4		CCB5		CCB6	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	-0.80	<10	-1.4	<10	0.20	<10	-0.30	<10
Barium	200	1	1.5	<200	-0.40	<200	1.3	<200	0.60	<200
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	0.20	<5.0	0.10	<5.0	0.20	<5.0	0.20	<5.0
Calcium	1000	50	anr							
Chromium	10	1	-0.40	<10	0.10	<10	0.10	<10	0.50	<10
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	1.3	<5.0	-0.80	<5.0	0.0	<5.0	0.0	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	1.4	<10	0.70	<10	2.2	<10	1.8	<10
Silver	10	1	0.0	<10	-0.20	<10	-0.40	<10	-0.40	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8696 Units: ug/l

Time:			16:07		16:57		17:49		18:43	
Sample ID:			CCB7		CCB8		CCB9		CCB10	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	0.30	<10	-0.60	<10	-0.50	<10	-1.1	<10
Barium	200	1	0.60	<200	0.80	<200	-0.70	<200	-1.0	<200
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	0.30	<5.0	0.10	<5.0	0.10	<5.0	0.10	<5.0
Calcium	1000	50	anr							
Chromium	10	1	0.0	<10	-0.10	<10	0.10	<10	0.0	<10
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	0.40	<5.0	-0.10	<5.0	0.0	<5.0	-0.10	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	0.90	<10	2.6	<10	2.0	<10	2.0	<10
Silver	10	1	-0.40	<10	-0.40	<10	-0.20	<10	-0.30	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8696 Units: ug/l

Time:			19:34		20:26		21:16		22:04	
Sample ID:			CCB11		CCB12		CCB13		CCB14	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	0.80	<10	-0.30	<10	-1.1	<10	-1.1	<10
Barium	200	1	-1.4	<200	-1.1	<200	-1.6	<200	-1.7	<200
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	0.20	<5.0	0.0	<5.0	0.0	<5.0	0.10	<5.0
Calcium	1000	50	anr							
Chromium	10	1	0.0	<10	-0.30	<10	-0.20	<10	0.10	<10
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	0.60	<5.0	-0.50	<5.0	-0.30	<5.0	0.30	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	2.2	<10	1.0	<10	3.5	<10	1.6	<10
Silver	10	1	-0.30	<10	0.10	<10	-0.20	<10	-0.50	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8696 Units: ug/l

Time:			22:54		23:44	
Sample ID:			CCB15		CCB16	
Metal	RL	IDL	raw	final	raw	final
Aluminum	200	20	anr			
Antimony	6.0	1	anr			
Arsenic	10	1	0.60	<10	-1.3	<10
Barium	200	1	-1.1	<200	-1.2	<200
Beryllium	4.0	.1	anr			
Cadmium	5.0	.1	0.10	<5.0	0.20	<5.0
Calcium	1000	50	anr			
Chromium	10	1	0.0	<10	0.30	<10
Cobalt	50	1	anr			
Copper	25	1	anr			
Iron	300	34	anr			
Lead	5.0	1	-0.70	<5.0	0.20	<5.0
Magnesium	5000	50	anr			
Manganese	15	1	anr			
Molybdenum	50	1				
Nickel	40	1	anr			
Potassium	10000	50	anr			
Selenium	10	2	-0.10	<10	2.6	<10
Silver	10	1	0.0	<10	-0.20	<10
Sodium	10000	750	anr			
Strontium	10	1				
Thallium	10	1	anr			
Tin	50	1				
Titanium	10	1.1				
Vanadium	50	1	anr			
Zinc	20	1				

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8696 Units: ug/l

Time:		09:38			10:31			12:19	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1960	98.0	2000	2010	100.5	2000	1930	96.5
Barium	2000	2030	101.5	2000	2060	103.0	2000	1910	95.5
Beryllium	anr								
Cadmium	2000	2040	102.0	2000	2060	103.0	2000	1980	99.0
Calcium	anr								
Chromium	2000	2030	101.5	2000	2080	104.0	2000	2070	103.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2010	100.5	2000	2040	102.0	2000	2000	100.0
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2010	100.5	2000	2010	100.5	2000	1970	98.5
Silver	250	248	99.2	250	251	100.4	250	253	101.2
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8696 Units: ug/l

Time:		13:09			13:29			14:21	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1950	97.5	2000	2050	102.5	2000	2010	100.5
Barium	2000	2070	103.5	2000	2100	105.0	2000	2080	104.0
Beryllium	anr								
Cadmium	2000	1990	99.5	2000	2090	104.5	2000	2050	102.5
Calcium	anr								
Chromium	2000	2070	103.5	2000	2110	105.5	2000	2070	103.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2010	100.5	2000	2060	103.0	2000	2030	101.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2000	100.0	2000	2060	103.0	2000	2030	101.5
Silver	250	254	101.6	250	255	102.0	250	253	101.2
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8696 Units: ug/l

Time:		15:13			16:03			16:53	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2000	100.0	2000	2010	100.5	2000	2110	105.5
Barium	2000	2050	102.5	2000	2080	104.0	2000	2080	104.0
Beryllium	anr								
Cadmium	2000	2040	102.0	2000	2060	103.0	2000	2150	107.5
Calcium	anr								
Chromium	2000	2050	102.5	2000	2090	104.5	2000	2090	104.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2020	101.0	2000	2050	102.5	2000	2100	105.0
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2020	101.0	2000	2010	100.5	2000	2120	106.0
Silver	250	250	100.0	250	254	101.6	250	250	100.0
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8696 Units: ug/l

Time:		17:45			18:39			19:30	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2090	104.5	2000	2090	104.5	2000	2160	108.0
Barium	2000	2130	106.5	2000	2110	105.5	2000	2160	108.0
Beryllium	anr								
Cadmium	2000	2120	106.0	2000	2100	105.0	2000	2170	108.5
Calcium	anr								
Chromium	2000	2080	104.0	2000	2030	101.5	2000	2100	105.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2060	103.0	2000	2030	101.5	2000	2080	104.0
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2090	104.5	2000	2090	104.5	2000	2160	108.0
Silver	250	248	99.2	250	248	99.2	250	251	100.4
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8696 Units: ug/l

Time:		20:22			21:12			22:01	
Sample ID:	CCV	CCV12		CCV	CCV13		CCV	CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2150	107.5	2000	2160	108.0	2000	2110	105.5
Barium	2000	2050	102.5	2000	2160	108.0	2000	2090	104.5
Beryllium	anr								
Cadmium	2000	2160	108.0	2000	2190	109.5	2000	2150	107.5
Calcium	anr								
Chromium	2000	2100	105.0	2000	2140	107.0	2000	2110	105.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2090	104.5	2000	2110	105.5	2000	2070	103.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2140	107.0	2000	2150	107.5	2000	2090	104.5
Silver	250	251	100.4	250	253	101.2	250	249	99.6
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8696 Units: ug/l

Time:		22:50			23:40	
Sample ID:	CCV	CCV15		CCV	CCV16	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	anr					
Antimony	anr					
Arsenic	2000	2170	108.5	2000	2140	107.0
Barium	2000	2150	107.5	2000	2130	106.5
Beryllium	anr					
Cadmium	2000	2190	109.5	2000	2170	108.5
Calcium	anr					
Chromium	2000	2160	108.0	2000	2130	106.5
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	2000	2120	106.0	2000	2100	105.0
Magnesium	anr					
Manganese	anr					
Molybdenum						
Nickel	anr					
Potassium	anr					
Selenium	2000	2140	107.0	2000	2120	106.0
Silver	250	255	102.0	250	254	101.6
Sodium	anr					
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium	anr					
Zinc						

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA8696 Units: ug/l

Time:		09:34	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	4000	3950	98.8
Barium	4000	3930	98.3
Beryllium	anr		
Cadmium	4000	3920	98.0
Calcium	anr		
Chromium	4000	3950	98.8
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	4000	3960	99.0
Magnesium	anr		
Manganese	anr		
Molybdenum			
Nickel	anr		
Potassium	anr		
Selenium	4000	3950	98.8
Silver	500	497	99.4
Sodium	anr		
Strontium			
Thallium	anr		
Tin			
Titanium			
Vanadium	anr		
Zinc			

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA8696 Units: ug/l

Time:			09:56		10:01		23:28	
Sample ID:	CRI	CRIA	CRIA1		CRIA2		CRIA3	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	400	200	anr					
Antimony	10	5.0	anr					
Arsenic	20	10	9.8	98.0			10.3	103.0
Barium	400	200	205	102.5			208	104.0
Beryllium	10	5.0	anr					
Cadmium	10	5.0	5.2	104.0			5.4	108.0
Calcium	2000	1000	anr					
Chromium	20	10	9.9	99.0			9.9	99.0
Cobalt	100	50	anr					
Copper	50	25	anr					
Iron	600	300	anr					
Lead	10	5.0	5.7	114.0			4.8	96.0
Magnesium	10000	5000	anr					
Manganese	30	15	anr					
Molybdenum	100	50						
Nickel	80	40	anr					
Potassium	20000	10000	anr					
Selenium	20	10			12.0	120.0	9.6	96.0
Silver	20	10	9.1	91.0			8.7	87.0
Sodium	20000	10000	anr					
Strontium	20	10						
Thallium	20	10						
Tin	100	50						
Titanium	20	10						
Vanadium	100	50	anr					
Zinc	40	20						

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA8696 Units: ug/l

Time:			10:14		10:20		23:32		23:36	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	475000	95.0	489000	97.8	475000	95.0	481000	96.2
Antimony		1000	1.7		975	97.5	2.2		1020	102.0
Arsenic		1000	1.8		986	98.6	-2.3		1050	105.0
Barium		500	1.1		508	101.6	-0.50		518	103.6
Beryllium		500	0.0		484	96.8	-0.20		479	95.8
Cadmium		1000	0.0		920	92.0	2.0		970	97.0
Calcium	500000	500000	459000	91.8	454000	90.8	467000	93.4	456000	91.2
Chromium		500	-0.50		470	94.0	0.30		476	95.2
Cobalt		500	0.40		451	90.2	0.40		462	92.4
Copper		500	-1.3		492	98.4	-2.7		522	104.4
Iron	200000	200000	180000	90.0	183000	91.5	175000	87.5	175000	87.5
Lead		1000	0.0		972	97.2	-1.9		992	99.2
Magnesium	500000	500000	504000	100.8	512000	102.4	485000	97.0	483000	96.6
Manganese		500	0.60		480	96.0	0.60		500	100.0
Molybdenum		1000	0.20		949	94.9	-0.30		974	97.4
Nickel		1000	0.0		964	96.4	1.1		998	99.8
Potassium			-7.9		10.5		-0.10		0.20	
Selenium		1000	0.0		958	95.8	-5.7		1000	100.0
Silver		1000	0.0		1100	110.0	0.70		1100	110.0
Sodium			143		-1500		-960		-160	
Strontium		1000	0.50		0.60	0.0*	0.50		0.50	0.0*
Thallium		1000	0.80		934	93.4	-1.9		969	96.9
Tin		1000	4.0		849	84.9	2.5		919	91.9
Titanium		1000	-1.2		-0.40	0.0*	-1.7		-0.80	0.0*
Vanadium		500	0.50		481	96.2	0.90		497	99.4
Zinc		1000	-2.1		881	88.1	-0.90		949	94.9

(*) Outside of QC limits
(anr) Analyte not requested

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: Cr,Pb,Se

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:32	MA8700-STD1	1		STDA
09:36	MA8700-STD2	1		STDB
09:39	MA8700-STD3	1		STDC
09:44	MA8700-HSTD1	1		
09:47	MA8700-ICV1	1		
09:55	MA8700-ICB1	1		
10:00	MA8700-CRIA1	1		
10:12	MA8700-ICSA1	1		
10:21	MA8700-ICSAB1	1		
10:27	MA8700-CCV1	1		
10:38	MA8700-CCB1	1		
10:53	F79608-1	5		
10:58	MP19932-D1	5		
11:02	MP19932-S1	5		
11:07	MP19932-S2	5		
11:11	MP19932-PS1	5		
11:15	MP19932-SD1	25		
11:19	F79608-2	5		
11:24	F79608-3	5		
11:28	F79608-4	5		
11:32	F79608-5	5		
11:37	MA8700-CCV2	1		
11:41	MA8700-CCB2	1		
11:45	F79608-6	5		
11:49	ZZZZZZ	5		
11:53	ZZZZZZ	10		
11:58	ZZZZZZ	10		
12:02	ZZZZZZ	10		
12:06	ZZZZZZ	5		
12:10	ZZZZZZ	10		
12:14	ZZZZZZ	5		
12:18	ZZZZZZ	5		
12:22	ZZZZZZ	10		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: Cr,Pb,Se

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	12:27	MA8700-CCV3	1		
	12:30	MA8700-CCB3	1		
	12:35	ZZZZZZ	10		
	12:39	ZZZZZZ	10		
	12:43	ZZZZZZ	5		
	12:47	ZZZZZZ	10		
	12:51	ZZZZZZ	5		
	12:55	F79608-1F	5		
	13:00	MP19933-D1	5		
	13:04	MP19933-S1	5		
	13:09	MP19933-S2	5		
	13:13	MP19933-PS1	5		
	13:17	MA8700-CCV4	1		
	13:21	MA8700-CCB4	1		
	13:25	MP19933-SD1	25		
	13:29	F79608-2F	5		
	13:34	F79608-3F	5		
	13:38	F79608-4F	5		
	13:43	F79608-5F	5		
	13:47	F79608-6F	5		
---------->	Last reportable sample/prep for job F79608				
	13:51	F79839-1	4		(sample used for QC only; not part of login F79608)
	13:55	MP19931-D1	4		
	13:59	MP19931-S1	4		
	14:03	MP19931-S2	4		
	14:07	MA8700-CCV5	1		
	14:11	MA8700-CCB5	1		
	14:15	MP19931-PS1	4		
	14:19	MP19931-SD1	20		
	14:23	ZZZZZZ	4		
	14:27	ZZZZZZ	4		
	14:32	ZZZZZZ	4		
	14:36	ZZZZZZ	2		
	14:40	ZZZZZZ	2		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: Cr,Pb,Se

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:44	ZZZZZZ	2		
14:48	ZZZZZZ	1		
14:52	MP19931-MB1	1		
14:56	MA8700-CCV6	1		
15:00	MA8700-CCB6	1		
15:04	MP19931-B1	1		
15:08	F79839-1	1		(sample used for QC only; not part of login F79608)
15:12	MP19931-D1	1		
15:16	MP19931-SD1	5		
15:20	MP19931-PS1	1		
15:24	MP19931-S1	1		
15:28	MP19931-S2	1		
15:44	MA8700-CCV7	1		
15:54	MA8700-CCB7	1		
17:03	MA8700-CCV8	1		
17:07	MA8700-CCB8	1		
17:28	MP19934-MB1	1		
17:32	MP19934-B1	1		
17:36	F79701-6F	1		(sample used for QC only; not part of login F79608)
17:40	MP19934-D1	1		
17:45	MP19934-SD1	5		
17:49	MP19934-PS1	1		
17:53	MA8700-CCV9	1		
17:57	MA8700-CCB9	1		
18:01	MP19934-S1	1		
18:06	MP19934-S2	1		
18:10	ZZZZZZ	1		
18:14	ZZZZZZ	1		
18:18	ZZZZZZ	1		
18:22	ZZZZZZ	1		
18:27	ZZZZZZ	1		
18:31	ZZZZZZ	1		
18:35	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: Cr,Pb,Se

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:39	ZZZZZZ	1		
18:43	MA8700-CCV10	1		
18:47	MA8700-CCB10	1		
18:52	ZZZZZZ	1		
18:56	ZZZZZZ	1		
19:00	ZZZZZZ	1		
19:04	MP19934-MB2A	1		
19:08	MP19934-MB3A	1		
19:13	MP19937-MB1	1		
19:17	MP19937-B1	1		
19:21	F79601-1A	1		(sample used for QC only; not part of login F79608)
19:25	MP19937-D1	1		
19:29	MP19937-SD1	5		
19:33	MA8700-CCV11	1		
19:37	MA8700-CCB11	1		
19:42	MP19937-S1	1		
19:46	MP19937-S2	1		
19:49	MP19937-MB2	1		
19:54	MP19937-B2	1		
19:58	MP19936-MB1	1		
20:02	MP19936-B1	1		
20:06	C14412-1T	1		(sample used for QC only; not part of login F79608)
20:10	MP19936-D1	1		
20:15	MP19936-SD1	5		
20:19	MP19936-S1	1		
20:23	MA8700-CCV12	1		
20:27	MA8700-CCB12	1		
20:31	MP19936-S2	1		
20:35	ZZZZZZ	1		
20:39	ZZZZZZ	1		
20:44	ZZZZZZ	1		
20:48	ZZZZZZ	1		
20:52	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: Cr,Pb,Se

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:57	ZZZZZZ	1		
21:01	ZZZZZZ	1		
21:06	ZZZZZZ	1		
21:10	F79712-1	1		(sample used for QC only; not part of login F79608)
21:14	MA8700-CCV13	1		
21:18	MA8700-CCB13	1		
21:22	MP19936-D2	1		
21:27	MP19936-MB2	1		
21:31	MP19936-B2	1		
21:35	MP19938-MB1	1		
21:39	MP19938-B1	1		
21:43	F79701-6	1		(sample used for QC only; not part of login F79608)
21:47	MP19938-D1	1		
21:52	MP19938-SD1	5		
21:56	MP19938-PS1	1		
22:00	MP19938-S1	1		
22:04	MA8700-CCV14	1		
22:08	MA8700-CCB14	1		
22:13	MP19938-S2	1		
22:17	ZZZZZZ	1		
22:21	ZZZZZZ	1		
22:26	ZZZZZZ	1		
22:30	ZZZZZZ	1		
22:39	ZZZZZZ	1		
22:44	ZZZZZZ	1		
22:48	ZZZZZZ	1		
22:52	ZZZZZZ	1		
22:57	MA8700-CCV15	1		
23:00	MA8700-CCB15	1		
23:05	ZZZZZZ	1		
23:09	ZZZZZZ	1		
23:13	ZZZZZZ	1		
23:17	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: Cr,Pb,Se

Time	Sample Description	Dilution Factor	PS Recov	Comments
23:22	ZZZZZZ	1		
23:26	ZZZZZZ	1		
23:30	ZZZZZZ	1		
23:34	ZZZZZZ	1		
23:38	ZZZZZZ	1		
23:43	ZZZZZZ	1		
23:47	MA8700-CCV16	1		
23:51	MA8700-CCB16	1		
23:55	MP19939-MB1	1		
23:59	MP19939-B1	1		
00:03	F79701-8	1		(sample used for QC only; not part of login F79608)
00:08	MP19939-D1	1		
00:12	MP19939-SD1	5		
00:16	MP19939-PS1	1		
00:21	MP19939-S1	1		
00:25	MP19939-S2	1		
00:29	ZZZZZZ	1		
00:34	ZZZZZZ	1		
00:38	MA8700-CCV17	1		
00:42	MA8700-CCB17	1		
00:46	ZZZZZZ	1		
00:51	ZZZZZZ	1		
00:55	ZZZZZZ	1		
01:00	ZZZZZZ	1		
01:04	ZZZZZZ	1		
01:09	ZZZZZZ	1		
01:13	ZZZZZZ	1		
01:17	ZZZZZZ	1		
01:21	ZZZZZZ	1		
01:26	ZZZZZZ	1		
01:30	MA8700-CCV18	1		
01:34	MA8700-CCB18	1		
01:38	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: Cr,Pb,Se

Time	Sample Description	Dilution Factor	PS Recov	Comments
01:42	ZZZZZZ	1		
01:46	ZZZZZZ	1		
01:51	ZZZZZZ	1		
01:55	ZZZZZZ	1		
01:59	MP19939-MB2A	1		
02:03	MA8700-CRIA2	1		
02:07	MA8700-ICSA2	1		
02:12	MA8700-ICSAB2	1		
02:16	MA8700-CCV19	1		
02:20	MA8700-CCB19	1		

----------> Last reportable CCB for job F79608
Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: Cr,Pb,Se

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
09:32	MA8700-STD1	2640	29086	3901	1320
09:36	MA8700-STD2	2506	27022	3832	1154
09:39	MA8700-STD3	2430	26522	3767	1085
09:44	MA8700-HSTD1	2430	26640	3734	1089
09:47	MA8700-ICV1	2500	27239	3818	1153
09:55	MA8700-ICB1	2645 R	28461 R	3887 R	1322 R
10:00	MA8700-CRIA1	2596	27823	3845	1270
10:12	MA8700-ICSA1	2321	24569	3679	999
10:21	MA8700-ICSAB1	2309	24541	3649	988
10:27	MA8700-CCV1	2517	26924	3775	1148
10:38	MA8700-CCB1	2644	28299	3813	1315
10:53	F79608-1	2255	23673	3631	995
10:58	MP19932-D1	2232	23761	3642	988
11:02	MP19932-S1	2267	23313	3634	999
11:07	MP19932-S2	2242	24087	3608	983
11:11	MP19932-PS1	2239	23999	3631	992
11:15	MP19932-SD1	2485	26562	3843	1163
11:19	F79608-2	2287	23996	3683	1029
11:24	F79608-3	2282	24321	3623	1027
11:28	F79608-4	2154	23170	3574	949
11:32	F79608-5	2153	22979	3577	948
11:37	MA8700-CCV2	2497	25764	3789	1145
11:41	MA8700-CCB2	2642	28446	3846	1320
11:45	F79608-6	2281	24354	3643	1025
11:49	ZZZZZZ	2181	23203	3580	957
11:53	ZZZZZZ	2077	21904	3463	898
11:58	ZZZZZZ	2055	21403	3444	881
12:02	ZZZZZZ	2060	21645	3484	863
12:06	ZZZZZZ	2283	24297	3632	1020
12:10	ZZZZZZ	2096	21951	3533	899
12:14	ZZZZZZ	2261	24127	3656	1013
12:18	ZZZZZZ	2180	23073	3593	959
12:22	ZZZZZZ	2084	21954	3511	896

INTERNAL STANDARD SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: Cr,Pb,Se

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
12:27	MA8700-CCV3	2498	26598	3812	1146
12:30	MA8700-CCB3	2630	28369	3838	1319
12:35	ZZZZZZ	2086	21852	3476	897
12:39	ZZZZZZ	2038	21323	3473	873
12:43	ZZZZZZ	2256	23863	3661	1015
12:47	ZZZZZZ	2079	21832	3490	897
12:51	ZZZZZZ	2276	24589	3650	1022
12:55	F79608-1F	2218	23449	3588	988
13:00	MP19933-D1	2211	23691	3612	985
13:04	MP19933-S1	2205	23787	3621	970
13:09	MP19933-S2	2225	23632	3637	972
13:13	MP19933-PS1	2216	23597	3632	981
13:17	MA8700-CCV4	2480	26383	3776	1137
13:21	MA8700-CCB4	2625	28396	3849	1313
13:25	MP19933-SD1	2469	26303	3747	1151
13:29	F79608-2F	2256	24086	3627	1012
13:34	F79608-3F	2268	24127	3653	1018
13:38	F79608-4F	2166	22971	3569	948
13:43	F79608-5F	2149	22842	3557	941
13:47	F79608-6F	2272	24095	3673	1021
13:51	F79839-1	2643	27756	3954	1215
13:55	MP19931-D1	2667	27988	3950	1213
13:59	MP19931-S1	2619	27915	3927	1197
14:03	MP19931-S2	2633	27689	3974	1197
14:07	MA8700-CCV5	2483	26634	3808	1134
14:11	MA8700-CCB5	2647	28270	3769	1319
14:15	MP19931-PS1	2677	27465	3981	1231
14:19	MP19931-SD1	2671	28096	3898	1292
14:23	ZZZZZZ	2622	27521	3923	1207
14:27	ZZZZZZ	2651	27749	3882	1240
14:32	ZZZZZZ	2606	27677	3923	1210
14:36	ZZZZZZ	2708	27898	3993	1218
14:40	ZZZZZZ	2688	28135	4051	1188

INTERNAL STANDARD SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: Cr,Pb,Se

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
14:44	ZZZZZZ	2681	28383	4006	1188
14:48	ZZZZZZ	2745	28658	4194	1111
14:52	MP19931-MB1	2613	27751	3812	1281
14:56	MA8700-CCV6	2526	27176	3802	1147
15:00	MA8700-CCB6	2673	28112	3881	1320
15:04	MP19931-B1	2537	26668	3790	1178
15:08	F79839-1	2699	28196	4132	1071
15:12	MP19931-D1	2782	28925	4285	1074
15:16	MP19931-SD1	2702	28281	3988	1254
15:20	MP19931-PS1	2733	28644	4210	1054
15:24	MP19931-S1	2656	28181	4126	1045
15:28	MP19931-S2	2678	28302	4180	1037
15:44	MA8700-CCV7	2535	26456	3802	1145
15:54	MA8700-CCB7	2657	28645	3880	1321
17:03	MA8700-CCV8	2468	26755	3765	1132
17:07	MA8700-CCB8	2673	27925	3865	1328
17:28	MP19934-MB1	2618	28514	3800	1300
17:32	MP19934-B1	2544	27263	3760	1196
17:36	F79701-6F	1518 !	16502 !	2965	614 !
17:40	MP19934-D1	1512 !	16525 !	2958	613 !
17:45	MP19934-SD1	2052	21891	3460	886
17:49	MP19934-PS1	1538 !	16705 !	2997	621 !
17:53	MA8700-CCV9	2524	27340	3768	1164
17:57	MA8700-CCB9	2643	28790	3646	1323
18:01	MP19934-S1	1547 !	16868 !	2958	616 !
18:06	MP19934-S2	1549 !	17027 !	2982	617 !
18:10	ZZZZZZ	2622	28559	3822	1276
18:14	ZZZZZZ	5016 !	54514 !	7767 !	1080
18:18	ZZZZZZ	2684	29418	3920	1279
18:22	ZZZZZZ	2549	27756	3874	1145
18:27	ZZZZZZ	2744	29808	4095	1157
18:31	ZZZZZZ	2595	28464	3762	1293
18:35	ZZZZZZ	2455	27622	3720	1178

INTERNAL STANDARD SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: Cr,Pb,Se

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
18:39	ZZZZZZ	2600	28400	3723	1296
18:43	MA8700-CCV10	2490	26973	3704	1152
18:47	MA8700-CCB10	2659	28931	3765	1342
18:52	ZZZZZZ	2413	26632	3621	1157
18:56	ZZZZZZ	2456	26972	3680	1172
19:00	ZZZZZZ	2610	28621	3768	1301
19:04	MP19934-MB2A	2601	29052	3741	1308
19:08	MP19934-MB3A	2600	28947	3765	1305
19:13	MP19937-MB1	2612	28812	3723	1317
19:17	MP19937-B1	2532	27765	3549	1208
19:21	F79601-1A	2577	28371	3750	1291
19:25	MP19937-D1	2593	29011	3761	1303
19:29	MP19937-SD1	2609	28850	3748	1323
19:33	MA8700-CCV11	2477	27302	3714	1160
19:37	MA8700-CCB11	2647	29020	3773	1342
19:42	MP19937-S1	2492	27794	3715	1189
19:46	MP19937-S2	2531	27676	3763	1207
19:49	MP19937-MB2	2585	28662	3668	1308
19:54	MP19937-B2	2523	27034	3850	1205
19:58	MP19936-MB1	2596	29344	3667	1313
20:02	MP19936-B1	2520	27661	3666	1204
20:06	C14412-1T	2432	27159	3659	1176
20:10	MP19936-D1	2414	26957	3637	1166
20:15	MP19936-SD1	2566	28618	3701	1282
20:19	MP19936-S1	2411	26556	3645	1114
20:23	MA8700-CCV12	2481	27264	3644	1162
20:27	MA8700-CCB12	2697	29297	3715	1370
20:31	MP19936-S2	2412	26666	3771	1115
20:35	ZZZZZZ	2388	26753	3650	1152
20:39	ZZZZZZ	2406	26760	3599	1171
20:44	ZZZZZZ	2421	27018	3637	1178
20:48	ZZZZZZ	2435	27280	3644	1186
20:52	ZZZZZZ	2394	27142	3671	1166

INTERNAL STANDARD SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: Cr,Pb,Se

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
20:57	ZZZZZZ	2378	26267	3582	1149
21:01	ZZZZZZ	2426	26996	3616	1182
21:06	ZZZZZZ	2394	26928	3623	1152
21:10	F79712-1	2461	28055	3678	1218
21:14	MA8700-CCV13	2488	27731	3659	1168
21:18	MA8700-CCB13	2624	29190	3670	1345
21:22	MP19936-D2	2414	27139	3619	1183
21:27	MP19936-MB2	2463	27781	3699	1198
21:31	MP19936-B2	2466	27405	3660	1158
21:35	MP19938-MB1	2587	29230	3687	1322
21:39	MP19938-B1	2527	28068	3721	1220
21:43	F79701-6	1508 !	16973 !	2898	626 !
21:47	MP19938-D1	1513 !	17127	2893	631 !
21:52	MP19938-SD1	2036	22632	3358	901
21:56	MP19938-PS1	1497 !	17075 !	2877	622 !
22:00	MP19938-S1	1514 !	17320	2874	617 !
22:04	MA8700-CCV14	2473	28039	3609	1174
22:08	MA8700-CCB14	2605	29546	3694	1349
22:13	MP19938-S2	1542 !	17616	2877	631 !
22:17	ZZZZZZ	1171 !	14196 !	2601	462 !
22:21	ZZZZZZ	1155 !	13811 !	2570	445 !
22:26	ZZZZZZ	1121 !	13428 !	2476	437 !
22:30	ZZZZZZ	1929	21956	3302	855
22:39	ZZZZZZ	1919	21778	3307	850
22:44	ZZZZZZ	1787	20552	3218	775 !
22:48	ZZZZZZ	2454	28874	3641	1255
22:52	ZZZZZZ	2488	28535	3759	1266
22:57	MA8700-CCV15	2431	27819	3698	1164
23:00	MA8700-CCB15	2573	30107	3726	1332
23:05	ZZZZZZ	2493	28690	3720	1272
23:09	ZZZZZZ	2511	28879	3743	1269
23:13	ZZZZZZ	2464	28100	3792	1233
23:17	ZZZZZZ	2469	27979	3682	1233

INTERNAL STANDARD SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: Cr,Pb,Se

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
23:22	ZZZZZZ	2489	28519	3694	1251
23:26	ZZZZZZ	2474	27950	3620	1235
23:30	ZZZZZZ	2534	29193	3717	1294
23:34	ZZZZZZ	2479	28688	3735	1248
23:38	ZZZZZZ	2567	30026	3808	1341
23:43	ZZZZZZ	2522	29576	3885	1297
23:47	MA8700-CCV16	2439	28414	3792	1175
23:51	MA8700-CCB16	2654	30429	3866	1393
23:55	MP19939-MB1	2536	29986	3854	1336
23:59	MP19939-B1	2470	29136	3949	1226
00:03	F79701-8	1867	22204	3413	839
00:08	MP19939-D1	1867	21640	3435	834
00:12	MP19939-SD1	2220	26085	3532	1058
00:16	MP19939-PS1	1859	22345	3458	833
00:21	MP19939-S1	1869	22433	3481	823
00:25	MP19939-S2	1871	22672	3578	826
00:29	ZZZZZZ	1184 !	14789 !	2856	481 !
00:34	ZZZZZZ	1147 !	14138 !	2646	462 !
00:38	MA8700-CCV17	2432	29415	3946	1191
00:42	MA8700-CCB17	2535	30875	4018	1355
00:46	ZZZZZZ	1110 !	14193 !	2629	444 !
00:51	ZZZZZZ	1889	23681	3458	862
00:55	ZZZZZZ	1303 !	15846 !	2921	551 !
01:00	ZZZZZZ	1884	22820	3536	861
01:04	ZZZZZZ	1757	21266	3425	787 !
01:09	ZZZZZZ	2366	29786	3954	1217
01:13	ZZZZZZ	2428	29124	3998	1209
01:17	ZZZZZZ	2348	29129	3929	1207
01:21	ZZZZZZ	2354	28916	3887	1208
01:26	ZZZZZZ	2331	28568	3795	1202
01:30	MA8700-CCV18	2383	28750	4024	1177
01:34	MA8700-CCB18	2550	31475	4007	1371
01:38	ZZZZZZ	2323	29057	3887	1202

INTERNAL STANDARD SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8700
Parameters: Cr,Pb,Se

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
01:42	ZZZZZZ	2349	29233	3866	1209
01:46	ZZZZZZ	2357	29261	3904	1218
01:51	ZZZZZZ	2378	30297	3935	1222
01:55	ZZZZZZ	2312	28782	3925	1180
01:59	MP19939-MB2A	2478	30418	3925	1336
02:03	MA8700-CRIA2	2483	30594	3943	1314
02:07	MA8700-ICSA2	2196	26599	3776	1024
02:12	MA8700-ICSAB2	2188	26626	3852	1019
02:16	MA8700-CCV19	2378	29220	3912	1186
02:20	MA8700-CCB19	2533	31281	3980	1371

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	60-125 %
Istd#2	Yttrium (3600)	60-125 %
Istd#3	Yttrium (3710)	60-125 %
Istd#4	Indium	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8700 Units: ug/l

Time:			09:55		10:38		11:41		12:30	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	anr							
Barium	200	1	anr							
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	anr							
Calcium	1000	50	anr							
Chromium	10	1	-0.20	<10	-0.10	<10	0.10	<10	0.60	<10
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	-0.50	<5.0	-0.20	<5.0	0.30	<5.0	-0.30	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	1.6	<10	1.0	<10	-0.50	<10	2.5	<10
Silver	10	1	anr							
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8700 Units: ug/l

Time:			13:21		14:11		15:00		15:54	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	anr							
Barium	200	1	anr							
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	anr							
Calcium	1000	50	anr							
Chromium	10	1	0.40	<10	0.20	<10	0.30	<10	0.30	<10
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	0.30	<5.0	0.10	<5.0	0.80	<5.0	0.70	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	1.4	<10	0.20	<10	2.4	<10	1.4	<10
Silver	10	1	anr							
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8700 Units: ug/l

Time:			17:07		17:57		18:47		19:37	
Sample ID:			CCB8		CCB9		CCB10		CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	anr							
Barium	200	1	anr							
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	anr							
Calcium	1000	50	anr							
Chromium	10	1	-0.20	<10	0.10	<10	-0.20	<10	0.0	<10
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	0.20	<5.0	-0.60	<5.0	-0.60	<5.0	0.60	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	0.80	<10	0.60	<10	-0.60	<10	0.10	<10
Silver	10	1	anr							
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8700 Units: ug/l

Time:			20:27		21:18		22:08		23:00	
Sample ID:			CCB12		CCB13		CCB14		CCB15	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	anr							
Barium	200	1	anr							
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	anr							
Calcium	1000	50	anr							
Chromium	10	1	0.20	<10	0.20	<10	0.20	<10	0.20	<10
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	-0.30	<5.0	-0.60	<5.0	0.10	<5.0	0.30	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	0.70	<10	1.3	<10	-0.60	<10	0.60	<10
Silver	10	1	anr							
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8700 Units: ug/l

Time:			23:51		00:42		01:34		02:20	
Sample ID:			CCB16		CCB17		CCB18		CCB19	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	anr							
Barium	200	1	anr							
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	anr							
Calcium	1000	50	anr							
Chromium	10	1	0.20	<10	0.20	<10	0.10	<10	0.0	<10
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	-0.50	<5.0	-0.90	<5.0	-0.30	<5.0	-0.10	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	1.5	<10	0.80	<10	1.7	<10	0.60	<10
Silver	10	1	anr							
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8700 Units: ug/l

Time:		09:47			10:27			11:37	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	2000	1990	99.5	2000	2070	103.5	2000	2180	109.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1980	99.0	2000	2030	101.5	2000	2040	102.0
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2000	100.0	2000	2020	101.0	2000	2040	102.0
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8700 Units: ug/l

Time:		12:27			13:17			14:07	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	2000	2090	104.5	2000	2100	105.0	2000	2110	105.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2030	101.5	2000	2040	102.0	2000	2070	103.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2050	102.5	2000	2060	103.0	2000	2080	104.0
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8700 Units: ug/l

Time:		14:56			15:44			17:03	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	2000	2080	104.0	2000	2110	105.5	2000	2010	100.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2070	103.5	2000	2070	103.5	2000	2070	103.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2060	103.0	2000	2030	101.5	2000	2080	104.0
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8700 Units: ug/l

Time:		17:53			18:43			19:33	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	2000	1990	99.5	2000	2010	100.5	2000	2010	100.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2010	100.5	2000	2040	102.0	2000	2010	100.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2030	101.5	2000	2060	103.0	2000	2070	103.5
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8700 Units: ug/l

Time:		20:23			21:14			22:04	
Sample ID:	CCV	CCV12		CCV	CCV13		CCV	CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	2000	2020	101.0	2000	2000	100.0	2000	1990	99.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2030	101.5	2000	2020	101.0	2000	2000	100.0
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2080	104.0	2000	2070	103.5	2000	2080	104.0
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8700 Units: ug/l

Time:		22:57			23:47			00:38	
Sample ID:	CCV	CCV15		CCV	CCV16		CCV	CCV17	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	2000	1970	98.5	2000	1950	97.5	2000	1900	95.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2000	100.0	2000	1980	99.0	2000	1930	96.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2120	106.0	2000	2120	106.0	2000	2140	107.0
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8700 Units: ug/l

Time:		01:30			02:16	
Sample ID:	CCV	CCV18		CCV	CCV19	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	anr					
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Cadmium	anr					
Calcium	anr					
Chromium	2000	1920	96.0	2000	1870	93.5
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	2000	1930	96.5	2000	1900	95.0
Magnesium	anr					
Manganese	anr					
Molybdenum						
Nickel	anr					
Potassium	anr					
Selenium	2000	2170	108.5	2000	2170	108.5
Silver	anr					
Sodium	anr					
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium	anr					
Zinc	anr					

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA8700 Units: ug/l

Time:		09:44	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	anr		
Barium	anr		
Beryllium	anr		
Cadmium	anr		
Calcium	anr		
Chromium	4000	3890	97.3
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	4000	3930	98.3
Magnesium	anr		
Manganese	anr		
Molybdenum			
Nickel	anr		
Potassium	anr		
Selenium	4000	3950	98.8
Silver	anr		
Sodium	anr		
Strontium			
Thallium	anr		
Tin			
Titanium			
Vanadium	anr		
Zinc	anr		

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA8700 Units: ug/l

Time:			10:00		02:03	
Sample ID:	CRI	CRIA	CRIA1		CRIA2	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	400	200	anr			
Antimony	10	5.0	anr			
Arsenic	20	10	anr			
Barium	400	200	anr			
Beryllium	10	5.0	anr			
Cadmium	10	5.0	anr			
Calcium	2000	1000	anr			
Chromium	20	10	10.4	104.0	9.3	93.0
Cobalt	100	50	anr			
Copper	50	25	anr			
Iron	600	300	anr			
Lead	10	5.0	4.7	94.0	4.1	82.0
Magnesium	10000	5000	anr			
Manganese	30	15	anr			
Molybdenum	100	50				
Nickel	80	40	anr			
Potassium	20000	10000	anr			
Selenium	20	10	10.3	103.0	10.3	103.0
Silver	20	10	anr			
Sodium	20000	10000	anr			
Strontium	20	10				
Thallium	20	10	anr			
Tin	100	50				
Titanium	20	10				
Vanadium	100	50	anr			
Zinc	40	20	anr			

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020811M1.ICP Date Analyzed: 02/08/11 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA8700 Units: ug/l

Time:			10:12		10:21		02:07		02:12	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	473000	94.6	483000	96.6	473000	94.6	476000	95.2
Antimony		1000	0.0		979	97.9	2.0		1030	103.0
Arsenic		1000	-1.4		989	98.9	-1.4		1020	102.0
Barium		500	4.5		516	103.2	0.70		477	95.4
Beryllium		500	0.0		489	97.8	-0.20		445	89.0
Cadmium		1000	0.0		926	92.6	1.6		944	94.4
Calcium	500000	500000	460000	92.0	459000	91.8	426000	85.2	418000	83.6
Chromium		500	0.10		468	93.6	0.20		418	83.6
Cobalt		500	-0.10		456	91.2	0.10		489	97.8
Copper		500	0.0		497	99.4	-1.6		422	84.4
Iron	200000	200000	183000	91.5	185000	92.5	163000	81.5	163000	81.5
Lead		1000	0.0		981	98.1	5.7		905	90.5
Magnesium	500000	500000	487000	97.4	490000	98.0	502000	100.4	488000	97.6
Manganese		500	0.60		479	95.8	0.20		414	82.8
Molybdenum		1000	0.90		950	95.0	-1.0		1020	102.0
Nickel		1000	0.0		967	96.7	1.5		893	89.3
Potassium			7.1		18.7		18.3		-14	
Selenium		1000	-0.10		967	96.7	-7.9		1010	101.0
Silver		1000	0.30		1070	107.0	0.20		1040	104.0
Sodium			-2800		-2600		40.6		-410	
Strontium		1000	0.20		0.10	0.0*	0.10		0.20	0.0*
Thallium		1000	0.0		952	95.2	-1.1		879	87.9
Tin		1000	1.7		874	87.4	2.2		852	85.2
Titanium		1000	-3.2		-1.6	0.0*	-3.0		-2.1	0.0*
Vanadium		500	0.0		485	97.0	0.50		418	83.6
Zinc		1000	-1.8		882	88.2	-1.6		854	85.4

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19901
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/01/11

Metal	RL	IDL	MDL	MB raw	final
Mercury	1.0	.071	.05	0.0030	<1.0

Associated samples MP19901: F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19901
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/01/11 02/01/11

Metal	F79608-1 Original	DUP	RPD	QC Limits	F79608-1 Original	MS	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.0	0.0	NC	0-20	0.0	2.9	3	96.7	80-120

Associated samples MP19901: F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19901
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/01/11

Metal	F79608-1 Original	MSD	Spikelot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	3.0	3	100.0	3.4	20

Associated samples MP19901: F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

9.5.2

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SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19901
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/01/11

Metal	BSP Result	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	2.8	3	93.3	80-120

Associated samples MP19901: F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19901
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/01/11

Metal	F79608-1 Original	SDL 1:5	%DIF	QC Limits
Mercury	0.00	0.00	NC	0-10

Associated samples MP19901: F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19909
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date:				02/02/11		02/02/11	
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Mercury	1.0	.071	.05	-0.017	<1.0	-0.022	<1.0

Associated samples MP19909: F79608-1F, F79608-2F, F79608-3F, F79608-4F, F79608-5F, F79608-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19909
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/02/11 02/02/11

Metal	F79608-1F Original	DUP	RPD	QC Limits	F79608-1F Original	MS	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.0	0.0	NC	0-20	0.0	3.1	3	103.3	80-120

Associated samples MP19909: F79608-1F, F79608-2F, F79608-3F, F79608-4F, F79608-5F, F79608-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19909
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/02/11

Metal	F79608-1F Original	MSD	Spikelot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	3.1	3	103.3	0.0	20

Associated samples MP19909: F79608-1F, F79608-2F, F79608-3F, F79608-4F, F79608-5F, F79608-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19909
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/02/11

Metal	BSP Result	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	3.1	3	103.3	80-120

Associated samples MP19909: F79608-1F, F79608-2F, F79608-3F, F79608-4F, F79608-5F, F79608-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19909
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/02/11

Metal	F79608-1F Original	SDL 1:5	%DIF	QC Limits
Mercury	0.00	0.00	NC	0-10

Associated samples MP19909: F79608-1F, F79608-2F, F79608-3F, F79608-4F, F79608-5F, F79608-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19932
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:					02/07/11		02/07/11
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Aluminum	200	20	25				
Antimony	6.0	1	2				
Arsenic	10	1	2	-0.90	<10	-1.4	<10
Barium	200	1	5	-0.30	<200	-1.3	<200
Beryllium	4.0	.1	1				
Cadmium	5.0	.1	1	-0.10	<5.0	-0.10	<5.0
Calcium	1000	50	100				
Chromium	10	1	1	0.10	<10	-0.30	<10
Cobalt	50	1	1				
Copper	25	1	2				
Iron	300	34	35				
Lead	5.0	1	1	0.80	<5.0	0.0	<5.0
Magnesium	5000	50	100				
Manganese	15	1	1				
Molybdenum	50	1	2				
Nickel	40	1	2				
Potassium	10000	50	500				
Selenium	10	2	2	3.0	<10	3.8	<10
Silver	10	1	1	-0.50	<10	0.0	<10
Sodium	10000	750	1900				
Strontium	10	1	1				
Thallium	10	1	1.9				
Tin	50	1	1				
Titanium	10	1.1	2				
Vanadium	50	1	1				
Zinc	20	1	5				

Associated samples MP19932: F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19932
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:			02/07/11					02/07/11	
Metal	F79608-1 Original	DUP	RPD	QC Limits	F79608-1 Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic	6.5	8.2	23.1 (a)	0-20	6.5	2480	2000	123.7N(c	80-120
Barium	25.2	27.0	6.9	0-20	25.2	2170	2000	107.2	80-120
Beryllium									
Cadmium	0.0	0.0	NC	0-20	0.0	46.9	50	93.8	80-120
Calcium									
Chromium	0.0	0.0 (b)	NC	0-20	0.0	203 (b)	200	101.5	80-120
Cobalt									
Copper									
Iron									
Lead	0.0	0.0 (b)	NC	0-20	0.0	479 (b)	500	95.8	80-120
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium	0.0	0.0 (b)	NC	0-20	0.0	2040 (b)	2000	102.0	80-120
Silver	0.0	0.0	NC	0-20	0.0	67.6	50	135.2N(c	80-120
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP19932: F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) RPD acceptable due to low duplicate and sample concentrations.
(b) Elevated reporting limit(s) due to matrix interference.
(c) Spike recovery indicates possible matrix interference.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19932
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/07/11

Metal	F79608-1 Original	MSD	Spikelot MPFLICP1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	6.5	2420	2000	120.7N(a	2.4	20
Barium	25.2	2120	2000	104.7	2.3	20
Beryllium						
Cadmium	0.0	45.1	50	90.2	3.9	20
Calcium						
Chromium	0.0	207 (b)	200	103.5	2.0	20
Cobalt						
Copper						
Iron						
Lead	0.0	522 (b)	500	104.4	8.6	20
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium	0.0	2250 (b)	2000	112.5	9.8	20
Silver	0.0	65.1	50	130.2N(a	3.8	20
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP19932: F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference.
(b) Elevated reporting limit(s) due to matrix interference.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19932
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/07/11

Metal	BSP Result	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	1900	2000	95.0	80-120
Barium	2020	2000	101.0	80-120
Beryllium				
Cadmium	49.7	50	99.4	80-120
Calcium				
Chromium	201	200	100.5	80-120
Cobalt				
Copper				
Iron				
Lead	481	500	96.2	80-120
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium	1910	2000	95.5	80-120
Silver	45.7	50	91.4	80-120
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP19932: F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19932
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/07/11

Metal	F79608-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	6.50	9.80	50.8 (a)	0-10
Barium	25.2	31.4	24.6 (a)	0-10
Beryllium				
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	0.00	0.00	NC	0-10
Cobalt				
Copper				
Iron				
Lead	0.00	0.00	NC	0-10
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium	0.00	0.00	NC	0-10
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP19932: F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19932
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/07/11

Metal	Sample ml	Final ml	F79608-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic	9.8	10	6.5	6.37	127.5	0.2	5	100	121.1*(a	80-120
Barium	9.8	10	25.2	24.696	278.7	0.2	12.5	250	101.6	80-120
Beryllium										
Cadmium	9.8	10	0	0	45.5	0.2	2.5	50	91.0	80-120
Calcium										
Chromium	9.8	10	0	0	50.6	0.2	2.5	50	101.2	80-120
Cobalt										
Copper										
Iron										
Lead	9.8	10	0	0	51.1	0.2	2.5	50	102.2	80-120
Magnesium										
Manganese										
Molybdenum										
Nickel										
Potassium										
Selenium	9.8	10	0	0	113	0.2	5	100	113.0	80-120
Silver	9.8	10	0	0	68.6	0.2	2.5	50	137.2*(a	80-120
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP19932: F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested
(a) Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19933
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:					02/07/11		02/07/11		02/07/11
Metal	RL	IDL	MDL	MB raw	final	MB raw	final	MB raw	final
Aluminum	200	20	25						
Antimony	6.0	1	2						
Arsenic	10	1	2	-2.8	<10	-1.2	<10	-2.5	<10
Barium	200	1	5	-2.0	<200	-2.5	<200	-2.6	<200
Beryllium	4.0	.1	1						
Cadmium	5.0	.1	1	-0.10	<5.0	-0.10	<5.0	0.0	<5.0
Calcium	1000	50	100						
Chromium	10	1	1	-0.10	<10	0.0	<10	-0.30	<10
Cobalt	50	1	1						
Copper	25	1	2						
Iron	300	34	35						
Lead	5.0	1	1	0.90	<5.0	-0.30	<5.0	0.50	<5.0
Magnesium	5000	50	100						
Manganese	15	1	1						
Molybdenum	50	1	2						
Nickel	40	1	2						
Potassium	10000	50	500						
Selenium	10	2	2	1.6	<10	3.6	<10	4.8	<10
Silver	10	1	1	-0.40	<10	-0.40	<10	-0.10	<10
Sodium	10000	750	1900						
Strontium	10	1	1						
Thallium	10	1	1.9						
Tin	50	1	1						
Titanium	10	1.1	2						
Vanadium	50	1	1						
Zinc	20	1	5						

Associated samples MP19933: F79608-1F, F79608-2F, F79608-3F, F79608-4F, F79608-5F, F79608-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19933
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Metal	F79608-1F Original	DUP	RPD	QC Limits	F79608-1F Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Prep Date:			02/07/11					02/07/11	
Aluminum									
Antimony									
Arsenic	8.7	5.6	43.4 (a)	0-20	8.7	2380	2000	118.6	80-120
Barium	27.1	25.3	6.9	0-20	27.1	2070	2000	102.1	80-120
Beryllium									
Cadmium	0.0	0.0	NC	0-20	0.0	44.4	50	88.8	80-120
Calcium									
Chromium	0.0	0.0 (b)	NC	0-20	0.0	206 (b)	200	103.0	80-120
Cobalt									
Copper									
Iron	anr								
Lead	0.0	0.0 (b)	NC	0-20	0.0	515 (b)	500	103.0	80-120
Magnesium									
Manganese	anr								
Molybdenum									
Nickel									
Potassium									
Selenium	0.0	13.3 (b)	200.0(a)	0-20	0.0	2250 (b)	2000	112.5	80-120
Silver	0.0	0.0	NC	0-20	0.0	63.5	50	127.0N(c	80-120
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP19933: F79608-1F, F79608-2F, F79608-3F, F79608-4F, F79608-5F, F79608-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) RPD acceptable due to low duplicate and sample concentrations.
(b) Elevated reporting limit(s) due to matrix interference.
(c) Spike recovery indicates possible matrix interference.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19933
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/07/11

Metal	F79608-1F Original	MSD	Spikelot MPFLICP1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	8.7	2300	2000	114.6	3.4	20
Barium	27.1	1980	2000	97.6	4.4	20
Beryllium						
Cadmium	0.0	42.7	50	85.4	3.9	20
Calcium						
Chromium	0.0	198 (a)	200	99.0	4.0	20
Cobalt						
Copper						
Iron	anr					
Lead	0.0	499 (a)	500	99.8	3.2	20
Magnesium						
Manganese	anr					
Molybdenum						
Nickel						
Potassium						
Selenium	0.0	2150 (a)	2000	107.5	4.5	20
Silver	0.0	60.8	50	121.6N(b	4.3	20
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP19933: F79608-1F, F79608-2F, F79608-3F, F79608-4F, F79608-5F, F79608-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Elevated reporting limit(s) due to matrix interference.
(b) Spike recovery indicates possible matrix interference.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19933
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/07/11

Metal	BSP Result	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	1990	2000	99.5	80-120
Barium	2060	2000	103.0	80-120
Beryllium				
Cadmium	51.3	50	102.6	80-120
Calcium				
Chromium	197	200	98.5	80-120
Cobalt				
Copper				
Iron	anr			
Lead	483	500	96.6	80-120
Magnesium				
Manganese	anr			
Molybdenum				
Nickel				
Potassium				
Selenium	1990	2000	99.5	80-120
Silver	45.0	50	90.0	80-120
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP19933: F79608-1F, F79608-2F, F79608-3F, F79608-4F, F79608-5F, F79608-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19933
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/07/11

Metal	F79608-1F Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	8.70	0.00	100.0(a)	0-10
Barium	27.1	26.2	3.3	0-10
Beryllium				
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	0.00	0.00	NC	0-10
Cobalt				
Copper				
Iron	anr			
Lead	0.00	0.00	NC	0-10
Magnesium				
Manganese	anr			
Molybdenum				
Nickel				
Potassium				
Selenium	0.00	0.00	NC	0-10
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP19933: F79608-1F, F79608-2F, F79608-3F, F79608-4F, F79608-5F, F79608-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19933
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/07/11

Metal	Sample ml	Final ml	F79608-1F Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic	9.8	10	8.7	8.526	136.1	0.2	5	100	127.6*(a	80-120
Barium	9.8	10	27.1	26.558	295.3	0.2	12.5	250	107.5	80-120
Beryllium										
Cadmium	9.8	10	0	0	47.6	0.2	2.5	50	95.2	80-120
Calcium										
Chromium	9.8	10	0	0	47.9	0.2	2.5	50	95.8	80-120
Cobalt										
Copper										
Iron										
Lead	9.8	10	0	0	49	0.2	2.5	50	98.0	80-120
Magnesium										
Manganese										
Molybdenum										
Nickel										
Potassium										
Selenium	9.8	10	0	0	117	0.2	5	100	117.0	80-120
Silver	9.8	10	0	0	71.7	0.2	2.5	50	143.4*(a	80-120
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP19933: F79608-1F, F79608-2F, F79608-3F, F79608-4F, F79608-5F, F79608-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested
(a) Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

Southeast ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Solids, Total Dissolved	GN43104	100	0.0	mg/l				

Associated Samples:
Batch GN43104: F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F79608
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Solids, Total Dissolved	GN43104	F79608-1	mg/l	16500	13600	19.3(a)	0-5%

Associated Samples:
Batch GN43104: F79608-1, F79608-2, F79608-3, F79608-4, F79608-5, F79608-6
(*) Outside of QC limits
(a) High RPD due to possible sample nonhomogeneity.

Southeast ACCUTEST LABORATORIES

02/10/11

Technical Report for

Tetra Tech, Inc

Holloman AFB; Alamogordo, NM

DP-30/SD-33 (GROUNDWATER)

Accutest Job Number: F79564

Sampling Dates: 01/24/11 - 01/25/11

Report to:

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Oak Ridge, TN 37830
Jeremy.Bennett@tetratech.com

ATTN: Jeremy Bennett

Total number of pages in report: **217**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Sue Bell 407-425-6700

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK

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Accutest Laboratories

Sample Summary

Tetra Tech, Inc

Job No: F79564

Holloman AFB; Alamogordo, NM
Project No: DP-30/SD-33 (GROUNDWATER)

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F79564-1	01/24/11	15:04	BC	01/26/11	AQ	Ground Water	MW30&33-01-012411
F79564-1D	01/24/11	15:04	BC	01/26/11	AQ	Water Dup/MSD	MW30&33-01-012411
F79564-1DF	01/24/11	15:04	BC	01/26/11	AQ	Water Dup/MSD	MW30&33-01-012411
F79564-1F	01/24/11	15:04	BC	01/26/11	AQ	Groundwater Filtered	MW30&33-01-012411
F79564-1S	01/24/11	15:04	BC	01/26/11	AQ	Water Matrix Spike	MW30&33-01-012411
F79564-1SF	01/24/11	15:04	BC	01/26/11	AQ	Water Matrix Spike	MW30&33-01-012411
F79564-2	01/24/11	15:10	BC	01/26/11	AQ	Ground Water	MW30&33-02-012411
F79564-2F	01/24/11	15:10	BC	01/26/11	AQ	Groundwater Filtered	MW30&33-02-012411
F79564-3	01/24/11	16:20	BC	01/26/11	AQ	Ground Water	MW30&33-03-012411
F79564-3F	01/24/11	16:20	BC	01/26/11	AQ	Groundwater Filtered	MW30&33-03-012411
F79564-4	01/24/11	17:30	BC	01/26/11	AQ	Ground Water	MW30&33-04-012411
F79564-4F	01/24/11	17:30	BC	01/26/11	AQ	Groundwater Filtered	MW30&33-04-012411
F79564-5	01/25/11	09:16	BC	01/26/11	AQ	Ground Water	MW30&33-05-012511

Sample Summary
(continued)

Tetra Tech, Inc

Job No: F79564

Holloman AFB; Alamogordo, NM
Project No: DP-30/SD-33 (GROUNDWATER)

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F79564-5F	01/25/11	09:16	BC	01/26/11	AQ	Groundwater Filtered	MW30&33-05-012511
F79564-6	01/25/11	00:00	BC	01/26/11	AQ	Ground Water	MW30&33-DUP01-012511
F79564-6F	01/25/11	00:00	BC	01/26/11	AQ	Groundwater Filtered	MW30&33-DUP01-012511
F79564-7	01/25/11	11:00	BC	01/26/11	AQ	Trip Blank Water	TB01-012511

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Tetra Tech, Inc **Job** F79564

Site: Holloman AFB; Alamogordo, NM **Report Date:** 2/9/2011 9:05:20 AM

6 Samples and 1 Trip Blank were collected on 01/24/2011 and 01/25/2011 and were received at Accutest SE on 01/26/2011 properly preserved, at 3.8 Deg. C and intact. These Samples received an Accutest job number of F79564. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS by Method SW846 8260B

Matrix: AQ **Batch ID:** VJ3476

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F79564-1MS, F79564-1MSD were used as the QC samples indicated.

Blank Spike Recovery for Hexane is outside control limits.

Matrix Spike Recoverys for 2-Chloroethyl vinyl ether, 4-Methyl-2-pentanone, cis-1,4-Dichloro-2-Butene, Ethyl methacrylate, Freon 113, Hexane, Methyl iodide, Methyl methacrylate, o-Dichlorobenzene, Trans-1,4-Dichloro-2-Butene are outside control limits. Probable cause due to matrix interference.

Matrix Spike Duplicate Recoverys for 2-Chloroethyl vinyl ether, 4-Methyl-2-pentanone, Acetone, cis-1,4-Dichloro-2-Butene, Methyl methacrylate, Trans-1,4-Dichloro-2-Butene are outside control limits. Probable cause due to matrix interference.

RPDs for MSD for 1,1,1,2-Tetrachloroethane, 1,1-Dichloropropene, 1,2,4-Trimethylbenzene, Acrolein, Allyl chloride, Benzyl Chloride, Bromodichloromethane, Bromoform, Carbon disulfide, Carbon tetrachloride, Chloroethane, cis-1,3-Dichloropropene, Dibromochloromethane, Freon 113, Hexane, m-Dichlorobenzene, Methyl chloride, Methyl iodide, Methylene chloride, Pentachloroethane, sec-Butylbenzene, Styrene, trans-1,2-Dichloroethylene, trans-1,3-Dichloropropene are outside control limits for sample F79564-1MSD. Probable cause due to sample non-homogeneity.

Matrix: AQ **Batch ID:** VM1956

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F79539-11MS, F79539-11MSD were used as the QC samples indicated.

Matrix Spike Recovery for 1,2,3-Trichlorobenzene is outside control limits. Probable cause due to matrix interference.

Metals by Method SW846 6010C

Matrix: AQ **Batch ID:** MP19913

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F79564-1MS, F79564-1MSD, F79564-1PS, F79564-1SDL, F79564-1DUP were used as the QC samples for metals.

Matrix Spike Recovery for Silver is outside control limits. Spike recovery indicates possible matrix interference.

Matrix Spike Duplicate Recoverys for Selenium, Silver are outside control limits. Probable cause due to matrix interference.

Matrix Spike Recovery for Magnesium is outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

RPDs for Duplicate for Aluminum, Copper, Selenium, Zinc are outside control limits for sample MP19913-D1. RPD acceptable due to low duplicate and sample concentrations.

RPDs for Serial Dilution for Aluminum, Antimony, Arsenic, Barium, Cobalt, Copper, Iron, Selenium, Zinc, Potassium, Sodium are outside control limits for sample MP19913-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

MP19913-SD1 for Potassium, Sodium: Serial dilution indicates possible matrix interference.

MP19913-PS1 for Arsenic: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

Metals by Method SW846 6010C

Matrix: AQ **Batch ID:** MP19913

MP19913-PS1 for Silver: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP19913-PS1 for Calcium: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP19913-PS1 for Selenium: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP19913-PS1 for Magnesium: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP19913-PS1 for Sodium: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP19913-PS1 for Thallium: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

F79564-6 for Selenium: Elevated reporting limit(s) due to matrix interference.

F79564-3 for Chromium: Elevated reporting limit(s) due to matrix interference.

F79564-4 for Copper: Elevated reporting limit(s) due to matrix interference.

F79564-3 for Copper: Elevated reporting limit(s) due to matrix interference.

F79564-3 for Selenium: Elevated reporting limit(s) due to matrix interference.

F79564-3 for Zinc: Elevated reporting limit(s) due to matrix interference.

F79564-4 for Chromium: Elevated reporting limit(s) due to matrix interference.

F79564-4 for Selenium: Elevated reporting limit(s) due to matrix interference.

F79564-4 for Zinc: Elevated reporting limit(s) due to matrix interference.

F79564-5 for Chromium: Elevated reporting limit(s) due to matrix interference.

F79564-5 for Copper: Elevated reporting limit(s) due to matrix interference.

F79564-2 for Zinc: Elevated reporting limit(s) due to matrix interference.

F79564-6 for Copper: Elevated reporting limit(s) due to matrix interference.

F79564-1 for Chromium: Elevated reporting limit(s) due to matrix interference.

F79564-5 for Zinc: Elevated reporting limit(s) due to matrix interference.

F79564-6 for Chromium: Elevated reporting limit(s) due to matrix interference.

F79564-1 for Copper: Elevated reporting limit(s) due to matrix interference.

F79564-1 for Selenium: Elevated reporting limit(s) due to matrix interference.

F79564-1 for Zinc: Elevated reporting limit(s) due to matrix interference.

F79564-2 for Selenium: Elevated reporting limit(s) due to matrix interference.

F79564-2 for Chromium: Elevated reporting limit(s) due to matrix interference.

F79564-2 for Copper: Elevated reporting limit(s) due to matrix interference.

F79564-6 for Zinc: Elevated reporting limit(s) due to matrix interference.

F79564-2 for Nickel: Elevated reporting limit(s) due to matrix interference.

F79564-5 for Selenium: Elevated reporting limit(s) due to matrix interference.

F79564-6 for Thallium: Elevated reporting limit(s) due to matrix interference.

F79564-6 for Nickel: Elevated reporting limit(s) due to matrix interference.

F79564-6 for Lead: Elevated reporting limit(s) due to matrix interference.

F79564-1 for Lead: Elevated reporting limit(s) due to matrix interference.

F79564-1 for Nickel: Elevated reporting limit(s) due to matrix interference.

F79564-1 for Thallium: Elevated reporting limit(s) due to matrix interference.

F79564-5 for Thallium: Elevated reporting limit(s) due to matrix interference.

F79564-2 for Lead: Elevated reporting limit(s) due to matrix interference.

F79564-2 for Thallium: Elevated reporting limit(s) due to matrix interference.

F79564-3 for Lead: Elevated reporting limit(s) due to matrix interference.

F79564-3 for Nickel: Elevated reporting limit(s) due to matrix interference.

F79564-3 for Thallium: Elevated reporting limit(s) due to matrix interference.

F79564-4 for Lead: Elevated reporting limit(s) due to matrix interference.

F79564-4 for Nickel: Elevated reporting limit(s) due to matrix interference.

F79564-4 for Thallium: Elevated reporting limit(s) due to matrix interference.

Metals by Method SW846 6010C

Matrix: AQ **Batch ID:** MP19913

F79564-5 for Lead: Elevated reporting limit(s) due to matrix interference.

F79564-5 for Nickel: Elevated reporting limit(s) due to matrix interference.

Matrix: AQ **Batch ID:** MP19917

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F79564-1FDUP, F79564-1FMS, F79564-1FMSD, F79564-1FPS, F79564-1FSDL were used as the QC samples for metals.

Matrix Spike Recoverys for Arsenic, Silver are outside control limits. Spike recovery indicates possible matrix interference.

Matrix Spike Duplicate Recoverys for Selenium, Silver are outside control limits. Probable cause due to matrix interference.

Matrix Spike Recovery for Calcium is outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

RPDs for Duplicate for Aluminum, Antimony, Zinc are outside control limits for sample MP19917-D1. RPD acceptable due to low duplicate and sample concentrations.

RPDs for Serial Dilution for Aluminum, Antimony, Barium, Cobalt, Copper, Selenium, Vanadium, Zinc, Calcium, Sodium are outside control limits for sample MP19917-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

MP19917-SD1 for Calcium, Sodium: Serial dilution indicates possible matrix interference.

MP19917-PS1 for Thallium: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP19917-PS1 for Lead: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP19917-PS1 for Arsenic: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP19917-PS1 for Sodium: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP19917-PS1 for Magnesium: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP19917-PS1 for Selenium: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP19917-PS1 for Calcium: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP19917-PS1 for Silver: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

F79564-1F for Thallium: Elevated reporting limit(s) due to matrix interference.

F79564-6F for Nickel: Elevated reporting limit(s) due to matrix interference.

F79564-6F for Lead: Elevated reporting limit(s) due to matrix interference.

F79564-5F for Thallium: Elevated reporting limit(s) due to matrix interference.

F79564-5F for Nickel: Elevated reporting limit(s) due to matrix interference.

F79564-5F for Lead: Elevated reporting limit(s) due to matrix interference.

F79564-4F for Thallium: Elevated reporting limit(s) due to matrix interference.

F79564-4F for Nickel: Elevated reporting limit(s) due to matrix interference.

F79564-2F for Nickel: Elevated reporting limit(s) due to matrix interference.

F79564-2F for Thallium: Elevated reporting limit(s) due to matrix interference.

F79564-1F for Nickel: Elevated reporting limit(s) due to matrix interference.

F79564-1F for Lead: Elevated reporting limit(s) due to matrix interference.

F79564-4F for Lead: Elevated reporting limit(s) due to matrix interference.

F79564-3F for Thallium: Elevated reporting limit(s) due to matrix interference.

F79564-3F for Nickel: Elevated reporting limit(s) due to matrix interference.

F79564-3F for Lead: Elevated reporting limit(s) due to matrix interference.

F79564-2F for Lead: Elevated reporting limit(s) due to matrix interference.

F79564-4F for Copper: Elevated reporting limit(s) due to matrix interference.

Metals by Method SW846 6010C

Matrix: AQ **Batch ID:** MP19917

F79564-3F for Copper: Elevated reporting limit(s) due to matrix interference.
F79564-2F for Selenium: Elevated reporting limit(s) due to matrix interference.
F79564-4F for Chromium: Elevated reporting limit(s) due to matrix interference.
F79564-1F for Chromium: Elevated reporting limit(s) due to matrix interference.
F79564-1F for Copper: Elevated reporting limit(s) due to matrix interference.
F79564-1F for Selenium: Elevated reporting limit(s) due to matrix interference.
F79564-1F for Zinc: Elevated reporting limit(s) due to matrix interference.
F79564-3F for Chromium: Elevated reporting limit(s) due to matrix interference.
F79564-5F for Chromium: Elevated reporting limit(s) due to matrix interference.
F79564-3F for Zinc: Elevated reporting limit(s) due to matrix interference.
F79564-6F for Zinc: Elevated reporting limit(s) due to matrix interference.
F79564-6F for Selenium: Elevated reporting limit(s) due to matrix interference.
F79564-6F for Copper: Elevated reporting limit(s) due to matrix interference.
F79564-6F for Chromium: Elevated reporting limit(s) due to matrix interference.
F79564-5F for Zinc: Elevated reporting limit(s) due to matrix interference.
F79564-2F for Chromium: Elevated reporting limit(s) due to matrix interference.
F79564-5F for Copper: Elevated reporting limit(s) due to matrix interference.
F79564-2F for Copper: Elevated reporting limit(s) due to matrix interference.
F79564-3F for Selenium: Elevated reporting limit(s) due to matrix interference.
F79564-4F for Zinc: Elevated reporting limit(s) due to matrix interference.
F79564-6F for Thallium: Elevated reporting limit(s) due to matrix interference.
F79564-4F for Selenium: Elevated reporting limit(s) due to matrix interference.
F79564-2F for Zinc: Elevated reporting limit(s) due to matrix interference.
F79564-5F for Selenium: Elevated reporting limit(s) due to matrix interference.

Metals by Method SW846 7470A

Matrix: AQ **Batch ID:** MP19898

All samples were digested within the recommended method holding time.
All samples were analyzed within the recommended method holding time.
All method blanks for this batch meet method specific criteria.
Samples F79564-1DUP, F79564-1MS, F79564-1MSD, F79564-1SDL were used as the QC samples for metals.

Matrix: AQ **Batch ID:** MP19899

All samples were digested within the recommended method holding time.
All samples were analyzed within the recommended method holding time.
All method blanks for this batch meet method specific criteria.
Samples F79564-1FDUP, F79564-1FMS, F79564-1FMSD, F79564-1FSDL were used as the QC samples for metals.

Matrix: AQ **Batch ID:** MP19900

All samples were digested within the recommended method holding time.
All samples were analyzed within the recommended method holding time.
All method blanks for this batch meet method specific criteria.
Samples F79568-5DUP, F79568-5MS, F79568-5MSD, F79568-5SDL were used as the QC samples for metals.

Wet Chemistry by Method SM19 2540C

Matrix: AQ **Batch ID:** GN43065

All samples were analyzed within the recommended method holding time.
All method blanks for this batch meet method specific criteria.
Sample F79564-1DUP was used as the QC sample for Solids, Total Dissolved.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

_____ Date: February 9, 2011

Ellen Pampel, Inorganic QA (signature on file)

Wednesday, February 09, 2011

Southeast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW30&33-01-012411		
Lab Sample ID:	F79564-1	**Date Sampled:**	01/24/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J062705.D	1	01/28/11	MM	n/a	n/a	VJ3476
Run #2	M0048484.D	1	01/31/11	LD	n/a	n/a	VM1956

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-01-012411		
Lab Sample ID:	F79564-1	**Date Sampled:**	01/24/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND [a]	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND [a]	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-01-012411		
Lab Sample ID:	F79564-1	**Date Sampled:**	01/24/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%	108%	87-116%
17060-07-0	1,2-Dichloroethane-D4	108%	102%	76-127%
2037-26-5	Toluene-D8	97%	94%	86-112%
460-00-4	4-Bromofluorobenzene	99%	97%	84-120%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-01-012411		
Lab Sample ID:	F79564-1	**Date Sampled:**	01/24/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	30.1 B	200	25	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Antimony	2.0 U	6.0	2.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Arsenic	9.2 B	10	2.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Barium	14.5 B	200	5.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Beryllium	1.0 U	4.0	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Calcium	690000	2000	200	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Chromium [a]	2.0 U	20	2.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Cobalt	1.1 B	50	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Copper [a]	5.1 B	50	4.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Iron	35 U	300	35	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Magnesium	1260000	500000	10000	ug/l	100	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Manganese	1.0 U	15	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/01/11	02/01/11	LM	SW846 7470A [1]	SW846 7470A [5]
Nickel [a]	10 U	200	10	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Potassium	7140 B	10000	500	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Selenium [a]	15.6 B	20	4.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Silver	1.0 U	10	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Sodium	6170000	1000000	190000	ug/l	100	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Thallium [a]	9.3 U	50	9.3	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Vanadium	36.6 B	50	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Zinc [a]	10 U	40	10	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]

(1) Instrument QC Batch: MA8683
(2) Instrument QC Batch: MA8691
(3) Instrument QC Batch: MA8693
(4) Instrument QC Batch: MA8696
(5) Prep QC Batch: MP19898
(6) Prep QC Batch: MP19913

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-01-012411		
Lab Sample ID:	F79564-1	**Date Sampled:**	01/24/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	22800	10000	1000	mg/l	100	01/29/11 12:00	SJL	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-01-012411		
Lab Sample ID:	F79564-1F	**Date Sampled:**	01/24/11
Matrix:	AQ - Groundwater Filtered	**Date Received:**	01/26/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	25 U	200	25	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Antimony	2.0 U	6.0	2.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Arsenic	8.5 B	10	2.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Barium	16.1 B	200	5.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Beryllium	1.0 U	4.0	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Calcium	624000	2000	200	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Chromium [a]	2.0 U	20	2.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Cobalt	1.3 B	50	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Copper [a]	4.8 B	50	4.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Iron	35 U	300	35	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Magnesium	1200000	500000	10000	ug/l	100	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Manganese	1.0 U	15	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/01/11	02/01/11	LM	SW846 7470A [1]	SW846 7470A [5]
Nickel [a]	10 U	200	10	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Potassium	5730 B	10000	500	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Selenium [a]	11.6 B	20	4.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Silver	1.0 U	10	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Sodium	5860000	1000000	190000	ug/l	100	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Thallium [a]	9.3 U	50	9.3	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Vanadium	35.0 B	50	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Zinc [a]	10 U	40	10	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]

(1) Instrument QC Batch: MA8683
(2) Instrument QC Batch: MA8691
(3) Instrument QC Batch: MA8693
(4) Instrument QC Batch: MA8696
(5) Prep QC Batch: MP19899
(6) Prep QC Batch: MP19917

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-02-012411		
Lab Sample ID:	F79564-2	**Date Sampled:**	01/24/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J062708.D	1	01/28/11	MM	n/a	n/a	VJ3476
Run #2	M0048485.D	1	01/31/11	LD	n/a	n/a	VM1956

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	0.87	1.0	0.22	ug/l	J
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	2.7	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-02-012411		
Lab Sample ID:	F79564-2	**Date Sampled:**	01/24/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND [a]	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-02-012411		
Lab Sample ID:	F79564-2	**Date Sampled:**	01/24/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	14.5	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%	107%	87-116%
17060-07-0	1,2-Dichloroethane-D4	104%	103%	76-127%
2037-26-5	Toluene-D8	97%	98%	86-112%
460-00-4	4-Bromofluorobenzene	97%	97%	84-120%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-02-012411		
Lab Sample ID:	F79564-2	**Date Sampled:**	01/24/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	29.6 B	200	25	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Antimony	2.0 U	6.0	2.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Arsenic	6.1 B	10	2.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Barium	17.5 B	200	5.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Beryllium	1.0 U	4.0	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Calcium	887000	2000	200	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Chromium [a]	2.0 U	20	2.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Cobalt	1.3 B	50	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Copper [a]	6.2 B	50	4.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Iron	35 U	300	35	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Magnesium	1840000	1000000	20000	ug/l	200	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Manganese	1.0 U	15	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/01/11	02/01/11	LM	SW846 7470A [1]	SW846 7470A [5]
Nickel [a]	10 U	200	10	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Potassium	9430 B	10000	500	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Selenium [a]	18.3 B	20	4.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Silver	1.0 U	10	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Sodium	8390000	2000000	380000	ug/l	200	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Thallium [a]	9.3 U	50	9.3	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Vanadium	25.9 B	50	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Zinc [a]	10 U	40	10	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]

(1) Instrument QC Batch: MA8683
(2) Instrument QC Batch: MA8691
(3) Instrument QC Batch: MA8693
(4) Instrument QC Batch: MA8696
(5) Prep QC Batch: MP19899
(6) Prep QC Batch: MP19913

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-02-012411		
Lab Sample ID:	F79564-2	**Date Sampled:**	01/24/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	31500	10000	1000	mg/l	100	01/29/11 12:00	SJL	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-02-012411		
Lab Sample ID:	F79564-2F	**Date Sampled:**	01/24/11
Matrix:	AQ - Groundwater Filtered	**Date Received:**	01/26/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	25 U	200	25	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Antimony	2.0 U	6.0	2.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Arsenic	7.5 B	10	2.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Barium	17.0 B	200	5.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Beryllium	1.0 U	4.0	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Calcium	847000	2000	200	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Chromium [a]	2.0 U	20	2.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Cobalt	1.5 B	50	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Copper [a]	6.3 B	50	4.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Iron	35 U	300	35	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Magnesium	1780000	1000000	20000	ug/l	200	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Manganese	1.0 U	15	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/01/11	02/01/11	LM	SW846 7470A [1]	SW846 7470A [5]
Nickel [a]	10 U	200	10	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Potassium	8540 B	10000	500	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Selenium [a]	16.5 B	20	4.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Silver	1.0 U	10	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Sodium	7970000	2000000	380000	ug/l	200	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Thallium [a]	9.3 U	50	9.3	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Vanadium	24.6 B	50	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Zinc [a]	10 U	40	10	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]

(1) Instrument QC Batch: MA8683
(2) Instrument QC Batch: MA8691
(3) Instrument QC Batch: MA8693
(4) Instrument QC Batch: MA8696
(5) Prep QC Batch: MP19900
(6) Prep QC Batch: MP19917

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-03-012411		
Lab Sample ID:	F79564-3	**Date Sampled:**	01/24/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J062709.D	1	01/28/11	MM	n/a	n/a	VJ3476
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	1.2	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	3.4	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	0.25	1.0	0.23	ug/l	J
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-03-012411		
Lab Sample ID:	F79564-3	**Date Sampled:**	01/24/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.33	1.0	0.26	ug/l	J
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-03-012411		
Lab Sample ID:	F79564-3	**Date Sampled:**	01/24/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	19.1	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		87-116%
17060-07-0	1,2-Dichloroethane-D4	108%		76-127%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	96%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-03-012411		
Lab Sample ID:	F79564-3	**Date Sampled:**	01/24/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	25 U	200	25	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Antimony	2.0 U	6.0	2.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Arsenic	3.0 B	10	2.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Barium	20.9 B	200	5.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Beryllium	1.0 U	4.0	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Calcium	871000	2000	200	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Chromium [a]	2.0 U	20	2.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Cobalt	1.6 B	50	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Copper [a]	6.8 B	50	4.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Iron	35 U	300	35	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Magnesium	1740000	1000000	20000	ug/l	200	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Manganese	1.0 U	15	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/01/11	02/01/11	LM	SW846 7470A [1]	SW846 7470A [5]
Nickel [a]	10 U	200	10	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Potassium	5370 B	10000	500	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Selenium [a]	20.4	20	4.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Silver	1.0 U	10	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Sodium	7810000	2000000	380000	ug/l	200	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Thallium [a]	9.3 U	50	9.3	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Vanadium	18.8 B	50	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Zinc [a]	10 U	40	10	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]

(1) Instrument QC Batch: MA8683
(2) Instrument QC Batch: MA8691
(3) Instrument QC Batch: MA8693
(4) Instrument QC Batch: MA8696
(5) Prep QC Batch: MP19900
(6) Prep QC Batch: MP19913

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-03-012411		
Lab Sample ID:	F79564-3	**Date Sampled:**	01/24/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	27200	10000	1000	mg/l	100	01/29/11 12:00	SJL	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-03-012411		
Lab Sample ID:	F79564-3F	**Date Sampled:**	01/24/11
Matrix:	AQ - Groundwater Filtered	**Date Received:**	01/26/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	27.6 B	200	25	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Antimony	2.0 U	6.0	2.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Arsenic	2.1 B	10	2.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Barium	20.6 B	200	5.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Beryllium	1.0 U	4.0	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Calcium	816000	2000	200	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Chromium [a]	2.0 U	20	2.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Cobalt	1.5 B	50	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Copper [a]	6.2 B	50	4.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Iron	35 U	300	35	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Magnesium	1660000	1000000	20000	ug/l	200	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Manganese	1.0 U	15	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/01/11	02/01/11	LM	SW846 7470A [1]	SW846 7470A [5]
Nickel [a]	10 U	200	10	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Potassium	4740 B	10000	500	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Selenium [a]	20.3	20	4.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Silver	1.0 U	10	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Sodium	7630000	2000000	380000	ug/l	200	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Thallium [a]	9.3 U	50	9.3	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Vanadium	17.1 B	50	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Zinc [a]	10 U	40	10	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]

(1) Instrument QC Batch: MA8683
(2) Instrument QC Batch: MA8691
(3) Instrument QC Batch: MA8693
(4) Instrument QC Batch: MA8696
(5) Prep QC Batch: MP19900
(6) Prep QC Batch: MP19917

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-04-012411		
Lab Sample ID:	F79564-4	**Date Sampled:**	01/24/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J062710.D	1	01/28/11	MM	n/a	n/a	VJ3476
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	0.53	1.0	0.22	ug/l	J
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	1.4	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-04-012411		
Lab Sample ID:	F79564-4	**Date Sampled:**	01/24/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-04-012411		
Lab Sample ID:	F79564-4	**Date Sampled:**	01/24/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	6.9	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		87-116%
17060-07-0	1,2-Dichloroethane-D4	106%		76-127%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	97%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-04-012411		
Lab Sample ID:	F79564-4	**Date Sampled:**	01/24/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	30.8 B	200	25	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Antimony	2.0 U	6.0	2.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Arsenic	9.3 B	10	2.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Barium	12.9 B	200	5.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Beryllium	1.0 U	4.0	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Calcium	714000	2000	200	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Chromium [a]	5.7 B	20	2.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Cobalt	1.7 B	50	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Copper [a]	6.5 B	50	4.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Iron	35 U	300	35	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Magnesium	1470000	500000	10000	ug/l	100	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Manganese	1.0 U	15	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Mercury	0.13 B	1.0	0.050	ug/l	1	02/01/11	02/01/11	LM	SW846 7470A [1]	SW846 7470A [5]
Nickel [a]	10 U	200	10	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Potassium	2670 B	10000	500	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Selenium [a]	8.7 B	20	4.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Silver	1.0 U	10	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Sodium	6470000	1000000	190000	ug/l	100	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Thallium [a]	9.3 U	50	9.3	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Vanadium	27.7 B	50	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Zinc [a]	10 U	40	10	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]

(1) Instrument QC Batch: MA8683
(2) Instrument QC Batch: MA8691
(3) Instrument QC Batch: MA8693
(4) Instrument QC Batch: MA8696
(5) Prep QC Batch: MP19900
(6) Prep QC Batch: MP19913

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-04-012411		
Lab Sample ID:	F79564-4	**Date Sampled:**	01/24/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	24800	10000	1000	mg/l	100	01/29/11 12:00	SJL	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-04-012411		
Lab Sample ID:	F79564-4F	**Date Sampled:**	01/24/11
Matrix:	AQ - Groundwater Filtered	**Date Received:**	01/26/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	25 U	200	25	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Antimony	2.0 U	6.0	2.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Arsenic	8.7 B	10	2.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Barium	15.1 B	200	5.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Beryllium	1.0 U	4.0	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Calcium	686000	2000	200	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Chromium [a]	2.0 U	20	2.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Cobalt	1.6 B	50	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Copper [a]	6.9 B	50	4.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Iron	35 U	300	35	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Magnesium	1400000	500000	10000	ug/l	100	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Manganese	1.0 U	15	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Mercury	0.090 B	1.0	0.050	ug/l	1	02/01/11	02/01/11	LM	SW846 7470A [1]	SW846 7470A [5]
Nickel [a]	10 U	200	10	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Potassium	2470 B	10000	500	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Selenium [a]	18.4 B	20	4.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Silver	1.0 U	10	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Sodium	6190000	1000000	190000	ug/l	100	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Thallium [a]	9.3 U	50	9.3	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Vanadium	28.1 B	50	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Zinc [a]	10 U	40	10	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]

(1) Instrument QC Batch: MA8683
(2) Instrument QC Batch: MA8691
(3) Instrument QC Batch: MA8693
(4) Instrument QC Batch: MA8696
(5) Prep QC Batch: MP19900
(6) Prep QC Batch: MP19917

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-05-012511		
Lab Sample ID:	F79564-5	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J062711.D	1	01/28/11	MM	n/a	n/a	VJ3476
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	0.27	1.0	0.22	ug/l	J
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	6.6	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	0.75	1.0	0.23	ug/l	J
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-05-012511		
Lab Sample ID:	F79564-5	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	10.5	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-05-012511		
Lab Sample ID:	F79564-5	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	24.0	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		87-116%
17060-07-0	1,2-Dichloroethane-D4	104%		76-127%
2037-26-5	Toluene-D8	97%		86-112%
460-00-4	4-Bromofluorobenzene	97%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-05-012511		
Lab Sample ID:	F79564-5	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	25 U	200	25	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Antimony	3.1 B	6.0	2.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Arsenic	8.5 B	10	2.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Barium	21.3 B	200	5.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Beryllium	1.0 U	4.0	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Calcium	753000	2000	200	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Chromium [a]	2.0 U	20	2.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Cobalt	2.4 B	50	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Copper [a]	6.6 B	50	4.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Iron	35 U	300	35	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Magnesium	1230000	500000	10000	ug/l	100	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Manganese	455	15	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/01/11	02/01/11	LM	SW846 7470A [1]	SW846 7470A [5]
Nickel [a]	10 U	200	10	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Potassium	5610 B	10000	500	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Selenium [a]	4.6 B	20	4.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Silver	1.0 U	10	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Sodium	5620000	1000000	190000	ug/l	100	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Thallium [a]	9.3 U	50	9.3	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Vanadium	50.9	50	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Zinc [a]	10 U	40	10	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]

(1) Instrument QC Batch: MA8683
(2) Instrument QC Batch: MA8691
(3) Instrument QC Batch: MA8693
(4) Instrument QC Batch: MA8696
(5) Prep QC Batch: MP19900
(6) Prep QC Batch: MP19913

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-05-012511		
Lab Sample ID:	F79564-5	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	19500	10000	1000	mg/l	100	01/29/11 12:00	SJL	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-05-012511		
Lab Sample ID:	F79564-5F	**Date Sampled:**	01/25/11
Matrix:	AQ - Groundwater Filtered	**Date Received:**	01/26/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	25 U	200	25	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Antimony	2.0 U	6.0	2.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Arsenic	5.9 B	10	2.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Barium	19.4 B	200	5.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Beryllium	1.0 U	4.0	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Calcium	714000	2000	200	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Chromium [a]	2.0 U	20	2.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Cobalt	1.9 B	50	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Copper [a]	6.2 B	50	4.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Iron	35 U	300	35	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Magnesium	1170000	500000	10000	ug/l	100	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Manganese	344	15	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/01/11	02/01/11	LM	SW846 7470A [1]	SW846 7470A [5]
Nickel [a]	10.1 B	200	10	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Potassium	5360 B	10000	500	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Selenium [a]	7.5 B	20	4.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Silver	1.0 U	10	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Sodium	5170000	1000000	190000	ug/l	100	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Thallium [a]	9.3 U	50	9.3	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Vanadium	46.4 B	50	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Zinc [a]	10 U	40	10	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]

(1) Instrument QC Batch: MA8683
(2) Instrument QC Batch: MA8691
(3) Instrument QC Batch: MA8693
(4) Instrument QC Batch: MA8696
(5) Prep QC Batch: MP19900
(6) Prep QC Batch: MP19917

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-DUP01-012511		
Lab Sample ID:	F79564-6	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J062712.D	1	01/28/11	MM	n/a	n/a	VJ3476
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	0.32	1.0	0.22	ug/l	J
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	7.0	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	0.84	1.0	0.23	ug/l	J
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-DUP01-012511		
Lab Sample ID:	F79564-6	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	11.4	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-DUP01-012511		
Lab Sample ID:	F79564-6	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	25.2	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		87-116%
17060-07-0	1,2-Dichloroethane-D4	104%		76-127%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	95%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-DUP01-012511		
Lab Sample ID:	F79564-6	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	25 U	200	25	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Antimony	2.0 U	6.0	2.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Arsenic	6.3 B	10	2.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Barium	20.6 B	200	5.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Beryllium	1.0 U	4.0	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Calcium	724000	2000	200	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Chromium [a]	2.0 U	20	2.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Cobalt	2.5 B	50	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Copper [a]	6.5 B	50	4.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Iron	35 U	300	35	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Magnesium	1210000	500000	10000	ug/l	100	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Manganese	451	15	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/01/11	02/01/11	LM	SW846 7470A [1]	SW846 7470A [5]
Nickel [a]	10 U	200	10	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Potassium	5230 B	10000	500	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Selenium [a]	5.4 B	20	4.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Silver	1.0 U	10	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Sodium	5510000	1000000	190000	ug/l	100	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Thallium [a]	9.3 U	50	9.3	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Vanadium	50.5	50	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Zinc [a]	10 U	40	10	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]

(1) Instrument QC Batch: MA8683
(2) Instrument QC Batch: MA8691
(3) Instrument QC Batch: MA8693
(4) Instrument QC Batch: MA8696
(5) Prep QC Batch: MP19900
(6) Prep QC Batch: MP19913

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-DUP01-012511		
Lab Sample ID:	F79564-6	**Date Sampled:**	01/25/11
Matrix:	AQ - Ground Water	**Date Received:**	01/26/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	20400	10000	1000	mg/l	100	01/29/11 12:00	SJL	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-DUP01-012511		
Lab Sample ID:	F79564-6F	**Date Sampled:**	01/25/11
Matrix:	AQ - Groundwater Filtered	**Date Received:**	01/26/11
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	25 U	200	25	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Antimony	2.0 U	6.0	2.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Arsenic	6.9 B	10	2.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Barium	21.1 B	200	5.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Beryllium	1.0 U	4.0	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Cadmium	1.0 U	5.0	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Calcium	716000	2000	200	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Chromium [a]	2.0 U	20	2.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Cobalt	2.1 B	50	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Copper [a]	6.7 B	50	4.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Iron	35 U	300	35	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Lead [a]	5.0 U	25	5.0	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Magnesium	1140000	500000	10000	ug/l	100	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Manganese	357	15	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Mercury	0.050 U	1.0	0.050	ug/l	1	02/01/11	02/01/11	LM	SW846 7470A [1]	SW846 7470A [5]
Nickel [a]	10 U	200	10	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Potassium	5260 B	10000	500	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Selenium [a]	10.3 B	20	4.0	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Silver	1.0 U	10	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Sodium	5070000	1000000	190000	ug/l	100	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]
Thallium [a]	9.3 U	50	9.3	ug/l	5	02/03/11	02/07/11	RS	SW846 6010C [4]	SW846 3010A [6]
Vanadium	47.7 B	50	1.0	ug/l	1	02/03/11	02/03/11	DM	SW846 6010C [2]	SW846 3010A [6]
Zinc [a]	10 U	40	10	ug/l	2	02/03/11	02/04/11	RS	SW846 6010C [3]	SW846 3010A [6]

(1) Instrument QC Batch: MA8683
(2) Instrument QC Batch: MA8691
(3) Instrument QC Batch: MA8693
(4) Instrument QC Batch: MA8696
(5) Prep QC Batch: MP19900
(6) Prep QC Batch: MP19917

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	TB01-012511		
Lab Sample ID:	F79564-7	**Date Sampled:**	01/25/11
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/26/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J062713.D	1	01/28/11	MM	n/a	n/a	VJ3476
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB01-012511		
Lab Sample ID:	F79564-7	**Date Sampled:**	01/25/11
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/26/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	1.4	2.0	0.50	ug/l	J
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB01-012511		
Lab Sample ID:	F79564-7	**Date Sampled:**	01/25/11
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/26/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		87-116%
17060-07-0	1,2-Dichloroethane-D4	104%		76-127%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	95%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody

Parameter Certification Exceptions

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

The following parameters included in this report are exceptions to NELAC certification.
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Freon 113	76-13-1	**SW846 8260B**	AQ	Certified by SOP MS005

Tetra Tech, Inc.
800 Oak Ridge Turnpike, Ste A-500
Oak Ridge, TN 37830
865/283-9900

HAFB-DP-30/SD-33-GW

CHAIN-OF-CUSTODY

F79564

Laboratory Name: **Accutest Laboratories** Address: **4405 Vineland Rd. Suite C-15 Orlando, FL 32811** Contact: **Sue Bell (813/741-3338)**

Project Name Holloman AFB Project Location **Holloman AFB, New Mexico**

Project No.: DP-30/SD-33 (Groundwater)
Project Contact: **Maureen McMyler**
Site Telephone No.: 865-621-8754

Report to: Maureen McMyler 800 Oak Ridge Turnpike 865/535-2030

Bill to: Sheila Hall, 800 Oak Ridge Turnpike 865/283-9900

Project Manager/Supervisor: **Mike Higgins**

Analysis and Method Desired

Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	VOCs by SW8260B	TAL Metals by SW6010B/ SW7471A, Total	TAL Metals by SW6010B/ SW7471A, Dissolved	TDS by 2540C			Notes
1	MW30&33-01-012411	1/24/2011	1504		X	GW	MW-30_33-01	6	3	1	1	1			
2	MW30&33-01-012411-MS	1/24/2011	1504		X	GW	MW-30_33-01	6	3	1	1	1			Matrix Spike
3	MW30&33-01-012411-MSD	1/24/2011	1504		X	GW	MW-30_33-01	6	3	1	1	1			Matrix Spike Duplicate
4	MW30&33-02-012411	1/24/2011	1510		X	GW	MW-30_33-02	6	3	1	1	1			
5	MW30&33-03-012411	1/24/2011	1620		X	GW	MW-30_33-03	6	3	1	1	1			
6	MW30&33-04-012411	1/24/2011	1730		X	GW	MW-30_33-04	6	3	1	1	1			
7	MW30&33-05-012511	1/25/2011	916		X	GW	MW-30_33-05R	6	3	1	1	1			
8	MW30&33-DUP01-012511	1/25/2011			X	GW	MW-30_33-DUP01	6	3	1	1	1			
9	TB01-012511	1/25/2011	1100		X	BW	Trip Blank	2	2						
10															
11															

Transfers Relinquished By (Signature)	Date/Time	Transfers Accepted By (Signature)	Date/Time
[illegible]	1/25/11 1100	FX	09:00
FX		J-Comme (ALSE)	1-26-11
		Laboratory	

Special Instructions:
Dissolved Metals: Lab to filter and preserve

FedEx Airbill No.: 873100840304

Sampler's Signature

TAT: ____ Standard ____ Rush Due: _____ Seals Intact? ____ Y ____ N Received Good Condition ____ Y ____ N ____ Cold

3-8

F79564: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F79564 CLIENT: TETRA TECH PROJECT: HOLLOMAN AFB

DATE/TIME RECEIVED: 1-26-11 09:00 {MM/DD/YY 24:00} NIMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 8731 0084 0304

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET
- [ ] WET ICE PRESENT

TRIP BLANK INFORMATION

- [x] TRIP BLANK PROVIDED
- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [x] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [x] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR -0.2
- [ ] OBSERVED TEMPS: 4.0
- [ ] CORRECTED TEMPS: 3.8

SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE JC 1-26-11 REVIEWER SIGNATURE/DATE [signature] 01/26/11

NF 12/10 receipt confirmation 122910.xls

F79564: Chain of Custody
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Southeast ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3476-MB	J062688.D	1	01/28/11	MM	n/a	n/a	VJ3476

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79564-1, F79564-2, F79564-3, F79564-4, F79564-5, F79564-6, F79564-7

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	

Method Blank Summary

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3476-MB	J062688.D	1	01/28/11	MM	n/a	n/a	VJ3476

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79564-1, F79564-2, F79564-3, F79564-4, F79564-5, F79564-6, F79564-7

CAS No.	Compound	Result	RL	MDL	Units	Q
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.59	1.0	0.50	ug/l	J
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

Method Blank Summary

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3476-MB	J062688.D	1	01/28/11	MM	n/a	n/a	VJ3476

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79564-1, F79564-2, F79564-3, F79564-4, F79564-5, F79564-6, F79564-7

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	103%	87-116%
17060-07-0	1,2-Dichloroethane-D4	103%	76-127%
2037-26-5	Toluene-D8	97%	86-112%
460-00-4	4-Bromofluorobenzene	101%	84-120%

Method Blank Summary

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM1956-MB	M0048483.D	1	01/31/11	LD	n/a	n/a	VM1956

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79564-1, F79564-2

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	105%	87-116%
17060-07-0	1,2-Dichloroethane-D4	100%	76-127%
2037-26-5	Toluene-D8	96%	86-112%
460-00-4	4-Bromofluorobenzene	98%	84-120%

Blank Spike Summary

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3476-BS	J062687.D	1	01/28/11	MM	n/a	n/a	VJ3476

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79564-1, F79564-2, F79564-3, F79564-4, F79564-5, F79564-6, F79564-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	119	95	59-134
75-05-8	Acetonitrile	250	246	98	57-123
107-02-8	Acrolein	125	136	109	33-157
107-13-1	Acrylonitrile	125	142	114	62-124
107-05-1	Allyl chloride	25	27.5	110	48-136
71-43-2	Benzene	25	27.7	111	83-124
100-44-7	Benzyl Chloride	25	22.9	92	61-118
108-86-1	Bromobenzene	25	26.8	107	83-115
74-97-5	Bromochloromethane	25	26.0	104	78-112
75-27-4	Bromodichloromethane	25	27.4	110	76-116
75-25-2	Bromoform	25	22.8	91	68-128
104-51-8	n-Butylbenzene	25	29.0	116	84-124
135-98-8	sec-Butylbenzene	25	30.1	120	86-127
98-06-6	tert-Butylbenzene	25	28.8	115	83-126
108-90-7	Chlorobenzene	25	27.3	109	87-115
75-00-3	Chloroethane	25	30.1	120	54-166
67-66-3	Chloroform	25	28.3	113	85-123
544-10-5	1-Chlorohexane	25	27.2	109	87-128
95-49-8	o-Chlorotoluene	25	29.1	116	84-121
106-43-4	p-Chlorotoluene	25	27.5	110	84-120
110-75-8	2-Chloroethyl vinyl ether	125	146	117	63-125
75-15-0	Carbon disulfide	25	30.6	122	67-147
56-23-5	Carbon tetrachloride	25	29.3	117	74-139
75-34-3	1,1-Dichloroethane	25	29.1	116	82-127
75-35-4	1,1-Dichloroethylene	25	29.3	117	75-133
563-58-6	1,1-Dichloropropene	25	30.6	122	87-127
96-12-8	1,2-Dibromo-3-chloropropane	25	23.7	95	61-118
106-93-4	1,2-Dibromoethane	25	25.8	103	80-115
107-06-2	1,2-Dichloroethane	25	27.0	108	76-122
78-87-5	1,2-Dichloropropane	25	29.1	116	81-120
142-28-9	1,3-Dichloropropane	25	26.2	105	81-113
594-20-7	2,2-Dichloropropane	25	29.0	116	77-138
124-48-1	Dibromochloromethane	25	25.6	102	74-116
75-71-8	Dichlorodifluoromethane	25	35.1	140	34-158
156-59-2	cis-1,2-Dichloroethylene	25	27.6	110	81-114
10061-01-5	cis-1,3-Dichloropropene	25	28.8	115	83-119

Blank Spike Summary

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3476-BS	J062687.D	1	01/28/11	MM	n/a	n/a	VJ3476

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79564-1, F79564-2, F79564-3, F79564-4, F79564-5, F79564-6, F79564-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
1476-11-5	cis-1,4-Dichloro-2-Butene	25	24.2	97	41-130
541-73-1	m-Dichlorobenzene	25	27.6	110	86-115
95-50-1	o-Dichlorobenzene	25	28.5	114	85-115
106-46-7	p-Dichlorobenzene	25	27.3	109	87-113
156-60-5	trans-1,2-Dichloroethylene	25	28.8	115	82-126
10061-02-6	trans-1,3-Dichloropropene	25	29.2	117	87-123
100-41-4	Ethylbenzene	25	27.5	110	87-118
97-63-2	Ethyl methacrylate	25	25.3	101	68-110
76-13-1	Freon 113	25	34.2	137	74-139
591-78-6	2-Hexanone	125	134	107	58-125
87-68-3	Hexachlorobutadiene	25	29.8	119	71-133
110-54-3	Hexane	25	33.7	135*	71-134
98-82-8	Isopropylbenzene	25	31.8	127	87-131
99-87-6	p-Isopropyltoluene	25	29.7	119	83-125
108-10-1	4-Methyl-2-pentanone	125	133	106	62-125
126-98-7	Methacrylonitrile	250	267	107	62-133
74-83-9	Methyl bromide	25	31.4	126	55-151
74-87-3	Methyl chloride	25	32.4	130	55-173
74-88-4	Methyl iodide	25	31.1	124	72-125
80-62-6	Methyl methacrylate	25	27.0	108	63-115
74-95-3	Methylene bromide	25	26.5	106	81-116
75-09-2	Methylene chloride	25	27.4	110	69-125
78-93-3	Methyl ethyl ketone	125	120	96	61-127
1634-04-4	Methyl Tert Butyl Ether	25	25.1	100	75-116
91-20-3	Naphthalene	25	28.2	113	59-125
76-01-7	Pentachloroethane	25	25.9	104	82-111
107-12-0	Propionitrile	250	265	106	69-119
103-65-1	n-Propylbenzene	25	30.2	121	86-125
100-42-5	Styrene	25	29.2	117	78-118
630-20-6	1,1,1,2-Tetrachloroethane	25	25.7	103	81-119
71-55-6	1,1,1-Trichloroethane	25	28.4	114	79-133
79-34-5	1,1,2,2-Tetrachloroethane	25	26.3	105	71-120
79-00-5	1,1,2-Trichloroethane	25	26.6	106	80-114
87-61-6	1,2,3-Trichlorobenzene	25	28.2	113	64-126
96-18-4	1,2,3-Trichloropropane	25	23.8	95	77-115
120-82-1	1,2,4-Trichlorobenzene	25	29.8	119	68-123

Blank Spike Summary

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ3476-BS	J062687.D	1	01/28/11	MM	n/a	n/a	VJ3476

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79564-1, F79564-2, F79564-3, F79564-4, F79564-5, F79564-6, F79564-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-63-6	1,2,4-Trimethylbenzene	25	28.0	112	82-120
108-67-8	1,3,5-Trimethylbenzene	25	30.8	123	83-123
127-18-4	Tetrachloroethylene	25	29.3	117	80-131
108-88-3	Toluene	25	26.3	105	86-116
79-01-6	Trichloroethylene	25	30.2	121	85-124
75-69-4	Trichlorofluoromethane	25	33.3	133	66-156
110-57-6	Trans-1,4-Dichloro-2-Butene	25	22.3	89	51-137
75-01-4	Vinyl chloride	25	30.3	121	57-153
108-05-4	Vinyl Acetate	125	169	135	38-159
	m,p-Xylene	50	55.9	112	86-121
95-47-6	o-Xylene	25	26.6	106	83-121

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	98%	87-116%
17060-07-0	1,2-Dichloroethane-D4	103%	76-127%
2037-26-5	Toluene-D8	97%	86-112%
460-00-4	4-Bromofluorobenzene	98%	84-120%

Blank Spike Summary

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM1956-BS	M0048482.D	1	01/31/11	LD	n/a	n/a	VM1956

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79564-1, F79564-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
91-20-3	Naphthalene	25	26.7	107	59-125
87-61-6	1,2,3-Trichlorobenzene	25	29.1	116	64-126

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	104%	87-116%
17060-07-0	1,2-Dichloroethane-D4	99%	76-127%
2037-26-5	Toluene-D8	96%	86-112%
460-00-4	4-Bromofluorobenzene	98%	84-120%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79564-1MS	J062706.D	1	01/28/11	MM	n/a	n/a	VJ3476
F79564-1MSD	J062707.D	1	01/28/11	MM	n/a	n/a	VJ3476
F79564-1	J062705.D	1	01/28/11	MM	n/a	n/a	VJ3476

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79564-1, F79564-2, F79564-3, F79564-4, F79564-5, F79564-6, F79564-7

CAS No.	Compound	F79564-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		125	76.0	61	70.7	57*	7	59-134/14
75-05-8	Acetonitrile	ND		250	279	112	245	98	13	57-123/15
107-02-8	Acrolein	ND		125	127	102	102	82	22*	33-157/21
107-13-1	Acrylonitrile	ND		125	147	118	131	105	12	62-124/13
107-05-1	Allyl chloride	ND		25	24.2	97	17.9	72	30*	48-136/13
71-43-2	Benzene	ND		25	28.3	113	25.7	103	10	83-124/11
100-44-7	Benzyl Chloride	ND		25	26.8	107	22.7	91	17*	61-118/12
108-86-1	Bromobenzene	ND		25	27.0	108	25.2	101	7	83-115/10
74-97-5	Bromochloromethane	ND		25	26.3	105	24.6	98	7	78-112/10
75-27-4	Bromodichloromethane	ND		25	27.4	110	23.7	95	14*	76-116/10
75-25-2	Bromoform	ND		25	23.1	92	20.0	80	14*	68-128/11
104-51-8	n-Butylbenzene	ND		25	28.7	115	25.9	104	10	84-124/10
135-98-8	sec-Butylbenzene	ND		25	29.2	117	26.1	104	11*	86-127/10
98-06-6	tert-Butylbenzene	ND		25	28.3	113	26.0	104	8	83-126/10
108-90-7	Chlorobenzene	ND		25	27.4	110	25.2	101	8	87-115/9
75-00-3	Chloroethane	ND		25	34.1	136	27.6	110	21*	54-166/20
67-66-3	Chloroform	ND		25	28.5	114	25.9	104	10	85-123/10
544-10-5	1-Chlorohexane	ND		25	26.9	108	24.4	98	10	87-128/10
95-49-8	o-Chlorotoluene	ND		25	28.7	115	26.0	104	10	84-121/10
106-43-4	p-Chlorotoluene	ND		25	27.6	110	25.3	101	9	84-120/10
110-75-8	2-Chloroethyl vinyl ether	ND		125	ND	0*	ND	0*	nc	63-125/24
75-15-0	Carbon disulfide	ND		25	27.5	110	21.3	85	25*	67-147/12
56-23-5	Carbon tetrachloride	ND		25	28.8	115	24.4	98	17*	74-139/13
75-34-3	1,1-Dichloroethane	ND		25	29.3	117	27.1	108	8	82-127/10
75-35-4	1,1-Dichloroethylene	ND		25	31.9	128	28.0	112	13	75-133/13
563-58-6	1,1-Dichloropropene	ND		25	30.9	124	27.7	111	11*	87-127/10
96-12-8	1,2-Dibromo-3-chloropropane	ND		25	28.5	114	26.9	108	6	61-118/15
106-93-4	1,2-Dibromoethane	ND		25	27.0	108	25.6	102	5	80-115/10
107-06-2	1,2-Dichloroethane	ND		25	28.7	115	26.5	106	8	76-122/11
78-87-5	1,2-Dichloropropane	ND		25	29.7	119	27.9	112	6	81-120/11
142-28-9	1,3-Dichloropropane	ND		25	27.8	111	26.3	105	6	81-113/11
594-20-7	2,2-Dichloropropane	ND		25	28.6	114	26.1	104	9	77-138/12
124-48-1	Dibromochloromethane	ND		25	25.5	102	21.8	87	16*	74-116/11
75-71-8	Dichlorodifluoromethane	ND		25	31.7	127	29.9	120	6	34-158/22
156-59-2	cis-1,2-Dichloroethylene	ND		25	26.7	107	24.8	99	7	81-114/10
10061-01-5	cis-1,3-Dichloropropene	ND		25	25.4	102	22.8	91	11*	83-119/10

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79564-1MS	J062706.D	1	01/28/11	MM	n/a	n/a	VJ3476
F79564-1MSD	J062707.D	1	01/28/11	MM	n/a	n/a	VJ3476
F79564-1	J062705.D	1	01/28/11	MM	n/a	n/a	VJ3476

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79564-1, F79564-2, F79564-3, F79564-4, F79564-5, F79564-6, F79564-7

CAS No.	Compound	F79564-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1476-11-5	cis-1,4-Dichloro-2-Butene	ND		25	7.3	29*	7.4	30*	1	41-130/33
541-73-1	m-Dichlorobenzene	ND		25	27.5	110	24.9	100	10*	86-115/9
95-50-1	o-Dichlorobenzene	ND		25	29.3	117*	27.2	109	7	85-115/9
106-46-7	p-Dichlorobenzene	ND		25	27.5	110	25.2	101	9	87-113/10
156-60-5	trans-1,2-Dichloroethylene	ND		25	29.0	116	25.8	103	12*	82-126/10
10061-02-6	trans-1,3-Dichloropropene	ND		25	25.8	103	23.2	93	11*	87-123/10
100-41-4	Ethylbenzene	ND		25	27.6	110	25.6	102	8	87-118/10
97-63-2	Ethyl methacrylate	ND		25	28.8	115*	27.0	108	6	68-110/11
76-13-1	Freon 113	ND		25	36.2	145*	30.1	120	18*	74-139/13
591-78-6	2-Hexanone	ND		125	150	120	142	114	5	58-125/14
87-68-3	Hexachlorobutadiene	ND		25	27.2	109	26.5	106	3	71-133/12
110-54-3	Hexane	ND		25	34.3	137*	30.0	120	13*	71-134/11
98-82-8	Isopropylbenzene	ND		25	32.2	129	29.1	116	10	87-131/10
99-87-6	p-Isopropyltoluene	ND		25	28.7	115	26.4	106	8	83-125/9
108-10-1	4-Methyl-2-pentanone	ND		125	178	142*	166	133*	7	62-125/13
126-98-7	Methacrylonitrile	ND		250	308	123	281	112	9	62-133/17
74-83-9	Methyl bromide	ND		25	34.4	138	28.0	112	21	55-151/21
74-87-3	Methyl chloride	ND		25	33.1	132	26.3	105	23*	55-173/22
74-88-4	Methyl iodide	ND		25	32.9	132*	28.4	114	15*	72-125/11
80-62-6	Methyl methacrylate	ND		25	31.7	127*	30.3	121*	5	63-115/10
74-95-3	Methylene bromide	ND		25	27.6	110	26.2	105	5	81-116/10
75-09-2	Methylene chloride	ND		25	28.5	114	25.2	101	12*	69-125/11
78-93-3	Methyl ethyl ketone	ND		125	114	91	108	86	5	61-127/13
1634-04-4	Methyl Tert Butyl Ether	ND		25	27.5	110	25.2	101	9	75-116/10
91-20-3	Naphthalene	1.1	J	25	30.6	118	30.5	118	0	59-125/15
76-01-7	Pentachloroethane	ND		25	24.6	98	21.5	86	13*	82-111/8
107-12-0	Propionitrile	ND		250	286	114	272	109	5	69-119/12
103-65-1	n-Propylbenzene	ND		25	29.6	118	27.0	108	9	86-125/10
100-42-5	Styrene	ND		25	28.6	114	25.0	100	13*	78-118/11
630-20-6	1,1,1,2-Tetrachloroethane	ND		25	26.3	105	23.1	92	13*	81-119/10
71-55-6	1,1,1-Trichloroethane	ND		25	29.0	116	26.0	104	11	79-133/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		25	28.7	115	27.5	110	4	71-120/11
79-00-5	1,1,2-Trichloroethane	ND		25	27.7	111	26.3	105	5	80-114/11
87-61-6	1,2,3-Trichlorobenzene	0.71	J	25	27.3	106	27.6	108	1	64-126/16
96-18-4	1,2,3-Trichloropropane	ND		25	26.4	106	24.8	99	6	77-115/12
120-82-1	1,2,4-Trichlorobenzene	ND		25	28.4	114	27.9	112	2	68-123/11

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79564-1MS	J062706.D	1	01/28/11	MM	n/a	n/a	VJ3476
F79564-1MSD	J062707.D	1	01/28/11	MM	n/a	n/a	VJ3476
F79564-1	J062705.D	1	01/28/11	MM	n/a	n/a	VJ3476

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79564-1, F79564-2, F79564-3, F79564-4, F79564-5, F79564-6, F79564-7

CAS No.	Compound	F79564-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-63-6	1,2,4-Trimethylbenzene	ND		25	27.3	109	24.5	98	11*	82-120/10
108-67-8	1,3,5-Trimethylbenzene	ND		25	30.7	123	28.1	112	9	83-123/10
127-18-4	Tetrachloroethylene	ND		25	28.6	114	26.6	106	7	80-131/12
108-88-3	Toluene	ND		25	25.9	104	24.4	98	6	86-116/10
79-01-6	Trichloroethylene	ND		25	31.0	124	29.7	119	4	85-124/10
75-69-4	Trichlorofluoromethane	ND		25	34.1	136	30.1	120	12	66-156/15
110-57-6	Trans-1,4-Dichloro-2-Butene	ND		25	7.5	30*	8.2	33*	9	51-137/24
75-01-4	Vinyl chloride	ND		25	32.1	128	27.6	110	15	57-153/22
108-05-4	Vinyl Acetate	ND		125	196	157	180	144	9	38-159/11
	m,p-Xylene	ND		50	57.2	114	51.7	103	10	86-121/10
95-47-6	o-Xylene	ND		25	26.9	108	24.6	98	9	83-121/10

CAS No.	Surrogate Recoveries	MS	MSD	F79564-1	Limits
1868-53-7	Dibromofluoromethane	97%	98%	104%	87-116%
17060-07-0	1,2-Dichloroethane-D4	108%	107%	108%	76-127%
2037-26-5	Toluene-D8	95%	95%	97%	86-112%
460-00-4	4-Bromofluorobenzene	96%	97%	99%	84-120%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F79539-11MS	M0048503.D	50	01/31/11	LD	n/a	n/a	VM1956
F79539-11MSD	M0048504.D	50	01/31/11	LD	n/a	n/a	VM1956
F79539-11	M0048502.D	50	01/31/11	LD	n/a	n/a	VM1956

The QC reported here applies to the following samples: **Method:** SW846 8260B

F79564-1, F79564-2

CAS No.	Compound	F79539-11 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
91-20-3	Naphthalene	250	U	1250	1540	123	1480	118	4	59-125/15
87-61-6	1,2,3-Trichlorobenzene	50	U	1250	1640	131*	1580	126	4	64-126/16

CAS No.	Surrogate Recoveries	MS	MSD	F79539-11	Limits
1868-53-7	Dibromofluoromethane	107%	104%	105%	87-116%
17060-07-0	1,2-Dichloroethane-D4	103%	102%	100%	76-127%
2037-26-5	Toluene-D8	96%	96%	95%	86-112%
460-00-4	4-Bromofluorobenzene	98%	101%	99%	84-120%

Instrument Performance Check (BFB)

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-BFB
Lab File ID: J062642.D
Instrument ID: GCMSJ
Injection Date: 01/27/11
Injection Time: 08:59

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	31360	27.0		Pass
75	30.0 - 60.0% of mass 95	52645	45.3		Pass
95	Base peak, 100% relative abundance	116250	100.0		Pass
96	5.0 - 9.0% of mass 95	8597	7.40		Pass
173	Less than 2.0% of mass 174	268	0.23	(0.27) [a]	Pass
174	50.0 - 100.0% of mass 95	100946	86.8		Pass
175	5.0 - 9.0% of mass 174	7136	6.14	(7.07) [a]	Pass
176	95.0 - 101.0% of mass 174	97904	84.2	(97.0) [a]	Pass
177	5.0 - 9.0% of mass 176	6666	5.73	(6.81) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VJ3475-IC3475	J062646.D	01/27/11	11:38	02:39	Initial cal 1
VJ3475-IC3475	J062647.D	01/27/11	12:02	03:03	Initial cal 2
VJ3475-IC3475	J062648.D	01/27/11	12:25	03:26	Initial cal 3
VJ3475-ICC3475	J062649.D	01/27/11	13:01	04:02	Initial cal 4
VJ3475-IC3475	J062650.D	01/27/11	13:28	04:29	Initial cal 5
VJ3475-IC3475	J062651.D	01/27/11	13:59	05:00	Initial cal 6
VJ3475-ICV3475	J062652.D	01/27/11	14:31	05:32	Initial cal verification 4

Instrument Performance Check (BFB)

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3476-BFB
Lab File ID: J062685.D
Instrument ID: GCMSJ
Injection Date: 01/28/11
Injection Time: 09:33

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	33690	27.9		Pass
75	30.0 - 60.0% of mass 95	57482	47.6		Pass
95	Base peak, 100% relative abundance	120792	100.0		Pass
96	5.0 - 9.0% of mass 95	8712	7.21		Pass
173	Less than 2.0% of mass 174	563	0.47	(0.51) [a]	Pass
174	50.0 - 100.0% of mass 95	109890	91.0		Pass
175	5.0 - 9.0% of mass 174	8395	6.95	(7.64) [a]	Pass
176	95.0 - 101.0% of mass 174	108069	89.5	(98.3) [a]	Pass
177	5.0 - 9.0% of mass 176	6802	5.63	(6.29) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VJ3476-CC3475	J062686.D	01/28/11	09:54	00:21	Continuing cal 4
VJ3476-BS	J062687.D	01/28/11	10:32	00:59	Blank Spike
VJ3476-MB	J062688.D	01/28/11	10:55	01:22	Method Blank
ZZZZZZ	J062689.D	01/28/11	11:18	01:45	(unrelated sample)
ZZZZZZ	J062690.D	01/28/11	11:41	02:08	(unrelated sample)
ZZZZZZ	J062691.D	01/28/11	12:04	02:31	(unrelated sample)
ZZZZZZ	J062692.D	01/28/11	12:26	02:53	(unrelated sample)
ZZZZZZ	J062693.D	01/28/11	12:49	03:16	(unrelated sample)
ZZZZZZ	J062694.D	01/28/11	13:12	03:39	(unrelated sample)
ZZZZZZ	J062695.D	01/28/11	13:35	04:02	(unrelated sample)
ZZZZZZ	J062696.D	01/28/11	13:58	04:25	(unrelated sample)
ZZZZZZ	J062697.D	01/28/11	14:24	04:51	(unrelated sample)
ZZZZZZ	J062698.D	01/28/11	14:46	05:13	(unrelated sample)
ZZZZZZ	J062699.D	01/28/11	15:09	05:36	(unrelated sample)
ZZZZZZ	J062700.D	01/28/11	15:32	05:59	(unrelated sample)
F79533-6	J062701.D	01/28/11	15:55	06:22	(used for QC only; not part of job F79564)
F79533-6MS	J062703.D	01/28/11	16:40	07:07	Matrix Spike
F79533-6MSD	J062704.D	01/28/11	17:03	07:30	Matrix Spike Duplicate
F79564-1	J062705.D	01/28/11	17:26	07:53	MW30&33-01-012411
F79564-1MS	J062706.D	01/28/11	17:49	08:16	Matrix Spike
F79564-1MSD	J062707.D	01/28/11	18:11	08:38	Matrix Spike Duplicate
F79564-2	J062708.D	01/28/11	18:35	09:02	MW30&33-02-012411
F79564-3	J062709.D	01/28/11	18:58	09:25	MW30&33-03-012411
F79564-4	J062710.D	01/28/11	19:21	09:48	MW30&33-04-012411

Instrument Performance Check (BFB)

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3476-BFB
Lab File ID: J062685.D
Instrument ID: GCMSJ
Injection Date: 01/28/11
Injection Time: 09:33

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
F79564-5	J062711.D	01/28/11	19:44	10:11	MW30&33-05-012511
F79564-6	J062712.D	01/28/11	20:07	10:34	MW30&33-DUP01-012511
F79564-7	J062713.D	01/28/11	20:30	10:57	TB01-012511

Instrument Performance Check (BFB)

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VM1952-BFB
Lab File ID: M0048371.D
Instrument ID: GCMSM
Injection Date: 01/25/11
Injection Time: 09:54

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	9969	20.7		Pass
75	30.0 - 60.0% of mass 95	22128	46.0		Pass
95	Base peak, 100% relative abundance	48109	100.0		Pass
96	5.0 - 9.0% of mass 95	3364	6.99		Pass
173	Less than 2.0% of mass 174	183	0.38	(0.51) [a]	Pass
174	50.0 - 100.0% of mass 95	35864	74.5		Pass
175	5.0 - 9.0% of mass 174	2554	5.31	(7.12) [a]	Pass
176	95.0 - 101.0% of mass 174	34744	72.2	(96.9) [a]	Pass
177	5.0 - 9.0% of mass 176	2191	4.55	(6.31) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VM1952-IC1952	M0048372.D	01/25/11	10:17	00:23	Initial cal 1
VM1952-IC1952	M0048373.D	01/25/11	10:46	00:52	Initial cal 2
VM1952-IC1952	M0048374.D	01/25/11	11:15	01:21	Initial cal 3
VM1952-ICC1952	M0048375.D	01/25/11	11:44	01:50	Initial cal 4
VM1952-IC1952	M0048376.D	01/25/11	12:13	02:19	Initial cal 5
VM1952-IC1952	M0048377.D	01/25/11	12:43	02:49	Initial cal 6
VM1952-ICV1952	M0048378.D	01/25/11	13:11	03:17	Initial cal verification 4
VM1952-BS	M0048379.D	01/25/11	13:41	03:47	Blank Spike
VM1952-MB	M0048380.D	01/25/11	14:10	04:16	Method Blank
ZZZZZZ	M0048382.D	01/25/11	15:08	05:14	(unrelated sample)
ZZZZZZ	M0048383.D	01/25/11	15:36	05:42	(unrelated sample)
ZZZZZZ	M0048384.D	01/25/11	16:05	06:11	(unrelated sample)
ZZZZZZ	M0048385.D	01/25/11	16:35	06:41	(unrelated sample)
ZZZZZZ	M0048386.D	01/25/11	17:04	07:10	(unrelated sample)
ZZZZZZ	M0048387.D	01/25/11	17:33	07:39	(unrelated sample)
ZZZZZZ	M0048388.D	01/25/11	18:02	08:08	(unrelated sample)
ZZZZZZ	M0048389.D	01/25/11	18:31	08:37	(unrelated sample)
ZZZZZZ	M0048390.D	01/25/11	19:00	09:06	(unrelated sample)
F79525-3	M0048391.D	01/25/11	19:29	09:35	(used for QC only; not part of job F79564)
ZZZZZZ	M0048392.D	01/25/11	19:57	10:03	(unrelated sample)
ZZZZZZ	M0048393.D	01/25/11	20:26	10:32	(unrelated sample)
F79525-3MS	M0048395.D	01/25/11	21:24	11:30	Matrix Spike
F79525-3MSD	M0048396.D	01/25/11	21:53	11:59	Matrix Spike Duplicate

Instrument Performance Check (BFB)

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VM1956-BFB
Lab File ID: M0048479.D
Instrument ID: GCMSM
Injection Date: 01/31/11
Injection Time: 09:22

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	12391	18.4		Pass
75	30.0 - 60.0% of mass 95	30587	45.5		Pass
95	Base peak, 100% relative abundance	67285	100.0		Pass
96	5.0 - 9.0% of mass 95	4401	6.54		Pass
173	Less than 2.0% of mass 174	317	0.47	(0.59) [a]	Pass
174	50.0 - 100.0% of mass 95	53421	79.4		Pass
175	5.0 - 9.0% of mass 174	4012	5.96	(7.51) [a]	Pass
176	95.0 - 101.0% of mass 174	51733	76.9	(96.8) [a]	Pass
177	5.0 - 9.0% of mass 176	3407	5.06	(6.59) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VM1956-CC1952	M0048481.D	01/31/11	10:23	01:01	Continuing cal 4
VM1956-BS	M0048482.D	01/31/11	10:53	01:31	Blank Spike
VM1956-MB	M0048483.D	01/31/11	11:17	01:55	Method Blank
F79564-1	M0048484.D	01/31/11	11:46	02:24	MW30&33-01-012411
F79564-2	M0048485.D	01/31/11	12:10	02:48	MW30&33-02-012411
ZZZZZZ	M0048487.D	01/31/11	12:59	03:37	(unrelated sample)
ZZZZZZ	M0048488.D	01/31/11	13:22	04:00	(unrelated sample)
ZZZZZZ	M0048489.D	01/31/11	13:46	04:24	(unrelated sample)
ZZZZZZ	M0048490.D	01/31/11	14:10	04:48	(unrelated sample)
ZZZZZZ	M0048491.D	01/31/11	14:34	05:12	(unrelated sample)
ZZZZZZ	M0048492.D	01/31/11	14:58	05:36	(unrelated sample)
ZZZZZZ	M0048493.D	01/31/11	15:22	06:00	(unrelated sample)
ZZZZZZ	M0048494.D	01/31/11	15:46	06:24	(unrelated sample)
ZZZZZZ	M0048495.D	01/31/11	16:09	06:47	(unrelated sample)
ZZZZZZ	M0048496.D	01/31/11	16:33	07:11	(unrelated sample)
ZZZZZZ	M0048497.D	01/31/11	16:57	07:35	(unrelated sample)
ZZZZZZ	M0048498.D	01/31/11	17:20	07:58	(unrelated sample)
ZZZZZZ	M0048499.D	01/31/11	17:44	08:22	(unrelated sample)
ZZZZZZ	M0048500.D	01/31/11	18:08	08:46	(unrelated sample)
ZZZZZZ	M0048501.D	01/31/11	18:32	09:10	(unrelated sample)
F79539-11	M0048502.D	01/31/11	18:56	09:34	(used for QC only; not part of job F79564)
F79539-11MS	M0048503.D	01/31/11	19:20	09:58	Matrix Spike
F79539-11MSD	M0048504.D	01/31/11	19:43	10:21	Matrix Spike Duplicate

Volatile Internal Standard Area Summary

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	VJ3476-CC3475	**Injection Date:**	01/28/11
Lab File ID:	J062686.D	**Injection Time:**	09:54
Instrument ID:	GCMSJ	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Initial Cal [a]	1889885	7.43	1301966	10.50	707616	12.87	169868	5.08
Check Std [b]	1517026	7.42	1104684	10.50	593869	12.87	126370	5.08
Upper Limit [c]	3034052	7.92	2209368	11.00	1187738	13.37	252740	5.58
Lower Limit [d]	758513	6.92	552342	10.00	296935	12.37	63185	4.58

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
VJ3476-BS	1633901	7.43	1155237	10.50	607554	12.87	144909	5.08
VJ3476-MB	1545457	7.42	1090229	10.50	537578	12.86	140759	5.07
ZZZZZZ	1437067	7.43	1023417	10.50	497565	12.86	123273	5.07
ZZZZZZ	1464887	7.42	1053368	10.50	527428	12.86	117526	5.07
ZZZZZZ	1359938	7.43	980464	10.50	487270	12.86	123913	5.08
ZZZZZZ	1375449	7.43	987605	10.50	485290	12.86	136955	5.09
ZZZZZZ	1376725	7.42	985330	10.50	496753	12.86	116220	5.08
ZZZZZZ	1312023	7.43	947103	10.50	467181	12.86	111785	5.08
ZZZZZZ	1309446	7.43	950680	10.50	476772	12.86	115509	5.08
ZZZZZZ	1224791	7.43	903573	10.50	439468	12.86	105488	5.07
ZZZZZZ	1174711	7.43	862925	10.50	428860	12.86	103490	5.07
ZZZZZZ	1213168	7.43	874380	10.50	440350	12.86	106085	5.09
ZZZZZZ	1209347	7.43	886306	10.50	446972	12.86	98924	5.09
ZZZZZZ	1210058	7.42	887961	10.50	444939	12.86	101252	5.09
F79533-6	1198953	7.43	883705	10.50	452317	12.86	100996	5.09
F79533-6MS	1351460	7.43	977052	10.50	539502	12.86	115403	5.08
F79533-6MSD	1532036	7.42	1087737	10.50	590166	12.86	138648	5.08
F79564-1	1441346	7.42	1033993	10.50	506631	12.86	186609	5.07
F79564-1MS	1446660	7.43	1051359	10.50	573650	12.86	163476	5.08
F79564-1MSD	1664206	7.42	1198983	10.50	644683	12.86	185769	5.08
F79564-2	1513136	7.43	1073152	10.50	545490	12.86	177831	5.09
F79564-3	1335939	7.42	960697	10.50	475528	12.86	154303	5.08
F79564-4	1294513	7.43	934635	10.50	456875	12.86	141325	5.07
F79564-5	1334802	7.42	946603	10.50	466699	12.86	133251	5.09
F79564-6	1264185	7.43	887946	10.50	441953	12.86	131426	5.08
F79564-7	1275806	7.43	923284	10.50	455593	12.86	96469	5.09

IS 1 = Fluorobenzene
IS 2 = Chlorobenzene-D5
IS 3 = 1,4-Dichlorobenzene-d4
IS 4 = Tert Butyl Alcohol-D10

(a) Initial Cal is: VJ3475-ICC3475 J062649.D 01/27/11 13:01

Volatile Internal Standard Area Summary

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	VJ3476-CC3475	**Injection Date:**	01/28/11
Lab File ID:	J062686.D	**Injection Time:**	09:54
Instrument ID:	GCMSJ	**Method:**	SW846 8260B

Lab	IS 1		IS 2		IS 3		IS 4	
Sample ID	**AREA**	**RT**	**AREA**	**RT**	**AREA**	**RT**	**AREA**	**RT**

(b) Check Std Limit = -50 to + 100% of initial cal area.
(c) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(d) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	VM1956-CC1952	**Injection Date:**	01/31/11
Lab File ID:	M0048481.D	**Injection Time:**	10:23
Instrument ID:	GCMSM	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Initial Cal [a]	1185516	7.10	966773	10.20	500856	12.57	155145	4.75
Check Std [b]	1055345	7.09	912883	10.20	485437	12.57	134381	4.75
Upper Limit [c]	2110690	7.59	1825766	10.70	970874	13.07	268762	5.25
Lower Limit [d]	527673	6.59	456442	9.70	242719	12.07	67191	4.25

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
VM1956-BS	1037253	7.10	899573	10.20	473663	12.56	130911	4.76
VM1956-MB	1002313	7.09	868805	10.20	441633	12.56	155878	4.76
F79564-1	950133	7.09	826443	10.20	423952	12.57	186323	4.77
F79564-2	923833	7.09	793099	10.20	407029	12.56	197131	4.76
ZZZZZZ	897601	7.09	797385	10.20	403107	12.56	132671	4.76
ZZZZZZ	895686	7.10	761253	10.20	373702	12.56	116727	4.77
ZZZZZZ	840219	7.10	717110	10.20	354419	12.56	111387	4.76
ZZZZZZ	837726	7.09	715184	10.20	354729	12.56	118155	4.75
ZZZZZZ	820874	7.09	694122	10.20	334408	12.56	123066	4.75
ZZZZZZ	868372	7.09	749234	10.20	379400	12.56	125044	4.76
ZZZZZZ	859011	7.09	754866	10.20	390804	12.56	116898	4.76
ZZZZZZ	858794	7.10	721185	10.20	359193	12.56	115665	4.76
ZZZZZZ	877737	7.10	737589	10.20	375461	12.56	109955	4.76
ZZZZZZ	877616	7.09	775935	10.20	396516	12.56	112521	4.76
ZZZZZZ	912723	7.09	773551	10.20	383972	12.56	110666	4.75
ZZZZZZ	859848	7.10	732208	10.20	359671	12.56	119029	4.76
ZZZZZZ	806693	7.09	682317	10.20	343500	12.56	105570	4.75
ZZZZZZ	883396	7.09	775607	10.20	401642	12.56	120370	4.75
ZZZZZZ	1003876	7.09	850130	10.20	432011	12.56	121321	4.76
F79539-11	995507	7.10	853758	10.20	433192	12.56	123469	4.76
F79539-11MS	919393	7.09	812184	10.20	430614	12.56	116588	4.76
F79539-11MSD	975110	7.10	851175	10.20	437502	12.56	165863	4.76

IS 1 = Fluorobenzene
IS 2 = Chlorobenzene-D5
IS 3 = 1,4-Dichlorobenzene-d4
IS 4 = Tert Butyl Alcohol-D10

(a) Initial Cal is: VM1952-ICC1952 M0048375.D 01/25/11 11:44
(b) Check Std Limit = -50 to + 100% of initial cal area.
(c) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(d) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Method: SW846 8260B **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
F79564-1	M0048484.D	108.0	102.0	94.0	97.0
F79564-1	J062705.D	104.0	108.0	97.0	99.0
F79564-2	M0048485.D	107.0	103.0	98.0	97.0
F79564-2	J062708.D	103.0	104.0	97.0	97.0
F79564-3	J062709.D	103.0	108.0	96.0	96.0
F79564-4	J062710.D	103.0	106.0	96.0	97.0
F79564-5	J062711.D	101.0	104.0	97.0	97.0
F79564-6	J062712.D	102.0	104.0	96.0	95.0
F79564-7	J062713.D	102.0	104.0	96.0	95.0
F79539-11MS	M0048503.D	107.0	103.0	96.0	98.0
F79539-11MSD	M0048504.D	104.0	102.0	96.0	101.0
F79564-1MS	J062706.D	97.0	108.0	95.0	96.0
F79564-1MSD	J062707.D	98.0	107.0	95.0	97.0
VJ3476-BS	J062687.D	98.0	103.0	97.0	98.0
VJ3476-MB	J062688.D	103.0	103.0	97.0	101.0
VM1956-BS	M0048482.D	104.0	99.0	96.0	98.0
VM1956-MB	M0048483.D	105.0	100.0	96.0	98.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	87-116%
S2 = 1,2-Dichloroethane-D4	76-127%
S3 = Toluene-D8	86-112%
S4 = 4-Bromofluorobenzene	84-120%

Initial Calibration Summary

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICC3475
Lab FileID: J062649.D


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                    Response Factor Report  MSVOA6

Method       : C:\MSDCHEM\1\METHODS\8260-JAPP9.M (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Fri Jan 28 10:52:13 2011
Response via : Initial Calibration

Calibration Files
1   =J062646.D   2   =J062647.D   3   =J062648.D   4   =J062649.D
5      =J062650.D    6      =J062651.D

      Compound              1     2     3     4     5     6     Avg    %RSD
-------------------------------------------------------------------------------

1) I   Fluorobenzene         ----------------ISTD---------------------
2)     Dichlorodifluoromet 0.222 0.194 0.249 0.253 0.234 0.234 0.231   9.16
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9992
             Response Ratio = 0.00000 + 0.25217 *A + -0.00967 *A^2

3) P   Chloromethane       0.650 0.479 0.545 0.525 0.460 0.456 0.519  14.15
4) C   Vinyl Chloride      0.344 0.309 0.403 0.394 0.339 0.341 0.355  10.16
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9973
             Response Ratio = 0.00000 + 0.39787 *A + -0.03035 *A^2

5)     Bromomethane        0.259 0.191 0.180 0.156 0.131 0.127 0.174  28.10
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9964
             Response Ratio = 0.00000 + 0.17024 *A + -0.02279 *A^2

6)     Chloroethane        0.177 0.161 0.181 0.163 0.129 0.124 0.156  15.42
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9941
             Response Ratio = 0.00000 + 0.17510 *A + -0.02667 *A^2

7)     Trichlorofluorometh 0.398 0.380 0.462 0.464 0.403 0.390 0.416   8.92
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9985
             Response Ratio = 0.00000 + 0.48043 *A + -0.04661 *A^2

8)     Ethyl Ether         0.262 0.281 0.280 0.281 0.246 0.253 0.267   5.76
9)     1,2-Dichlorotrifluo 0.276 0.252 0.316 0.306 0.273 0.273 0.283   8.40
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9984
             Response Ratio = 0.00000 + 0.30995 *A + -0.01959 *A^2

10) C  1,1-Dichloroethene  0.420 0.419 0.505 0.506 0.461 0.458 0.461   8.36
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9992
             Response Ratio = 0.00000 + 0.51107 *A + -0.02803 *A^2

11)    Freon 113           0.224 0.223 0.269 0.268 0.242 0.238 0.244   8.32
12)    Carbon Disulfide    0.867 0.762 0.893 0.874 0.759 0.748 0.817   8.22
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9982
             Response Ratio = 0.00000 + 0.89802 *A + -0.07863 *A^2

13)    Iodomethane         0.427 0.415 0.476 0.492 0.433 0.445 0.448   6.70
14)    Allyl chloride      0.590 0.659 0.823 0.756 0.727 0.666 0.703  11.67
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9996
             Response Ratio = 0.00000 + 0.83839 *A + -0.08519 *A^2

15)    Methylene Chloride  1.900 0.982 0.763 0.742 0.664 0.661 0.952  50.29
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9987
             Response Ratio = 0.00000 + 0.76414 *A + -0.05472 *A^2

16)    Acetone             0.061 0.047 0.052 0.063 0.051 0.055 0.055  11.45
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Initial Calibration Summary

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICC3475
Lab FileID: J062649.D

17)		Methyl acetate	0.053	0.050	0.047	0.049	0.045	0.047	0.049	5.56
18)		trans-1,2-Dichloroe	0.601	0.558	0.659	0.668	0.618	0.613	0.620	6.46
19)		Hexane	0.403	0.368	0.446	0.442	0.399	0.394	0.409	7.34
20)		Methyl Tert Butyl E	0.914	0.847	0.838	0.880	0.839	0.886	0.867	3.58
21)		Acetonitrile	0.031	0.029	0.030	0.030	0.026	0.027	0.029	6.25
22)		Di-isopropyl ether	1.641	1.657	1.804	1.803	1.641	1.614	1.693	5.10
23)		Chloroprene	1.259	1.322	1.412	1.480	1.332	1.335	1.357	5.74
24)	P	1,1-Dichloroethane	0.746	0.696	0.795	0.818	0.741	0.726	0.754	6.01
25)		Acrylonitrile	0.252	0.264	0.282	0.296	0.266	0.267	0.271	5.74
26)		ETBE	1.345	1.346	1.391	1.411	1.270	1.274	1.340	4.36
27)		Vinyl acetate	0.672	0.713	0.706	0.692	0.583	0.545	0.652	10.84
28)		cis-1,2-Dichloroeth	0.380	0.353	0.401	0.432	0.398	0.403	0.395	6.63
29)		2,2-Dichloropropane	0.413	0.385	0.468	0.514	0.487	0.505	0.462	11.28
30)		Bromochloromethane	0.183	0.185	0.199	0.210	0.194	0.202	0.196	5.16
31)		Cyclohexane	0.694	0.641	0.843	0.827	0.752	0.727	0.747	10.38
32)	C	Chloroform	0.601	0.564	0.627	0.651	0.594	0.593	0.605	4.98
33)		Ethyl acetate	0.494	0.530	0.500	0.484	0.410	0.415	0.472	10.33
34)		Tetrahydrofuran	0.160	0.112	0.099	0.101	0.093	0.094	0.110	23.24

---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9992
Response Ratio = 0.00000 + 0.10092 *A + -0.00401 *A^2

35)	S	Dibromofluoromethan	0.264	0.260	0.252	0.249	0.248	0.247	0.253	2.77
36)		Carbon Tetrachlorid	0.392	0.365	0.462	0.505	0.491	0.510	0.454	13.54
37)		1,1,1-Trichloroetha	0.404	0.380	0.460	0.488	0.470	0.486	0.448	10.14
38)		2-Butanone	0.243	0.218	0.232	0.262	0.211	0.218	0.231	8.31
39)		1,1-Dichloropropene	0.423	0.381	0.492	0.526	0.490	0.492	0.467	11.52
40)		Propionitrile	0.052	0.054	0.051	0.052	0.045	0.045	0.050	7.98
41)		Methacrylonitrile	0.245	0.267	0.258	0.241	0.194	0.178	0.231	15.56

---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9973
Response Ratio = 0.00000 + 0.26682 *A + -0.00454 *A^2

42)		Benzene	1.477	1.328	1.468	1.447	1.202	1.093	1.336	11.91

---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9986
Response Ratio = 0.00000 + 1.58489 *A + -0.24965 *A^2

43)		TAME	0.865	0.845	0.911	0.953	0.858	0.863	0.882	4.66
44)	S	1,2-Dichloroethane-	0.291	0.292	0.296	0.278	0.281	0.292	0.288	2.41
45)		1,2-Dichloroethane	0.507	0.487	0.518	0.541	0.507	0.516	0.513	3.43
46)		Trichloroethene	0.306	0.304	0.368	0.388	0.353	0.345	0.344	9.74
47)		Methylcyclohexane	0.481	0.464	0.621	0.611	0.552	0.529	0.543	12.00

---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9993
Response Ratio = 0.00000 + 0.63959 *A + -0.05628 *A^2

48)		Dibromomethane	0.202	0.206	0.214	0.225	0.208	0.211	0.211	3.77
49)	C	1,2-Dichloropropane	0.442	0.427	0.482	0.488	0.438	0.421	0.449	6.32
50)		Bromodichloromethan	0.412	0.398	0.458	0.491	0.457	0.457	0.445	7.68
51)		Methyl methacrylate	0.314	0.342	0.392	0.402	0.369	0.373	0.365	8.94
52)		2-Chloroethyl vinyl	0.205	0.243	0.251	0.250	0.202	0.189	0.223	12.51
53)		cis-1,3-Dichloropro	0.529	0.543	0.609	0.648	0.585	0.572	0.581	7.55
54)	I	Chlorobenzene-d5	----------ISTD----------							
55)	S	Toluene-d8	1.253	1.254	1.274	1.309	1.363	1.413	1.311	4.95
56)	C	Toluene	1.859	1.796	2.081	2.186	1.986	1.887	1.966	7.50

---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9994
Response Ratio = 0.00000 + 2.26874 *A + -0.19167 *A^2

57)		2-Nitropropane	0.105	0.119	0.136	0.148	0.142	0.147	0.133	13.09
58)		4-Methyl-2-pentanon	0.491	0.543	0.549	0.549	0.466	0.444	0.507	9.20
59)		trans-1,3-Dichlorop	0.617	0.604	0.697	0.756	0.718	0.738	0.688	9.21
60)		Tetrachloroethene	0.485	0.432	0.541	0.573	0.542	0.561	0.522	10.25

Initial Calibration Summary

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICC3475
Lab FileID: J062649.D

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61)      Ethyl methacrylate  0.396 0.487 0.583 0.646 0.608 0.638 0.560  17.58
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9989
               Response Ratio = 0.00000 + 0.59704 *A + 0.01866 *A^2

62)      1,1,2-Trichloroetha 0.374 0.363 0.386 0.409 0.376 0.382 0.382   4.02
63)      Dibromochloromethan 0.428 0.405 0.476 0.537 0.522 0.551 0.486  12.36
64)      1,3-Dichloropropane 0.717 0.726 0.785 0.834 0.775 0.785 0.770   5.59
65)      1,2-Dibromoethane   0.421 0.422 0.452 0.497 0.471 0.490 0.459   7.18
66)      2-hexanone          0.394 0.393 0.448 0.497 0.398 0.388 0.420  10.40
67)      1-Chlorohexane      0.586 0.586 0.802 0.829 0.760 0.737 0.717  14.82
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9993
               Response Ratio = 0.00000 + 0.84643 *A + -0.05540 *A^2

68) C    Ethylbenzene        2.084 1.930 2.246 2.219 1.887 1.731 2.016  10.03
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9990
               Response Ratio = 0.00000 + 2.41122 *A + -0.34492 *A^2

69) P    Chlorobenzene       1.331 1.182 1.362 1.394 1.195 1.130 1.266   8.68
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9986
               Response Ratio = 0.00000 + 1.46506 *A + -0.17071 *A^2

70)      1,1,1,2-Tetrachloro 0.351 0.403 0.483 0.522 0.504 0.507 0.462  14.84
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9996
               Response Ratio = 0.00000 + 0.50671 *A

71)      m,p-Xylene          1.469 1.446 1.681 1.617 1.301 1.161 1.446  13.39
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9979
               Response Ratio = 0.00000 + 1.80374 *A + -0.16335 *A^2

72)      o-Xylene            1.354 1.458 1.806 1.847 1.646 1.551 1.610  12.03
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9993
               Response Ratio = 0.00000 + 1.94248 *A + -0.19753 *A^2

73)      Styrene             1.075 1.222 1.506 1.583 1.408 1.338 1.355  13.76
74) P    Bromoform           0.236 0.269 0.308 0.357 0.340 0.367 0.313  16.63
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9986
               Response Ratio = 0.00000 + 0.31546 *A + 0.02462 *A^2

75)      Isopropylbenzene    1.459 1.507 1.971 1.989 1.766 1.653 1.724  13.12
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9993
               Response Ratio = 0.00000 + 2.11041 *A + -0.23065 *A^2


76) I    1,4-Dichlorobenzene-d ----------------ISTD---------------------
77) S    4-Bromofluorobenzen 0.946 0.959 0.939 0.939 0.988 1.004 0.962   2.85
78)      cis-1,4-Dichloro-2- 0.081 0.153 0.198 0.297 0.288 0.320 0.223  42.45
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9968
               Response Ratio = 0.00000 + 0.23374 *A + 0.04281 *A^2

79)      n-Propylbenzene     4.189 4.180 4.874 4.528 3.708 3.352 4.139  13.24
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9981
               Response Ratio = 0.00000 + 5.05675 *A + -0.86922 *A^2

80)      Bromobenzene        1.175 1.072 1.159 1.165 1.011 0.991 1.096   7.52
81) P    1,1,2,2-Tetrachloro 1.039 1.030 1.012 1.056 0.952 0.966 1.009   4.14
82)      1,3,5-Trimethylbenz 2.875 3.043 3.536 3.318 2.779 2.552 3.017  11.98
83)      2-Chlorotoluene     2.919 2.961 3.310 3.170 2.702 2.527 2.931   9.85
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9987
               Response Ratio = 0.00000 + 3.42544 *A + -0.45906 *A^2
```

Initial Calibration Summary

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICC3475
Lab FileID: J062649.D

```
 84)     trans-1,4-Dichloro- 0.121 0.177 0.205 0.323 0.302 0.339 0.245  36.48
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9953
               Response Ratio = 0.00000 + 0.25049 *A + 0.04372 *A^2

 85)     1,2,3-Trichloroprop 0.293 0.257 0.254 0.263 0.239 0.246 0.259   7.34
 86)     Cyclohexanone       0.019 0.024 0.025 0.028 0.028 0.029 0.026  13.97
 87)     4-Chlorotoluene     2.688 2.677 3.135 3.093 2.740 2.593 2.821   8.24
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9993
               Response Ratio = 0.00000 + 3.27863 *A + -0.34869 *A^2

 88)     tert-Butylbenzene   1.495 1.568 1.917 1.896 1.729 1.679 1.714   9.92
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9995
               Response Ratio = 0.00000 + 1.96139 *A + -0.14461 *A^2

 89)     1,2,4-Trimethylbenz 2.870 3.095 3.590 3.488 3.037 2.858 3.156   9.89
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9991
               Response Ratio = 0.00000 + 3.73194 *A + -0.44542 *A^2

 90)     Pentachloroethane   0.534 0.590 0.656 0.721 0.685 0.701 0.648  11.09
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9992
               Response Ratio = 0.00000 + 0.69303 *A

 91)     sec-Butylbenzene    3.712 3.789 4.659 4.368 3.719 3.380 3.938  12.11
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9990
               Response Ratio = 0.00000 + 4.84322 *A + -0.74224 *A^2

 92)     4-Isopropyltoluene  2.552 2.786 3.554 3.405 2.933 2.731 2.994  13.31
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9989
               Response Ratio = 0.00000 + 3.68274 *A + -0.48445 *A^2

 93)     1,3-Dichlorobenzene 2.152 1.973 2.185 2.191 1.950 1.871 2.054   6.76
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9993
               Response Ratio = 0.00000 + 2.28732 *A + -0.21279 *A^2

 94)     1,4-Dichlorobenzene 2.107 1.934 2.164 2.179 1.905 1.844 2.022   7.17
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9988
               Response Ratio = 0.00000 + 2.25694 *A + -0.21286 *A^2

 95)     n-Butylbenzene      1.635 1.766 2.246 2.130 1.833 1.705 1.886  13.03
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9989
               Response Ratio = 0.00000 + 2.31234 *A + -0.30918 *A^2

 96)     Benzyl Chloride     0.283 0.350 0.380 0.437 0.385 0.383 0.370  13.83
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9978
               Response Ratio = 0.00000 + 0.42564 *A + -0.02221 *A^2

 97)     1,2-Dichlorobenzene 1.967 1.909 2.068 2.077 1.850 1.775 1.941   6.18
 98)     1,2-Dibromo-3-Chlor 0.124 0.148 0.141 0.154 0.152 0.165 0.147   9.39
 99)     Hexachlorobutadiene 0.719 0.570 0.755 0.734 0.692 0.713 0.697   9.46
100)     1,2,4-Trichlorobenz 1.311 1.230 1.438 1.437 1.259 1.240 1.319   7.27
101)     Naphthalene         2.157 2.180 2.557 2.684 2.393 2.329 2.383   8.73
102)     1,2,3-Trichlorobenz 1.312 1.082 1.258 1.262 1.143 1.138 1.199   7.54

103) I   Tert Butyl Alcohol-d1 ----------------ISTD---------------------
104)     Ethanol             0.191 0.222 0.157 0.153 0.136 0.134 0.166  20.81
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9985
               Response Ratio = 0.00000 + 0.15898 *A + -0.00328 *A^2

105)     acrolein            2.487 2.271 2.197 2.112 2.033 2.088 2.198   7.49
106)     Tert Butyl Alcohol  1.853 1.830 1.689 1.615 1.622 1.632 1.707   6.31
```

Initial Calibration Summary

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICC3475
Lab FileID: J062649.D

107)	tert Amyl alcohol	1.108	1.288	1.371	1.432	1.370	1.380	1.325	8.74
108)	Isobutyl alcohol	0.721	0.720	0.745	0.722	0.676	0.641	0.704	5.44
109)	1,4-Dioxane	0.130	0.147	0.155	0.164	0.162	0.158	0.153	8.25

(#) = Out of Range

8260-JAPP9.M Fri Jan 28 11:35:47 2011

Initial Calibration Verification

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICV3475
Lab FileID: J062652.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\012711\J062652.D          Vial: 10
Acq On    : 27 Jan 2011   2:31 pm                   Operator: MelissaM
Sample    : icv3475-4                               Inst    : MSVOA6
Misc      : ms16326,vj3475,,,,,                     Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\MSDCHEM\1\METHODS\8260-JAPP9.M (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Fri Jan 28 10:52:13 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.001  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	114	0.00	7.43
		Amount	Calc.	%Drift			
2	Dichlorodifluoromethane	40.000	47.582	-19.0	130	0.00	2.77
		AvgRF	CCRF	%Dev			
3 P	Chloromethane	0.519	0.521	-0.4	113	0.00	2.93
		Amount	Calc.	%Drift			
4 C	Vinyl Chloride	40.000	38.110	4.7	103	0.00	3.06
5	Bromomethane	40.000	42.215	-5.5	116	0.00	3.43
6	Chloroethane	40.000	38.656	3.4	104	0.01	3.57
7	Trichlorofluoromethane	40.000	40.957	-2.4	111	0.00	3.76
		AvgRF	CCRF	%Dev			
8	Ethyl Ether	0.267	0.267	0.0	108	0.00	4.00
		Amount	Calc.	%Drift			
9	1,2-Dichlorotrifluoroetha	40.000	42.180	-5.4	115	0.00	4.22
10 C	1,1-Dichloroethene	40.000	37.708	5.7	104	0.00	4.25
		AvgRF	CCRF	%Dev			
11	Freon 113	0.244	0.253	-3.7	107	0.00	4.33
		Amount	Calc.	%Drift			
12	Carbon Disulfide	40.000	37.919	5.2	103	0.00	4.32
		AvgRF	CCRF	%Dev			
13	Iodomethane	0.448	0.472	-5.4	109	0.00	4.42
		Amount	Calc.	%Drift			
14	Allyl chloride	40.000	36.954	7.6	108	0.00	4.73
15	Methylene Chloride	40.000	39.838	0.4	110	0.00	4.84
		AvgRF	CCRF	%Dev			
16	Acetone	0.055	0.048	12.7	86	0.00	4.86
17	Methyl acetate	0.049	0.048	2.0	112	0.01	4.98
18	trans-1,2-Dichloroethene	0.620	0.621	-0.2	106	0.00	5.01
19	Hexane	0.409	0.430	-5.1	111	0.00	5.07
20	Methyl Tert Butyl Ether	0.867	0.929	-7.2	120	0.00	5.12
21	Acetonitrile	0.029	0.027	6.9	105	0.00	5.33
22	Di-isopropyl ether	1.693	1.780	-5.1	112	0.00	5.48

Initial Calibration Verification

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICV3475
Lab FileID: J062652.D

23		Chloroprene	1.357	1.374	-1.3	106	0.00	5.61
24	P	1,1-Dichloroethane	0.754	0.766	-1.6	106	0.00	5.63
25		Acrylonitrile	0.271	0.275	-1.5	106	0.00	5.61
26		ETBE	1.340	1.345	-0.4	108	0.00	5.85
27		Vinyl acetate	0.652	0.772	-18.4	127	0.00	5.82
28		cis-1,2-Dichloroethene	0.395	0.413	-4.6	109	0.00	6.17
29		2,2-Dichloropropane	0.462	0.533	-15.4	118	0.00	6.30
30		Bromochloromethane	0.196	0.202	-3.1	110	0.00	6.37
31		Cyclohexane	0.747	0.777	-4.0	107	0.00	6.44
32	C	Chloroform	0.605	0.647	-6.9	113	0.00	6.42
33		Ethyl acetate	0.472	0.529	-12.1	124	0.00	6.50
		----------	Amount	Calc.	%Drift	----------		
34		Tetrahydrofuran	40.000	38.480	3.8	106	0.00	6.60
		----------	AvgRF	CCRF	%Dev	----------		
35	S	Dibromofluoromethane	0.253	0.254	-0.4	116	0.00	6.61
36		Carbon Tetrachloride	0.454	0.523	-15.2	118	0.00	6.63
37		1,1,1-Trichloroethane	0.448	0.507	-13.2	118	0.00	6.69
38		2-Butanone	0.231	0.206	10.8	90	0.00	6.70
39		1,1-Dichloropropene	0.467	0.515	-10.3	111	0.00	6.78
40		Propionitrile	0.050	0.048	4.0	107	0.00	7.00
		----------	Amount	Calc.	%Drift	----------		
41		Methacrylonitrile	400.000	371.459	7.1	102	0.00	7.03
42		Benzene	40.000	38.020	4.9	104	0.00	7.03
		----------	AvgRF	CCRF	%Dev	----------		
43		TAME	0.882	0.920	-4.3	110	0.00	7.12
44	S	1,2-Dichloroethane-d4	0.288	0.309	-7.3	126	0.00	7.15
45		1,2-Dichloroethane	0.513	0.535	-4.3	113	0.00	7.22
46		Trichloroethene	0.344	0.377	-9.6	111	0.00	7.61
		----------	Amount	Calc.	%Drift	----------		
47		Methylcyclohexane	40.000	41.016	-2.5	113	0.00	7.64
		----------	AvgRF	CCRF	%Dev	----------		
48		Dibromomethane	0.211	0.221	-4.7	111	0.00	8.01
49	C	1,2-Dichloropropane	0.449	0.458	-2.0	107	0.00	8.10
50		Bromodichloromethane	0.445	0.479	-7.6	111	0.00	8.15
51		Methyl methacrylate	0.365	0.376	-3.0	107	0.00	8.26
52		2-Chloroethyl vinyl ether	0.223	0.228	-2.2	104	0.00	8.68
53		cis-1,3-Dichloropropene	0.581	0.637	-9.6	112	0.00	8.77
54	I	Chlorobenzene-d5	1.000	1.000	0.0	111	0.00	10.50
55	S	Toluene-d8	1.311	1.326	-1.1	113	0.00	8.96
		----------	Amount	Calc.	%Drift	----------		
56	C	Toluene	40.000	39.829	0.4	107	0.00	9.02
		----------	AvgRF	CCRF	%Dev	----------		
57		2-Nitropropane	0.133	0.134	-0.8	100	0.00	9.21
58		4-Methyl-2-pentanone	0.507	0.481	5.1	97	0.00	9.34
59		trans-1,3-Dichloropropene	0.688	0.807	-17.3	119	0.00	9.39
60		Tetrachloroethene	0.522	0.594	-13.8	115	0.00	9.42
		----------	Amount	Calc.	%Drift	----------		
61		Ethyl methacrylate	40.000	41.522	-3.8	110	0.00	9.52
		----------	AvgRF	CCRF	%Dev	----------		

Initial Calibration Verification

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICV3475
Lab FileID: J062652.D

62		1,1,2-Trichloroethane	0.382	0.396	-3.7	108	0.00	9.56
63		Dibromochloromethane	0.486	0.545	-12.1	113	0.00	9.75
64		1,3-Dichloropropane	0.770	0.804	-4.4	107	0.00	9.84
65		1,2-Dibromoethane	0.459	0.494	-7.6	111	0.00	10.01
66		2-hexanone	0.420	0.395	6.0	88	0.00	10.15
		----------	Amount	Calc.	%Drift		----------	
67		1-Chlorohexane	40.000	38.626	3.4	104	0.00	10.47
68	C	Ethylbenzene	40.000	39.570	1.1	106	0.00	10.53
69	P	Chlorobenzene	40.000	40.494	-1.2	107	0.00	10.52
70		1,1,1,2-Tetrachloroethane	40.000	41.572	-3.9	112	0.00	10.57
71		m,p-Xylene	80.000	79.090	1.1	105	0.00	10.67
72		o-Xylene	40.000	40.446	-1.1	109	0.00	11.11
		----------	AvgRF	CCRF	%Dev		----------	
73		Styrene	1.355	1.506	-11.1	106	0.00	11.15
		----------	Amount	Calc.	%Drift		----------	
74	P	Bromoform	40.000	41.634	-4.1	109	0.00	11.19
75		Isopropylbenzene	40.000	45.989	-15.0	122	0.00	11.42
		----------	AvgRF	CCRF	%Dev		----------	
76	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	109	0.00	12.87
77	S	4-Bromofluorobenzene	0.962	0.978	-1.7	114	0.00	11.71
		----------	Amount	Calc.	%Drift		----------	
78		cis-1,4-Dichloro-2-butene	40.000	41.837	-4.6	104	0.00	11.75
79		n-Propylbenzene	40.000	40.160	-0.4	106	0.00	11.84
		----------	AvgRF	CCRF	%Dev		----------	
80		Bromobenzene	1.096	1.157	-5.6	109	0.00	11.84
81	P	1,1,2,2-Tetrachloroethane	1.009	1.016	-0.7	105	0.00	11.88
82		1,3,5-Trimethylbenzene	3.017	3.182	-5.5	105	0.00	12.03
		----------	Amount	Calc.	%Drift		----------	
83		2-Chlorotoluene	40.000	40.939	-2.3	108	0.00	12.02
84		trans-1,4-Dichloro-2-Bute	40.000	39.191	2.0	95	0.00	12.06
		----------	AvgRF	CCRF	%Dev		----------	
85		1,2,3-Trichloropropane	0.259	0.248	4.2	103	0.00	12.04
86		Cyclohexanone	0.026	0.030	-15.4	116	0.00	12.09
		----------	Amount	Calc.	%Drift		----------	
87		4-Chlorotoluene	40.000	41.594	-4.0	110	0.00	12.18
88		tert-Butylbenzene	40.000	41.230	-3.1	110	0.00	12.36
89		1,2,4-Trimethylbenzene	40.000	40.575	-1.4	107	0.00	12.43
90		Pentachloroethane	40.000	42.879	-7.2	113	0.00	12.40
91		sec-Butylbenzene	40.000	39.980	0.1	106	0.00	12.55
92		4-Isopropyltoluene	40.000	41.859	-4.6	110	0.00	12.68
93		1,3-Dichlorobenzene	40.000	41.896	-4.7	110	0.00	12.79
94		1,4-Dichlorobenzene	40.000	41.688	-4.2	109	0.00	12.88
95		n-Butylbenzene	40.000	39.463	1.3	105	0.00	13.12
96		Benzyl Chloride	40.000	40.155	-0.4	102	0.00	13.12
		----------	AvgRF	CCRF	%Dev		----------	
97		1,2-Dichlorobenzene	1.941	2.103	-8.3	111	0.00	13.32
98		1,2-Dibromo-3-Chloropropa	0.147	0.157	-6.8	111	0.00	14.07
99		Hexachlorobutadiene	0.697	0.798	-14.5	119	0.00	14.66
100		1,2,4-Trichlorobenzene	1.319	1.473	-11.7	112	0.00	14.69

Initial Calibration Verification

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3475-ICV3475
Lab FileID: J062652.D

101		Naphthalene	2.383	2.701	-13.3	110	0.00	14.96
102		1,2,3-Trichlorobenzene	1.199	1.324	-10.4	115	0.00	15.12
103	I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	115	0.01	5.09
		----------	Amount	Calc.	%Drift		----------	
104		Ethanol	800.000	838.068	-4.8	117	0.01	4.16
		----------	AvgRF	CCRF	%Dev		----------	
105		acrolein	2.198	2.391	-8.8	131	0.00	4.57
106		Tert Butyl Alcohol	1.707	1.549	9.3	111	0.01	5.17
107		tert Amyl alcohol	1.325	1.342	-1.3	108	0.00	7.26
108		Isobutyl alcohol	0.704	0.647	8.1	103	0.00	7.14
109		1,4-Dioxane	0.153	0.164	-7.2	115	0.00	8.34

(#) = Out of Range SPCC's out = 0 CCC's out = 0
J062649.D 8260-JAPP9.M Fri Jan 28 11:34:22 2011

Continuing Calibration Summary

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VJ3476-CC3475
Lab FileID: J062686.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\012811\J062686.D          Vial: 1
Acq On    : 28 Jan 2011   9:54 am                   Operator: MelissaM
Sample    : cc3475-4                                Inst    : MSVOA6
Misc      : ms16326,vj3476,,,,,                     Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\MSDCHEM\1\METHODS\8260-JAPP9.M (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Fri Jan 28 10:52:13 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.001  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	80	0.00	7.42
			Amount	Calc.	%Drift			
2		Dichlorodifluoromethane	40.000	37.950	5.1	74	0.00	2.77
			AvgRF	CCRF	%Dev			
3	P	Chloromethane	0.519	0.593	-14.3	91	0.00	2.93
			Amount	Calc.	%Drift			
4	C	Vinyl Chloride	40.000	47.261	-18.2	89	0.01	3.07
5		Bromomethane	40.000	44.690	-11.7	86	0.00	3.43
6		Chloroethane	40.000	50.174	-25.4#	92	0.01	3.57
7		Trichlorofluoromethane	40.000	45.729	-14.3	87	0.01	3.77
			AvgRF	CCRF	%Dev			
8		Ethyl Ether	0.267	0.310	-16.1	89	0.00	3.99
			Amount	Calc.	%Drift			
9		1,2-Dichlorotrifluoroetha	40.000	47.184	-18.0	90	0.00	4.22
10	C	1,1-Dichloroethene	40.000	46.079	-15.2	89	0.00	4.25
			AvgRF	CCRF	%Dev			
11		Freon 113	0.244	0.291	-19.3	87	0.00	4.33
			Amount	Calc.	%Drift			
12		Carbon Disulfide	40.000	48.322	-20.8#	91	0.00	4.33
			AvgRF	CCRF	%Dev			
13		Iodomethane	0.448	0.519	-15.8	85	0.00	4.42
			Amount	Calc.	%Drift			
14		Allyl chloride	40.000	46.300	-15.7	93	0.00	4.73
15		Methylene Chloride	40.000	44.401	-11.0	86	0.00	4.84
			AvgRF	CCRF	%Dev			
16		Acetone	0.055	0.053	3.6	68	0.00	4.86
17		Methyl acetate	0.049	0.047	4.1	76	0.01	4.98
18		trans-1,2-Dichloroethene	0.620	0.653	-5.3	78	0.00	5.01
19		Hexane	0.409	0.438	-7.1	80	0.00	5.07
20		Methyl Tert Butyl Ether	0.867	0.816	5.9	74	0.00	5.12
21		Acetonitrile	0.029	0.032	-10.3	87	0.00	5.34
22		Di-isopropyl ether	1.693	1.877	-10.9	84	0.00	5.48

Continuing Calibration Summary

Job Number: F79564 **Sample:** VJ3476-CC3475
Account: TETTNOAK Tetra Tech, Inc **Lab FileID:** J062686.D
Project: Holloman AFB; Alamogordo, NM

23		Chloroprene	1.357	1.548	-14.1	84	0.00	5.60
24	P	1,1-Dichloroethane	0.754	0.823	-9.2	81	0.00	5.62
25		Acrylonitrile	0.271	0.310	-14.4	84	0.00	5.60
26		ETBE	1.340	1.409	-5.1	80	0.00	5.85
27		Vinyl acetate	0.652	0.755	-15.8	88	0.00	5.82
28		cis-1,2-Dichloroethene	0.395	0.408	-3.3	76	0.00	6.17
29		2,2-Dichloropropane	0.462	0.465	-0.6	73	0.00	6.30
30		Bromochloromethane	0.196	0.202	-3.1	77	0.00	6.38
31		Cyclohexane	0.747	0.840	-12.4	82	0.00	6.44
32	C	Chloroform	0.605	0.633	-4.6	78	0.00	6.42
33		Ethyl acetate	0.472	0.524	-11.0	87	0.00	6.50
		----------	Amount	Calc.	%Drift	----------		
34		Tetrahydrofuran	40.000	46.549	-16.4	90	0.00	6.60
		----------	AvgRF	CCRF	%Dev	----------		
35	S	Dibromofluoromethane	0.253	0.242	4.3	78	0.00	6.61
36		Carbon Tetrachloride	0.454	0.461	-1.5	73	0.00	6.63
37		1,1,1-Trichloroethane	0.448	0.450	-0.4	74	0.00	6.68
38		2-Butanone	0.231	0.237	-2.6	73	0.00	6.70
39		1,1-Dichloropropene	0.467	0.500	-7.1	76	0.00	6.78
40		Propionitrile	0.050	0.056	-12.0	87	0.00	7.00
		----------	Amount	Calc.	%Drift	----------		
41		Methacrylonitrile	400.000	487.899	-22.0#	90	0.00	7.03
42		Benzene	40.000	44.439	-11.1	84	0.00	7.03
		----------	AvgRF	CCRF	%Dev	----------		
43		TAME	0.882	0.941	-6.7	79	0.00	7.12
44	S	1,2-Dichloroethane-d4	0.288	0.307	-6.6	89	0.00	7.15
45		1,2-Dichloroethane	0.513	0.554	-8.0	82	0.00	7.21
46		Trichloroethene	0.344	0.382	-11.0	79	0.00	7.60
		----------	Amount	Calc.	%Drift	----------		
47		Methylcyclohexane	40.000	39.918	0.2	78	0.00	7.64
		----------	AvgRF	CCRF	%Dev	----------		
48		Dibromomethane	0.211	0.223	-5.7	80	0.00	8.01
49	C	1,2-Dichloropropane	0.449	0.512	-14.0	84	0.00	8.10
50		Bromodichloromethane	0.445	0.491	-10.3	80	0.00	8.15
51		Methyl methacrylate	0.365	0.433	-18.6	86	0.00	8.26
52		2-Chloroethyl vinyl ether	0.223	0.264	-18.4	85	0.00	8.68
53		cis-1,3-Dichloropropene	0.581	0.651	-12.0	81	0.00	8.77
54	I	Chlorobenzene-d5	1.000	1.000	0.0	85	0.00	10.50
55	S	Toluene-d8	1.311	1.249	4.7	81	0.00	8.96
		----------	Amount	Calc.	%Drift	----------		
56	C	Toluene	40.000	39.442	1.4	81	0.00	9.02
		----------	AvgRF	CCRF	%Dev	----------		
57		2-Nitropropane	0.133	0.145	-9.0	83	0.00	9.21
58		4-Methyl-2-pentanone	0.507	0.571	-12.6	88	0.00	9.34
59		trans-1,3-Dichloropropene	0.688	0.730	-6.1	82	0.00	9.39
60		Tetrachloroethene	0.522	0.539	-3.3	80	0.00	9.42
		----------	Amount	Calc.	%Drift	----------		
61		Ethyl methacrylate	40.000	41.282	-3.2	83	0.00	9.52
		----------	AvgRF	CCRF	%Dev	----------		

Continuing Calibration Summary

Job Number: F79564 **Sample:** VJ3476-CC3475
Account: TETTNOAK Tetra Tech, Inc **Lab FileID:** J062686.D
Project: Holloman AFB; Alamogordo, NM

62		1,1,2-Trichloroethane	0.382	0.398	-4.2	83	0.00	9.56
63		Dibromochloromethane	0.486	0.498	-2.5	79	0.00	9.75
64		1,3-Dichloropropane	0.770	0.807	-4.8	82	0.00	9.84
65		1,2-Dibromoethane	0.459	0.462	-0.7	79	0.00	10.01
66		2-hexanone	0.420	0.471	-12.1	80	0.00	10.15
		----------	Amount	Calc.	%Drift		----------	
67		1-Chlorohexane	40.000	39.431	1.4	81	0.00	10.47
68	C	Ethylbenzene	40.000	41.908	-4.8	85	0.00	10.53
69	P	Chlorobenzene	40.000	41.797	-4.5	84	0.00	10.52
70		1,1,1,2-Tetrachloroethane	40.000	39.352	1.6	81	0.00	10.57
71		m,p-Xylene	80.000	85.315	-6.6	85	0.00	10.67
72		o-Xylene	40.000	41.012	-2.5	84	0.00	11.10
		----------	AvgRF	CCRF	%Dev		----------	
73		Styrene	1.355	1.531	-13.0	82	0.00	11.15
		----------	Amount	Calc.	%Drift		----------	
74	P	Bromoform	40.000	37.541	6.1	75	0.00	11.19
75		Isopropylbenzene	40.000	39.778	0.6	82	0.00	11.42
		----------	AvgRF	CCRF	%Dev		----------	
76	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	84	0.00	12.87
77	S	4-Bromofluorobenzene	0.962	0.948	1.5	85	0.00	11.71
		----------	Amount	Calc.	%Drift		----------	
78		cis-1,4-Dichloro-2-butene	40.000	43.598	-9.0	84	0.00	11.75
79		n-Propylbenzene	40.000	43.627	-9.1	87	0.00	11.84
		----------	AvgRF	CCRF	%Dev		----------	
80		Bromobenzene	1.096	1.119	-2.1	81	0.00	11.84
81	P	1,1,2,2-Tetrachloroethane	1.009	1.050	-4.1	83	0.00	11.88
82		1,3,5-Trimethylbenzene	3.017	3.380	-12.0	86	0.00	12.02
		----------	Amount	Calc.	%Drift		----------	
83		2-Chlorotoluene	40.000	42.901	-7.3	86	0.00	12.02
84		trans-1,4-Dichloro-2-Bute	40.000	42.572	-6.4	80	0.00	12.06
		----------	AvgRF	CCRF	%Dev		----------	
85		1,2,3-Trichloropropane	0.259	0.259	0.0	83	0.00	12.04
86		Cyclohexanone	0.026	0.029	-11.5	86	0.00	12.09
		----------	Amount	Calc.	%Drift		----------	
87		4-Chlorotoluene	40.000	41.094	-2.7	83	0.00	12.18
88		tert-Butylbenzene	40.000	40.196	-0.5	82	0.00	12.36
89		1,2,4-Trimethylbenzene	40.000	41.762	-4.4	84	0.00	12.43
90		Pentachloroethane	40.000	40.631	-1.6	82	0.00	12.40
91		sec-Butylbenzene	40.000	41.155	-2.9	84	0.00	12.54
92		4-Isopropyltoluene	40.000	41.318	-3.3	84	0.00	12.68
93		1,3-Dichlorobenzene	40.000	40.872	-2.2	83	0.00	12.79
94		1,4-Dichlorobenzene	40.000	41.605	-4.0	83	0.00	12.88
95		n-Butylbenzene	40.000	41.242	-3.1	84	0.00	13.12
96		Benzyl Chloride	40.000	39.807	0.5	78	0.00	13.12
		----------	AvgRF	CCRF	%Dev		----------	
97		1,2-Dichlorobenzene	1.941	2.084	-7.4	84	0.00	13.32
98		1,2-Dibromo-3-Chloropropa	0.147	0.152	-3.4	83	0.00	14.07
99		Hexachlorobutadiene	0.697	0.643	7.7	74	0.00	14.66
100		1,2,4-Trichlorobenzene	1.319	1.383	-4.9	81	0.00	14.69

Continuing Calibration Summary

Job Number: F79564 **Sample:** VJ3476-CC3475
Account: TETTNOAK Tetra Tech, Inc **Lab FileID:** J062686.D
Project: Holloman AFB; Alamogordo, NM

101	Naphthalene	2.383	2.524	-5.9	79	0.00	14.96
102	1,2,3-Trichlorobenzene	1.199	1.221	-1.8	81	0.00	15.12
103 I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	74	0.00	5.08
	----------	Amount	Calc.	%Drift	----------		
104	Ethanol	800.000	894.118	-11.8	80	0.00	4.14
	----------	AvgRF	CCRF	%Dev	----------		
105	acrolein	2.198	2.558	-16.4	90	0.01	4.58
106	Tert Butyl Alcohol	1.707	1.749	-2.5	81	0.00	5.15
107	tert Amyl alcohol	1.325	1.534	-15.8	80	0.00	7.26
108	Isobutyl alcohol	0.704	0.856	-21.6#	88	0.00	7.14
109	1,4-Dioxane	0.153	0.175	-14.4	80	-0.01	8.33

(#) = Out of Range SPCC's out = 0 CCC's out = 0
J062649.D 8260-JAPP9.M Fri Jan 28 14:10:33 2011

Initial Calibration Summary

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VM1952-ICC1952
Lab FileID: M0048375.D

Response Factor Report MSVOA7

```
Method       : C:\MSDchem\1\METHODS\8260mnew.m (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Tue Jan 25 13:30:44 2011
Response via : Initial Calibration

Calibration Files
1   =m0048372.D  2   =m0048373.D  3   =m0048374.D  4   =m0048375.D
5      =m0048376.D   6      =m0048377.D

      Compound              1     2     3     4     5     6     Avg    %RSD
--------------------------------------------------------------------------------

1) I   Fluorobenzene         ----------------ISTD---------------------
2)     Dichlorodifluoromet 0.156 0.208 0.286 0.268 0.255 0.265 0.240  20.34
           ---- Linear regression ----  Coefficient =  0.9987
             Response Ratio = -0.00021 + 0.26291 *A

3) P   Chloromethane       0.388 0.328 0.381 0.351 0.334 0.330 0.352   7.54
4) C   Vinyl Chloride      0.260 0.296 0.391 0.344 0.329 0.341 0.327  13.68
5)     Bromomethane        0.281 0.227 0.238 0.224 0.181 0.149 0.217  21.16
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9993
             Response Ratio = 0.00000 + 0.26439 *A + -0.05776 *A^2

6)     Chloroethane        0.163 0.174 0.212 0.188 0.173 0.137 0.174  14.40
7)     Trichlorofluorometh 0.210 0.342 0.449 0.407 0.384 0.379 0.362  22.79
           ---- Linear regr., Force(0,0) ----  Coefficient =  0.9979
             Response Ratio = 0.00000 + 0.38469 *A

8)     Ethyl Ether         0.242 0.262 0.263 0.254 0.235 0.222 0.246   6.64
9)     1,2-Dichlorotrifluo 0.255 0.260 0.326 0.289 0.273 0.267 0.278   9.47
10) C  1,1-Dichloroethene  0.370 0.388 0.489 0.434 0.409 0.396 0.414  10.23
11)    Freon 113           0.183 0.207 0.256 0.236 0.223 0.220 0.221  11.26
12)    Carbon Disulfide    0.617 0.656 0.825 0.760 0.709 0.688 0.709  10.49
13)    Iodomethane         0.374 0.392 0.458 0.431 0.420 0.411 0.414   7.09
14)    Methylene Chloride  0.675 0.465 0.437 0.400 0.367 0.343 0.448  26.77
           ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
             Response Ratio = 0.00000 + 0.43996 *A + -0.04937 *A^2

15)    Acetone             0.052 0.051 0.051 0.048 0.044 0.040 0.048   9.89
16)    Methyl acetate      0.045 0.048 0.046 0.044 0.041 0.039 0.044   7.30
17)    trans-1,2-Dichloroe 0.569 0.447 0.505 0.462 0.431 0.412 0.471  12.23
18)    Hexane              0.008 0.037 0.046 0.039 0.039 0.037 0.034  38.31
           ---- Linear regr., Force(0,0) ----  Coefficient =  0.9974
             Response Ratio = 0.00000 + 0.03808 *A

19)    Methyl Tert Butyl E 0.752 0.803 0.816 0.780 0.753 0.741 0.774   3.94
20)    Di-isopropyl ether  0.964 1.035 1.147 1.099 1.072 1.070 1.065   5.77
21) P  1,1-Dichloroethane  0.556 0.615 0.708 0.669 0.644 0.654 0.641   8.05
22)    Acrylonitrile       0.128 0.152 0.155 0.151 0.144 0.145 0.146   6.71
23)    ETBE                0.844 1.050 1.164 1.122 1.094 1.085 1.060  10.63
24)    Vinyl acetate       0.401 0.472 0.503 0.475 0.443 0.430 0.454   8.03
25)    cis-1,2-Dichloroeth 0.329 0.289 0.364 0.361 0.354 0.363 0.343   8.62
26)    2,2-Dichloropropane 0.371 0.373 0.460 0.425 0.415 0.414 0.410   8.20
27)    Bromochloromethane  0.126 0.162 0.176 0.173 0.170 0.172 0.163  11.51
28)    Cyclohexane         0.346 0.399 0.593 0.535 0.526 0.540 0.490  19.44
           ---- Linear regr., Force(0,0) ----  Coefficient =  0.9989
             Response Ratio = 0.00000 + 0.53646 *A
```

Initial Calibration Summary

Job Number: F79564 **Sample:** VM1952-ICC1952
Account: TETTNOAK Tetra Tech, Inc **Lab FileID:** M0048375.D
Project: Holloman AFB; Alamogordo, NM

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29) C   Chloroform          0.628 0.560 0.657 0.617 0.596 0.594 0.609   5.47
30)     Tetrahydrofuran     0.104 0.102 0.109 0.103 0.096 0.092 0.101   6.00
31) S   Dibromofluoromethan 0.285 0.287 0.280 0.277 0.274 0.280 0.280   1.66
32)     Carbon Tetrachlorid 0.345 0.381 0.502 0.460 0.467 0.480 0.439  14.10
33)     1,1,1-Trichloroetha 0.504 0.392 0.512 0.480 0.476 0.484 0.475   9.02
34)     2-Butanone          0.187 0.215 0.238 0.227 0.210 0.198 0.213   8.74
35)     1,1-Dichloropropene 0.301 0.336 0.447 0.421 0.415 0.413 0.389  14.58
36)     Benzene             1.015 1.136 1.383 1.324 1.300 1.282 1.240  11.09
37)     TAME                0.582 0.715 0.834 0.836 0.830 0.830 0.771  13.48
38) S   1,2-Dichloroethane- 0.350 0.350 0.351 0.352 0.327 0.323 0.342   3.88
39)     1,2-Dichloroethane  0.472 0.485 0.522 0.502 0.490 0.479 0.492   3.65
40)     Trichloroethene     0.337 0.280 0.360 0.344 0.333 0.330 0.331   8.12
41)     Methylcyclohexane   0.257 0.298 0.462 0.426 0.413 0.429 0.381  21.68
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9987
              Response Ratio = 0.00000 + 0.42474 *A

42)     Dibromomethane      0.181 0.212 0.233 0.235 0.231 0.231 0.220   9.62
43) C   1,2-Dichloropropane 0.304 0.336 0.395 0.392 0.382 0.375 0.364   9.91
44)     Bromodichloromethan 0.384 0.415 0.485 0.471 0.466 0.464 0.448   8.71
45)     2-Chloroethyl vinyl 0.149 0.228 0.274 0.265 0.248 0.229 0.232  19.29
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9943
              Response Ratio = 0.00000 + 0.23910 *A

46)     cis-1,3-Dichloropro 0.383 0.451 0.550 0.541 0.526 0.522 0.496  13.18

47) I   Chlorobenzene-d5      ----------------ISTD--------------------
48) S   Toluene-d8          1.222 1.198 1.189 1.203 1.212 1.218 1.207   1.04
49) C   Toluene             1.248 1.347 1.655 1.605 1.605 1.579 1.507  11.07
50)     2-Nitropropane      0.089 0.107 0.118 0.115 0.110 0.107 0.108   9.53
51)     4-Methyl-2-pentanon 0.344 0.453 0.492 0.459 0.416 0.376 0.423  13.10
52)     trans-1,3-Dichlorop 0.385 0.487 0.571 0.563 0.545 0.528 0.513  13.52
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9989
              Response Ratio = 0.00000 + 0.53715 *A

53)     Tetrachloroethene   0.389 0.281 0.383 0.361 0.364 0.371 0.358  10.91
54)     1,1,2-Trichloroetha 0.285 0.323 0.354 0.348 0.343 0.333 0.331   7.51
55)     Dibromochloromethan 0.325 0.359 0.433 0.445 0.454 0.457 0.412  13.57
56)     1,3-Dichloropropane 0.508 0.555 0.634 0.631 0.623 0.618 0.595   8.69
57)     1,2-Dibromoethane   0.287 0.347 0.414 0.418 0.421 0.426 0.386  14.68
58)     2-hexanone          0.223 0.333 0.402 0.379 0.342 0.311 0.332  18.87
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
              Response Ratio = 0.00000 + 0.42020 *A + -0.01097 *A^2

59)     1-Chlorohexane      0.311 0.338 0.548 0.510 0.511 0.526 0.457  22.73
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9992
              Response Ratio = 0.00000 + 0.52021 *A

60) C   Ethylbenzene        1.433 1.484 1.876 1.739 1.701 1.665 1.650  10.02
61) P   Chlorobenzene       0.867 0.896 1.058 1.020 1.001 0.978 0.970   7.61
62)     1,1,1,2-Tetrachloro 0.290 0.312 0.365 0.364 0.362 0.367 0.343   9.73
63)     m,p-Xylene          0.873 1.111 1.455 1.350 1.307 1.268 1.227  16.86
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9984
              Response Ratio = 0.00000 + 1.29127 *A

64)     o-Xylene            0.794 1.069 1.488 1.434 1.429 1.428 1.274  21.96
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9997
              Response Ratio = 0.00000 + 1.42946 *A

65)     Styrene             0.557 0.812 1.131 1.117 1.124 1.131 0.979  24.70
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9999
```

Initial Calibration Summary

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VM1952-ICC1952
Lab FileID: M0048375.D


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                Response Ratio = 0.00000 + 1.12745 *A

66) P   Bromoform           0.188 0.242 0.303 0.308 0.317 0.327 0.281  19.34
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9999
                Response Ratio = 0.00000 + 0.29403 *A + 0.01650 *A^2

67)     Isopropylbenzene    0.738 1.000 1.471 1.398 1.420 1.434 1.244  24.34
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9997
                Response Ratio = 0.00000 + 1.42677 *A


68) I   1,4-Dichlorobenzene-d ----------------ISTD---------------------
69) S   4-Bromofluorobenzen 1.022 1.068 1.037 1.022 1.038 1.026 1.036   1.69
70)     n-Propylbenzene     2.490 3.129 4.186 3.785 3.729 3.504 3.471  17.08
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9968
                Response Ratio = 0.00000 + 3.61136 *A

71)     Bromobenzene        0.659 0.713 0.834 0.827 0.833 0.792 0.776   9.50
72) P   1,1,2,2-Tetrachloro 0.902 1.095 1.121 1.086 1.060 1.033 1.049   7.46
73)     1,3,5-Trimethylbenz 1.480 2.126 2.842 2.640 2.607 2.547 2.374  20.93
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9990
                Response Ratio = 0.00000 + 2.57903 *A

74)     2-Chlorotoluene     1.675 2.216 2.770 2.594 2.552 2.453 2.377  16.38
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9985
                Response Ratio = 0.00000 + 2.50238 *A

75)     trans-1,4-Dichloro- 0.177 0.282 0.317 0.314 0.310 0.299 0.283  18.96
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9992
                Response Ratio = 0.00000 + 0.30398 *A

76)     1,2,3-Trichloroprop 0.202 0.249 0.271 0.263 0.259 0.253 0.250   9.91
77)     Cyclohexanone       0.023 0.023 0.027 0.026 0.026 0.028 0.026   7.34
78)     4-Chlorotoluene     1.548 1.999 2.503 2.403 2.424 2.364 2.207  16.66
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9995
                Response Ratio = 0.00000 + 2.38770 *A

79)     tert-Butylbenzene   0.834 1.160 1.622 1.484 1.480 1.480 1.343  21.78
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9994
                Response Ratio = 0.00000 + 1.48326 *A

80)     1,2,4-Trimethylbenz 1.425 2.132 2.786 2.654 2.651 2.645 2.382  21.87
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9997
                Response Ratio = 0.00000 + 2.64991 *A

81)     sec-Butylbenzene    1.708 2.462 3.391 3.221 3.218 3.255 2.876  22.97
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9997
                Response Ratio = 0.00000 + 3.24333 *A

82)     4-Isopropyltoluene  1.094 1.739 2.617 2.403 2.451 2.466 2.128  27.83
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9995
                Response Ratio = 0.00000 + 2.45818 *A

83)     1,3-Dichlorobenzene 0.979 1.197 1.495 1.403 1.435 1.451 1.327  15.04
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9997
                Response Ratio = 0.00000 + 1.40472 *A + 0.02281 *A^2

84)     1,4-Dichlorobenzene 1.220 1.354 1.562 1.475 1.488 1.476 1.429   8.56
85)     n-Butylbenzene      0.850 1.210 1.724 1.577 1.588 1.553 1.417  23.02
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9990
```

Initial Calibration Summary

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VM1952-ICC1952
Lab FileID: M0048375.D

```
                Response Ratio = 0.00000 + 1.56872 *A

86)     Benzyl Chloride     0.157 0.280 0.351 0.344 0.339 0.326 0.299  24.76
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9988
                Response Ratio = 0.00000 + 0.33196 *A

87)     1,2-Dichlorobenzene 0.995 1.166 1.429 1.393 1.430 1.408 1.304  13.92
88)     1,2-Dibromo-3-Chlor 0.138 0.150 0.179 0.176 0.176 0.177 0.166  10.48
89)     Hexachlorobutadiene 0.251 0.293 0.408 0.388 0.398 0.424 0.360  19.66
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9981
                Response Ratio = 0.00000 + 0.41274 *A

90)     1,2,4-Trichlorobenz 0.540 0.694 0.912 0.860 0.886 0.918 0.802  19.02
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9992
                Response Ratio = 0.00000 + 0.90247 *A

91)     Naphthalene         1.782 2.065 2.506 2.441 2.434 2.485 2.285  12.94
92)     1,2,3-Trichlorobenz 0.583 0.700 0.863 0.821 0.831 0.856 0.776  14.38

93) I   Tert Butyl Alcohol-d1 ----------------ISTD---------------------
94)     acrolein            1.271 1.322 1.363 1.335 1.214 1.159 1.277   6.12
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9997
                Response Ratio = 0.00000 + 1.40917 *A + -0.12708 *A^2

95)     Tert Butyl Alcohol  1.118 1.205 1.196 1.127 1.123 1.195 1.161   3.59
96)     tert Amyl alcohol   0.688 0.869 1.184 1.162 1.159 1.134 1.033  19.92
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9995
                Response Ratio = 0.00000 + 1.14492 *A

97)     1,4-Dioxane         0.010 0.060 0.089 0.090 0.102 0.104 0.076  47.52
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9992
                Response Ratio = 0.00000 + 0.08571 *A + 0.00239 *A^2

--------------------------------------------------------------------------
(#) = Out of Range

          8260mnew.m        Tue Jan 25 13:32:57 2011
```

Initial Calibration Verification

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VM1952-ICV1952
Lab FileID: M0048378.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDchem\1\DATA\012511\m0048378.D          Vial: 7
Acq On    : 25 Jan 2011   1:11 pm                     Operator: LoganD
Sample    : ICV1952-4                                 Inst    : MSVOA7
Misc      : ms16230,vm1952,,,,,                       Multiplr: 1.00
MS Integration Params: Rteint.p

Method       : C:\MSDchem\1\METHODS\8260mnew.m (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Tue Jan 25 13:30:44 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	101	0.00	7.10
		----------	Amount	Calc.	%Drift		----------	
2		Dichlorodifluoromethane	40.000	35.692	10.8	89	0.00	2.49
		----------	AvgRF	CCRF	%Dev		----------	
3	P	Chloromethane	0.352	0.286	18.8	83	0.02	2.77
4	C	Vinyl Chloride	0.327	0.296	9.5	87	0.01	2.84
		----------	Amount	Calc.	%Drift		----------	
5		Bromomethane	40.000	32.790	18.0	84	0.00	3.21
		----------	AvgRF	CCRF	%Dev		----------	
6		Chloroethane	0.174	0.160	8.0	86	0.00	3.28
		----------	Amount	Calc.	%Drift		----------	
7		Trichlorofluoromethane	40.000	40.916	-2.3	98	0.00	3.47
		----------	AvgRF	CCRF	%Dev		----------	
8		Ethyl Ether	0.246	0.255	-3.7	102	0.00	3.66
9		1,2-Dichlorotrifluoroetha	0.278	0.315	-13.3	110	0.00	3.92
10	C	1,1-Dichloroethene	0.414	0.412	0.5	96	0.00	3.93
11		Freon 113	0.221	0.245	-10.9	105	0.00	4.00
12		Carbon Disulfide	0.709	0.789	-11.3	105	0.00	4.03
13		Iodomethane	0.414	0.470	-13.5	111	0.00	4.11
		----------	Amount	Calc.	%Drift		----------	
14		Methylene Chloride	40.000	36.063	9.8	92	0.00	4.50
		----------	AvgRF	CCRF	%Dev		----------	
15		Acetone	0.048	0.040	16.7	86	0.00	4.53
16		Methyl acetate	0.044	0.044	0.0	101	0.00	4.64
17		trans-1,2-Dichloroethene	0.471	0.419	11.0	92	0.00	4.65
		----------	Amount	Calc.	%Drift		----------	
18		Hexane	40.000	46.015	-15.0	113	0.00	4.71
		----------	AvgRF	CCRF	%Dev		----------	
19		Methyl Tert Butyl Ether	0.774	0.804	-3.9	105	0.00	4.76
20		Di-isopropyl ether	1.065	1.182	-11.0	109	0.00	5.12
21	P	1,1-Dichloroethane	0.641	0.660	-3.0	100	0.00	5.27
22		Acrylonitrile	0.146	0.147	-0.7	99	0.00	5.33

Initial Calibration Verification

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VM1952-ICV1952
Lab FileID: M0048378.D

23		ETBE	1.060	1.167	-10.1	105	0.00	5.50
24		Vinyl acetate	0.454	0.561	-23.6#	120	0.00	5.49
25		cis-1,2-Dichloroethene	0.343	0.359	-4.7	101	0.00	5.83
26		2,2-Dichloropropane	0.410	0.420	-2.4	100	0.00	5.96
27		Bromochloromethane	0.163	0.183	-12.3	108	0.00	6.03
		----------	Amount	Calc.	%Drift	----------		
28		Cyclohexane	40.000	42.237	-5.6	107	0.00	6.07
		----------	AvgRF	CCRF	%Dev	----------		
29	C	Chloroform	0.609	0.622	-2.1	102	0.00	6.09
30		Tetrahydrofuran	0.101	0.102	-1.0	100	0.00	6.27
31	S	Dibromofluoromethane	0.280	0.278	0.7	102	0.00	6.28
32		Carbon Tetrachloride	0.439	0.478	-8.9	105	0.00	6.27
33		1,1,1-Trichloroethane	0.475	0.488	-2.7	103	0.00	6.34
34		2-Butanone	0.213	0.200	6.1	89	0.00	6.39
35		1,1-Dichloropropene	0.389	0.427	-9.8	103	0.00	6.44
36		Benzene	1.240	1.303	-5.1	100	0.00	6.69
37		TAME	0.771	0.886	-14.9	107	0.00	6.80
38	S	1,2-Dichloroethane-d4	0.342	0.345	-0.9	99	0.00	6.83
39		1,2-Dichloroethane	0.492	0.496	-0.8	100	0.00	6.89
40		Trichloroethene	0.331	0.346	-4.5	102	0.00	7.27
		----------	Amount	Calc.	%Drift	----------		
41		Methylcyclohexane	40.000	43.335	-8.3	110	0.00	7.29
		----------	AvgRF	CCRF	%Dev	----------		
42		Dibromomethane	0.220	0.237	-7.7	102	0.00	7.70
43	C	1,2-Dichloropropane	0.364	0.386	-6.0	100	0.00	7.79
44		Bromodichloromethane	0.448	0.472	-5.4	101	0.00	7.84
		----------	Amount	Calc.	%Drift	----------		
45		2-Chloroethyl vinyl ether	200.000	226.597	-13.3	103	0.00	8.38
		----------	AvgRF	CCRF	%Dev	----------		
46		cis-1,3-Dichloropropene	0.496	0.550	-10.9	103	0.00	8.46
47	I	Chlorobenzene-d5	1.000	1.000	0.0	100	0.00	10.20
48	S	Toluene-d8	1.207	1.212	-0.4	100	0.00	8.65
49	C	Toluene	1.507	1.632	-8.3	101	0.00	8.71
50		2-Nitropropane	0.108	0.110	-1.9	95	0.00	8.92
51		4-Methyl-2-pentanone	0.423	0.418	1.2	91	0.00	9.05
		----------	Amount	Calc.	%Drift	----------		
52		trans-1,3-Dichloropropene	40.000	46.089	-15.2	110	0.00	9.10
		----------	AvgRF	CCRF	%Dev	----------		
53		Tetrachloroethene	0.358	0.385	-7.5	106	0.00	9.10
54		1,1,2-Trichloroethane	0.331	0.354	-6.9	101	0.00	9.27
55		Dibromochloromethane	0.412	0.464	-12.6	104	0.00	9.45
56		1,3-Dichloropropane	0.595	0.643	-8.1	102	0.00	9.54
57		1,2-Dibromoethane	0.386	0.438	-13.5	104	0.00	9.71
		----------	Amount	Calc.	%Drift	----------		
58		2-hexanone	200.000	173.487	13.3	87	0.00	9.88
59		1-Chlorohexane	40.000	40.805	-2.0	104	0.00	10.17
		----------	AvgRF	CCRF	%Dev	----------		
60	C	Ethylbenzene	1.650	1.730	-4.8	99	0.00	10.23
61	P	Chlorobenzene	0.970	1.035	-6.7	101	0.00	10.22

Initial Calibration Verification

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VM1952-ICV1952
Lab FileID: M0048378.D

62		1,1,1,2-Tetrachloroethane	0.343	0.378	-10.2	103	0.00	10.28
		----------	Amount	Calc.	%Drift		----------	
63		m,p-Xylene	80.000	84.637	-5.8	101	0.00	10.37
64		o-Xylene	40.000	41.384	-3.5	103	0.00	10.80
65		Styrene	40.000	40.965	-2.4	103	0.00	10.86
66	P	Bromoform	40.000	42.445	-6.1	106	0.00	10.90
67		Isopropylbenzene	40.000	46.667	-16.7	119	0.00	11.11
		----------	AvgRF	CCRF	%Dev		----------	
68	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	0.00	12.57
69	S	4-Bromofluorobenzene	1.036	1.034	0.2	104	0.00	11.42
		----------	Amount	Calc.	%Drift		----------	
70		n-Propylbenzene	40.000	41.931	-4.8	103	0.00	11.53
		----------	AvgRF	CCRF	%Dev		----------	
71		Bromobenzene	0.776	0.833	-7.3	103	0.00	11.54
72	P	1,1,2,2-Tetrachloroethane	1.049	1.051	-0.2	99	0.00	11.60
		----------	Amount	Calc.	%Drift		----------	
73		1,3,5-Trimethylbenzene	40.000	39.784	0.5	100	0.00	11.73
74		2-Chlorotoluene	40.000	42.232	-5.6	104	0.00	11.71
75		trans-1,4-Dichloro-2-Bute	40.000	40.768	-1.9	101	0.00	11.78
		----------	AvgRF	CCRF	%Dev		----------	
76		1,2,3-Trichloropropane	0.250	0.239	4.4	93	0.00	11.75
77		Cyclohexanone	0.026	0.028	-7.7	110	0.00	11.81
		----------	Amount	Calc.	%Drift		----------	
78		4-Chlorotoluene	40.000	40.944	-2.4	104	0.00	11.88
79		tert-Butylbenzene	40.000	41.414	-3.5	106	0.00	12.06
80		1,2,4-Trimethylbenzene	40.000	40.100	-0.3	103	0.00	12.13
81		sec-Butylbenzene	40.000	40.615	-1.5	105	0.00	12.25
82		4-Isopropyltoluene	40.000	41.373	-3.4	109	0.00	12.38
83		1,3-Dichlorobenzene	40.000	42.112	-5.3	110	0.00	12.50
		----------	AvgRF	CCRF	%Dev		----------	
84		1,4-Dichlorobenzene	1.429	1.544	-8.0	107	0.00	12.58
		----------	Amount	Calc.	%Drift		----------	
85		n-Butylbenzene	40.000	41.656	-4.1	106	0.00	12.82
86		Benzyl Chloride	40.000	40.806	-2.0	101	0.00	12.83
		----------	AvgRF	CCRF	%Dev		----------	
87		1,2-Dichlorobenzene	1.304	1.443	-10.7	106	0.00	13.02
88		1,2-Dibromo-3-Chloropropa	0.166	0.179	-7.8	104	0.00	13.81
		----------	Amount	Calc.	%Drift		----------	
89		Hexachlorobutadiene	40.000	42.674	-6.7	116	0.00	14.39
90		1,2,4-Trichlorobenzene	40.000	41.826	-4.6	113	0.00	14.43
		----------	AvgRF	CCRF	%Dev		----------	
91		Naphthalene	2.285	2.491	-9.0	105	0.00	14.71
92		1,2,3-Trichlorobenzene	0.776	0.878	-13.1	110	0.00	14.87
93	I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	94	0.00	4.76
		----------	Amount	Calc.	%Drift		----------	

Initial Calibration Verification

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VM1952-ICV1952
Lab FileID: M0048378.D

94	acrolein	200.000	291.758	-45.9#	130	0.00	4.25
	----------	AvgRF	CCRF	%Dev	----------		
95	Tert Butyl Alcohol	1.161	1.175	-1.2	98	0.00	4.84
	----------	Amount	Calc.	%Drift	----------		
96	tert Amyl alcohol	400.000	430.023	-7.5	100	0.00	6.97
97	1,4-Dioxane	800.000	933.169	-16.6	116	0.00	8.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0
m0048375.D 8260mnew.m Tue Jan 25 13:32:46 2011

Continuing Calibration Summary

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VM1956-CC1952
Lab FileID: M0048481.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDchem\1\DATA\013111\m0048481.D          Vial: 2
Acq On    : 31 Jan 2011  10:23 am                     Operator: LoganD
Sample    : CC1952-4                                  Inst    : MSVOA7
Misc      : ms16230,vm1956,,,,,                       Multiplr: 1.00
MS Integration Params: Rteint.p

Method       : C:\MSDchem\1\METHODS\8260mnew.m (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Tue Jan 25 13:30:44 2011
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	89	0.00	7.09
		Amount	Calc.	%Drift			
2	Dichlorodifluoromethane	40.000	28.333	29.2#	62	-0.02	2.48
		AvgRF	CCRF	%Dev			
3 P	Chloromethane	0.352	0.292	17.0	74	0.00	2.75
4 C	Vinyl Chloride	0.327	0.305	6.7	79	0.00	2.84
		Amount	Calc.	%Drift			
5	Bromomethane	40.000	38.204	4.5	83	0.00	3.21
		AvgRF	CCRF	%Dev			
6	Chloroethane	0.174	0.182	-4.6	86	0.00	3.27
		Amount	Calc.	%Drift			
7	Trichlorofluoromethane	40.000	40.736	-1.8	86	0.00	3.47
		AvgRF	CCRF	%Dev			
8	Ethyl Ether	0.246	0.230	6.5	81	0.00	3.66
9	1,2-Dichlorotrifluoroetha	0.278	0.273	1.8	84	0.00	3.91
10 C	1,1-Dichloroethene	0.414	0.390	5.8	80	0.00	3.93
11	Freon 113	0.221	0.246	-11.3	93	0.00	3.98
12	Carbon Disulfide	0.709	0.721	-1.7	84	0.00	4.03
13	Iodomethane	0.414	0.438	-5.8	91	0.00	4.10
		Amount	Calc.	%Drift			
14	Methylene Chloride	40.000	35.078	12.3	79	0.00	4.50
		AvgRF	CCRF	%Dev			
15	Acetone	0.048	0.041	14.6	77	0.00	4.53
16	Methyl acetate	0.044	0.040	9.1	80	0.00	4.64
17	trans-1,2-Dichloroethene	0.471	0.410	13.0	79	0.00	4.65
		Amount	Calc.	%Drift			
18	Hexane	40.000	45.963	-14.9	99	0.00	4.70
		AvgRF	CCRF	%Dev			
19	Methyl Tert Butyl Ether	0.774	0.759	1.9	87	-0.01	4.76
20	Di-isopropyl ether	1.065	1.130	-6.1	92	0.00	5.12
21 P	1,1-Dichloroethane	0.641	0.660	-3.0	88	0.00	5.27
22	Acrylonitrile	0.146	0.170	-16.4	100	0.00	5.32

Continuing Calibration Summary

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VM1956-CC1952
Lab FileID: M0048481.D

23		ETBE	1.060	1.140	-7.5	90	0.00	5.50
24		Vinyl acetate	0.454	0.572	-26.0#	107	0.00	5.48
25		cis-1,2-Dichloroethene	0.343	0.363	-5.8	89	0.00	5.82
26		2,2-Dichloropropane	0.410	0.449	-9.5	94	0.00	5.96
27		Bromochloromethane	0.163	0.190	-16.6	98	0.00	6.03
		----------	Amount	Calc.	%Drift	----------		
28		Cyclohexane	40.000	42.694	-6.7	95	0.00	6.06
		----------	AvgRF	CCRF	%Dev	----------		
29	C	Chloroform	0.609	0.618	-1.5	89	0.00	6.09
30		Tetrahydrofuran	0.101	0.092	8.9	80	0.00	6.27
31	S	Dibromofluoromethane	0.280	0.291	-3.9	93	0.00	6.27
32		Carbon Tetrachloride	0.439	0.477	-8.7	92	0.00	6.26
33		1,1,1-Trichloroethane	0.475	0.488	-2.7	91	0.00	6.33
34		2-Butanone	0.213	0.207	2.8	81	0.00	6.39
35		1,1-Dichloropropene	0.389	0.411	-5.7	87	0.00	6.44
36		Benzene	1.240	1.298	-4.7	87	0.00	6.69
37		TAME	0.771	0.859	-11.4	91	0.00	6.79
38	S	1,2-Dichloroethane-d4	0.342	0.350	-2.3	89	0.00	6.82
39		1,2-Dichloroethane	0.492	0.488	0.8	86	0.00	6.89
40		Trichloroethene	0.331	0.339	-2.4	88	0.00	7.27
		----------	Amount	Calc.	%Drift	----------		
41		Methylcyclohexane	40.000	44.268	-10.7	98	0.00	7.28
		----------	AvgRF	CCRF	%Dev	----------		
42		Dibromomethane	0.220	0.230	-4.5	87	0.00	7.70
43	C	1,2-Dichloropropane	0.364	0.384	-5.5	87	0.00	7.79
44		Bromodichloromethane	0.448	0.476	-6.2	90	0.00	7.84
		----------	Amount	Calc.	%Drift	----------		
45		2-Chloroethyl vinyl ether	200.000	212.871	-6.4	85	0.00	8.38
		----------	AvgRF	CCRF	%Dev	----------		
46		cis-1,3-Dichloropropene	0.496	0.543	-9.5	89	0.00	8.46
47	I	Chlorobenzene-d5	1.000	1.000	0.0	94	0.00	10.20
48	S	Toluene-d8	1.207	1.180	2.2	93	0.00	8.65
49	C	Toluene	1.507	1.516	-0.6	89	0.00	8.71
50		2-Nitropropane	0.108	0.101	6.5	83	0.00	8.92
51		4-Methyl-2-pentanone	0.423	0.381	9.9	78	0.00	9.05
		----------	Amount	Calc.	%Drift	----------		
52		trans-1,3-Dichloropropene	40.000	38.880	2.8	88	0.00	9.10
		----------	AvgRF	CCRF	%Dev	----------		
53		Tetrachloroethene	0.358	0.360	-0.6	94	0.00	9.10
54		1,1,2-Trichloroethane	0.331	0.323	2.4	88	0.00	9.27
55		Dibromochloromethane	0.412	0.440	-6.8	93	0.00	9.45
56		1,3-Dichloropropane	0.595	0.585	1.7	88	0.00	9.55
57		1,2-Dibromoethane	0.386	0.399	-3.4	90	0.00	9.71
		----------	Amount	Calc.	%Drift	----------		
58		2-hexanone	200.000	157.333	21.3#	76	0.00	9.88
59		1-Chlorohexane	40.000	40.024	-0.1	96	0.00	10.17
		----------	AvgRF	CCRF	%Dev	----------		
60	C	Ethylbenzene	1.650	1.625	1.5	88	0.00	10.23
61	P	Chlorobenzene	0.970	0.956	1.4	88	0.00	10.22

Continuing Calibration Summary

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VM1956-CC1952
Lab FileID: M0048481.D

62		1,1,1,2-Tetrachloroethane	0.343	0.355	-3.5	92	0.00	10.28
		----------	Amount	Calc.	%Drift		----------	
63		m,p-Xylene	80.000	78.241	2.2	88	0.00	10.37
64		o-Xylene	40.000	37.845	5.4	89	0.00	10.80
65		Styrene	40.000	37.871	5.3	90	0.00	10.86
66	P	Bromoform	40.000	39.046	2.4	92	0.00	10.90
67		Isopropylbenzene	40.000	38.172	4.6	92	0.00	11.11
		----------	AvgRF	CCRF	%Dev		----------	
68	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	97	0.00	12.57
69	S	4-Bromofluorobenzene	1.036	1.020	1.5	97	0.00	11.42
		----------	Amount	Calc.	%Drift		----------	
70		n-Propylbenzene	40.000	38.901	2.7	90	0.00	11.53
		----------	AvgRF	CCRF	%Dev		----------	
71		Bromobenzene	0.776	0.778	-0.3	91	0.00	11.53
72	P	1,1,2,2-Tetrachloroethane	1.049	0.979	6.7	87	0.00	11.60
		----------	Amount	Calc.	%Drift		----------	
73		1,3,5-Trimethylbenzene	40.000	38.631	3.4	91	0.00	11.72
74		2-Chlorotoluene	40.000	38.593	3.5	90	0.00	11.71
75		trans-1,4-Dichloro-2-Bute	40.000	37.010	7.5	87	0.00	11.78
		----------	AvgRF	CCRF	%Dev		----------	
76		1,2,3-Trichloropropane	0.250	0.237	5.2	87	0.00	11.75
77		Cyclohexanone	0.026	0.026	0.0	100	0.00	11.81
		----------	Amount	Calc.	%Drift		----------	
78		4-Chlorotoluene	40.000	37.408	6.5	90	0.00	11.88
79		tert-Butylbenzene	40.000	37.979	5.1	92	0.00	12.06
80		1,2,4-Trimethylbenzene	40.000	38.319	4.2	93	0.00	12.13
81		sec-Butylbenzene	40.000	38.348	4.1	94	0.00	12.24
82		4-Isopropyltoluene	40.000	38.671	3.3	96	0.00	12.38
83		1,3-Dichlorobenzene	40.000	39.418	1.5	97	0.00	12.50
		----------	AvgRF	CCRF	%Dev		----------	
84		1,4-Dichlorobenzene	1.429	1.445	-1.1	95	0.00	12.58
		----------	Amount	Calc.	%Drift		----------	
85		n-Butylbenzene	40.000	39.329	1.7	95	0.00	12.82
86		Benzyl Chloride	40.000	43.627	-9.1	102	0.00	12.83
		----------	AvgRF	CCRF	%Dev		----------	
87		1,2-Dichlorobenzene	1.304	1.374	-5.4	96	0.00	13.03
88		1,2-Dibromo-3-Chloropropa	0.166	0.151	9.0	83	0.00	13.81
		----------	Amount	Calc.	%Drift		----------	
89		Hexachlorobutadiene	40.000	39.826	0.4	103	0.00	14.39
90		1,2,4-Trichlorobenzene	40.000	40.247	-0.6	102	0.00	14.43
		----------	AvgRF	CCRF	%Dev		----------	
91		Naphthalene	2.285	2.401	-5.1	95	0.00	14.71
92		1,2,3-Trichlorobenzene	0.776	0.849	-9.4	100	0.00	14.87
93	I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	87	0.00	4.75
		----------	Amount	Calc.	%Drift		----------	

Continuing Calibration Summary

Job Number: F79564
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VM1956-CC1952
Lab FileID: M0048481.D

94	acrolein	200.000	281.833	-40.9#	116	0.00	4.24
	----------	AvgRF	CCRF	%Dev	----------		
95	Tert Butyl Alcohol	1.161	1.070	7.8	82	-0.01	4.82
	----------	Amount	Calc.	%Drift	----------		
96	tert Amyl alcohol	400.000	384.804	3.8	82	0.00	6.96
97	1,4-Dioxane	800.000	950.891	-18.9	108	0.00	8.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0
m0048375.D 8260mnew.m Tue Feb 01 09:51:01 2011

Southeast ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30201W1.PRN Date Analyzed: 02/01/11 Methods: SW846 7470A
Analyst: LM Run ID: MA8683
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:22	MA8683-STD1	1		STD01REP1
10:24	MA8683-STD2	1		STD02REP1
10:26	MA8683-STD3	1		STD03REP1
10:29	MA8683-STD4	1		STD04REP1
10:32	MA8683-STD5	1		STD05REP1
10:35	MA8683-STD6	1		STD06REP1
10:39	MA8683-HSTD1	1		
10:42	MA8683-ICV1	1		
10:45	MA8683-ICB1	1		
10:49	MA8683-CRI1	1		
11:01	MA8683-CCV1	1		
11:03	MA8683-CCB1	1		
11:06	MP19899-MB1	1		
11:10	MP19899-B1	1		
11:13	F79564-1F	1		
11:16	MP19899-D1	1		
11:19	MP19899-SD1	5		
11:22	MP19899-S1	1		
11:24	MP19899-S2	1		
11:26	F79564-2	1		
11:29	ZZZZZZ	1		
11:32	ZZZZZZ	1		
11:34	MA8683-CCV2	1		
11:37	MA8683-CCB2	1		
11:40	ZZZZZZ	1		
11:42	ZZZZZZ	1		
11:45	ZZZZZZ	1		
11:50	ZZZZZZ	1		
11:55	ZZZZZZ	1		
11:57	ZZZZZZ	1		
12:00	ZZZZZZ	1		
12:03	MP19899-MB2A	1		
12:07	MP19898-MB1	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30201W1.PRN Date Analyzed: 02/01/11 Methods: SW846 7470A
Analyst: LM Run ID: MA8683
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:11	MP19898-B1	1		
12:14	MA8683-CCV3	1		
12:16	MA8683-CCB3	1		
12:19	F79564-1	1		
12:21	MP19898-D1	1		
12:25	MP19898-SD1	5		
12:28	MP19898-S1	1		
12:30	MP19898-S2	1		
12:33	ZZZZZZ	1		
12:35	ZZZZZZ	1		
12:39	ZZZZZZ	1		
12:41	ZZZZZZ	1		
12:44	ZZZZZZ	1		
12:46	MA8683-CCV4	1		
12:49	MA8683-CCB4	1		
12:51	ZZZZZZ	1		
12:53	ZZZZZZ	1		
12:58	ZZZZZZ	1		
13:01	ZZZZZZ	1		
13:03	ZZZZZZ	1		
13:06	MP19900-MB1	1		
13:08	MP19900-B1	1		
13:11	F79568-5	1		(sample used for QC only; not part of login F79564)
13:13	MP19900-D1	1		
13:16	MP19900-SD1	5		
13:20	MA8683-CCV5	1		
13:23	MA8683-CCB5	1		
13:26	MP19900-S1	1		
13:28	MP19900-S2	1		
13:32	ZZZZZZ	1		
13:36	ZZZZZZ	1		
13:38	ZZZZZZ	1		
13:41	F79564-3	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30201W1.PRN Date Analyzed: 02/01/11 Methods: SW846 7470A
Analyst: LM Run ID: MA8683
Parameters: Hg

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	13:44	F79564-4	1		
	13:47	F79564-5	1		
	13:49	F79564-6	1		
	13:53	F79564-2F	1		
	13:56	MA8683-CCV6	1		
	13:58	MA8683-CCB6	1		
	14:01	F79564-3F	1		
	14:03	F79564-4F	1		
	14:06	F79564-5F	1		
	14:08	F79564-6F	1		
	14:11	MP19900-MB2A	1		
---------->	Last reportable sample/prep for job F79564				
	14:15	MP19901-MB1	1		
	14:17	MP19901-B1	1		
	14:20	F79608-1	1		(sample used for QC only; not part of login F79564)
	14:23	MP19901-D1	1		
	14:26	MP19901-SD1	5		
	14:28	MA8683-CCV7	1		
	14:31	MA8683-CCB7	1		
	14:34	MP19901-S1	1		
	14:37	MP19901-S2	1		
	14:39	ZZZZZZ	1		
	14:43	ZZZZZZ	1		
	14:47	ZZZZZZ	1		
	14:50	ZZZZZZ	1		
	14:53	ZZZZZZ	1		
	14:55	MA8683-CRI2	1		
	14:58	MA8683-CCV8	1		
	15:01	MA8683-CCB8	1		
---------->	Last reportable CCB for job F79564				

Refer to raw data for calibration curve and standards.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30201W1.PRN Date Analyzed: 02/01/11 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA8683 Units: ug/l

Time:			10:45		11:03		11:37		12:16	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	1.0	.071	-0.053	<1.0	-0.034	<1.0	0.012	<1.0	0.020	<1.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30201W1.PRN Date Analyzed: 02/01/11 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA8683 Units: ug/l

Time:			12:49		13:23		13:58		14:31	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	1.0	.071	-0.044	<1.0	-0.042	<1.0	0.0080	<1.0	-0.026	<1.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30201W1.PRN Date Analyzed: 02/01/11 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA8683 Units: ug/l

Time:			15:01	
Sample ID:			CCB8	
Metal	RL	IDL	raw	final
Mercury	1.0	.071	-0.0030	<1.0

(*) Outside of QC limits
(anr) Analyte not requested

6.1.1
6

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30201W1.PRN Date Analyzed: 02/01/11 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA8683 Units: ug/l

Time:		10:42			11:01			11:34	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	2.9	96.7	3.0	3.0	100.0	3	2.9	96.7

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30201W1.PRN Date Analyzed: 02/01/11 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA8683 Units: ug/l

Time:		12:14			12:46			13:20	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	2.9	96.7	3	2.9	96.7	3	2.8	93.3

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30201W1.PRN Date Analyzed: 02/01/11 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA8683 Units: ug/l

Time:		13:56			14:28			14:58	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	2.9	96.7	3	2.9	96.7	3	2.8	93.3

(*) Outside of QC limits
(anr) Analyte not requested

6.1.2
6

HIGH STANDARD CHECK SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30201W1.PRN Date Analyzed: 02/01/11 Methods: SW846 7470A
QC Limits: 95 to 105 % Recovery Run ID: MA8683 Units: ug/l

Time:		10:39	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Mercury	6	6.1	101.7

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H30201W1.PRN Date Analyzed: 02/01/11 Methods: SW846 7470A
QC Limits: 80 to 120 % Recovery Run ID: MA8683 Units: ug/l

Time:			10:49		14:55	
Sample ID:	CRI	CRIA	CRI1		CRI2	
Metal	True	True	Results	% Rec	Results	% Rec
Mercury	0.20		0.19	95.0	0.22	110.0

(*) Outside of QC limits
(anr) Analyte not requested

6.1.4
6

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020311M1.ICP Date Analyzed: 02/03/11 Methods: SW846 6010C
Analyst: DM Run ID: MA8691
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
08:22	MA8691-STD1	1		STDA
08:25	MA8691-STD2	1		STDB
08:29	MA8691-STD3	1		STDC
08:34	MA8691-HSTD1	1		
08:41	MA8691-ICV1	1		
08:50	MA8691-ICB1	1		
08:53	MA8691-ICB2	1		
08:57	MA8691-CRIA1	1		
09:05	MA8691-ICSA1	1		
09:09	MA8691-ICSAB1	1		
09:14	MA8691-CCV1	1		
09:18	MA8691-CCB1	1		
09:23	F79514-1F	2		(sample used for QC only; not part of login F79564)
09:27	MP19907-D1	2		
09:31	MP19907-S1	2		
09:35	MP19907-S2	2		
09:39	MP19907-PS1	2		
09:43	MP19907-SD1	10		
09:47	ZZZZZZ	5		
09:52	F79554-8	2		(sample used for QC only; not part of login F79564)
09:56	MP19911-D1	5		
10:00	MP19911-S1	2		
10:04	MA8691-CCV2	1		
10:08	MA8691-CCB2	1		
10:12	MP19911-S2	5		
10:17	MP19911-PS1	2		
10:21	MP19911-SD1	10		
10:25	ZZZZZZ	4		
10:29	ZZZZZZ	2		
10:34	ZZZZZZ	10		
10:38	ZZZZZZ	5		
10:42	ZZZZZZ	10		
10:47	ZZZZZZ	5		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020311M1.ICP Date Analyzed: 02/03/11 Methods: SW846 6010C
Analyst: DM Run ID: MA8691
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:51	ZZZZZZ	10		
10:55	MA8691-CCV3	1		
10:59	MA8691-CCB3	1		
11:03	ZZZZZZ	10		
11:07	ZZZZZZ	4		
11:12	ZZZZZZ	4		
11:16	MA8691-CCV4	1		
11:19	MA8691-CCB4	1		
11:44	MP19912-MB1	1		
11:48	MP19912-B1	1		
11:52	F79539-11F	1		(sample used for QC only; not part of login F79564)
11:56	MP19912-D1	1		
12:00	MP19912-SD1	5		
12:04	MP19912-PS1	1		
12:08	MP19912-S1	1		
12:12	MP19912-S2	1		
12:16	ZZZZZZ	1		
12:20	ZZZZZZ	1		
12:25	MA8691-CCV5	1		
12:28	MA8691-CCB5	1		
12:33	ZZZZZZ	1		
12:37	ZZZZZZ	1		
12:41	ZZZZZZ	1		
12:46	ZZZZZZ	1		
12:50	ZZZZZZ	1		
12:54	ZZZZZZ	1		
12:58	ZZZZZZ	1		
13:02	ZZZZZZ	1		
13:07	ZZZZZZ	1		
13:11	ZZZZZZ	1		
13:15	MA8691-CCV6	1		
13:19	MA8691-CCB6	1		
13:23	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020311M1.ICP Date Analyzed: 02/03/11 Methods: SW846 6010C
Analyst: DM Run ID: MA8691
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:27	ZZZZZZ	1		
13:31	ZZZZZZ	1		
13:36	ZZZZZZ	1		
13:40	ZZZZZZ	1		
13:44	ZZZZZZ	1		
13:48	ZZZZZZ	1		
13:52	MP19912-MB2A	1		
13:57	MP19913-MB1	1		
14:01	MP19913-B1	1		
14:05	MA8691-CCV7	1		
14:09	MA8691-CCB7	1		
14:13	F79564-1	1		
14:17	MP19913-D1	1		
14:22	MP19913-SD1	5		
14:26	MP19913-PS1	1		
14:31	MP19913-S1	1		
14:35	MP19913-S2	1		
14:39	F79564-2	1		
14:43	F79564-3	1		
14:48	F79564-4	1		
14:52	F79564-5	1		
14:57	MA8691-CCV8	1		
15:01	MA8691-CCB8	1		
15:05	F79564-6	1		
15:09	ZZZZZZ	1		
15:14	ZZZZZZ	1		
15:18	ZZZZZZ	1		
15:22	ZZZZZZ	1		
15:26	ZZZZZZ	1		
15:30	ZZZZZZ	1		
15:34	ZZZZZZ	1		
15:39	ZZZZZZ	1		
15:43	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020311M1.ICP Date Analyzed: 02/03/11 Methods: SW846 6010C
Analyst: DM Run ID: MA8691
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:47	MA8691-CCV9	1		
15:51	MA8691-CCB9	1		
15:55	ZZZZZZ	1		
15:59	MP19913-MB2A	1		
16:04	MP19917-MB1	1		
16:08	MP19917-B1	1		
16:12	F79564-1F	1		
16:16	MP19917-D1	1		
16:21	MP19917-SD1	5		
16:25	MP19917-PS1	1		
16:29	MP19917-S1	1		
16:34	MP19917-S2	1		
16:38	MA8691-CCV10	1		
16:42	MA8691-CCB10	1		
16:46	F79564-2F	1		
16:50	F79564-3F	1		
16:55	F79564-4F	1		
16:59	F79564-5F	1		
17:04	F79564-6F	1		
17:08	ZZZZZZ	1		
17:12	ZZZZZZ	1		
17:16	ZZZZZZ	1		
17:21	ZZZZZZ	1		
17:25	ZZZZZZ	1		
17:29	MA8691-CCV11	1		
17:33	MA8691-CCB11	1		
17:37	ZZZZZZ	1		
17:41	ZZZZZZ	1		
17:46	ZZZZZZ	1		
17:50	ZZZZZZ	1		
17:54	ZZZZZZ	1		
17:58	ZZZZZZ	1		
18:02	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020311M1.ICP Date Analyzed: 02/03/11 Methods: SW846 6010C
Analyst: DM Run ID: MA8691
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	18:07	ZZZZZZ	1		
	18:11	ZZZZZZ	1		
	18:15	MP19917-MB2A	1		
---------->	Last reportable sample/prep for job F79564				
	18:19	MA8691-CCV12	1		
	18:23	MA8691-CCB12	1		
	18:27	MA8691-CRIA2	1		
	18:32	MA8691-ICSA2	1		
	18:36	MA8691-ICSAB2	1		
	18:40	MA8691-CCV13	1		
	18:44	MA8691-CCB13	1		
---------->	Last reportable CCB for job F79564				

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020311M1.ICP Date Analyzed: 02/03/11 Methods: SW846 6010C
Analyst: DM Run ID: MA8691
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
08:22	MA8691-STD1	1827	25575	8832	1083
08:25	MA8691-STD2	1722	23561	8546	900
08:29	MA8691-STD3	1675	23017	8522	836
08:34	MA8691-HSTD1	1645	22647	8391	825
08:41	MA8691-ICV1	1722	23452	8528	897
08:50	MA8691-ICB1	1815 R	24871 R	8729 R	1071 R
08:53	MA8691-ICB2	1826	24800	8745	999999
08:57	MA8691-CRIA1	1804	24404	8661	1025
09:05	MA8691-ICSA1	1560	21071	8205	748
09:09	MA8691-ICSAB1	1543	20930	8177	740
09:14	MA8691-CCV1	1703	23330	8435	895
09:18	MA8691-CCB1	1800	24889	8695	1068
09:23	F79514-1F	1644	22538	8344	895
09:27	MP19907-D1	1647	22539	8355	897
09:31	MP19907-S1	1659	22537	8377	870
09:35	MP19907-S2	1686	22620	8366	881
09:39	MP19907-PS1	1675	22716	8471	889
09:43	MP19907-SD1	1769	24101	8571	1005
09:47	ZZZZZZ	1696	23229	8611	859
09:52	F79554-8	1647	22717	8354	883
09:56	MP19911-D1	1642	22443	8334	877
10:00	MP19911-S1	1680	22557	8339	859
10:04	MA8691-CCV2	1740	23380	8472	900
10:08	MA8691-CCB2	1892	25455	8842	1108
10:12	MP19911-S2	1698	22932	8485	892
10:17	MP19911-PS1	1668	22885	8390	892
10:21	MP19911-SD1	1763	24163	8612	1000
10:25	ZZZZZZ	1676	22732	8384	897
10:29	ZZZZZZ	1674	22672	8423	880
10:34	ZZZZZZ	1686	22739	8387	895
10:38	ZZZZZZ	1685	22831	8409	902
10:42	ZZZZZZ	1680	22912	8419	919
10:47	ZZZZZZ	1692	22754	8400	910

INTERNAL STANDARD SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020311M1.ICP Date Analyzed: 02/03/11 Methods: SW846 6010C
Analyst: DM Run ID: MA8691
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
10:51	ZZZZZZ	1832	24630	8745	1017
10:55	MA8691-CCV3	1734	23355	8408	901
10:59	MA8691-CCB3	1834	25181	8669	1090
11:03	ZZZZZZ	1656	22766	8380	880
11:07	ZZZZZZ	1776	24195	8586	979
11:12	ZZZZZZ	1779	24198	8582	959
11:16	MA8691-CCV4	1745	23475	8462	907
11:19	MA8691-CCB4	1837	25141	8705	1090
11:44	MP19912-MB1	1832	25223	8687	1072
11:48	MP19912-B1	1761	23635	8408	942
11:52	F79539-11F	1723	23258	8327	965
11:56	MP19912-D1	1721	23417	8376	965
12:00	MP19912-SD1	1815	24777	8663	1060
12:04	MP19912-PS1	1737	23497	8372	947
12:08	MP19912-S1	1735	23387	8399	910
12:12	MP19912-S2	1718	23503	8422	907
12:16	ZZZZZZ	1779	24489	8574	994
12:20	ZZZZZZ	1785	24529	8497	1033
12:25	MA8691-CCV5	1766	23941	8527	918
12:28	MA8691-CCB5	1851	25529	8689	1098
12:33	ZZZZZZ	1774	24404	8538	1022
12:37	ZZZZZZ	1696	23261	8340	908
12:41	ZZZZZZ	1788	24493	8545	1028
12:46	ZZZZZZ	1771	24521	8562	1024
12:50	ZZZZZZ	1765	24554	8500	1022
12:54	ZZZZZZ	1771	24399	8461	990
12:58	ZZZZZZ	1791	24847	8521	1038
13:02	ZZZZZZ	1788	24887	8571	1037
13:07	ZZZZZZ	1791	24670	8544	1018
13:11	ZZZZZZ	1720	23510	8348	946
13:15	MA8691-CCV6	1765	24139	8544	923
13:19	MA8691-CCB6	1845	25659	8714	1100
13:23	ZZZZZZ	1698	23535	8312	945

INTERNAL STANDARD SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020311M1.ICP Date Analyzed: 02/03/11 Methods: SW846 6010C
Analyst: DM Run ID: MA8691
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
13:27	ZZZZZZ	1731	23817	8342	971
13:31	ZZZZZZ	1725	24051	8425	970
13:36	ZZZZZZ	1703	23714	8396	954
13:40	ZZZZZZ	1695	23587	8355	942
13:44	ZZZZZZ	1699	23740	8376	941
13:48	ZZZZZZ	1816	25563	8631	1075
13:52	MP19912-MB2A	1798	25444	8603	1071
13:57	MP19913-MB1	1806	25513	8605	1072
14:01	MP19913-B1	1750	24316	8449	958
14:05	MA8691-CCV7	1768	24539	8579	930
14:09	MA8691-CCB7	1873	26678	8937	1134
14:13	F79564-1	1202	16558	6975	565 !
14:17	MP19913-D1	1209	16591	7020	563 !
14:22	MP19913-SD1	1482	20526	7990	757
14:26	MP19913-PS1	1205	16459	6951	558 !
14:31	MP19913-S1	1237	16949	7037	553 !
14:35	MP19913-S2	1240	17193	7149	556 !
14:39	F79564-2	1124	15283	6773	515 !
14:43	F79564-3	1147	15681	6862	525 !
14:48	F79564-4	1188	16388	7054	550 !
14:52	F79564-5	1197	16589	7130	563 !
14:57	MA8691-CCV8	1720	24381	8640	922
15:01	MA8691-CCB8	1833	26267	8972	1113
15:05	F79564-6	1186	16502	7113	558 !
15:09	ZZZZZZ	1709	24269	8647	962
15:14	ZZZZZZ	1706	24316	8590	966
15:18	ZZZZZZ	1737	24816	8689	1006
15:22	ZZZZZZ	1779	25560	8784	1050
15:26	ZZZZZZ	1735	24699	8629	1021
15:30	ZZZZZZ	1760	25159	8628	1040
15:34	ZZZZZZ	1740	24931	8650	1022
15:39	ZZZZZZ	1718	24540	8607	1004
15:43	ZZZZZZ	1714	24440	8552	987

INTERNAL STANDARD SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020311M1.ICP Date Analyzed: 02/03/11 Methods: SW846 6010C
Analyst: DM Run ID: MA8691
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
15:47	MA8691-CCV9	1741	24641	8655	926
15:51	MA8691-CCB9	1815	26177	8829	1105
15:55	ZZZZZZ	1719	24726	8595	1012
15:59	MP19913-MB2A	1766	25621	8636	1064
16:04	MP19917-MB1	1774	25618	8672	1068
16:08	MP19917-B1	1707	24178	8449	940
16:12	F79564-1F	1178	16350	7039	554 !
16:16	MP19917-D1	1160	16122	6944	547 !
16:21	MP19917-SD1	1476	20455	8027	753
16:25	MP19917-PS1	1202	16658	7076	556 !
16:29	MP19917-S1	1204	16820	7078	546 !
16:34	MP19917-S2	1218	17067	7173	553 !
16:38	MA8691-CCV10	1741	24698	8750	931
16:42	MA8691-CCB10	1841	26328	8955	1113
16:46	F79564-2F	1112	15388	6774	514 !
16:50	F79564-3F	1121	15579	6847	520 !
16:55	F79564-4F	1169	16138	6933	546 !
16:59	F79564-5F	1213	16938	7219	572 !
17:04	F79564-6F	1189	16578	7072	568 !
17:08	ZZZZZZ	1704	24754	8528	994
17:12	ZZZZZZ	1719	24837	8552	1010
17:16	ZZZZZZ	1697	24546	8528	985
17:21	ZZZZZZ	1738	25154	8583	1031
17:25	ZZZZZZ	1732	25053	8588	1022
17:29	MA8691-CCV11	1707	24217	8540	916
17:33	MA8691-CCB11	1817	26150	8812	1106
17:37	ZZZZZZ	1773	25300	8636	1030
17:41	ZZZZZZ	1726	24774	8686	963
17:46	ZZZZZZ	1717	24608	8645	972
17:50	ZZZZZZ	1771	25610	8837	1012
17:54	ZZZZZZ	1864	26845	9316	989
17:58	ZZZZZZ	2121	30275	10574	991
18:02	ZZZZZZ	1775	25407	8637	1031

INTERNAL STANDARD SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020311M1.ICP Date Analyzed: 02/03/11 Methods: SW846 6010C
Analyst: DM Run ID: MA8691
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
18:07	ZZZZZZ	1771	25462	8676	1043
18:11	ZZZZZZ	1745	25111	8584	1017
18:15	MP19917-MB2A	1754	25418	8512	1056
18:19	MA8691-CCV12	1742	24573	8662	930
18:23	MA8691-CCB12	1834	26064	8856	1104
18:27	MA8691-CRIA2	1790	25409	8704	1045
18:32	MA8691-ICSA2	1553	21608	8186	759
18:36	MA8691-ICSAB2	1551	21761	8274	756
18:40	MA8691-CCV13	1720	24487	8642	919
18:44	MA8691-CCB13	1802	25786	8789	1095

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	60-125 %
Istd#2	Yttrium (3600)	60-125 %
Istd#3	Yttrium (3710)	60-125 %
Istd#4	Indium	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020311M1.ICP Date Analyzed: 02/03/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8691 Units: ug/l

Time:			08:50		08:53		09:18		10:08	
Sample ID:			ICB1		ICB2		CCB1		CCB2	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	2.0	<200			18.1	<200	1.5	<200
Antimony	6.0	1	1.8	<6.0			1.4	<6.0	1.4	<6.0
Arsenic	10	1	-0.20	<10			-0.50	<10	0.20	<10
Barium	200	1	0.50	<200			1.2	<200	-0.30	<200
Beryllium	4.0	.1	0.0	<4.0			0.20	<4.0	0.20	<4.0
Cadmium	5.0	.1	-0.10	<5.0			0.20	<5.0	0.30	<5.0
Calcium	1000	50	-4.5	<1000			5.2	<1000	3.1	<1000
Chromium	10	1	0.20	<10			0.40	<10	0.30	<10
Cobalt	50	1	-0.20	<50			0.0	<50	0.20	<50
Copper	25	1	0.10	<25			0.50	<25	0.60	<25
Iron	300	34	1.5	<300			28.2	<300	13.3	<300
Lead	5.0	1	0.0	<5.0			0.40	<5.0	0.60	<5.0
Magnesium	5000	50	0.90	<5000			32.2	<5000	14.0	<5000
Manganese	15	1	-0.30	<15			-0.10	<15	0.0	<15
Molybdenum	50	1								
Nickel	40	1	0.40	<40			0.50	<40	0.40	<40
Potassium	10000	50	-2.8	<10000			19.6	<10000	1.0	<10000
Selenium	10	2			1.3	<10	-0.20	<10	1.4	<10
Silver	10	1	-0.20	<10			-0.20	<10	0.0	<10
Sodium	10000	750	205	<10000			516	<10000	856	<10000
Strontium	10	1								
Thallium	10	1	-0.40	<10			0.10	<10	-1.1	<10
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	0.30	<50			0.40	<50	0.70	<50
Zinc	20	1	-0.30	<20			-0.10	<20	-0.10	<20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020311M1.ICP Date Analyzed: 02/03/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8691 Units: ug/l

Time:			10:59		11:19		12:28		13:19	
Sample ID:			CCB3		CCB4		CCB5		CCB6	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	18.2	<200	10.8	<200	5.8	<200	14.1	<200
Antimony	6.0	1	0.90	<6.0	0.10	<6.0	1.3	<6.0	0.30	<6.0
Arsenic	10	1	0.20	<10	0.30	<10	1.4	<10	0.10	<10
Barium	200	1	1.7	<200	2.0	<200	1.8	<200	1.8	<200
Beryllium	4.0	.1	0.30	<4.0	0.30	<4.0	0.30	<4.0	0.20	<4.0
Cadmium	5.0	.1	0.20	<5.0	0.20	<5.0	0.20	<5.0	0.0	<5.0
Calcium	1000	50	3.1	<1000	4.6	<1000	1.3	<1000	1.2	<1000
Chromium	10	1	0.30	<10	0.30	<10	0.30	<10	0.10	<10
Cobalt	50	1	0.0	<50	0.10	<50	0.10	<50	-0.10	<50
Copper	25	1	0.60	<25	0.40	<25	0.20	<25	0.50	<25
Iron	300	34	3.0	<300	5.5	<300	-0.80	<300	-23	<300
Lead	5.0	1	0.50	<5.0	-0.60	<5.0	0.10	<5.0	0.50	<5.0
Magnesium	5000	50	17.3	<5000	3.4	<5000	-0.10	<5000	11.0	<5000
Manganese	15	1	0.0	<15	-0.10	<15	-0.10	<15	-0.10	<15
Molybdenum	50	1								
Nickel	40	1	0.40	<40	0.50	<40	0.30	<40	0.20	<40
Potassium	10000	50	-0.10	<10000	-5.1	<10000	-9.0	<10000	5.7	<10000
Selenium	10	2	2.1	<10	0.0	<10	2.0	<10	1.3	<10
Silver	10	1	-0.10	<10	-0.20	<10	0.0	<10	0.10	<10
Sodium	10000	750	38.1	<10000	258	<10000	179	<10000	159	<10000
Strontium	10	1								
Thallium	10	1	-0.90	<10	-1.0	<10	-0.90	<10	-1.6	<10
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	0.60	<50	0.40	<50	0.50	<50	0.50	<50
Zinc	20	1	-0.10	<20	-0.20	<20	-0.10	<20	-0.40	<20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020311M1.ICP Date Analyzed: 02/03/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8691 Units: ug/l

Time:			14:09		15:01		15:51		16:42	
Sample ID:			CCB7		CCB8		CCB9		CCB10	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	7.7	<200	12.4	<200	7.7	<200	4.8	<200
Antimony	6.0	1	1.0	<6.0	0.30	<6.0	1.4	<6.0	1.6	<6.0
Arsenic	10	1	0.0	<10	0.80	<10	-0.10	<10	0.50	<10
Barium	200	1	1.6	<200	1.6	<200	2.1	<200	1.5	<200
Beryllium	4.0	.1	0.20	<4.0	0.20	<4.0	0.20	<4.0	0.10	<4.0
Cadmium	5.0	.1	0.10	<5.0	0.10	<5.0	0.10	<5.0	0.0	<5.0
Calcium	1000	50	0.60	<1000	4.5	<1000	-0.60	<1000	1.1	<1000
Chromium	10	1	0.70	<10	0.0	<10	0.0	<10	-0.10	<10
Cobalt	50	1	-0.10	<50	0.10	<50	0.10	<50	-0.10	<50
Copper	25	1	0.0	<25	0.0	<25	-0.10	<25	-0.10	<25
Iron	300	34	-2.6	<300	50.4	<300	-8.5	<300	-11	<300
Lead	5.0	1	0.60	<5.0	0.50	<5.0	0.40	<5.0	1.4	<5.0
Magnesium	5000	50	-4.8	<5000	27.8	<5000	31.1	<5000	19.2	<5000
Manganese	15	1	-0.10	<15	0.0	<15	-0.20	<15	-0.20	<15
Molybdenum	50	1								
Nickel	40	1	0.30	<40	0.40	<40	0.30	<40	0.40	<40
Potassium	10000	50	3.7	<10000	-4.4	<10000	4.0	<10000	-1.2	<10000
Selenium	10	2	-1.7	<10	-0.60	<10	-0.10	<10	-0.50	<10
Silver	10	1	0.10	<10	-0.20	<10	-0.50	<10	-0.10	<10
Sodium	10000	750	308	<10000	-1000	<10000	370	<10000	534	<10000
Strontium	10	1								
Thallium	10	1	-1.4	<10	-1.4	<10	1.2	<10	-0.50	<10
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	0.80	<50	0.30	<50	0.70	<50	0.40	<50
Zinc	20	1	-0.30	<20	-0.20	<20	-0.20	<20	-0.30	<20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020311M1.ICP Date Analyzed: 02/03/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8691 Units: ug/l

Time:			17:33		18:23		18:44	
Sample ID:			CCB11		CCB12		CCB13	
Metal	RL	IDL	raw	final	raw	final	raw	final
Aluminum	200	20	-0.10	<200	19.5	<200	13.2	<200
Antimony	6.0	1	0.80	<6.0	1.0	<6.0	1.8	<6.0
Arsenic	10	1	0.10	<10	1.3	<10	0.90	<10
Barium	200	1	3.4	<200	2.1	<200	3.0	<200
Beryllium	4.0	.1	0.10	<4.0	0.20	<4.0	0.20	<4.0
Cadmium	5.0	.1	0.0	<5.0	0.10	<5.0	0.10	<5.0
Calcium	1000	50	-4.2	<1000	-3.4	<1000	5.9	<1000
Chromium	10	1	0.20	<10	0.20	<10	0.10	<10
Cobalt	50	1	-0.10	<50	-0.10	<50	0.10	<50
Copper	25	1	-0.10	<25	0.10	<25	-0.20	<25
Iron	300	34	11.7	<300	-5.0	<300	-11	<300
Lead	5.0	1	-0.10	<5.0	-0.30	<5.0	0.70	<5.0
Magnesium	5000	50	16.7	<5000	0.90	<5000	16.9	<5000
Manganese	15	1	-0.20	<15	-0.20	<15	-0.10	<15
Molybdenum	50	1						
Nickel	40	1	0.10	<40	0.30	<40	0.30	<40
Potassium	10000	50	5.6	<10000	-11	<10000	2.1	<10000
Selenium	10	2	0.80	<10	-0.30	<10	0.60	<10
Silver	10	1	-0.30	<10	0.0	<10	-0.20	<10
Sodium	10000	750	192	<10000	134	<10000	21.6	<10000
Strontium	10	1						
Thallium	10	1	0.70	<10	-1.1	<10	-0.60	<10
Tin	50	1						
Titanium	10	1.1						
Vanadium	50	1	0.40	<50	0.20	<50	0.50	<50
Zinc	20	1	-0.40	<20	-0.30	<20	-0.30	<20

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020311M1.ICP Date Analyzed: 02/03/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8691 Units: ug/l

Time:		08:41			09:14			10:04	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	39200	98.0	40000	40700	101.8	40000	40700	101.8
Antimony	2000	1980	99.0	2000	2030	101.5	2000	2000	100.0
Arsenic	2000	1990	99.5	2000	2030	101.5	2000	2000	100.0
Barium	2000	2030	101.5	2000	2070	103.5	2000	2020	101.0
Beryllium	2000	2030	101.5	2000	2080	104.0	2000	2080	104.0
Cadmium	2000	2040	102.0	2000	2060	103.0	2000	2040	102.0
Calcium	40000	40100	100.3	40000	40700	101.8	40000	41100	102.8
Chromium	2000	2020	101.0	2000	2070	103.5	2000	2070	103.5
Cobalt	2000	2050	102.5	2000	2060	103.0	2000	2030	101.5
Copper	2000	2040	102.0	2000	2050	102.5	2000	2050	102.5
Iron	40000	39600	99.0	40000	41200	103.0	40000	41500	103.8
Lead	2000	2000	100.0	2000	1990	99.5	2000	2020	101.0
Magnesium	40000	39900	99.8	40000	41100	102.8	40000	41100	102.8
Manganese	2000	2030	101.5	2000	2060	103.0	2000	2080	104.0
Molybdenum									
Nickel	2000	1970	98.5	2000	1990	99.5	2000	2020	101.0
Potassium	40000	40300	100.8	40000	41400	103.5	40000	41100	102.8
Selenium	2000	2020	101.0	2000	2040	102.0	2000	2000	100.0
Silver	250	248	99.2	250	248	99.2	250	248	99.2
Sodium	40000	41000	102.5	40000	40900	102.3	40000	40700	101.8
Strontium									
Thallium	2000	2080	104.0	2000	2030	101.5	2000	2040	102.0
Tin									
Titanium									
Vanadium	2000	2020	101.0	2000	2070	103.5	2000	2070	103.5
Zinc	2000	1990	99.5	2000	2050	102.5	2000	2060	103.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020311M1.ICP Date Analyzed: 02/03/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8691 Units: ug/l

Time:		10:55			11:16			12:25	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	40700	101.8	40000	40400	101.0	40000	40600	101.5
Antimony	2000	2010	100.5	2000	2000	100.0	2000	2000	100.0
Arsenic	2000	2010	100.5	2000	2000	100.0	2000	2000	100.0
Barium	2000	2020	101.0	2000	2020	101.0	2000	2050	102.5
Beryllium	2000	2080	104.0	2000	2070	103.5	2000	2070	103.5
Cadmium	2000	2050	102.5	2000	2040	102.0	2000	2050	102.5
Calcium	40000	41500	103.8	40000	40900	102.3	40000	41100	102.8
Chromium	2000	2080	104.0	2000	2070	103.5	2000	2070	103.5
Cobalt	2000	2040	102.0	2000	2030	101.5	2000	2050	102.5
Copper	2000	2070	103.5	2000	2050	102.5	2000	2020	101.0
Iron	40000	42200	105.5	40000	41500	103.8	40000	41100	102.8
Lead	2000	2020	101.0	2000	2000	100.0	2000	2010	100.5
Magnesium	40000	41500	103.8	40000	41100	102.8	40000	41200	103.0
Manganese	2000	2080	104.0	2000	2070	103.5	2000	2060	103.0
Molybdenum									
Nickel	2000	2010	100.5	2000	1990	99.5	2000	2000	100.0
Potassium	40000	41200	103.0	40000	41000	102.5	40000	41100	102.8
Selenium	2000	2020	101.0	2000	2000	100.0	2000	2000	100.0
Silver	250	249	99.6	250	247	98.8	250	250	100.0
Sodium	40000	41200	103.0	40000	41600	104.0	40000	41600	104.0
Strontium									
Thallium	2000	2040	102.0	2000	2030	101.5	2000	2040	102.0
Tin									
Titanium									
Vanadium	2000	2080	104.0	2000	2070	103.5	2000	2060	103.0
Zinc	2000	2060	103.0	2000	2050	102.5	2000	2070	103.5

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020311M1.ICP Date Analyzed: 02/03/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8691 Units: ug/l

Time:		13:15			14:05			14:57	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	40600	101.5	40000	40500	101.3	40000	40800	102.0
Antimony	2000	2000	100.0	2000	2000	100.0	2000	2040	102.0
Arsenic	2000	2010	100.5	2000	2000	100.0	2000	2050	102.5
Barium	2000	2050	102.5	2000	2080	104.0	2000	2140	107.0
Beryllium	2000	2050	102.5	2000	2040	102.0	2000	2060	103.0
Cadmium	2000	2050	102.5	2000	2060	103.0	2000	2090	104.5
Calcium	40000	41100	102.8	40000	40700	101.8	40000	40800	102.0
Chromium	2000	2060	103.0	2000	2040	102.0	2000	2050	102.5
Cobalt	2000	2050	102.5	2000	2070	103.5	2000	2120	106.0
Copper	2000	1990	99.5	2000	1950	97.5	2000	1950	97.5
Iron	40000	41300	103.3	40000	40400	101.0	40000	40400	101.0
Lead	2000	2000	100.0	2000	1990	99.5	2000	1990	99.5
Magnesium	40000	40800	102.0	40000	40300	100.8	40000	40400	101.0
Manganese	2000	2040	102.0	2000	2010	100.5	2000	2000	100.0
Molybdenum									
Nickel	2000	1990	99.5	2000	1970	98.5	2000	1970	98.5
Potassium	40000	40500	101.3	40000	40300	100.8	40000	40900	102.3
Selenium	2000	2000	100.0	2000	2020	101.0	2000	2070	103.5
Silver	250	250	100.0	250	248	99.2	250	249	99.6
Sodium	40000	41400	103.5	40000	40400	101.0	40000	40600	101.5
Strontium									
Thallium	2000	2020	101.0	2000	2020	101.0	2000	2010	100.5
Tin									
Titanium									
Vanadium	2000	2030	101.5	2000	2000	100.0	2000	2010	100.5
Zinc	2000	2060	103.0	2000	2060	103.0	2000	2090	104.5

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020311M1.ICP Date Analyzed: 02/03/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8691 Units: ug/l

Time:		15:47			16:38			17:29	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	40600	101.5	40000	39800	99.5	40000	40700	101.8
Antimony	2000	2020	101.0	2000	2000	100.0	2000	2060	103.0
Arsenic	2000	2030	101.5	2000	2010	100.5	2000	2070	103.5
Barium	2000	2120	106.0	2000	2130	106.5	2000	2180	109.0
Beryllium	2000	2030	101.5	2000	2010	100.5	2000	2050	102.5
Cadmium	2000	2070	103.5	2000	2050	102.5	2000	2110	105.5
Calcium	40000	40900	102.3	40000	39700	99.3	40000	40700	101.8
Chromium	2000	2040	102.0	2000	2020	101.0	2000	2080	104.0
Cobalt	2000	2100	105.0	2000	2090	104.5	2000	2150	107.5
Copper	2000	1910	95.5	2000	1900	95.0	2000	1940	97.0
Iron	40000	40300	100.8	40000	39300	98.3	40000	40000	100.0
Lead	2000	1990	99.5	2000	1950	97.5	2000	2000	100.0
Magnesium	40000	39900	99.8	40000	39100	97.8	40000	39900	99.8
Manganese	2000	2000	100.0	2000	1970	98.5	2000	2020	101.0
Molybdenum									
Nickel	2000	1970	98.5	2000	1940	97.0	2000	1980	99.0
Potassium	40000	40100	100.3	40000	40500	101.3	40000	41400	103.5
Selenium	2000	2030	101.5	2000	2030	101.5	2000	2080	104.0
Silver	250	249	99.6	250	246	98.4	250	252	100.8
Sodium	40000	40500	101.3	40000	39700	99.3	40000	39700	99.3
Strontium									
Thallium	2000	2010	100.5	2000	1980	99.0	2000	2020	101.0
Tin									
Titanium									
Vanadium	2000	1990	99.5	2000	1970	98.5	2000	2020	101.0
Zinc	2000	2080	104.0	2000	2050	102.5	2000	2100	105.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020311M1.ICP Date Analyzed: 02/03/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8691 Units: ug/l

Time:		18:19			18:40	
Sample ID:	CCV	CCV12		CCV	CCV13	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	39700	99.3	40000	39900	99.8
Antimony	2000	2010	100.5	2000	2020	101.0
Arsenic	2000	2020	101.0	2000	2020	101.0
Barium	2000	2130	106.5	2000	2130	106.5
Beryllium	2000	2030	101.5	2000	2000	100.0
Cadmium	2000	2060	103.0	2000	2060	103.0
Calcium	40000	39900	99.8	40000	39700	99.3
Chromium	2000	2030	101.5	2000	2000	100.0
Cobalt	2000	2090	104.5	2000	2090	104.5
Copper	2000	1920	96.0	2000	1910	95.5
Iron	40000	39400	98.5	40000	39200	98.0
Lead	2000	1970	98.5	2000	1960	98.0
Magnesium	40000	39500	98.8	40000	38800	97.0
Manganese	2000	1980	99.0	2000	1970	98.5
Molybdenum						
Nickel	2000	1950	97.5	2000	1940	97.0
Potassium	40000	41100	102.8	40000	40600	101.5
Selenium	2000	2030	101.5	2000	2040	102.0
Silver	250	246	98.4	250	246	98.4
Sodium	40000	40800	102.0	40000	39200	98.0
Strontium						
Thallium	2000	1990	99.5	2000	1990	99.5
Tin						
Titanium						
Vanadium	2000	1990	99.5	2000	1960	98.0
Zinc	2000	2060	103.0	2000	2050	102.5

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020311M1.ICP Date Analyzed: 02/03/11 Methods: SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA8691 Units: ug/l

Time:		08:34	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Aluminum	80000	80400	100.5
Antimony	4000	4050	101.3
Arsenic	4000	4050	101.3
Barium	4000	4030	100.8
Beryllium	4000	4040	101.0
Cadmium	4000	4000	100.0
Calcium	80000	79900	99.9
Chromium	4000	4020	100.5
Cobalt	4000	4000	100.0
Copper	4000	4070	101.8
Iron	80000	80000	100.0
Lead	4000	4030	100.8
Magnesium	80000	80900	101.1
Manganese	4000	3990	99.8
Molybdenum			
Nickel	4000	4030	100.8
Potassium	80000	81500	101.9
Selenium	4000	4050	101.3
Silver	500	508	101.6
Sodium	80000	80200	100.3
Strontium			
Thallium	4000	4010	100.3
Tin			
Titanium			
Vanadium	4000	4040	101.0
Zinc	4000	3980	99.5

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020311M1.ICP Date Analyzed: 02/03/11 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA8691 Units: ug/l

Time:			08:57		18:27	
Sample ID:	CRI	CRIA	CRIA1		CRIA2	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	400	200	200	100.0	206	103.0
Antimony	10	5.0	4.5	90.0	4.2	84.0
Arsenic	20	10	9.5	95.0	9.7	97.0
Barium	400	200	202	101.0	213	106.5
Beryllium	10	5.0	5.0	100.0	4.9	98.0
Cadmium	10	5.0	5.1	102.0	5.3	106.0
Calcium	2000	1000	1020	102.0	1000	100.0
Chromium	20	10	10.3	103.0	10.2	102.0
Cobalt	100	50	52.8	105.6	54.3	108.6
Copper	50	25	26.7	106.8	24.3	97.2
Iron	600	300	289	96.3	286	95.3
Lead	10	5.0	5.0	100.0	4.6	92.0
Magnesium	10000	5000	4960	99.2	4780	95.6
Manganese	30	15	15.8	105.3	15.2	101.3
Molybdenum	100	50				
Nickel	80	40	38.2	95.5	37.4	93.5
Potassium	20000	10000	10000	100.0	9980	99.8
Selenium	20	10	11.0	110.0	9.5	95.0
Silver	20	10	8.2	82.0	8.9	89.0
Sodium	20000	10000	10500	105.0	9920	99.2
Strontium	20	10				
Thallium	20	10	8.7	87.0	8.3	83.0
Tin	100	50				
Titanium	20	10				
Vanadium	100	50	51.9	103.8	49.8	99.6
Zinc	40	20	21.2	106.0	21.4	107.0

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020311M1.ICP Date Analyzed: 02/03/11 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA8691 Units: ug/l

Time:			09:05		09:09		18:32		18:36	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	490000	98.0	501000	100.2	485000	97.0	488000	97.6
Antimony		1000	-0.50		1010	101.0	-0.10		999	99.9
Arsenic		1000	0.40		1020	102.0	-0.40		1010	101.0
Barium		500	0.70		520	104.0	2.6		534	106.8
Beryllium		500	-0.10		493	98.6	-0.10		477	95.4
Cadmium		1000	0.0		940	94.0	0.20		941	94.1
Calcium	500000	500000	468000	93.6	458000	91.6	461000	92.2	451000	90.2
Chromium		500	0.20		471	94.2	0.20		464	92.8
Cobalt		500	0.0		462	92.4	-0.20		468	93.6
Copper		500	-0.10		510	102.0	-0.80		476	95.2
Iron	200000	200000	186000	93.0	187000	93.5	179000	89.5	178000	89.0
Lead		1000	0.0		978	97.8	-2.8		967	96.7
Magnesium	500000	500000	520000	104.0	519000	103.8	504000	100.8	496000	99.2
Manganese		500	0.30		482	96.4	0.20		464	92.8
Molybdenum		1000	-0.70		976	97.6	-0.20		991	99.1
Nickel		1000	-0.10		974	97.4	0.80		951	95.1
Potassium			-17		-8.4		-17		-5.8	
Selenium		1000	-1.2		985	98.5	1.7		989	98.9
Silver		1000	-0.30		1100	110.0	0.20		1090	109.0
Sodium			-42		-690		882		-610	
Strontium		1000	0.50		0.60	0.0	0.50		0.50	0.0
Thallium		1000	1.0		942	94.2	-4.4		930	93.0
Tin		1000	3.5		878	87.8	2.1		871	87.1
Titanium		1000	-6.3		-5.2	0.0	-6.2		-5.2	0.0
Vanadium		500	0.20		489	97.8	0.70		471	94.2
Zinc		1000	-1.7		893	89.3	-1.7		897	89.7

(*) Outside of QC limits
(anr) Analyte not requested

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020411M1.ICP Date Analyzed: 02/04/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8693
Parameters: Ca,Cr,Cu,Mg,Se,Na,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
06:52	MA8693-STD1	1		STDA
06:57	MA8693-STD2	1		STDB
07:01	MA8693-STD3	1		STDC
07:05	MA8693-HSTD1	1		
07:11	MA8693-ICV1	1		
07:17	MA8693-ICB1	1		
07:21	MA8693-ICB2	1		
07:25	MA8693-CRIA1	1		
07:30	MA8693-CRIA2	1		
07:38	MA8693-ICSA1	1		
07:43	MA8693-ICSAB1	1		
07:48	MA8693-CCV1	1		
07:53	MA8693-CCB1	1		
08:03	F79564-1	2		
08:07	F79564-1	100		
08:11	MP19913-D1	2		
08:16	MP19913-D1	100		
08:20	MP19913-SD1	10		
08:24	MP19913-SD1	500		
08:28	MP19913-S1	2		
08:32	MP19913-S1	100		
08:37	MP19913-S2	2		
08:41	MP19913-S2	100		
08:45	MA8693-CCV2	1		
08:49	MA8693-CCB2	1		
08:53	MP19913-PS1	2		
08:58	MP19913-PS1	100		
09:02	F79564-2	2		
09:06	F79564-2	200		
09:10	F79564-3	2		
09:15	F79564-3	200		
09:19	F79564-4	2		
09:24	F79564-4	100		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020411M1.ICP Date Analyzed: 02/04/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8693
Parameters: Ca,Cr,Cu,Mg,Se,Na,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:28	F79564-5	2		
09:32	F79564-5	100		
09:36	MA8693-CCV3	1		
09:40	MA8693-CCB3	1		
09:45	F79564-6	2		
09:49	F79564-6	100		
09:53	F79564-1F	2		
09:58	F79564-1F	100		
10:02	MP19917-D1	2		
10:06	MP19917-D1	100		
10:10	MP19917-SD1	10		
10:15	MP19917-SD1	500		
10:19	MP19917-S1	2		
10:23	MP19917-S1	100		
10:27	MA8693-CCV4	1		
10:31	MA8693-CCB4	1		
10:35	MP19917-S2	2		
10:40	MP19917-S2	100		
10:44	MP19917-PS1	2		
10:48	MP19917-PS1	100		
10:53	F79564-2F	2		
10:57	F79564-2F	200		
11:01	F79564-3F	2		
11:06	F79564-3F	200		
11:10	F79564-4F	2		
11:14	F79564-4F	100		
11:19	MA8693-CCV5	1		
11:23	MA8693-CCB5	1		
11:27	F79564-5F	2		
11:31	F79564-5F	100		
11:35	F79564-6F	2		
11:40	F79564-6F	100		
---------->	Last reportable sample/prep for job F79564			
11:44	MP19918-MB1	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020411M1.ICP Date Analyzed: 02/04/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8693
Parameters: Ca,Cr,Cu,Mg,Se,Na,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:48	MP19918-B1	1		
11:52	F79773-15	1		(sample used for QC only; not part of login F79564)
11:57	MP19918-D1	1		
12:01	MP19918-SD1	5		
12:05	MP19918-PS1	1		
12:09	MA8693-CCV6	1		
12:13	MA8693-CCB6	1		
12:17	MP19918-S1	1		
12:21	MP19918-S2	1		
12:25	ZZZZZZ	1		
12:29	ZZZZZZ	1		
12:34	ZZZZZZ	1		
12:38	ZZZZZZ	1		
12:42	ZZZZZZ	1		
12:46	ZZZZZZ	1		
12:50	ZZZZZZ	1		
12:55	ZZZZZZ	1		
12:59	MA8693-CCV7	1		
13:03	MA8693-CCB7	1		
13:07	ZZZZZZ	1		
13:11	ZZZZZZ	1		
13:15	ZZZZZZ	1		
13:20	ZZZZZZ	1		
13:24	ZZZZZZ	1		
13:28	ZZZZZZ	1		
13:32	ZZZZZZ	1		
13:36	ZZZZZZ	1		
13:40	ZZZZZZ	1		
13:45	ZZZZZZ	1		
13:49	MA8693-CCV8	1		
13:53	MA8693-CCB8	1		
13:57	ZZZZZZ	1		
14:01	MP19918-MB2A	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020411M1.ICP Date Analyzed: 02/04/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8693
Parameters: Ca,Cr,Cu,Mg,Se,Na,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:05	MP19920-MB1	1		
14:10	MP19920-B1	1		
14:14	F79673-1	1		(sample used for QC only; not part of login F79564)
14:18	MP19920-D1	1		
14:22	MP19920-SD1	5		
14:26	MP19920-PS1	1		
14:30	MP19920-S1	1		
14:34	MP19920-S2	1		
14:38	MA8693-CCV9	1		
14:42	MA8693-CCB9	1		
14:46	ZZZZZZ	1		
14:50	ZZZZZZ	1		
14:55	ZZZZZZ	1		
14:59	ZZZZZZ	1		
15:03	ZZZZZZ	1		
15:07	ZZZZZZ	1		
15:11	ZZZZZZ	1		
15:16	ZZZZZZ	1		
15:20	ZZZZZZ	1		
15:24	ZZZZZZ	1		
15:28	MA8693-CCV10	1		
15:32	MA8693-CCB10	1		
15:36	ZZZZZZ	1		
15:41	ZZZZZZ	1		
15:45	ZZZZZZ	1		
15:49	ZZZZZZ	1		
15:53	ZZZZZZ	1		
15:57	ZZZZZZ	1		
16:01	ZZZZZZ	1		
16:06	MP19922-MB1	1		
16:10	MP19922-B1	1		
16:14	F79748-1	1		(sample used for QC only; not part of login F79564)
16:18	MA8693-CCV11	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020411M1.ICP Date Analyzed: 02/04/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8693
Parameters: Ca,Cr,Cu,Mg,Se,Na,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:22	MA8693-CCB11	1		
16:26	MP19922-D1	1		
16:30	MP19922-SD1	5		
16:34	MP19922-PS1	1		
16:39	MP19922-S1	1		
16:42	MP19922-S2	1		
16:46	ZZZZZZ	1		
16:51	ZZZZZZ	1		
16:55	ZZZZZZ	1		
16:59	ZZZZZZ	1		
17:03	ZZZZZZ	1		
17:07	MA8693-CCV12	1		
17:11	MA8693-CCB12	1		
17:16	ZZZZZZ	1		
17:20	ZZZZZZ	1		
17:24	ZZZZZZ	1		
17:28	ZZZZZZ	1		
17:32	ZZZZZZ	1		
17:37	ZZZZZZ	1		
17:41	MP19922-MB2A	1		
17:45	MP19923-MB1	1		
17:49	MP19923-B1	1		
17:53	F79566-7	1		(sample used for QC only; not part of login F79564)
17:58	MA8693-CCV13	1		
18:01	MA8693-CCB13	1		
18:06	MP19923-D1	1		
18:10	MP19923-SD1	5		
18:14	MP19923-S1	1		
18:18	MP19923-S2	1		
18:22	ZZZZZZ	1		
18:26	ZZZZZZ	1		
18:30	ZZZZZZ	1		
18:35	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020411M1.ICP Date Analyzed: 02/04/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8693
Parameters: Ca,Cr,Cu,Mg,Se,Na,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:39	F79652-1	1		(sample used for QC only; not part of login F79564)
18:43	MP19923-D2	1		
18:47	MA8693-CCV14	1		
18:51	MA8693-CCB14	1		
18:56	MP19923-MB2	1		
19:00	MP19923-B2	1		
19:04	MP19924-MB1	1		
19:08	MP19924-B1	1		
19:12	F79652-2	1		(sample used for QC only; not part of login F79564)
19:16	MP19924-D1	1		
19:21	MP19924-SD1	5		
19:25	MP19924-S1	1		
19:29	MP19924-S2	1		
19:33	ZZZZZZ	1		
19:37	MA8693-CCV15	1		
19:41	MA8693-CCB15	1		
19:45	MP19924-MB2	1		
19:49	MP19924-B2	1		
19:53	MP19924-MB3	1		
19:58	MP19924-B3	1		
20:02	MA8693-CRIA3	1		
20:06	MA8693-ICSA2	1		
20:10	MA8693-ICSAB2	1		
20:14	MA8693-CCV16	1		
20:18	MA8693-CCB16	1		

----------> Last reportable CCB for job F79564
Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020411M1.ICP Date Analyzed: 02/04/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8693
Parameters: Ca,Cr,Cu,Mg,Se,Na,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
06:52	MA8693-STD1	1766	25043	4924	1074
06:57	MA8693-STD2	1674	23239	4787	888
07:01	MA8693-STD3	1622	22732	4776	826
07:05	MA8693-HSTD1	1615	22626	4693	824
07:11	MA8693-ICV1	1690	23426	4765	896
07:17	MA8693-ICB1	1765 R	24856 R	4883 R	1074 R
07:21	MA8693-ICB2	1756	24857	4844	999999 !
07:25	MA8693-CRIA1	1719	24020	4761	1010
07:30	MA8693-CRIA2	1735	24273	4805	1016
07:38	MA8693-ICSA1	1542	21036	4674	750
07:43	MA8693-ICSAB1	1541	21034	4642	746
07:48	MA8693-CCV1	1684	23347	4760	896
07:53	MA8693-CCB1	1757	24785	4843	1074
08:03	F79564-1	1323	17813	4274	637 !
08:07	F79564-1	1699	23534	4812	966
08:11	MP19913-D1	1304	17676	4193	632 !
08:16	MP19913-D1	1698	23599	4777	968
08:20	MP19913-SD1	1502	20623	4561	789
08:24	MP19913-SD1	1731	24361	4812	1033
08:28	MP19913-S1	1331	18143	4239	627 !
08:32	MP19913-S1	1697	23627	4836	965
08:37	MP19913-S2	1317	17908	4196	622 !
08:41	MP19913-S2	1704	23717	4776	972
08:45	MA8693-CCV2	1670	23136	4769	889
08:49	MA8693-CCB2	1753	24789	4834	1075
08:53	MP19913-PS1	1323	18042	4216	641 !
08:58	MP19913-PS1	1693	23706	4787	972
09:02	F79564-2	1256	17076	4084	602 !
09:06	F79564-2	1697	23808	4769	993
09:10	F79564-3	1267	17189	4132	605 !
09:15	F79564-3	1700	23798	4791	989
09:19	F79564-4	1291	17424	4170	627 !
09:24	F79564-4	1696	23578	4778	968

INTERNAL STANDARD SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020411M1.ICP Date Analyzed: 02/04/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8693
Parameters: Ca,Cr,Cu,Mg,Se,Na,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
09:28	F79564-5	1313	17800	4212	641 !
09:32	F79564-5	1689	23508	4776	972
09:36	MA8693-CCV3	1674	23169	4758	893
09:40	MA8693-CCB3	1762	24816	4836	1078
09:45	F79564-6	1320	17927	4228	646
09:49	F79564-6	1691	23488	4773	973
09:53	F79564-1F	1319	17949	4204	648
09:58	F79564-1F	1701	23725	4759	975
10:02	MP19917-D1	1310	17682	4196	638 !
10:06	MP19917-D1	1692	23567	4750	971
10:10	MP19917-SD1	1520	20709	4518	798
10:15	MP19917-SD1	1734	24319	4808	1037
10:19	MP19917-S1	1335	18103	4229	637 !
10:23	MP19917-S1	1691	23456	4753	970
10:27	MA8693-CCV4	1679	23291	4751	892
10:31	MA8693-CCB4	1754	24664	4809	1074
10:35	MP19917-S2	1334	18123	4222	635 !
10:40	MP19917-S2	1705	23710	4729	978
10:44	MP19917-PS1	1324	17970	4221	644
10:48	MP19917-PS1	1695	23578	4761	975
10:53	F79564-2F	1262	17100	4129	609 !
10:57	F79564-2F	1706	23876	4791	993
11:01	F79564-3F	1259	17044	4097	607 !
11:06	F79564-3F	1707	23866	4810	997
11:10	F79564-4F	1288	17431	4112	627 !
11:14	F79564-4F	1694	23640	4802	971
11:19	MA8693-CCV5	1672	23257	4723	893
11:23	MA8693-CCB5	1753	24710	4830	1079
11:27	F79564-5F	1311	17878	4186	645
11:31	F79564-5F	1699	23925	4765	984
11:35	F79564-6F	1307	17862	4202	645
11:40	F79564-6F	1686	23667	4767	975
11:44	MP19918-MB1	1701	24533	4761	1042

INTERNAL STANDARD SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020411M1.ICP Date Analyzed: 02/04/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8693
Parameters: Ca,Cr,Cu,Mg,Se,Na,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
11:48	MP19918-B1	1667	23378	4716	928
11:52	F79773-15	1677	23838	4766	977
11:57	MP19918-D1	1678	23767	4745	977
12:01	MP19918-SD1	1740	24819	4809	1054
12:05	MP19918-PS1	1652	23391	4679	948
12:09	MA8693-CCV6	1673	23457	4693	900
12:13	MA8693-CCB6	1759	25216	4818	1086
12:17	MP19918-S1	1633	23224	4665	903
12:21	MP19918-S2	1639	23245	4682	903
12:25	ZZZZZZ	1695	24324	4770	1009
12:29	ZZZZZZ	1699	24412	4784	1018
12:34	ZZZZZZ	1746	25059	4853	1025
12:38	ZZZZZZ	1741	25116	4892	1025
12:42	ZZZZZZ	1604	22791	4679	891
12:46	ZZZZZZ	1607	22954	4675	894
12:50	ZZZZZZ	1541	22020	4601	829
12:55	ZZZZZZ	1527	21904	4592	832
12:59	MA8693-CCV7	1655	23587	4701	900
13:03	MA8693-CCB7	1733	25148	4759	1083
13:07	ZZZZZZ	1721	25293	4796	1066
13:11	ZZZZZZ	1724	25465	4769	1072
13:15	ZZZZZZ	1557	21910	4586	816
13:20	ZZZZZZ	1544	21827	4619	828
13:24	ZZZZZZ	1572	22477	4658	849
13:28	ZZZZZZ	1548	22173	4585	847
13:32	ZZZZZZ	1659	24101	4739	969
13:36	ZZZZZZ	1641	23975	4750	942
13:40	ZZZZZZ	1609	23349	4662	912
13:45	ZZZZZZ	1664	24023	4731	960
13:49	MA8693-CCV8	1655	23778	4695	901
13:53	MA8693-CCB8	1729	25412	4782	1085
13:57	ZZZZZZ	1534	22483	4652	855
14:01	MP19918-MB2A	1708	25411	4792	1072

INTERNAL STANDARD SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020411M1.ICP Date Analyzed: 02/04/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8693
Parameters: Ca,Cr,Cu,Mg,Se,Na,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
14:05	MP19920-MB1	1710	25363	4758	1068
14:10	MP19920-B1	1662	24318	4720	944
14:14	F79673-1	1688	25164	4791	1027
14:18	MP19920-D1	1685	25107	4783	1024
14:22	MP19920-SD1	1712	25451	4779	1071
14:26	MP19920-PS1	1656	24587	4749	980
14:30	MP19920-S1	1663	24490	4793	933
14:34	MP19920-S2	1662	24529	4774	932
14:38	MA8693-CCV9	1631	23932	4655	902
14:42	MA8693-CCB9	1700	25538	4789	1079
14:46	ZZZZZZ	1625	24138	4627	978
14:50	ZZZZZZ	1670	24883	4703	1027
14:55	ZZZZZZ	1661	24834	4699	1026
14:59	ZZZZZZ	1655	24830	4706	1016
15:03	ZZZZZZ	1582	23822	4641	947
15:07	ZZZZZZ	1612	23945	4645	954
15:11	ZZZZZZ	1638	24276	4700	968
15:16	ZZZZZZ	1664	24772	4745	1001
15:20	ZZZZZZ	1592	23651	4621	927
15:24	ZZZZZZ	1602	23929	4651	942
15:28	MA8693-CCV10	1620	23858	4653	898
15:32	MA8693-CCB10	1700	25467	4753	1082
15:36	ZZZZZZ	1632	24317	4696	970
15:41	ZZZZZZ	1585	23808	4617	945
15:45	ZZZZZZ	1564	23528	4600	923
15:49	ZZZZZZ	1573	23370	4588	919
15:53	ZZZZZZ	1653	24800	4718	994
15:57	ZZZZZZ	1637	24671	4718	982
16:01	ZZZZZZ	1650	24785	4696	1002
16:06	MP19922-MB1	1675	25101	4688	1055
16:10	MP19922-B1	1616	23826	4647	923
16:14	F79748-1	1669	24594	4815	945
16:18	MA8693-CCV11	1618	23741	4691	895

INTERNAL STANDARD SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020411M1.ICP Date Analyzed: 02/04/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8693
Parameters: Ca,Cr,Cu,Mg,Se,Na,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
16:22	MA8693-CCB11	1703	25379	4745	1078
16:26	MP19922-D1	1669	24573	4826	955
16:30	MP19922-SD1	1710	25266	4828	1032
16:34	MP19922-PS1	1619	23583	4657	910
16:39	MP19922-S1	1626	23736	4744	885
16:42	MP19922-S2	1630	23768	4699	886
16:46	ZZZZZZ	1608	23973	4715	958
16:51	ZZZZZZ	1591	23835	4670	937
16:55	ZZZZZZ	1589	23689	4651	928
16:59	ZZZZZZ	1674	25000	4720	1033
17:03	ZZZZZZ	1677	25112	4717	1043
17:07	MA8693-CCV12	1626	23951	4713	898
17:11	MA8693-CCB12	1699	25411	4765	1077
17:16	ZZZZZZ	1667	24977	4714	1041
17:20	ZZZZZZ	1670	25001	4721	1040
17:24	ZZZZZZ	1665	24873	4765	1019
17:28	ZZZZZZ	1614	24064	4681	944
17:32	ZZZZZZ	1608	23927	4659	957
17:37	ZZZZZZ	1658	24729	4744	1001
17:41	MP19922-MB2A	1666	25088	4723	1050
17:45	MP19923-MB1	1667	25115	4691	1050
17:49	MP19923-B1	1626	24064	4698	929
17:53	F79566-7	1583	23355	4681	894
17:58	MA8693-CCV13	1623	23832	4682	894
18:01	MA8693-CCB13	1712	25570	4786	1078
18:06	MP19923-D1	1579	23170	4688	890
18:10	MP19923-SD1	1655	24674	4728	999
18:14	MP19923-S1	1553	22930	4634	844
18:18	MP19923-S2	1563	22843	4586	852
18:22	ZZZZZZ	1589	23114	4660	911
18:26	ZZZZZZ	1587	23062	4706	907
18:30	ZZZZZZ	1594	23155	4659	915
18:35	ZZZZZZ	1580	22934	4635	910

INTERNAL STANDARD SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020411M1.ICP Date Analyzed: 02/04/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8693
Parameters: Ca,Cr,Cu,Mg,Se,Na,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
18:39	F79652-1	1582	22949	4620	903
18:43	MP19923-D2	1584	23049	4663	907
18:47	MA8693-CCV14	1626	23858	4737	892
18:51	MA8693-CCB14	1711	25472	4804	1075
18:56	MP19923-MB2	1583	23137	4659	911
19:00	MP19923-B2	1614	23379	4717	911
19:04	MP19924-MB1	1673	25012	4730	1046
19:08	MP19924-B1	1615	23570	4631	917
19:12	F79652-2	1675	24707	4757	1025
19:16	MP19924-D1	1681	24777	4774	1027
19:21	MP19924-SD1	1704	25406	4825	1066
19:25	MP19924-S1	1634	23833	4668	918
19:29	MP19924-S2	1640	23896	4741	922
19:33	ZZZZZZ	1598	23691	4772	936
19:37	MA8693-CCV15	1609	23598	4753	889
19:41	MA8693-CCB15	1717	25719	4915	1079
19:45	MP19924-MB2	1678	24896	4732	1048
19:49	MP19924-B2	1621	23823	4723	922
19:53	MP19924-MB3	1594	23159	4630	919
19:58	MP19924-B3	1597	23174	4660	877
20:02	MA8693-CRIA3	1681	24764	4746	1013
20:06	MA8693-ICSA2	1472	21089	4514	744
20:10	MA8693-ICSAB2	1471	21251	4536	738
20:14	MA8693-CCV16	1622	23840	4721	891
20:18	MA8693-CCB16	1696	25434	4765	1075

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	60-125 %
Istd#2	Yttrium (3600)	60-125 %
Istd#3	Yttrium (3710)	60-125 %
Istd#4	Indium	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020411M1.ICP Date Analyzed: 02/04/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8693 Units: ug/l

Time:			07:17		07:21		07:53		08:49	
Sample ID:			ICB1		ICB2		CCB1		CCB2	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1								
Arsenic	10	1	anr							
Barium	200	1	anr							
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	anr							
Calcium	1000	50	-0.40	<1000			15.0	<1000	12.5	<1000
Chromium	10	1	0.20	<10			0.70	<10	0.30	<10
Cobalt	50	1	anr							
Copper	25	1	0.20	<25			0.40	<25	0.30	<25
Iron	300	34								
Lead	5.0	1	anr							
Magnesium	5000	50	4.6	<5000			7.8	<5000	1.6	<5000
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2			-1.6	<10	-1.2	<10	-1.0	<10
Silver	10	1	anr							
Sodium	10000	750	1020	<10000			853	<10000	672	<10000
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1	0.10	<20			0.50	<20	0.40	<20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020411M1.ICP Date Analyzed: 02/04/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8693 Units: ug/l

Time:			09:40		10:31		11:23		12:13	
Sample ID:			CCB3		CCB4		CCB5		CCB6	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	anr							
Barium	200	1	anr							
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	anr							
Calcium	1000	50	9.0	<1000	10.0	<1000	9.8	<1000	8.4	<1000
Chromium	10	1	0.30	<10	0.60	<10	0.30	<10	0.50	<10
Cobalt	50	1	anr							
Copper	25	1	0.50	<25	0.50	<25	0.70	<25	0.40	<25
Iron	300	34	anr							
Lead	5.0	1	anr							
Magnesium	5000	50	-11	<5000	7.5	<5000	9.5	<5000	-0.80	<5000
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	-0.10	<10	-1.0	<10	-1.1	<10	-3.0	<10
Silver	10	1	anr							
Sodium	10000	750	768	<10000	576	<10000	601	<10000	48.7	<10000
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1	0.10	<20	0.40	<20	0.20	<20	0.20	<20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020411M1.ICP Date Analyzed: 02/04/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8693 Units: ug/l

Time:			13:03		13:53		14:42		15:32	
Sample ID:			CCB7		CCB8		CCB9		CCB10	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	anr							
Barium	200	1	anr							
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	anr							
Calcium	1000	50	7.7	<1000	7.8	<1000	2.5	<1000	7.8	<1000
Chromium	10	1	0.40	<10	0.40	<10	0.20	<10	0.90	<10
Cobalt	50	1	anr							
Copper	25	1	0.20	<25	0.0	<25	0.10	<25	-0.10	<25
Iron	300	34	anr							
Lead	5.0	1	anr							
Magnesium	5000	50	6.7	<5000	18.4	<5000	20.3	<5000	-9.6	<5000
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	-3.4	<10	-1.1	<10	0.40	<10	-3.2	<10
Silver	10	1	anr							
Sodium	10000	750	344	<10000	259	<10000	1360	<10000	684	<10000
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1	0.20	<20	0.30	<20	0.10	<20	0.20	<20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020411M1.ICP Date Analyzed: 02/04/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8693 Units: ug/l

Time:			16:22		17:11		18:01		18:51	
Sample ID:			CCB11		CCB12		CCB13		CCB14	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	anr							
Barium	200	1	anr							
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	anr							
Calcium	1000	50	5.5	<1000	5.7	<1000	2.6	<1000	6.4	<1000
Chromium	10	1	0.80	<10	0.30	<10	0.50	<10	0.60	<10
Cobalt	50	1	anr							
Copper	25	1	-0.20	<25	0.0	<25	-0.10	<25	0.0	<25
Iron	300	34	anr							
Lead	5.0	1	anr							
Magnesium	5000	50	5.4	<5000	18.8	<5000	-7.5	<5000	-5.3	<5000
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	50	anr							
Selenium	10	2	-3.3	<10	-2.8	<10	-1.0	<10	-1.9	<10
Silver	10	1	anr							
Sodium	10000	750	1320	<10000	762	<10000	-440	<10000	477	<10000
Strontium	10	1								
Thallium	10	1	anr							
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1	0.30	<20	0.30	<20	0.20	<20	0.10	<20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020411M1.ICP Date Analyzed: 02/04/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8693 Units: ug/l

Time:			19:41		20:18	
Sample ID:			CCB15		CCB16	
Metal	RL	IDL	raw	final	raw	final
Aluminum	200	20	anr			
Antimony	6.0	1	anr			
Arsenic	10	1	anr			
Barium	200	1	anr			
Beryllium	4.0	.1	anr			
Cadmium	5.0	.1	anr			
Calcium	1000	50	4.0	<1000	12.4	<1000
Chromium	10	1	0.10	<10	0.30	<10
Cobalt	50	1	anr			
Copper	25	1	0.0	<25	0.30	<25
Iron	300	34	anr			
Lead	5.0	1	anr			
Magnesium	5000	50	-2.1	<5000	2.7	<5000
Manganese	15	1	anr			
Molybdenum	50	1				
Nickel	40	1	anr			
Potassium	10000	50	anr			
Selenium	10	2	-2.3	<10	-3.5	<10
Silver	10	1	anr			
Sodium	10000	750	1220	<10000	1180	<10000
Strontium	10	1				
Thallium	10	1	anr			
Tin	50	1				
Titanium	10	1.1				
Vanadium	50	1	anr			
Zinc	20	1	0.20	<20	0.20	<20

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020411M1.ICP Date Analyzed: 02/04/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8693 Units: ug/l

Time:		07:11			07:48			08:45	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	40000	40200	100.5	40000	40900	102.3	40000	40500	101.3
Chromium	2000	1990	99.5	2000	2060	103.0	2000	2060	103.0
Cobalt	anr								
Copper	2000	2010	100.5	2000	2000	100.0	2000	2050	102.5
Iron	anr								
Lead	anr								
Magnesium	40000	39700	99.3	40000	40800	102.0	40000	40500	101.3
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	1990	99.5	2000	2010	100.5	2000	2030	101.5
Silver	anr								
Sodium	40000	40500	101.3	40000	40900	102.3	40000	41300	103.3
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	2000	1980	99.0	2000	2050	102.5	2000	2050	102.5

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020411M1.ICP Date Analyzed: 02/04/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8693 Units: ug/l

Time:		09:36			10:27			11:19	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	40000	40400	101.0	40000	40400	101.0	40000	40400	101.0
Chromium	2000	2070	103.5	2000	2060	103.0	2000	2050	102.5
Cobalt	anr								
Copper	2000	2040	102.0	2000	2020	101.0	2000	2020	101.0
Iron	anr								
Lead	anr								
Magnesium	40000	40400	101.0	40000	40500	101.3	40000	40700	101.8
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2020	101.0	2000	2010	100.5	2000	2020	101.0
Silver	anr								
Sodium	40000	42700	106.8	40000	40600	101.5	40000	41300	103.3
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	2000	2060	103.0	2000	2050	102.5	2000	2050	102.5

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020411M1.ICP Date Analyzed: 02/04/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8693 Units: ug/l

Time:		12:09			12:59			13:49	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	40000	40500	101.3	40000	40400	101.0	40000	40300	100.8
Chromium	2000	2060	103.0	2000	2060	103.0	2000	2040	102.0
Cobalt	anr								
Copper	2000	1990	99.5	2000	1980	99.0	2000	1940	97.0
Iron	anr								
Lead	anr								
Magnesium	40000	41400	103.5	40000	41900	104.8	40000	42300	105.8
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2030	101.5	2000	2080	104.0	2000	2070	103.5
Silver	anr								
Sodium	40000	42200	105.5	40000	41700	104.3	40000	41600	104.0
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	2000	2060	103.0	2000	2080	104.0	2000	2080	104.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020411M1.ICP Date Analyzed: 02/04/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8693 Units: ug/l

Time:		14:38			15:28			16:18	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	40000	40200	100.5	40000	40300	100.8	40000	39900	99.8
Chromium	2000	2030	101.5	2000	2030	101.5	2000	2030	101.5
Cobalt	anr								
Copper	2000	1900	95.0	2000	1910	95.5	2000	1920	96.0
Iron	anr								
Lead	anr								
Magnesium	40000	42700	106.8	40000	42600	106.5	40000	42300	105.8
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2100	105.0	2000	2110	105.5	2000	2110	105.5
Silver	anr								
Sodium	40000	40800	102.0	40000	40000	100.0	40000	40700	101.8
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	2000	2080	104.0	2000	2090	104.5	2000	2080	104.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020411M1.ICP Date Analyzed: 02/04/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8693 Units: ug/l

Time:		17:07			17:58			18:47	
Sample ID:	CCV	CCV12		CCV	CCV13		CCV	CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	40000	40200	100.5	40000	40200	100.5	40000	40000	100.0
Chromium	2000	2010	100.5	2000	2020	101.0	2000	2010	100.5
Cobalt	anr								
Copper	2000	1920	96.0	2000	1920	96.0	2000	1920	96.0
Iron	anr								
Lead	anr								
Magnesium	40000	42200	105.5	40000	42100	105.3	40000	41500	103.8
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2090	104.5	2000	2100	105.0	2000	2100	105.0
Silver	anr								
Sodium	40000	40300	100.8	40000	40700	101.8	40000	40800	102.0
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	2000	2080	104.0	2000	2080	104.0	2000	2070	103.5

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020411M1.ICP Date Analyzed: 02/04/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8693 Units: ug/l

Time:		19:37			20:14	
Sample ID:	CCV	CCV15		CCV	CCV16	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	anr					
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Cadmium	anr					
Calcium	40000	39900	99.8	40000	40000	100.0
Chromium	2000	2010	100.5	2000	2000	100.0
Cobalt	anr					
Copper	2000	1990	99.5	2000	1910	95.5
Iron	anr					
Lead	anr					
Magnesium	40000	41200	103.0	40000	41500	103.8
Manganese	anr					
Molybdenum						
Nickel	anr					
Potassium	anr					
Selenium	2000	2120	106.0	2000	2090	104.5
Silver	anr					
Sodium	40000	40400	101.0	40000	40900	102.3
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium	anr					
Zinc	2000	2060	103.0	2000	2070	103.5

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020411M1.ICP Date Analyzed: 02/04/11 Methods: SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA8693 Units: ug/l

Time:		07:05	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	anr		
Barium	anr		
Beryllium	anr		
Cadmium	anr		
Calcium	80000	80000	100.0
Chromium	4000	3980	99.5
Cobalt	anr		
Copper	4000	4000	100.0
Iron	anr		
Lead	anr		
Magnesium	80000	81400	101.8
Manganese	anr		
Molybdenum			
Nickel	anr		
Potassium	anr		
Selenium	4000	4020	100.5
Silver	anr		
Sodium	80000	80400	100.5
Strontium			
Thallium	anr		
Tin			
Titanium			
Vanadium	anr		
Zinc	4000	3970	99.3

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020411M1.ICP Date Analyzed: 02/04/11 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA8693 Units: ug/l

Time:			07:25		07:30		20:02	
Sample ID:	CRI	CRIA	CRIA1		CRIA2		CRIA3	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	400	200	anr					
Antimony	10	5.0						
Arsenic	20	10	anr					
Barium	400	200	anr					
Beryllium	10	5.0	anr					
Cadmium	10	5.0	anr					
Calcium	2000	1000	1030	103.0			1010	101.0
Chromium	20	10	10.6	106.0			10.2	102.0
Cobalt	100	50	anr					
Copper	50	25	26.3	105.2			24.2	96.8
Iron	600	300	anr					
Lead	10	5.0						
Magnesium	10000	5000	4970	99.4			5070	101.4
Manganese	30	15	anr					
Molybdenum	100	50						
Nickel	80	40	anr					
Potassium	20000	10000	anr					
Selenium	20	10			8.7	87.0	7.2	72.0
Silver	20	10	anr					
Sodium	20000	10000	11100	111.0			9670	96.7
Strontium	20	10						
Thallium	20	10	anr					
Tin	100	50						
Titanium	20	10						
Vanadium	100	50	anr					
Zinc	40	20	21.8	109.0			21.9	109.5

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020411M1.ICP Date Analyzed: 02/04/11 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA8693 Units: ug/l

Time:			07:38		07:43		20:06		20:10	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	481000	96.2	489000	97.8	482000	96.4	492000	98.4
Antimony		1000	-0.30		978	97.8	0.20		999	99.9
Arsenic		1000	1.9		988	98.8	1.4		1010	101.0
Barium		500	2.6		504	100.8	4.2		499	99.8
Beryllium		500	-0.10		485	97.0	-0.10		474	94.8
Cadmium		1000	0.0		925	92.5	-1.0		950	95.0
Calcium	500000	500000	466000	93.2	459000	91.8	456000	91.2	448000	89.6
Chromium		500	0.80		469	93.8	1.1		462	92.4
Cobalt		500	0.20		454	90.8	0.30		476	95.2
Copper		500	-1.5		493	98.6	-1.8		467	93.4
Iron	200000	200000	182000	91.0	184000	92.0	188000	94.0	189000	94.5
Lead		1000	0.0		975	97.5	-1.6		963	96.3
Magnesium	500000	500000	507000	101.4	512000	102.4	526000	105.2	525000	105.0
Manganese		500	0.60		479	95.8	0.50		463	92.6
Molybdenum		1000	0.0		954	95.4	-0.30		1000	100.0
Nickel		1000	0.0		966	96.6	1.3		951	95.1
Potassium			53.0		-4.6		11.3		-6.9	
Selenium		1000	-1.1		963	96.3	-4.3		997	99.7
Silver		1000	0.10		1090	109.0	0.80		1100	110.0
Sodium			338		-100		-74		-39	
Strontium		1000	0.20		0.30	0.0*	0.30		0.30	0.0*
Thallium		1000	0.0		936	93.6	5.7		927	92.7
Tin		1000	2.6		865	86.5	3.5		868	86.8
Titanium		1000	-1.8		-0.90	0.0*	-1.8		-0.80	0.0*
Vanadium		500	0.20		484	96.8	0.40		463	92.6
Zinc		1000	-1.3		887	88.7	-1.2		900	90.0

(*) Outside of QC limits
(anr) Analyte not requested

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: Pb,Ni,Tl

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:23	MA8696-STD1	1		STDA
09:26	MA8696-STD2	1		STDB
09:30	MA8696-STD3	1		STDC
09:34	MA8696-HSTD1	1		
09:38	MA8696-ICV1	1		
09:48	MA8696-ICB1	1		
09:52	MA8696-ICB2	1		
09:56	MA8696-CRIA1	1		
10:01	MA8696-CRIA2	1		
10:14	MA8696-ICSA1	1		
10:20	MA8696-ICSAB1	1		
10:31	MA8696-CCV1	1		
10:38	MA8696-CCB1	1		
12:19	MA8696-CCV2	1		
12:23	MA8696-CCB2	1		
13:00	F79564-1	5		
13:05	MP19913-D1	5		
13:09	MA8696-CCV3	1		
13:13	MA8696-CCB3	1		
13:29	MA8696-CCV4	1		
13:34	MA8696-CCB4	1		
13:38	MP19913-S1	5		
13:42	MP19913-S2	5		
13:47	MP19913-PS1	5		
13:51	MP19913-SD1	25		
13:55	F79564-2	5		
14:00	F79564-3	5		
14:04	F79564-4	5		
14:08	F79564-5	5		
14:13	F79564-6	5		
14:17	F79564-1F	5		
14:21	MA8696-CCV5	1		
14:25	MA8696-CCB5	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: Pb,Ni,Tl

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	14:29	MP19917-D1	5		
	14:34	MP19917-S1	5		
	14:38	MP19917-S2	5		
	14:42	MP19917-PS1	5		
	14:46	MP19917-SD1	25		
	14:51	F79564-2F	5		
	14:55	F79564-3F	5		
	15:00	F79564-4F	5		
	15:04	F79564-5F	5		
	15:08	F79564-6F	5		
---------->	Last reportable sample/prep for job F79564				
	15:13	MA8696-CCV6	1		
	15:16	MA8696-CCB6	1		
	15:21	ZZZZZZ	4		
	15:25	ZZZZZZ	2		
	15:29	ZZZZZZ	5		
	15:33	ZZZZZZ	5		
	15:37	ZZZZZZ	10		
	15:42	ZZZZZZ	10		
	15:46	ZZZZZZ	5		
	15:50	ZZZZZZ	10		
	15:54	ZZZZZZ	4		
	15:59	F79566-7	5		(sample used for QC only; not part of login F79564)
	16:03	MA8696-CCV7	1		
	16:07	MA8696-CCB7	1		
	16:11	MP19923-D1	5		
	16:15	MP19923-S1	5		
	16:19	MP19923-S2	5		
	16:23	MP19923-SD1	25		
	16:27	MP19932-MB1	1		
	16:32	MP19932-B1	1		
	16:35	F79608-1	1		(sample used for QC only; not part of login F79564)
	16:40	MP19932-D1	1		
	16:44	MP19932-SD1	5		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: Pb,Ni,Tl

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:49	MP19932-PS1	1		
16:53	MA8696-CCV8	1		
16:57	MA8696-CCB8	1		
17:01	MP19932-S1	1		
17:06	MP19932-S2	1		
17:10	ZZZZZZ	1		
17:14	ZZZZZZ	1		
17:19	ZZZZZZ	1		
17:23	ZZZZZZ	1		
17:28	ZZZZZZ	1		
17:32	ZZZZZZ	1		
17:36	ZZZZZZ	1		
17:41	ZZZZZZ	1		
17:45	MA8696-CCV9	1		
17:49	MA8696-CCB9	1		
17:54	ZZZZZZ	1		
17:58	ZZZZZZ	1		
18:03	ZZZZZZ	1		
18:07	ZZZZZZ	1		
18:12	ZZZZZZ	1		
18:16	ZZZZZZ	1		
18:21	ZZZZZZ	1		
18:25	ZZZZZZ	1		
18:30	ZZZZZZ	1		
18:34	ZZZZZZ	1		
18:39	MA8696-CCV10	1		
18:43	MA8696-CCB10	1		
18:47	ZZZZZZ	1		
18:51	MP19932-MB2A	1		
18:56	MP19933-MB1	1		
19:00	MP19933-B1	1		
19:04	F79608-1F	1		(sample used for QC only; not part of login F79564)
19:08	MP19933-D1	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: Pb,Ni,Tl

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:13	MP19933-SD1	5		
19:17	MP19933-PS1	1		
19:22	MP19933-S1	1		
19:26	MP19933-S2	1		
19:30	MA8696-CCV11	1		
19:34	MA8696-CCB11	1		
19:38	ZZZZZZ	1		
19:43	ZZZZZZ	1		
19:47	ZZZZZZ	1		
19:52	ZZZZZZ	1		
19:56	ZZZZZZ	1		
20:00	ZZZZZZ	1		
20:05	ZZZZZZ	1		
20:09	ZZZZZZ	1		
20:13	ZZZZZZ	1		
20:17	ZZZZZZ	1		
20:22	MA8696-CCV12	1		
20:26	MA8696-CCB12	1		
20:30	ZZZZZZ	1		
20:34	ZZZZZZ	1		
20:38	ZZZZZZ	1		
20:42	ZZZZZZ	1		
20:47	ZZZZZZ	1		
20:51	ZZZZZZ	1		
20:55	ZZZZZZ	1		
20:59	ZZZZZZ	1		
21:03	MP19933-MB2A	1		
21:08	MP19933-MB3A	1		
21:12	MA8696-CCV13	1		
21:16	MA8696-CCB13	1		
21:20	MP19931-MB1	1		
21:24	MP19931-B1	1		
21:28	F79839-1	1		(sample used for QC only; not part of login F79564)

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: Pb,Ni,Tl

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:32	MP19931-D1	1		
21:37	MP19931-SD1	5		
21:41	MP19931-PS1	1		
21:45	MP19931-S1	1		
21:49	MP19931-S2	1		
21:52	ZZZZZZ	1		
21:56	ZZZZZZ	1		
22:01	MA8696-CCV14	1		
22:04	MA8696-CCB14	1		
22:09	ZZZZZZ	1		
22:13	ZZZZZZ	1		
22:17	ZZZZZZ	1		
22:21	ZZZZZZ	1		
22:25	ZZZZZZ	1		
22:29	ZZZZZZ	1		
22:33	ZZZZZZ	1		
22:38	ZZZZZZ	1		
22:42	ZZZZZZ	1		
22:46	ZZZZZZ	1		
22:50	MA8696-CCV15	1		
22:54	MA8696-CCB15	1		
22:59	ZZZZZZ	1		
23:03	ZZZZZZ	1		
23:07	ZZZZZZ	1		
23:11	ZZZZZZ	1		
23:15	ZZZZZZ	1		
23:19	ZZZZZZ	1		
23:24	ZZZZZZ	1		
23:28	MA8696-CRIA3	1		
23:32	MA8696-ICSA2	1		
23:36	MA8696-ICSAB2	1		
23:40	MA8696-CCV16	1		
23:44	MA8696-CCB16	1		

----------> Last reportable CCB for job F79564

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: Pb,Ni,Tl

Time	Sample Description	Dilution Factor	PS Recov	Comments
23:49	MA8696-CCV17	1		
23:53	MA8696-CCB17	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: Pb,Ni,Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
09:23	MA8696-STD1	1704	26193	8908	1060
09:26	MA8696-STD2	1619	24341	8745	888
09:30	MA8696-STD3	1555	23738	8577	824
09:34	MA8696-HSTD1	1571	23694	8568	829
09:38	MA8696-ICV1	1627	24299	8626	891
09:48	MA8696-ICB1	1730 R	25979 R	8815 R	1071 R
09:52	MA8696-ICB2	1718	26030	8808	999999 !
09:56	MA8696-CRIA1	1693	25322	8717	1014
10:01	MA8696-CRIA2	1688	25317	8693	1005
10:14	MA8696-ICSA1	1498	21925	8376	751
10:20	MA8696-ICSAB1	1481	21852	8298	738
10:31	MA8696-CCV1	1636	24327	8579	891
10:38	MA8696-CCB1	1692	25318	8766	1042
12:19	MA8696-CCV2	1693	24851	8935	906
12:23	MA8696-CCB2	1759	26090	8835	1069
13:00	F79564-1	1452	21045	7853	735
13:05	MP19913-D1	1419	20794	8155	721
13:09	MA8696-CCV3	1663	24559	8390	892
13:13	MA8696-CCB3	1757	26610	8662	1067
13:29	MA8696-CCV4	1681	24888	8409	898
13:34	MA8696-CCB4	1788	26800	8684	1082
13:38	MP19913-S1	1445	21117	7969	716
13:42	MP19913-S2	1446	21083	7910	719
13:47	MP19913-PS1	1448	20674	7822	729
13:51	MP19913-SD1	1622	23280	8210	876
13:55	F79564-2	1366	20144	7803	686
14:00	F79564-3	1378	19743	7493	687
14:04	F79564-4	1412	20527	7741	714
14:08	F79564-5	1409	20416	7754	714
14:13	F79564-6	1417	21102	7887	719
14:17	F79564-1F	1383	20296	7679	701
14:21	MA8696-CCV5	1680	24896	8440	892
14:25	MA8696-CCB5	1784	26654	8600	1073

INTERNAL STANDARD SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: Pb,Ni,Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
14:29	MP19917-D1	1421	20728	7838	718
14:34	MP19917-S1	1447	21099	7798	720
14:38	MP19917-S2	1458	21330	7914	726
14:42	MP19917-PS1	1444	21151	7837	724
14:46	MP19917-SD1	1622	23815	8338	878
14:51	F79564-2F	1391	20153	7436	689
14:55	F79564-3F	1392	20283	7635	696
15:00	F79564-4F	1379	20258	7619	695
15:04	F79564-5F	1434	20446	7720	729
15:08	F79564-6F	1433	20999	7841	729
15:13	MA8696-CCV6	1696	25190	8553	901
15:16	MA8696-CCB6	1759	26468	8535	1062
15:21	ZZZZZZ	1680	25187	8453	959
15:25	ZZZZZZ	1673	24944	8522	935
15:29	ZZZZZZ	1685	25101	8544	945
15:33	ZZZZZZ	1683	25130	8560	948
15:37	ZZZZZZ	1717	25448	8524	974
15:42	ZZZZZZ	1708	25208	8524	974
15:46	ZZZZZZ	1718	25332	8545	966
15:50	ZZZZZZ	1747	25823	8576	1002
15:54	ZZZZZZ	1775	26434	8646	1036
15:59	F79566-7	1712	25280	8458	988
16:03	MA8696-CCV7	1710	25111	8503	906
16:07	MA8696-CCB7	1815	27829	8536	1090
16:11	MP19923-D1	1769	26287	8649	1012
16:15	MP19923-S1	1770	25433	8439	992
16:19	MP19923-S2	1708	25206	8390	957
16:23	MP19923-SD1	1784	26389	8660	1059
16:27	MP19932-MB1	1773	26993	8755	1065
16:32	MP19932-B1	1721	25347	8554	953
16:35	F79608-1	1186	17282	7211	557 !
16:40	MP19932-D1	1178	17297	7124	550 !
16:44	MP19932-SD1	1446	21294	8000	739

INTERNAL STANDARD SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: Pb,Ni,Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
16:49	MP19932-PS1	1177	17449	7141	552 !
16:53	MA8696-CCV8	1636	24865	8600	880
16:57	MA8696-CCB8	1747	26307	8704	1065
17:01	MP19932-S1	1178	17510	7127	546 !
17:06	MP19932-S2	1179	17437	7157	545 !
17:10	ZZZZZZ	1212	18114	7470	590 !
17:14	ZZZZZZ	1209	18015	7478	585 !
17:19	ZZZZZZ	1088	16130	6860	506 !
17:23	ZZZZZZ	1074	15512 !	6875	498 !
17:28	ZZZZZZ	1187	17624	7436	573 !
17:32	ZZZZZZ	1080	15849	7049	504 !
17:36	ZZZZZZ	754 !	11330 !	5609	314 !
17:41	ZZZZZZ	713 !	10919 !	5518	290 !
17:45	MA8696-CCV9	1646	24864	8886	896
17:49	MA8696-CCB9	1764	26325	8801	1080
17:54	ZZZZZZ	805 !	12200 !	5925	273 !
17:58	ZZZZZZ	1193	17847	7520	581 !
18:03	ZZZZZZ	750 !	11453 !	5603	313 !
18:07	ZZZZZZ	1160	17392	7421	564 !
18:12	ZZZZZZ	1087	15716	6820	503 !
18:16	ZZZZZZ	753 !	11923 !	5708	315 !
18:21	ZZZZZZ	743 !	11305 !	5893	310 !
18:25	ZZZZZZ	658 !	10611 !	5533	266 !
18:30	ZZZZZZ	1186	17811	7703	578 !
18:34	ZZZZZZ	733 !	11359 !	5709	306 !
18:39	MA8696-CCV10	1620	24862	8947	886
18:43	MA8696-CCB10	1727	26257	8949	1067
18:47	ZZZZZZ	1167	17643	7481	576 !
18:51	MP19932-MB2A	1707	26046	8898	1048
18:56	MP19933-MB1	1697	26203	8818	1042
19:00	MP19933-B1	1638	24822	8875	927
19:04	F79608-1F	1122	16722	7114	542 !
19:08	MP19933-D1	1125	16925	7247	544 !

INTERNAL STANDARD SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: Pb,Ni,Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
19:13	MP19933-SD1	1406	20896	8217	736
19:17	MP19933-PS1	1114	16855	7216	536 !
19:22	MP19933-S1	1148	17370	7318	541 !
19:26	MP19933-S2	1137	17256	7364	537 !
19:30	MA8696-CCV11	1575	23967	8678	867
19:34	MA8696-CCB11	1688	25929	8938	1048
19:38	ZZZZZZ	1178	17451	7345	585 !
19:43	ZZZZZZ	1146	17578	7506	568 !
19:47	ZZZZZZ	1038	15536 !	6989	493 !
19:52	ZZZZZZ	1031 !	15585 !	6901	487 !
19:56	ZZZZZZ	1125	17439	7385	558 !
20:00	ZZZZZZ	1517	24373	8677	861
20:05	ZZZZZZ	1555	23676	8621	894
20:09	ZZZZZZ	1556	23793	8645	872
20:13	ZZZZZZ	1600	24352	8840	936
20:17	ZZZZZZ	1584	24269	8638	918
20:22	MA8696-CCV12	1600	24159	8943	873
20:26	MA8696-CCB12	1690	25818	8798	1042
20:30	ZZZZZZ	1584	24160	8639	913
20:34	ZZZZZZ	1670	25597	8904	1000
20:38	ZZZZZZ	1597	24420	8750	922
20:42	ZZZZZZ	1606	24718	8741	940
20:47	ZZZZZZ	1598	24409	8593	924
20:51	ZZZZZZ	1590	24384	8747	919
20:55	ZZZZZZ	1660	25500	8892	1001
20:59	ZZZZZZ	1585	24159	8661	914
21:03	MP19933-MB2A	1702	26265	8927	1048
21:08	MP19933-MB3A	1713	26266	8952	1055
21:12	MA8696-CCV13	1596	24036	8598	873
21:16	MA8696-CCB13	1706	25872	8870	1053
21:20	MP19931-MB1	1686	26567	8760	1033
21:24	MP19931-B1	1616	24197	8543	918
21:28	F79839-1	1725	25802	9403	834

INTERNAL STANDARD SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: Pb,Ni,Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
21:32	MP19931-D1	1769	26240	9640	827
21:37	MP19931-SD1	1721	25580	9041	965
21:41	MP19931-PS1	1707	25208	9220	824
21:45	MP19931-S1	1701	25280	9247	805
21:49	MP19931-S2	1711	25451	9434	797
21:52	ZZZZZZ	1665	24565	8990	786
21:56	ZZZZZZ	1669	24645	8991	831
22:01	MA8696-CCV14	1668	24875	8852	911
22:04	MA8696-CCB14	1747	26254	8944	1074
22:09	ZZZZZZ	1682	24865	9090	827
22:13	ZZZZZZ	1744	25635	9218	871
22:17	ZZZZZZ	1764	26165	9455	852
22:21	ZZZZZZ	1757	26076	9231	915
22:25	ZZZZZZ	1763	26252	9231	928
22:29	ZZZZZZ	1844	27319	9925	890
22:33	ZZZZZZ	2037	30045	10884	880
22:38	ZZZZZZ	2045	30130	10838	866
22:42	ZZZZZZ	1759	25999	9601	823
22:46	ZZZZZZ	1784	26377	9472	868
22:50	MA8696-CCV15	1629	24197	8665	889
22:54	MA8696-CCB15	1741	26269	8858	1073
22:59	ZZZZZZ	1736	25978	8847	1019
23:03	ZZZZZZ	1692	25152	8622	993
23:07	ZZZZZZ	1742	26109	8889	1018
23:11	ZZZZZZ	1774	26560	9060	1039
23:15	ZZZZZZ	1718	25572	8914	973
23:19	ZZZZZZ	1743	25964	8784	1024
23:24	ZZZZZZ	1682	24973	8686	924
23:28	MA8696-CRIA3	1740	25917	8839	1024
23:32	MA8696-ICSA2	1485	21837	8311	746
23:36	MA8696-ICSAB2	1478	21870	8330	738
23:40	MA8696-CCV16	1629	24154	8607	887
23:44	MA8696-CCB16	1741	26169	8803	1068

INTERNAL STANDARD SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
Analyst: RS Run ID: MA8696
Parameters: Pb,Ni,Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
23:49	MA8696-CCV17	1628	24335	8643	886
23:53	MA8696-CCB17	1727	26193	8826	1058

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	60-125 %
Istd#2	Yttrium (3600)	60-125 %
Istd#3	Yttrium (3710)	60-125 %
Istd#4	Indium	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8696 Units: ug/l

Time:			09:48		09:52		10:38		12:23	
Sample ID:			ICB1		ICB2		CCB1		CCB2	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	anr							
Barium	200	1	anr							
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	anr							
Calcium	1000	50	anr							
Chromium	10	1	anr							
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	0.80	<5.0			0.90	<5.0	0.70	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	0.20	<40			0.50	<40	0.0	<40
Potassium	10000	50	anr							
Selenium	10	2								
Silver	10	1	anr							
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	-0.10	<10			-2.1	<10	-0.10	<10
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8696 Units: ug/l

Time:			13:13		13:34		14:25		15:16	
Sample ID:			CCB3		CCB4		CCB5		CCB6	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	anr							
Barium	200	1	anr							
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	anr							
Calcium	1000	50	anr							
Chromium	10	1	anr							
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	1.3	<5.0	-0.80	<5.0	0.0	<5.0	0.0	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	0.30	<40	-0.10	<40	0.10	<40	0.20	<40
Potassium	10000	50	anr							
Selenium	10	2	anr							
Silver	10	1	anr							
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	0.20	<10	-0.30	<10	-4.2	<10	-0.40	<10
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8696 Units: ug/l

Time:			16:07		16:57		17:49		18:43	
Sample ID:			CCB7		CCB8		CCB9		CCB10	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	anr							
Barium	200	1	anr							
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	anr							
Calcium	1000	50	anr							
Chromium	10	1	anr							
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	0.40	<5.0	-0.10	<5.0	0.0	<5.0	-0.10	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	0.20	<40	0.20	<40	0.10	<40	0.20	<40
Potassium	10000	50	anr							
Selenium	10	2	anr							
Silver	10	1	anr							
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	-2.3	<10	-1.6	<10	-1.1	<10	-0.10	<10
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8696 Units: ug/l

Time:			19:34		20:26		21:16		22:04	
Sample ID:			CCB11		CCB12		CCB13		CCB14	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	1	anr							
Arsenic	10	1	anr							
Barium	200	1	anr							
Beryllium	4.0	.1	anr							
Cadmium	5.0	.1	anr							
Calcium	1000	50	anr							
Chromium	10	1	anr							
Cobalt	50	1	anr							
Copper	25	1	anr							
Iron	300	34	anr							
Lead	5.0	1	0.60	<5.0	-0.50	<5.0	-0.30	<5.0	0.30	<5.0
Magnesium	5000	50	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	-0.10	<40	0.0	<40	0.10	<40	0.20	<40
Potassium	10000	50	anr							
Selenium	10	2	anr							
Silver	10	1	anr							
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1	-1.9	<10	-2.3	<10	-1.2	<10	-1.1	<10
Tin	50	1								
Titanium	10	1.1								
Vanadium	50	1	anr							
Zinc	20	1								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA8696 Units: ug/l

Time:			22:54		23:44	
Sample ID:			CCB15		CCB16	
Metal	RL	IDL	raw	final	raw	final
Aluminum	200	20	anr			
Antimony	6.0	1	anr			
Arsenic	10	1	anr			
Barium	200	1	anr			
Beryllium	4.0	.1	anr			
Cadmium	5.0	.1	anr			
Calcium	1000	50	anr			
Chromium	10	1	anr			
Cobalt	50	1	anr			
Copper	25	1	anr			
Iron	300	34	anr			
Lead	5.0	1	-0.70	<5.0	0.20	<5.0
Magnesium	5000	50	anr			
Manganese	15	1	anr			
Molybdenum	50	1				
Nickel	40	1	0.10	<40	0.0	<40
Potassium	10000	50	anr			
Selenium	10	2	anr			
Silver	10	1	anr			
Sodium	10000	750	anr			
Strontium	10	1				
Thallium	10	1	0.10	<10	-1.0	<10
Tin	50	1				
Titanium	10	1.1				
Vanadium	50	1	anr			
Zinc	20	1				

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8696 Units: ug/l

Time:		09:38			10:31			12:19	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2010	100.5	2000	2040	102.0	2000	2000	100.0
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	2000	1980	99.0	2000	2030	101.5	2000	1980	99.0
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	2000	2090	104.5	2000	2060	103.0	2000	2020	101.0
Tin									
Titanium									
Vanadium	anr								
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8696 Units: ug/l

Time:		13:09			13:29			14:21	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2010	100.5	2000	2060	103.0	2000	2030	101.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	2000	1980	99.0	2000	2060	103.0	2000	2020	101.0
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	2000	2030	101.5	2000	2090	104.5	2000	2060	103.0
Tin									
Titanium									
Vanadium	anr								
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8696 Units: ug/l

Time:		15:13			16:03			16:53	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2020	101.0	2000	2050	102.5	2000	2100	105.0
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	2000	2010	100.5	2000	2040	102.0	2000	2100	105.0
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	2000	2040	102.0	2000	2060	103.0	2000	2140	107.0
Tin									
Titanium									
Vanadium	anr								
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8696 Units: ug/l

Time:		17:45			18:39			19:30	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2060	103.0	2000	2030	101.5	2000	2080	104.0
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	2000	2060	103.0	2000	2030	101.5	2000	2090	104.5
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	2000	2100	105.0	2000	2070	103.5	2000	2130	106.5
Tin									
Titanium									
Vanadium	anr								
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8696 Units: ug/l

Time:		20:22			21:12			22:01	
Sample ID:	CCV	CCV12		CCV	CCV13		CCV	CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2090	104.5	2000	2110	105.5	2000	2070	103.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	2000	2100	105.0	2000	2120	106.0	2000	2080	104.0
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	2000	2140	107.0	2000	2150	107.5	2000	2110	105.5
Tin									
Titanium									
Vanadium	anr								
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA8696 Units: ug/l

Time:		22:50			23:40	
Sample ID:	CCV	CCV15		CCV	CCV16	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	anr					
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Cadmium	anr					
Calcium	anr					
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	2000	2120	106.0	2000	2100	105.0
Magnesium	anr					
Manganese	anr					
Molybdenum						
Nickel	2000	2130	106.5	2000	2100	105.0
Potassium	anr					
Selenium	anr					
Silver	anr					
Sodium	anr					
Strontium						
Thallium	2000	2160	108.0	2000	2140	107.0
Tin						
Titanium						
Vanadium	anr					
Zinc						

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA8696 Units: ug/l

Time:		09:34	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	anr		
Barium	anr		
Beryllium	anr		
Cadmium	anr		
Calcium	anr		
Chromium	anr		
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	4000	3960	99.0
Magnesium	anr		
Manganese	anr		
Molybdenum			
Nickel	4000	3970	99.3
Potassium	anr		
Selenium	anr		
Silver	anr		
Sodium	anr		
Strontium			
Thallium	4000	3930	98.3
Tin			
Titanium			
Vanadium	anr		
Zinc			

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA8696 Units: ug/l

Time:			09:56		10:01		23:28	
Sample ID:	CRI	CRIA	CRIA1		CRIA2		CRIA3	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	400	200	anr					
Antimony	10	5.0	anr					
Arsenic	20	10	anr					
Barium	400	200	anr					
Beryllium	10	5.0	anr					
Cadmium	10	5.0	anr					
Calcium	2000	1000	anr					
Chromium	20	10	anr					
Cobalt	100	50	anr					
Copper	50	25	anr					
Iron	600	300	anr					
Lead	10	5.0	5.7	114.0			4.8	96.0
Magnesium	10000	5000	anr					
Manganese	30	15	anr					
Molybdenum	100	50						
Nickel	80	40	38.0	95.0			39.6	99.0
Potassium	20000	10000	anr					
Selenium	20	10						
Silver	20	10	anr					
Sodium	20000	10000	anr					
Strontium	20	10						
Thallium	20	10			8.1	81.0	11.1	111.0
Tin	100	50						
Titanium	20	10						
Vanadium	100	50	anr					
Zinc	40	20						

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA020711M1.ICP Date Analyzed: 02/07/11 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA8696 Units: ug/l

Time:			10:14		10:20		23:32		23:36	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	475000	95.0	489000	97.8	475000	95.0	481000	96.2
Antimony		1000	1.7		975	97.5	2.2		1020	102.0
Arsenic		1000	1.8		986	98.6	-2.3		1050	105.0
Barium		500	1.1		508	101.6	-0.50		518	103.6
Beryllium		500	0.0		484	96.8	-0.20		479	95.8
Cadmium		1000	0.0		920	92.0	2.0		970	97.0
Calcium	500000	500000	459000	91.8	454000	90.8	467000	93.4	456000	91.2
Chromium		500	-0.50		470	94.0	0.30		476	95.2
Cobalt		500	0.40		451	90.2	0.40		462	92.4
Copper		500	-1.3		492	98.4	-2.7		522	104.4
Iron	200000	200000	180000	90.0	183000	91.5	175000	87.5	175000	87.5
Lead		1000	0.0		972	97.2	-1.9		992	99.2
Magnesium	500000	500000	504000	100.8	512000	102.4	485000	97.0	483000	96.6
Manganese		500	0.60		480	96.0	0.60		500	100.0
Molybdenum		1000	0.20		949	94.9	-0.30		974	97.4
Nickel		1000	0.0		964	96.4	1.1		998	99.8
Potassium			-7.9		10.5		-0.10		0.20	
Selenium		1000	0.0		958	95.8	-5.7		1000	100.0
Silver		1000	0.0		1100	110.0	0.70		1100	110.0
Sodium			143		-1500		-960		-160	
Strontium		1000	0.50		0.60	0.0*	0.50		0.50	0.0*
Thallium		1000	0.80		934	93.4	-1.9		969	96.9
Tin		1000	4.0		849	84.9	2.5		919	91.9
Titanium		1000	-1.2		-0.40	0.0*	-1.7		-0.80	0.0*
Vanadium		500	0.50		481	96.2	0.90		497	99.4
Zinc		1000	-2.1		881	88.1	-0.90		949	94.9

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19898
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/01/11

Metal	RL	IDL	MDL	MB raw	final
Mercury	1.0	.071	.05	-0.0080	<1.0

Associated samples MP19898: F79564-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19898
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/01/11 02/01/11

Metal	F79564-1 Original	DUP	RPD	QC Limits	F79564-1 Original	MS	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.0	0.0	NC	0-20	0.0	2.9	3	96.7	80-120

Associated samples MP19898: F79564-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19898
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/01/11

Metal	F79564-1 Original	MSD	Spikelot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	2.9	3	96.7	0.0	20

Associated samples MP19898: F79564-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19898
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/01/11

Metal	BSP Result	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	2.9	3	96.7	80-120

Associated samples MP19898: F79564-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19898
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/01/11

Metal	F79564-1 Original	SDL 1:5	%DIF	QC Limits
Mercury	0.00	0.00	NC	0-10

Associated samples MP19898: F79564-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19899
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date:				02/01/11		02/01/11	
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Mercury	1.0	.071	.05	-0.0020	<1.0	0.013	<1.0

Associated samples MP19899: F79564-2, F79564-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19899
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/01/11 02/01/11

Metal	F79564-1F Original	DUP	RPD	QC Limits	F79564-1F Original	MS	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.0	0.0	NC	0-20	0.0	3.0	3	100.0	80-120

Associated samples MP19899: F79564-2, F79564-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19899 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 02/01/11

Metal	F79564-1F Original	MSD	Spikelot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	3.0	3	100.0	0.0	20

Associated samples MP19899: F79564-2, F79564-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19899
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/01/11

Metal	BSP Result	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	3.0	3	100.0	80-120

Associated samples MP19899: F79564-2, F79564-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19899
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/01/11

Metal	F79564-1F Original	SDL 1:5	%DIF	QC Limits
Mercury	0.00	0.00	NC	0-10

Associated samples MP19899: F79564-2, F79564-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19900
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date:				02/01/11		02/01/11	
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Mercury	1.0	.071	.05	-0.035	<1.0	0.013	<1.0

Associated samples MP19900: F79564-3, F79564-4, F79564-5, F79564-6, F79564-2F, F79564-3F, F79564-4F, F79564-5F, F79564-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19900
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/01/11 02/01/11

Metal	F79568-5 Original	DUP	RPD	QC Limits	F79568-5 Original	MS	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.0	0.0	NC	0-20	0.0	2.8	3	93.3	80-120

Associated samples MP19900: F79564-3, F79564-4, F79564-5, F79564-6, F79564-2F, F79564-3F, F79564-4F, F79564-5F, F79564-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19900
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/01/11

Metal	F79568-5 Original	MSD	Spikelot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	2.9	3	96.7	3.5	20

Associated samples MP19900: F79564-3, F79564-4, F79564-5, F79564-6, F79564-2F, F79564-3F, F79564-4F, F79564-5F, F79564-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19900
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/01/11

Metal	BSP Result	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	2.8	3	93.3	80-120

Associated samples MP19900: F79564-3, F79564-4, F79564-5, F79564-6, F79564-2F, F79564-3F, F79564-4F, F79564-5F, F79564-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19900
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 02/01/11

Metal	F79568-5 Original	SDL 1:5	%DIF	QC Limits
Mercury	0.00	0.00	NC	0-10

Associated samples MP19900: F79564-3, F79564-4, F79564-5, F79564-6, F79564-2F, F79564-3F, F79564-4F, F79564-5F, F79564-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19913
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:				02/03/11		02/03/11	
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Aluminum	200	20	25	5.4	<200	18.0	<200
Antimony	6.0	1	2	1.1	<6.0	0.20	<6.0
Arsenic	10	1	2	-0.30	<10	-0.20	<10
Barium	200	1	5	0.10	<200	0.90	<200
Beryllium	4.0	.1	1	-0.10	<4.0	0.0	<4.0
Cadmium	5.0	.1	1	-0.10	<5.0	-0.10	<5.0
Calcium	1000	50	100	1.1	<1000	56.9	<1000
Chromium	10	1	1	0.10	<10	0.0	<10
Cobalt	50	1	1	-0.30	<50	-0.10	<50
Copper	25	1	2	-0.10	<25	-0.30	<25
Iron	300	34	35	8.9	<300	13.6	<300
Lead	5.0	1	1	0.10	<5.0	-0.10	<5.0
Magnesium	5000	50	100	9.7	<5000	64.1	<5000
Manganese	15	1	1	-0.30	<15	-0.20	<15
Molybdenum	50	1	2				
Nickel	40	1	2	0.20	<40	0.20	<40
Potassium	10000	50	500	-2.6	<10000	6.1	<10000
Selenium	10	2	2	0.50	<10	1.5	<10
Silver	10	1	1	-0.10	<10	-0.60	<10
Sodium	10000	750	1900	518	<10000	304	<10000
Strontium	10	1	1				
Thallium	10	1	1.9	-1.5	<10	-3.0	<10
Tin	50	1	1				
Titanium	10	1.1	2				
Vanadium	50	1	1	0.30	<50	0.60	<50
Zinc	20	1	5	0.20	<20	10.0	<20

Associated samples MP19913: F79564-1, F79564-2, F79564-3, F79564-4, F79564-5, F79564-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19913
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/03/11 02/03/11

Metal	F79564-1 Original	DUP	RPD	QC Limits	F79564-1 Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum	30.1	22.2	30.2 (a)	0-20	30.1	28500	27000	105.4	80-120
Antimony	1.7	2.0	16.2	0-20	1.7	563	500	112.3	80-120
Arsenic	9.2	9.2	0.0	0-20	9.2	2400	2000	119.5	80-120
Barium	14.5	12.8	12.5	0-20	14.5	2100	2000	104.3	80-120
Beryllium	0.0	0.0	NC	0-20	0.0	48.6	50	97.2	80-120
Cadmium	0.0	0.0	NC	0-20	0.0	44.2	50	88.4	80-120
Calcium	690000	683000	4.8	0-20	690000	718000	25000	112.0	80-120
Chromium	0.0	0.0 (b)	NC	0-20	0.0	194 (b)	200	97.0	80-120
Cobalt	1.1	1.3	16.7	0-20	1.1	434	500	86.6	80-120
Copper	5.1	5.5 (b)	39.1 (a)	0-20	5.1	281 (b)	250	110.4	80-120
Iron	0.0	0.0	NC	0-20	0.0	23100	26000	88.8	80-120
Lead	0.0	0.0 (b)	NC	0-20	0.0	514 (b)	500	102.8	80-120
Magnesium	1260000	1210000	4.0	0-20	1260000	1270000	25000	40.0 (c)	80-120
Manganese	0.0	0.0	NC	0-20	0.0	466	500	93.2	80-120
Molybdenum									
Nickel	0.0	0.0 (b)	NC	0-20	0.0	535 (b)	500	107.0	80-120
Potassium	7140	6500	9.4	0-20	7140	35100	25000	111.8	80-120
Selenium	15.6	14.5 (b)	41.5 (a)	0-20	15.6	2400 (b)	2000	119.2	80-120
Silver	0.0	0.0	NC	0-20	0.0	66.4	50	132.8N(d	80-120
Sodium	6170000	5960000	3.5	0-20	6170000	6190000	25000	80.0	80-120
Strontium									
Thallium	0.0	0.0 (b)	NC	0-20	0.0	1920 (b)	2000	96.0	80-120
Tin									
Titanium									
Vanadium	36.6	35.4	3.3	0-20	36.6	513	500	95.3	80-120
Zinc	4.1	4.6 (b)	35.9 (a)	0-20	4.1	476 (b)	500	94.4	80-120

Associated samples MP19913: F79564-1, F79564-2, F79564-3, F79564-4, F79564-5, F79564-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) RPD acceptable due to low duplicate and sample concentrations.
(b) Elevated reporting limit(s) due to matrix interference.
(c) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
(d) Spike recovery indicates possible matrix interference.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19913
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/03/11

Metal	F79564-1 Original	MSD	Spikelot MPFLICP1	% Rec	MSD RPD	QC Limit
Aluminum	30.1	28000	27000	103.6	1.8	20
Antimony	1.7	556	500	110.9	1.3	20
Arsenic	9.2	2370	2000	118.0	1.3	20
Barium	14.5	2060	2000	102.3	1.9	20
Beryllium	0.0	47.3	50	94.6	2.7	20
Cadmium	0.0	43.6	50	87.2	1.4	20
Calcium	690000	738000	25000	192.0(a)	2.7	20
Chromium	0.0	199 (b)	200	99.5	2.5	20
Cobalt	1.1	431	500	86.0	0.7	20
Copper	5.1	294 (b)	250	115.6	4.5	20
Iron	0.0	22800	26000	87.7	1.3	20
Lead	0.0	493 (b)	500	98.6	4.2	20
Magnesium	1260000	1260000	25000	0.0 (a)	0.8	20
Manganese	0.0	460	500	92.0	1.3	20
Molybdenum						
Nickel	0.0	518 (b)	500	103.6	3.2	20
Potassium	7140	34200	25000	108.2	2.6	20
Selenium	15.6	2500 (b)	2000	124.2N(c	4.1	20
Silver	0.0	65.4	50	130.8N(c	1.5	20
Sodium	6170000	6020000	25000	-600.0(a	2.8	20
Strontium						
Thallium	0.0	1860 (b)	2000	93.0	3.2	20
Tin						
Titanium						
Vanadium	36.6	505	500	93.7	1.6	20
Zinc	4.1	490 (b)	500	97.2	2.9	20

Associated samples MP19913: F79564-1, F79564-2, F79564-3, F79564-4, F79564-5, F79564-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
(b) Elevated reporting limit(s) due to matrix interference.
(c) Spike recovery indicates possible matrix interference.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19913
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/03/11

Metal	BSP Result	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum	26500	27000	98.1	80-120
Antimony	480	500	96.0	80-120
Arsenic	1930	2000	96.5	80-120
Barium	2080	2000	104.0	80-120
Beryllium	51.8	50	103.6	80-120
Cadmium	50.5	50	101.0	80-120
Calcium	24700	25000	98.8	80-120
Chromium	201	200	100.5	80-120
Cobalt	515	500	103.0	80-120
Copper	243	250	97.2	80-120
Iron	25300	26000	97.3	80-120
Lead	475	500	95.0	80-120
Magnesium	24200	25000	96.8	80-120
Manganese	505	500	101.0	80-120
Molybdenum				
Nickel	471	500	94.2	80-120
Potassium	24700	25000	98.8	80-120
Selenium	1940	2000	97.0	80-120
Silver	45.5	50	91.0	80-120
Sodium	25500	25000	102.0	80-120
Strontium				
Thallium	1930	2000	96.5	80-120
Tin				
Titanium				
Vanadium	499	500	99.8	80-120
Zinc	498	500	99.6	80-120

Associated samples MP19913: F79564-1, F79564-2, F79564-3, F79564-4, F79564-5, F79564-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19913
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/03/11

Metal	F79564-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum	30.1	0.00	100.0(a)	0-10
Antimony	1.70	0.00	100.0(a)	0-10
Arsenic	9.20	11.3	22.8 (a)	0-10
Barium	14.5	23.3	60.7 (a)	0-10
Beryllium	0.00	0.00	NC	0-10
Cadmium	0.00	0.00	NC	0-10
Calcium	690000	759000	10.0	0-10
Chromium	0.00	10.9		0-10
Cobalt	1.10	0.00	100.0(a)	0-10
Copper	5.10	0.00	100.0(a)	0-10
Iron	0.00	282	100.0(a)	0-10
Lead	0.00	0.00	NC	0-10
Magnesium	1260000	1290000	2.5	0-10
Manganese	0.00	0.00	NC	0-10
Molybdenum				
Nickel	0.00	0.00	NC	0-10
Potassium	7140	5540	22.4*(b)	0-10
Selenium	15.6	0.00	100.0(a)	0-10
Silver	0.00	0.00	NC	0-10
Sodium	6170000	7050000	14.3*(b)	0-10
Strontium				
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Vanadium	36.6	38.2	4.4	0-10
Zinc	4.10	0.00	100.0(a)	0-10

Associated samples MP19913: F79564-1, F79564-2, F79564-3, F79564-4, F79564-5, F79564-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
(b) Serial dilution indicates possible matrix interference.

POST DIGESTATE SPIKE SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19913
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/03/11

Metal	Sample ml	Final ml	F79564-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum	9.8	10	30.1	29.498	2724	0.2	125	2500	107.8	80-120
Antimony	9.8	10	1.7	1.666	118.3	0.2	5	100	116.6	80-120
Arsenic	9.8	10	9.2	9.016	137.3	0.2	5	100	128.3*(a	80-120
Barium	9.8	10	14.5	14.21	286	0.2	12.5	250	108.7	80-120
Beryllium	9.8	10	0	0	48.1	0.2	2.5	50	96.2	80-120
Cadmium	9.8	10	0	0	46.8	0.2	2.5	50	93.6	80-120
Calcium	9.8	10	689600	675808	657700	0.2	250	5000	-362.2*a	80-120
Chromium	9.8	10	0	0	49.7	0.2	2.5	50	99.4	80-120
Cobalt	9.8	10	1.1	1.078	45.7	0.2	2.5	50	89.2	80-120
Copper	9.8	10	5.1	4.998	119.4	0.2	5	100	114.4	80-120
Iron	9.8	10	0	0	2738	0.2	150	3000	91.3	80-120
Lead	9.8	10	0	0	51.2	0.2	2.5	50	102.4	80-120
Magnesium	9.8	10	1258000	1232840	1268000	0.2	250	5000	703.2*(a	80-120
Manganese	9.8	10	0	0	45.7	0.2	2.5	50	91.4	80-120
Molybdenum										
Nickel	9.8	10	0	0	104.7	0.2	5	100	104.7	80-120
Potassium	9.8	10	7138	6995.24	18430	0.2	500	10000	114.3	80-120
Selenium	9.8	10	15.6	15.288	136.7	0.2	5	100	121.4*(a	80-120
Silver	9.8	10	0	0	72.3	0.2	2.5	50	144.6*(a	80-120
Sodium	9.8	10	6174000	6050520	6164000	0.2	500	10000	1134.8*a	80-120
Strontium										
Thallium	9.8	10	0	0	75.4	0.2	5	100	75.4*(a)	80-120
Tin										
Titanium										
Vanadium	9.8	10	36.6	35.868	86.1	0.2	2.5	50	100.5	80-120
Zinc	9.8	10	4.1	4.018	250	0.2	12.5	250	98.4	80-120

Associated samples MP19913: F79564-1, F79564-2, F79564-3, F79564-4, F79564-5, F79564-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested
(a) Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19917
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:				02/03/11		02/03/11	
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Aluminum	200	20	25	12.0	<200	-4.1	<200
Antimony	6.0	1	2	1.8	<6.0	0.20	<6.0
Arsenic	10	1	2	0.20	<10	-2.3	<10
Barium	200	1	5	1.5	<200	1.7	<200
Beryllium	4.0	.1	1	0.0	<4.0	0.0	<4.0
Cadmium	5.0	.1	1	-0.20	<5.0	-0.20	<5.0
Calcium	1000	50	100	-0.10	<1000	60.0	<1000
Chromium	10	1	1	0.50	<10	0.20	<10
Cobalt	50	1	1	-0.30	<50	-0.30	<50
Copper	25	1	2	-0.20	<25	-0.10	<25
Iron	300	34	35	11.3	<300	27.6	<300
Lead	5.0	1	1	0.10	<5.0	-0.30	<5.0
Magnesium	5000	50	100	21.9	<5000	91.2	<5000
Manganese	15	1	1	-0.10	<15	-0.30	<15
Molybdenum	50	1	2				
Nickel	40	1	2	0.20	<40	0.0	<40
Potassium	10000	50	500	9.6	<10000	-6.1	<10000
Selenium	10	2	2	2.5	<10	1.8	<10
Silver	10	1	1	-0.30	<10	-0.50	<10
Sodium	10000	750	1900	748	<10000	790	<10000
Strontium	10	1	1				
Thallium	10	1	1.9	-0.60	<10	-3.1	<10
Tin	50	1	1				
Titanium	10	1.1	2				
Vanadium	50	1	1	0.30	<50	0.50	<50
Zinc	20	1	5	0.50	<20	10.0	<20

Associated samples MP19917: F79564-1F, F79564-2F, F79564-3F, F79564-4F, F79564-5F, F79564-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19917
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/03/11 02/03/11

Metal	F79564-1F Original	DUP	RPD	QC Limits	F79564-1F Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum	21.9	0.0	200.0(a)	0-20	21.9	28500	27000	105.5	80-120
Antimony	1.7	2.4	34.1 (a)	0-20	1.7	570	500	113.7	80-120
Arsenic	8.5	9.5	11.1	0-20	8.5	2430	2000	121.1N(c	80-120
Barium	16.1	17.6	8.9	0-20	16.1	2140	2000	106.2	80-120
Beryllium	0.0	0.0	NC	0-20	0.0	48.1	50	96.2	80-120
Cadmium	0.0	0.0	NC	0-20	0.0	44.9	50	89.8	80-120
Calcium	624000	670000	7.1	0-20	624000	676000	25000	208.0(d)	80-120
Chromium	0.0	0.0 (b)	NC	0-20	0.0	193 (b)	200	96.5	80-120
Cobalt	1.3	1.5	14.3	0-20	1.3	445	500	88.7	80-120
Copper	4.8	5.2 (b)	8.0	0-20	4.8	279 (b)	250	109.7	80-120
Iron	0.0	0.0	NC	0-20	0.0	23100	26000	88.8	80-120
Lead	0.0	0.0 (b)	NC	0-20	0.0	478 (b)	500	95.6	80-120
Magnesium	1200000	1230000	2.5	0-20	1200000	1220000	25000	80.0	80-120
Manganese	0.0	0.0	NC	0-20	0.0	468	500	93.6	80-120
Molybdenum									
Nickel	0.0	0.0 (b)	NC	0-20	0.0	498 (b)	500	99.6	80-120
Potassium	5730	6040	5.3	0-20	5730	34700	25000	115.9	80-120
Selenium	11.6	11.7 (b)	0.9	0-20	11.6	2370 (b)	2000	117.9	80-120
Silver	0.0	0.0	NC	0-20	0.0	66.8	50	133.6N(c	80-120
Sodium	5860000	5980000	2.0	0-20	5860000	5890000	25000	120.0	80-120
Strontium									
Thallium	0.0	0.0 (b)	NC	0-20	0.0	1810 (b)	2000	90.5	80-120
Tin									
Titanium									
Vanadium	35.0	36.0	2.8	0-20	35.0	511	500	95.2	80-120
Zinc	5.3	4.2 (b)	23.2 (a)	0-20	5.3	474 (b)	500	93.7	80-120

Associated samples MP19917: F79564-1F, F79564-2F, F79564-3F, F79564-4F, F79564-5F, F79564-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) RPD acceptable due to low duplicate and sample concentrations.
(b) Elevated reporting limit(s) due to matrix interference.
(c) Spike recovery indicates possible matrix interference.
(d) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19917
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/03/11

Metal	F79564-1F Original	MSD	Spikelot MPFLICP1	% Rec	MSD RPD	QC Limit
Aluminum	21.9	27900	27000	103.3	2.1	20
Antimony	1.7	565	500	112.7	0.9	20
Arsenic	8.5	2390	2000	119.1	1.7	20
Barium	16.1	2120	2000	105.2	0.9	20
Beryllium	0.0	47.4	50	94.8	1.5	20
Cadmium	0.0	44.6	50	89.2	0.7	20
Calcium	624000	690000	25000	264.0(a)	2.0	20
Chromium	0.0	198 (b)	200	99.0	2.6	20
Cobalt	1.3	438	500	87.3	1.6	20
Copper	4.8	283 (b)	250	111.3	1.4	20
Iron	0.0	22500	26000	86.5	2.6	20
Lead	0.0	474 (b)	500	94.8	0.8	20
Magnesium	1200000	1200000	25000	0.0 (a)	1.7	20
Manganese	0.0	458	500	91.6	2.2	20
Molybdenum						
Nickel	0.0	496 (b)	500	99.2	0.4	20
Potassium	5730	34100	25000	113.5	1.7	20
Selenium	11.6	2430 (b)	2000	120.9N(c	2.5	20
Silver	0.0	65.0	50	130.0N(c	2.7	20
Sodium	5860000	5800000	25000	-240.0(a	1.5	20
Strontium						
Thallium	0.0	1800 (b)	2000	90.0	0.6	20
Tin						
Titanium						
Vanadium	35.0	504	500	93.8	1.4	20
Zinc	5.3	485 (b)	500	95.9	2.3	20

Associated samples MP19917: F79564-1F, F79564-2F, F79564-3F, F79564-4F, F79564-5F, F79564-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
(b) Elevated reporting limit(s) due to matrix interference.
(c) Spike recovery indicates possible matrix interference.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19917
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/03/11

Metal	BSP Result	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum	27000	27000	100.0	80-120
Antimony	490	500	98.0	80-120
Arsenic	1970	2000	98.5	80-120
Barium	2140	2000	107.0	80-120
Beryllium	51.9	50	103.8	80-120
Cadmium	51.3	50	102.6	80-120
Calcium	25200	25000	100.8	80-120
Chromium	202	200	101.0	80-120
Cobalt	528	500	105.6	80-120
Copper	242	250	96.8	80-120
Iron	25600	26000	98.5	80-120
Lead	480	500	96.0	80-120
Magnesium	24400	25000	97.6	80-120
Manganese	505	500	101.0	80-120
Molybdenum				
Nickel	475	500	95.0	80-120
Potassium	25000	25000	100.0	80-120
Selenium	1980	2000	99.0	80-120
Silver	45.9	50	91.8	80-120
Sodium	25600	25000	102.4	80-120
Strontium				
Thallium	1940	2000	97.0	80-120
Tin				
Titanium				
Vanadium	498	500	99.6	80-120
Zinc	505	500	101.0	80-120

Associated samples MP19917: F79564-1F, F79564-2F, F79564-3F, F79564-4F, F79564-5F, F79564-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19917
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/03/11

Metal	F79564-1F Original	SDL 1:5	%DIF	QC Limits
Aluminum	21.9	0.00	100.0(a)	0-10
Antimony	1.70	0.00	100.0(a)	0-10
Arsenic	8.50	8.60	1.2	0-10
Barium	16.1	33.1	105.6(a)	0-10
Beryllium	0.00	0.00	NC	0-10
Cadmium	0.00	0.00	NC	0-10
Calcium	624000	717000	14.8*(b)	0-10
Chromium	0.00	0.00	NC	0-10
Cobalt	1.30	0.00	100.0(a)	0-10
Copper	4.80	11.9	147.9(a)	0-10
Iron	0.00	0.00	NC	0-10
Lead	0.00	0.00	NC	0-10
Magnesium	1200000	1260000	5.7	0-10
Manganese	0.00	0.00	NC	0-10
Molybdenum				
Nickel	0.00	0.00	NC	0-10
Potassium	5730	5740	0.1	0-10
Selenium	11.6	0.00	100.0(a)	0-10
Silver	0.00	0.00	NC	0-10
Sodium	5860000	6510000	11.1*(b)	0-10
Strontium				
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Vanadium	35.0	38.9	11.1 (a)	0-10
Zinc	5.30	0.00	100.0(a)	0-10

Associated samples MP19917: F79564-1F, F79564-2F, F79564-3F, F79564-4F, F79564-5F, F79564-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
(b) Serial dilution indicates possible matrix interference.

POST DIGESTATE SPIKE SUMMARY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP19917
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/03/11

Metal	Sample ml	Final ml	F79564-1F Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum	9.8	10	21.9	21.462	2751	0.2	125	2500	109.2	80-120
Antimony	9.8	10	1.7	1.666	120.8	0.2	5	100	119.1	80-120
Arsenic	9.8	10	8.5	8.33	139.8	0.2	5	100	131.5*(a	80-120
Barium	9.8	10	16.1	15.778	289.7	0.2	12.5	250	109.6	80-120
Beryllium	9.8	10	0	0	48.1	0.2	2.5	50	96.2	80-120
Cadmium	9.8	10	0	0	47.6	0.2	2.5	50	95.2	80-120
Calcium	9.8	10	624300	611814	649900	0.2	250	5000	761.7*(a	80-120
Chromium	9.8	10	0	0	47.8	0.2	2.5	50	95.6	80-120
Cobalt	9.8	10	1.3	1.274	46.7	0.2	2.5	50	90.9	80-120
Copper	9.8	10	4.8	4.704	116.2	0.2	5	100	111.5	80-120
Iron	9.8	10	0	0	2797	0.2	150	3000	93.2	80-120
Lead	9.8	10	0	0	33.2	0.2	2.5	50	66.4*(a)	80-120
Magnesium	9.8	10	1195000	1171100	1182000	0.2	250	5000	218.0*(a	80-120
Manganese	9.8	10	0	0	47.5	0.2	2.5	50	95.0	80-120
Molybdenum										
Nickel	9.8	10	0	0	103.4	0.2	5	100	103.4	80-120
Potassium	9.8	10	5734	5619.32	17460	0.2	500	10000	118.4	80-120
Selenium	9.8	10	11.6	11.368	133.4	0.2	5	100	122.0*(a	80-120
Silver	9.8	10	0	0	73.4	0.2	2.5	50	146.8*(a	80-120
Sodium	9.8	10	5858000	5740840	5771000	0.2	500	10000	301.6*(a	80-120
Strontium										
Thallium	9.8	10	0	0	69.6	0.2	5	100	69.6*(a)	80-120
Tin										
Titanium										
Vanadium	9.8	10	35	34.3	82.6	0.2	2.5	50	96.6	80-120
Zinc	9.8	10	5.3	5.194	240.8	0.2	12.5	250	94.2	80-120

Associated samples MP19917: F79564-1F, F79564-2F, F79564-3F, F79564-4F, F79564-5F, F79564-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested
(a) Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

Southeast ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Solids, Total Dissolved	GN43065	100	0.0	mg/l				

Associated Samples:
Batch GN43065: F79564-1, F79564-2, F79564-3, F79564-4, F79564-5, F79564-6
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F79564
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Solids, Total Dissolved	GN43065	F79564-1	mg/l	22800	22700	0.4	0-5%

Associated Samples:
Batch GN43065: F79564-1, F79564-2, F79564-3, F79564-4, F79564-5, F79564-6
(*) Outside of QC limits

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Southeast ACCUTEST LABORATORIES

12/07/10

Technical Report for

Tetra Tech, Inc

Holloman AFB; Alamogordo, NM

100-TEN-T93002-1

Accutest Job Number: F78009

Sampling Dates: 11/10/10 - 11/11/10

Report to:

Tetra Tech, NUS

Maureen.McMyler@tetratech.com
Valerie.Bogle@tetratech.com
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Total number of pages in report: **182**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Sue Bell 407-425-6700

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK

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2.22: F78009-22: SS39-DPT-12A 93
2.23: F78009-23: SS39-DPT-12B 97
2.24: F78009-24: SS39-DPT-12C 101
2.25: F78009-25: SS39-DPT-13A 105
2.26: F78009-26: SS39-DPT-13B 109
2.27: F78009-27: SS39-DPT-13C 113
2.28: F78009-28: SS39-DPT-14A 117
2.29: F78009-29: SS39-DPT-14B 121
2.30: F78009-30: SS39-DPT-14C 125
2.31: F78009-31: SS39-DPT-DUP01 129
2.32: F78009-32: SS39-DPT-DUP02 133
2.33: F78009-33: SS39-DPT-DUP03 137
2.34: F78009-34: SS39-TB-11112010-A 141
2.35: F78009-35: SS39-TB-11112010-B 145
2.36: F78009-36: SD27-TTMW-05 149
2.37: F78009-36F: SD27-TTMW-05 159
2.38: F78009-37: SD27-TTMW-01 160
2.39: F78009-37F: SD27-TTMW-01 170
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Sample Summary

Tetra Tech, Inc

Job No: F78009

Holloman AFB; Alamogordo, NM
Project No: 100-TEN-T93002-1

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F78009-1	11/10/10	16:55	JD	11/12/10	SO	Soil	SS39-DPT-05A
F78009-2	11/10/10	17:00	JD	11/12/10	SO	Soil	SS39-DPT-05B
F78009-3	11/10/10	17:05	JD	11/12/10	SO	Soil	SS39-DPT-05C
F78009-4	11/10/10	17:35	JD	11/12/10	SO	Soil	SS39-DPT-06A
F78009-5	11/10/10	17:40	JD	11/12/10	SO	Soil	SS39-DPT-06B
F78009-6	11/10/10	17:45	JD	11/12/10	SO	Soil	SS39-DPT-06C
F78009-7	11/11/10	07:50	JD	11/12/10	SO	Soil	SS39-DPT-07A
F78009-8	11/11/10	07:55	JD	11/12/10	SO	Soil	SS39-DPT-07B
F78009-9	11/11/10	08:00	JD	11/12/10	SO	Soil	SS39-DPT-07C
F78009-10	11/11/10	08:25	JD	11/12/10	SO	Soil	SS39-DPT-08A
F78009-11	11/11/10	08:30	JD	11/12/10	SO	Soil	SS39-DPT-08B
F78009-12	11/11/10	08:35	JD	11/12/10	SO	Soil	SS39-DPT-08C
F78009-13	11/11/10	08:50	JD	11/12/10	SO	Soil	SS39-DPT-09A

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

Tetra Tech, Inc

Job No: F78009

Holloman AFB; Alamogordo, NM
Project No: 100-TEN-T93002-1

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F78009-14	11/11/10	08:55	JD	11/12/10	SO	Soil	SS39-DPT-09B
F78009-15	11/11/10	09:00	JD	11/12/10	SO	Soil	SS39-DPT-09C
F78009-16	11/11/10	09:05	JD	11/12/10	SO	Soil	SS39-DPT-10A
F78009-17	11/11/10	09:10	JD	11/12/10	SO	Soil	SS39-DPT-10B
F78009-18	11/11/10	09:15	JD	11/12/10	SO	Soil	SS39-DPT-10C
F78009-19	11/11/10	10:00	JD	11/12/10	SO	Soil	SS39-DPT-11A
F78009-20	11/11/10	10:05	JD	11/12/10	SO	Soil	SS39-DPT-11B
F78009-21	11/11/10	10:10	JD	11/12/10	SO	Soil	SS39-DPT-11C
F78009-22	11/11/10	10:15	JD	11/12/10	SO	Soil	SS39-DPT-12A
F78009-23	11/11/10	10:20	JD	11/12/10	SO	Soil	SS39-DPT-12B
F78009-24	11/11/10	10:25	JD	11/12/10	SO	Soil	SS39-DPT-12C
F78009-24D	11/11/10	10:25	JD	11/12/10	SO	Soil Dup/MSD	SS39-DPT-12C
F78009-24S	11/11/10	10:25	JD	11/12/10	SO	Soil Matrix Spike	SS39-DPT-12C

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Accutest Laboratories

Sample Summary
(continued)

Tetra Tech, Inc

Job No: F78009

Holloman AFB; Alamogordo, NM
Project No: 100-TEN-T93002-1

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F78009-25	11/11/10	10:40	JD	11/12/10	SO	Soil	SS39-DPT-13A
F78009-26	11/11/10	10:45	JD	11/12/10	SO	Soil	SS39-DPT-13B
F78009-27	11/11/10	10:50	JD	11/12/10	SO	Soil	SS39-DPT-13C
F78009-28	11/11/10	11:00	JD	11/12/10	SO	Soil	SS39-DPT-14A
F78009-29	11/11/10	11:05	JD	11/12/10	SO	Soil	SS39-DPT-14B
F78009-30	11/11/10	11:10	JD	11/12/10	SO	Soil	SS39-DPT-14C
F78009-31	11/11/10	08:00	JD	11/12/10	SO	Soil	SS39-DPT-DUP01
F78009-32	11/11/10	09:15	JD	11/12/10	SO	Soil	SS39-DPT-DUP02
F78009-33	11/11/10	11:00	JD	11/12/10	SO	Soil	SS39-DPT-DUP03
F78009-34	11/11/10	12:30	JD	11/12/10	SO	Trip Blank Soil	SS39-TB-11112010-A
F78009-35	11/11/10	12:30	JD	11/12/10	SO	Trip Blank Soil	SS39-TB-11112010-B
F78009-36	11/11/10	08:50	JD	11/12/10	AQ	Ground Water	SD27-TTMW-05
F78009-36F	11/11/10	08:50	JD	11/12/10	AQ	Groundwater Filtered	SD27-TTMW-05

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Accutest Laboratories

Sample Summary
(continued)

Tetra Tech, Inc

Job No: F78009

Holloman AFB; Alamogordo, NM
Project No: 100-TEN-T93002-1

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F78009-37	11/11/10	10:05	JD	11/12/10	AQ	Ground Water	SD27-TTMW-01
F78009-37D	11/11/10	10:05	JD	11/12/10	AQ	Water Dup/MSD	SD27-TTMW-01
F78009-37DF	11/11/10	10:05	JD	11/12/10	AQ	Water Dup/MSD	SD27-TTMW-01
F78009-37F	11/11/10	10:05	JD	11/12/10	AQ	Groundwater Filtered	SD27-TTMW-01
F78009-37S	11/11/10	10:05	JD	11/12/10	AQ	Water Matrix Spike	SD27-TTMW-01
F78009-37SF	11/11/10	10:05	JD	11/12/10	AQ	Water Matrix Spike	SD27-TTMW-01
F78009-38	11/11/10	00:00	JD	11/12/10	AQ	Trip Blank Water	SD27-TB-11112010-C
F78009-39	11/11/10	00:00	JD	11/12/10	AQ	Trip Blank Water	SD27-TB-11112010-D

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Southeast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-05		
Lab Sample ID:	F78009-36	**Date Sampled:**	11/11/10
Matrix:	AQ - Ground Water	**Date Received:**	11/12/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	F046134.D	10	11/30/10	LD	n/a	n/a	VF1353
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	250	100	ug/l	
75-05-8	Acetonitrile	ND	200	50	ug/l	
107-02-8	Acrolein	ND	200	50	ug/l	
107-13-1	Acrylonitrile	ND	100	30	ug/l	
107-05-1	Allyl chloride	ND	20	3.0	ug/l	
71-43-2	Benzene	371	10	2.0	ug/l	
100-44-7	Benzyl Chloride	ND	20	5.0	ug/l	
108-86-1	Bromobenzene	ND	10	2.5	ug/l	
74-97-5	Bromochloromethane	ND	10	2.2	ug/l	
75-27-4	Bromodichloromethane	ND	10	2.0	ug/l	
75-25-2	Bromoform	ND	10	2.0	ug/l	
104-51-8	n-Butylbenzene	ND	10	2.6	ug/l	
135-98-8	sec-Butylbenzene	7.8	10	2.2	ug/l	J
98-06-6	tert-Butylbenzene	ND	10	2.7	ug/l	
108-90-7	Chlorobenzene	ND	10	2.0	ug/l	
75-00-3	Chloroethane	ND	20	5.0	ug/l	
67-66-3	Chloroform	ND	10	2.2	ug/l	
544-10-5	1-Chlorohexane	ND	20	2.5	ug/l	
95-49-8	o-Chlorotoluene	ND	10	2.2	ug/l	
106-43-4	p-Chlorotoluene	ND	10	2.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	50	12	ug/l	
75-15-0	Carbon disulfide	ND	20	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	10	2.5	ug/l	
75-34-3	1,1-Dichloroethane	ND	10	2.5	ug/l	
75-35-4	1,1-Dichloroethylene	ND	10	2.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	10	2.8	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	20	5.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	10	3.7	ug/l	
107-06-2	1,2-Dichloroethane	ND	10	2.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	10	2.5	ug/l	
142-28-9	1,3-Dichloropropane	ND	10	2.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	10	4.4	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-05		
Lab Sample ID:	F78009-36	**Date Sampled:**	11/11/10
Matrix:	AQ - Ground Water	**Date Received:**	11/12/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	10	2.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	20	5.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	10	2.6	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	10	2.0	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	100	10	ug/l	
541-73-1	m-Dichlorobenzene	ND	10	2.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	10	2.5	ug/l	
106-46-7	p-Dichlorobenzene	ND	10	2.3	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	10	3.5	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	10	2.0	ug/l	
100-41-4	Ethylbenzene	504	10	2.0	ug/l	
97-63-2	Ethyl methacrylate	ND	50	10	ug/l	
76-13-1	Freon 113	ND	10	4.7	ug/l	
591-78-6	2-Hexanone	ND	100	40	ug/l	
87-68-3	Hexachlorobutadiene	ND	20	8.0	ug/l	
110-54-3	Hexane	ND	20	5.9	ug/l	
98-82-8	Isopropylbenzene	51.8	10	2.0	ug/l	
99-87-6	p-Isopropyltoluene	6.4	10	2.1	ug/l	J
108-10-1	4-Methyl-2-pentanone	ND	50	20	ug/l	
126-98-7	Methacrylonitrile	ND	200	50	ug/l	
74-83-9	Methyl bromide	ND	20	5.0	ug/l	
74-87-3	Methyl chloride	ND	20	5.0	ug/l	
74-88-4	Methyl iodide	ND	10	2.0	ug/l	
80-62-6	Methyl methacrylate	ND	50	10	ug/l	
74-95-3	Methylene bromide	ND	20	2.5	ug/l	
75-09-2	Methylene chloride	ND	50	20	ug/l	
78-93-3	Methyl ethyl ketone	ND	50	20	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	10	3.4	ug/l	
91-20-3	Naphthalene	57.4	50	10	ug/l	
76-01-7	Pentachloroethane	ND	100	20	ug/l	
107-12-0	Propionitrile	ND	200	50	ug/l	
103-65-1	n-Propylbenzene	50.1	10	2.0	ug/l	
100-42-5	Styrene	ND	10	2.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	10	2.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	10	2.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	2.3	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	10	2.2	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	10	5.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	20	3.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	10	5.0	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-05		
Lab Sample ID:	F78009-36	**Date Sampled:**	11/11/10
Matrix:	AQ - Ground Water	**Date Received:**	11/12/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	223	20	2.7	ug/l	
108-67-8	1,3,5-Trimethylbenzene	53.5	20	2.1	ug/l	
127-18-4	Tetrachloroethylene	ND	10	2.5	ug/l	
108-88-3	Toluene	279	10	2.0	ug/l	
79-01-6	Trichloroethylene	ND	10	2.6	ug/l	
75-69-4	Trichlorofluoromethane	ND	20	5.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	100	20	ug/l	
75-01-4	Vinyl chloride	ND	10	2.2	ug/l	
108-05-4	Vinyl Acetate	ND	100	20	ug/l	
	m,p-Xylene	145	20	3.2	ug/l	
95-47-6	o-Xylene	332	10	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		87-116%
17060-07-0	1,2-Dichloroethane-D4	96%		76-127%
2037-26-5	Toluene-D8	94%		86-112%
460-00-4	4-Bromofluorobenzene	93%		84-120%

(a) Sample analyzed beyond hold time; reported results are considered minimum values.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-05		
Lab Sample ID:	F78009-36	**Date Sampled:**	11/11/10
Matrix:	AQ - Ground Water	**Date Received:**	11/12/10
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	U022584.D	4	11/29/10	NAF	11/18/10	OP35095	SU1077
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	200	40	ug/l	
95-57-8	2-Chlorophenol	ND	20	2.0	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	20	2.0	ug/l	
120-83-2	2,4-Dichlorophenol	ND	20	2.0	ug/l	
105-67-9	2,4-Dimethylphenol	4.5	20	4.4	ug/l	J
51-28-5	2,4-Dinitrophenol	ND	100	40	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	40	8.0	ug/l	
95-48-7	2-Methylphenol	5.5	20	2.2	ug/l	J
	3&4-Methylphenol	ND	20	4.4	ug/l	
88-75-5	2-Nitrophenol	ND	20	2.2	ug/l	
100-02-7	4-Nitrophenol	ND	100	20	ug/l	
87-86-5	Pentachlorophenol	ND	100	22	ug/l	
108-95-2	Phenol	ND	20	2.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	20	2.0	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	20	2.0	ug/l	
83-32-9	Acenaphthene	ND	20	2.0	ug/l	
208-96-8	Acenaphthylene	ND	20	2.0	ug/l	
62-53-3	Aniline	ND	20	2.1	ug/l	
120-12-7	Anthracene	ND	20	2.0	ug/l	
92-87-5	Benzidine	ND	100	19	ug/l	
56-55-3	Benzo(a)anthracene	ND	20	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	20	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	20	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	20	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	20	2.0	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	20	2.0	ug/l	
85-68-7	Butyl benzyl phthalate	ND	20	4.4	ug/l	
100-51-6	Benzyl Alcohol	ND	20	4.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	20	2.0	ug/l	
106-47-8	4-Chloroaniline	ND	20	2.0	ug/l	
86-74-8	Carbazole	ND	20	2.0	ug/l	
218-01-9	Chrysene	ND	20	2.0	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-05		
Lab Sample ID:	F78009-36	**Date Sampled:**	11/11/10
Matrix:	AQ - Ground Water	**Date Received:**	11/12/10
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	20	2.0	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	20	2.2	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	20	2.2	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	20	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	20	4.0	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	20	2.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	20	4.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	20	4.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	20	2.0	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	20	2.0	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	40	4.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	20	2.1	ug/l	
132-64-9	Dibenzofuran	ND	20	2.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	20	3.5	ug/l	
117-84-0	Di-n-octyl phthalate	ND	20	4.4	ug/l	
84-66-2	Diethyl phthalate	ND	20	4.4	ug/l	
131-11-3	Dimethyl phthalate	ND	20	4.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	20	4.4	ug/l	
206-44-0	Fluoranthene	ND	20	2.0	ug/l	
86-73-7	Fluorene	ND	20	2.0	ug/l	
118-74-1	Hexachlorobenzene	ND	20	2.2	ug/l	
87-68-3	Hexachlorobutadiene	ND	20	4.0	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	40	7.6	ug/l	
67-72-1	Hexachloroethane	ND	20	4.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	20	2.0	ug/l	
78-59-1	Isophorone	ND	20	2.0	ug/l	
90-12-0	1-Methylnaphthalene	24.7	20	2.0	ug/l	
91-57-6	2-Methylnaphthalene	26.7	20	2.3	ug/l	
88-74-4	2-Nitroaniline	ND	20	2.0	ug/l	
99-09-2	3-Nitroaniline	ND	20	2.0	ug/l	
100-01-6	4-Nitroaniline	ND	20	2.0	ug/l	
91-20-3	Naphthalene	60.0	20	3.2	ug/l	
98-95-3	Nitrobenzene	ND	20	2.4	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	20	9.6	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	20	2.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	20	4.0	ug/l	
85-01-8	Phenanthrene	ND	20	2.0	ug/l	
129-00-0	Pyrene	ND	20	2.0	ug/l	
110-86-1	Pyridine	ND	40	6.4	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	20	2.0	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-05		
Lab Sample ID:	F78009-36	**Date Sampled:**	11/11/10
Matrix:	AQ - Ground Water	**Date Received:**	11/12/10
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	47%		14-62%
4165-62-2	Phenol-d5	37%		10-40%
118-79-6	2,4,6-Tribromophenol	89%		33-118%
4165-60-0	Nitrobenzene-d5	90%		42-108%
321-60-8	2-Fluorobiphenyl	80%		40-106%
1718-51-0	Terphenyl-d14	81%		39-121%

(a) Dilution required due to matrix interference.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-05		
Lab Sample ID:	F78009-36	**Date Sampled:**	11/11/10
Matrix:	AQ - Ground Water	**Date Received:**	11/12/10
Method:	SW846 8015C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD100614.D	10	11/18/10	WV	n/a	n/a	GCD4156
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	6.10	1.0	0.50	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	107%		57-129%
98-08-8	aaa-Trifluorotoluene	97%		58-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-05		
Lab Sample ID:	F78009-36	**Date Sampled:**	11/11/10
Matrix:	AQ - Ground Water	**Date Received:**	11/12/10
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF37717.D	1	11/18/10	FEA	11/18/10	OP35097	GZF1576
Run #2							

	Initial Volume	Final Volume
Run #1	850 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28) [a]	1.32	0.29	0.12	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	77%		42-114%

(a) Petroleum hydrocarbon pattern begins before C10 and extends beyond C28.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-05		
Lab Sample ID:	F78009-36	**Date Sampled:**	11/11/10
Matrix:	AQ - Ground Water	**Date Received:**	11/12/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	10 U	50	10	ug/l	5	11/22/10	11/23/10	RS	SW846 6010C [3]	SW846 3010A [5]
Barium [a]	69.4 B	1000	25	ug/l	5	11/22/10	11/23/10	RS	SW846 6010C [3]	SW846 3010A [5]
Cadmium [a]	5.0 U	25	5.0	ug/l	5	11/22/10	11/23/10	RS	SW846 6010C [3]	SW846 3010A [5]
Chromium [a]	5.0 U	50	5.0	ug/l	5	11/22/10	11/23/10	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	5.0 U	25	5.0	ug/l	5	11/22/10	11/23/10	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	11/19/10	11/19/10	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	10 U	50	10	ug/l	5	11/22/10	11/23/10	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	11/22/10	11/22/10	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8520
(2) Instrument QC Batch: MA8526
(3) Instrument QC Batch: MA8530
(4) Prep QC Batch: MP19507
(5) Prep QC Batch: MP19523

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-05		
Lab Sample ID:	F78009-36	**Date Sampled:**	11/11/10
Matrix:	AQ - Ground Water	**Date Received:**	11/12/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	15300	10000	1000	mg/l	100	11/12/10 08:15	LE	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-05		
Lab Sample ID:	F78009-36F	**Date Sampled:**	11/11/10
Matrix:	AQ - Groundwater Filtered	**Date Received:**	11/12/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	6.4 B	10	2.0	ug/l	1	11/23/10	11/24/10	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	48.6 B	200	5.0	ug/l	1	11/23/10	11/24/10	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium	1.0 U	5.0	1.0	ug/l	1	11/23/10	11/24/10	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	4.0 U	40	4.0	ug/l	4	11/23/10	11/24/10	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	4.0 U	20	4.0	ug/l	4	11/23/10	11/24/10	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	11/19/10	11/19/10	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	8.0 U	40	8.0	ug/l	4	11/23/10	11/24/10	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	11/23/10	11/24/10	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8520
(2) Instrument QC Batch: MA8530
(3) Instrument QC Batch: MA8534
(4) Prep QC Batch: MP19507
(5) Prep QC Batch: MP19535

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-01		
Lab Sample ID:	F78009-37	**Date Sampled:**	11/11/10
Matrix:	AQ - Ground Water	**Date Received:**	11/12/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F046053.D	1	11/24/10	SH	n/a	n/a	VF1350
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

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Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-01		
Lab Sample ID:	F78009-37	**Date Sampled:**	11/11/10
Matrix:	AQ - Ground Water	**Date Received:**	11/12/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	4.3	5.0	2.0	ug/l	JB
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

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N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-01		
Lab Sample ID:	F78009-37	**Date Sampled:**	11/11/10
Matrix:	AQ - Ground Water	**Date Received:**	11/12/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		87-116%
17060-07-0	1,2-Dichloroethane-D4	96%		76-127%
2037-26-5	Toluene-D8	105%		86-112%
460-00-4	4-Bromofluorobenzene	100%		84-120%

ND = Not detected MDL - Method Detection Limit
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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-01		
Lab Sample ID:	F78009-37	**Date Sampled:**	11/11/10
Matrix:	AQ - Ground Water	**Date Received:**	11/12/10
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U022585.D	1	11/29/10	NAF	11/18/10	OP35095	SU1077
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	48	9.5	ug/l	
95-57-8	2-Chlorophenol	ND	4.8	0.48	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	4.8	0.48	ug/l	
120-83-2	2,4-Dichlorophenol	ND	4.8	0.48	ug/l	
105-67-9	2,4-Dimethylphenol	ND	4.8	1.0	ug/l	
51-28-5	2,4-Dinitrophenol	ND	24	9.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	9.5	1.9	ug/l	
95-48-7	2-Methylphenol	ND	4.8	0.51	ug/l	
	3&4-Methylphenol	ND	4.8	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	4.8	0.51	ug/l	
100-02-7	4-Nitrophenol	ND	24	4.8	ug/l	
87-86-5	Pentachlorophenol	ND	24	5.1	ug/l	
108-95-2	Phenol	ND	4.8	0.48	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	4.8	0.48	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.8	0.48	ug/l	
83-32-9	Acenaphthene	ND	4.8	0.48	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.48	ug/l	
62-53-3	Aniline	ND	4.8	0.50	ug/l	
120-12-7	Anthracene	ND	4.8	0.48	ug/l	
92-87-5	Benzidine	ND	24	4.5	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.48	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.48	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.48	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.48	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.48	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	4.8	0.48	ug/l	
85-68-7	Butyl benzyl phthalate	ND	4.8	1.0	ug/l	
100-51-6	Benzyl Alcohol	ND	4.8	0.95	ug/l	
91-58-7	2-Chloronaphthalene	ND	4.8	0.48	ug/l	
106-47-8	4-Chloroaniline	ND	4.8	0.48	ug/l	
86-74-8	Carbazole	ND	4.8	0.48	ug/l	
218-01-9	Chrysene	ND	4.8	0.48	ug/l	

ND = Not detected MDL - Method Detection Limit
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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-01		
Lab Sample ID:	F78009-37	**Date Sampled:**	11/11/10
Matrix:	AQ - Ground Water	**Date Received:**	11/12/10
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	4.8	0.48	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	4.8	0.51	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	4.8	0.51	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	4.8	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	4.8	0.95	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	4.8	0.48	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	4.8	0.95	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	4.8	0.95	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	4.8	0.48	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	4.8	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	9.5	0.95	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.50	ug/l	
132-64-9	Dibenzofuran	ND	4.8	0.48	ug/l	
84-74-2	Di-n-butyl phthalate	1.9	4.8	0.83	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	4.8	1.0	ug/l	
84-66-2	Diethyl phthalate	ND	4.8	1.0	ug/l	
131-11-3	Dimethyl phthalate	ND	4.8	0.94	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	4.8	1.0	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.48	ug/l	
86-73-7	Fluorene	ND	4.8	0.48	ug/l	
118-74-1	Hexachlorobenzene	ND	4.8	0.53	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.8	0.95	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	9.5	1.8	ug/l	
67-72-1	Hexachloroethane	ND	4.8	0.95	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	0.48	ug/l	
78-59-1	Isophorone	ND	4.8	0.48	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.48	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.54	ug/l	
88-74-4	2-Nitroaniline	ND	4.8	0.48	ug/l	
99-09-2	3-Nitroaniline	ND	4.8	0.48	ug/l	
100-01-6	4-Nitroaniline	ND	4.8	0.48	ug/l	
91-20-3	Naphthalene	ND	4.8	0.76	ug/l	
98-95-3	Nitrobenzene	ND	4.8	0.56	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	4.8	2.3	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	4.8	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.8	0.95	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.48	ug/l	
129-00-0	Pyrene	ND	4.8	0.48	ug/l	
110-86-1	Pyridine	ND	9.5	1.5	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	4.8	0.48	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-01		
Lab Sample ID:	F78009-37	**Date Sampled:**	11/11/10
Matrix:	AQ - Ground Water	**Date Received:**	11/12/10
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	44%		14-62%
4165-62-2	Phenol-d5	34%		10-40%
118-79-6	2,4,6-Tribromophenol	84%		33-118%
4165-60-0	Nitrobenzene-d5	81%		42-108%
321-60-8	2-Fluorobiphenyl	74%		40-106%
1718-51-0	Terphenyl-d14	69%		39-121%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-01		
Lab Sample ID:	F78009-37	**Date Sampled:**	11/11/10
Matrix:	AQ - Ground Water	**Date Received:**	11/12/10
Method:	SW846 8015C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD100593.D	1	11/18/10	WV	n/a	n/a	GCD4156
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	88%		57-129%
98-08-8	aaa-Trifluorotoluene	78%		58-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-01		
Lab Sample ID:	F78009-37	**Date Sampled:**	11/11/10
Matrix:	AQ - Ground Water	**Date Received:**	11/12/10
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF37714.D	1	11/18/10	FEA	11/18/10	OP35097	GZF1576
Run #2							

	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	0.129	0.24	0.097	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	83%		42-114%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-01		
Lab Sample ID:	F78009-37	**Date Sampled:**	11/11/10
Matrix:	AQ - Ground Water	**Date Received:**	11/12/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	16.8 B	50	10	ug/l	5	11/22/10	11/23/10	RS	SW846 6010C [3]	SW846 3010A [5]
Barium	290	200	5.0	ug/l	1	11/22/10	11/22/10	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium [a]	5.0 U	25	5.0	ug/l	5	11/22/10	11/23/10	RS	SW846 6010C [3]	SW846 3010A [5]
Chromium [a]	23.2 B	50	5.0	ug/l	5	11/22/10	11/23/10	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	11.9 B	25	5.0	ug/l	5	11/22/10	11/23/10	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	11/19/10	11/19/10	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	16.8 B	50	10	ug/l	5	11/22/10	11/23/10	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	11/22/10	11/22/10	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8520
(2) Instrument QC Batch: MA8526
(3) Instrument QC Batch: MA8530
(4) Prep QC Batch: MP19507
(5) Prep QC Batch: MP19523

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-01		
Lab Sample ID:	F78009-37	**Date Sampled:**	11/11/10
Matrix:	AQ - Ground Water	**Date Received:**	11/12/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	21700	10000	1000	mg/l	100	11/12/10 08:15	LE	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-01		
Lab Sample ID:	F78009-37F	**Date Sampled:**	11/11/10
Matrix:	AQ - Groundwater Filtered	**Date Received:**	11/12/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	8.0 U	40	8.0	ug/l	4	11/23/10	11/24/10	RS	SW846 6010C [3]	SW846 3010A [5]
Barium	48.9 B	200	5.0	ug/l	1	11/23/10	11/24/10	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium [a]	4.0 U	20	4.0	ug/l	4	11/23/10	11/24/10	RS	SW846 6010C [3]	SW846 3010A [5]
Chromium [a]	4.0 U	40	4.0	ug/l	4	11/23/10	11/24/10	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	4.0 U	20	4.0	ug/l	4	11/23/10	11/24/10	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	11/19/10	11/19/10	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	8.0 U	40	8.0	ug/l	4	11/23/10	11/24/10	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	11/23/10	11/24/10	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8520
(2) Instrument QC Batch: MA8530
(3) Instrument QC Batch: MA8534
(4) Prep QC Batch: MP19508
(5) Prep QC Batch: MP19535

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TB-11112010-C		
Lab Sample ID:	F78009-38	**Date Sampled:**	11/11/10
Matrix:	AQ - Trip Blank Water	**Date Received:**	11/12/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	F046029.D	1	11/23/10	SH	n/a	n/a	VF1348
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [b]	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

ND = Not detected MDL - Method Detection Limit
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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TB-11112010-C		
Lab Sample ID:	F78009-38	**Date Sampled:**	11/11/10
Matrix:	AQ - Trip Blank Water	**Date Received:**	11/12/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride [c]	4.5	5.0	2.0	ug/l	JB
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TB-11112010-C		
Lab Sample ID:	F78009-38	**Date Sampled:**	11/11/10
Matrix:	AQ - Trip Blank Water	**Date Received:**	11/12/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride [d]	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		87-116%
17060-07-0	1,2-Dichloroethane-D4	93%		76-127%
2037-26-5	Toluene-D8	100%		86-112%
460-00-4	4-Bromofluorobenzene	91%		84-120%

(a) No sample available for reanalysis.
(b) Associated BS and ICV recovery outside control limits.
(c) Suspected laboratory contaminant.
(d) ICV outside of control limits.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TB-11112010-C		
Lab Sample ID:	F78009-38	**Date Sampled:**	11/11/10
Matrix:	AQ - Trip Blank Water	**Date Received:**	11/12/10
Method:	SW846 8015C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD100633.D	1	11/19/10	WV	n/a	n/a	GCD4158
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	97%		57-129%
98-08-8	aaa-Trifluorotoluene	86%		58-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TB-11112010-D		
Lab Sample ID:	F78009-39	**Date Sampled:**	11/11/10
Matrix:	AQ - Trip Blank Water	**Date Received:**	11/12/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	F046030.D	1	11/23/10	SH	n/a	n/a	VF1348
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [b]	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TB-11112010-D		
Lab Sample ID:	F78009-39	**Date Sampled:**	11/11/10
Matrix:	AQ - Trip Blank Water	**Date Received:**	11/12/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride [c]	4.6	5.0	2.0	ug/l	JB
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TB-11112010-D		
Lab Sample ID:	F78009-39	**Date Sampled:**	11/11/10
Matrix:	AQ - Trip Blank Water	**Date Received:**	11/12/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride [d]	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		87-116%
17060-07-0	1,2-Dichloroethane-D4	93%		76-127%
2037-26-5	Toluene-D8	101%		86-112%
460-00-4	4-Bromofluorobenzene	90%		84-120%

(a) No sample available for reanalysis.
(b) Associated BS and ICV recovery outside control limits.
(c) Suspected laboratory contaminant.
(d) ICV outside of control limits.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TB-11112010-D		
Lab Sample ID:	F78009-39	**Date Sampled:**	11/11/10
Matrix:	AQ - Trip Blank Water	**Date Received:**	11/12/10
Method:	SW846 8015C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD100634.D	1	11/19/10	WV	n/a	n/a	GCD4158
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	91%		57-129%
98-08-8	aaa-Trifluorotoluene	83%		58-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody

Parameter Certification Exceptions

Job Number: F78009
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

The following parameters included in this report are exceptions to NELAC certification.
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Freon 113	76-13-1	**SW846 8260B**	AQ	Certified by SOP MS005

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F78009 CLIENT: Tetra Tech PROJECT: Holloman AFB

DATE/TIME RECEIVED: 11.12.10 09:00 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 4

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET
- [ ] WET ICE PRESENT

TRIP BLANK INFORMATION

- [X] TRIP BLANK PROVIDED
- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [X] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [X] RECEIVED WATER TRIP BLANK
- [X] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? Ø

NUMBER OF 5035 FIELD KITS ? 35 + 2TB

NUMBER OR LAB FILTERED METALS ? 4

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR -.2
- [ ] OBSERVED TEMPS: 2.8 3.8 4.0 2.8
- [ ] CORRECTED TEMPS: 2.6 2.6 3.6 2.8

SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE ET 11.12.10 REVIEWER SIGNATURE/DATE JC 11-12-10

NF 10/09 RECEIPT CONFIRMATION 100609 (2).xls

F78009: Chain of Custody

Page 2 of 2

Southeast ACCUTEST LABORATORIES

12/07/10

Technical Report for

Tetra Tech, Inc

Holloman AFB; Alamogordo, NM

100-TEN-T93002-1

Accutest Job Number: F77967

Sampling Date: 11/10/10

Report to:

Tetra Tech, NUS

Maureen.McMyler@tetratech.com
Valerie.Bogle@tetratech.com
ATTN: Maureen McMyler

Total number of pages in report: **127**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Sue Bell 407-425-6700

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK

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Test results relate only to samples analyzed.

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Accutest Laboratories

Sample Summary

Tetra Tech, Inc

Job No: F77967

Holloman AFB; Alamogordo, NM
Project No: 100-TEN-T93002-1

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F77967-1	11/10/10	09:40	JN	11/11/10	SO	Soil	SD27-DPT-08A
F77967-2	11/10/10	09:50	JN	11/11/10	SO	Soil	SD27-DPT-08B
F77967-2D	11/10/10	09:50	JN	11/11/10	SO	Soil Dup/MSD	SD27-DPT-08B
F77967-2S	11/10/10	09:50	JN	11/11/10	SO	Soil Matrix Spike	SD27-DPT-08B
F77967-3	11/10/10	10:05	JN	11/11/10	SO	Soil	SD27-DPT-08C
F77967-4	11/10/10	10:20	JN	11/11/10	SO	Soil	SD27-DPT-09A
F77967-5	11/10/10	10:25	JN	11/11/10	SO	Soil	SD27-DPT-09B
F77967-6	11/10/10	10:35	JN	11/11/10	SO	Soil	SD27-DPT-09C
F77967-7	11/10/10	10:50	JN	11/11/10	SO	Soil	SD27-DPT-10A
F77967-8	11/10/10	11:00	JN	11/11/10	SO	Soil	SD27-DPT-10B
F77967-9	11/10/10	12:00	JN	11/11/10	SO	Soil	SD27-DPT-10C
F77967-10	11/10/10	12:35	JN	11/11/10	SO	Soil	SD27-DPT-11A
F77967-11	11/10/10	12:45	JN	11/11/10	SO	Soil	SD27-DPT-11B

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Accutest Laboratories

Sample Summary
(continued)

Tetra Tech, Inc

Job No: F77967

Holloman AFB; Alamogordo, NM
Project No: 100-TEN-T93002-1

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F77967-12	11/10/10	13:00	JN	11/11/10	SO	Soil	SD27-DPT-11C
F77967-13	11/10/10	13:20	JN	11/11/10	SO	Soil	SD27-DPT-12A
F77967-14	11/10/10	13:30	JN	11/11/10	SO	Soil	SD27-DPT-12B
F77967-15	11/10/10	13:45	JN	11/11/10	SO	Soil	SD27-DPT-12C
F77967-16	11/10/10	12:35	JN	11/11/10	SO	Soil	SD27-DPT-DUP03
F77967-17	11/10/10	15:00	JN	11/11/10	SO	Trip Blank Soil	SD27-TB-11102010
F77967-18	11/10/10	10:40	JN	11/11/10	AQ	Ground Water	SD27-TTMW-04
F77967-18F	11/10/10	10:40	JN	11/11/10	AQ	Groundwater Filtered	SD27-TTMW-04
F77967-19	11/10/10	11:20	JN	11/11/10	AQ	Ground Water	SD27-TTMW-03
F77967-19F	11/10/10	11:20	JN	11/11/10	AQ	Groundwater Filtered	SD27-TTMW-03
F77967-20	11/10/10	12:00	JN	11/11/10	AQ	Ground Water	SD27-TTMW-02
F77967-20F	11/10/10	12:00	JN	11/11/10	AQ	Groundwater Filtered	SD27-TTMW-02
F77967-21	11/10/10	12:00	JN	11/11/10	AQ	Ground Water	SD27-TTMW-02-FD

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

Tetra Tech, Inc

Job No: F77967

Holloman AFB; Alamogordo, NM
Project No: 100-TEN-T93002-1

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F77967-21F	11/10/10	12:00	JN	11/11/10	AQ	Groundwater Filtered	SD27-TTMW-02-FD
F77967-22	11/10/10	15:00	JN	11/11/10	AQ	Trip Blank Water	SD27-TB-11102010-A

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Southeast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-04		
Lab Sample ID:	F77967-18F	**Date Sampled:**	11/10/10
Matrix:	AQ - Groundwater Filtered	**Date Received:**	11/11/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	6.9 B	10	2.0	ug/l	1	11/17/10	11/17/10	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	22.4 B	200	5.0	ug/l	1	11/17/10	11/17/10	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium	1.0 U	5.0	1.0	ug/l	1	11/17/10	11/17/10	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	4.0 U	40	4.0	ug/l	4	11/17/10	11/18/10	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	4.0 U	20	4.0	ug/l	4	11/17/10	11/18/10	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	11/15/10	11/15/10	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	8.0 U	40	8.0	ug/l	4	11/17/10	11/18/10	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	11/17/10	11/17/10	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8508
(2) Instrument QC Batch: MA8516
(3) Instrument QC Batch: MA8519
(4) Prep QC Batch: MP19478
(5) Prep QC Batch: MP19495

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-03		
Lab Sample ID:	F77967-19	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	F046092.D	1	11/29/10	SH	n/a	n/a	VF1352
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	43.6	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	0.46	1.0	0.20	ug/l	J
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	2.1	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	0.39	1.0	0.27	ug/l	J
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-03		
Lab Sample ID:	F77967-19	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	2.0	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	0.79	1.0	0.21	ug/l	J
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	1.1	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-03		
Lab Sample ID:	F77967-19	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	2.0	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	3.5	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		87-116%
17060-07-0	1,2-Dichloroethane-D4	96%		76-127%
2037-26-5	Toluene-D8	97%		86-112%
460-00-4	4-Bromofluorobenzene	99%		84-120%

(a) Sample re-analyzed beyond hold time; reported results are considered minimum values.

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N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-03		
Lab Sample ID:	F77967-19	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U022417.D	1	11/20/10	NAF	11/12/10	OP35019	SU1071
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	48	9.5	ug/l	
95-57-8	2-Chlorophenol	ND	4.8	0.48	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	4.8	0.48	ug/l	
120-83-2	2,4-Dichlorophenol	ND	4.8	0.48	ug/l	
105-67-9	2,4-Dimethylphenol	ND	4.8	1.0	ug/l	
51-28-5	2,4-Dinitrophenol	ND	24	9.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	9.5	1.9	ug/l	
95-48-7	2-Methylphenol	ND	4.8	0.51	ug/l	
	3&4-Methylphenol	ND	4.8	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	4.8	0.51	ug/l	
100-02-7	4-Nitrophenol	ND	24	4.8	ug/l	
87-86-5	Pentachlorophenol	ND	24	5.1	ug/l	
108-95-2	Phenol	ND	4.8	0.48	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	4.8	0.48	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.8	0.48	ug/l	
83-32-9	Acenaphthene	ND	4.8	0.48	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.48	ug/l	
62-53-3	Aniline	ND	4.8	0.50	ug/l	
120-12-7	Anthracene	ND	4.8	0.48	ug/l	
92-87-5	Benzidine	ND	24	4.5	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.48	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.48	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.48	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.48	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.48	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	4.8	0.48	ug/l	
85-68-7	Butyl benzyl phthalate	ND	4.8	1.0	ug/l	
100-51-6	Benzyl Alcohol	ND	4.8	0.95	ug/l	
91-58-7	2-Chloronaphthalene	ND	4.8	0.48	ug/l	
106-47-8	4-Chloroaniline	ND	4.8	0.48	ug/l	
86-74-8	Carbazole	ND	4.8	0.48	ug/l	
218-01-9	Chrysene	ND	4.8	0.48	ug/l	

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N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-03		
Lab Sample ID:	F77967-19	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	4.8	0.48	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	4.8	0.51	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	4.8	0.51	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	4.8	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	4.8	0.95	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	4.8	0.48	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	4.8	0.95	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	4.8	0.95	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	4.8	0.48	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	4.8	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	9.5	0.95	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.50	ug/l	
132-64-9	Dibenzofuran	ND	4.8	0.48	ug/l	
84-74-2	Di-n-butyl phthalate	ND	4.8	0.83	ug/l	
117-84-0	Di-n-octyl phthalate	ND	4.8	1.0	ug/l	
84-66-2	Diethyl phthalate	ND	4.8	1.0	ug/l	
131-11-3	Dimethyl phthalate	ND	4.8	0.94	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	1.5	4.8	1.0	ug/l	JB
206-44-0	Fluoranthene	ND	4.8	0.48	ug/l	
86-73-7	Fluorene	ND	4.8	0.48	ug/l	
118-74-1	Hexachlorobenzene	ND	4.8	0.53	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.8	0.95	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	9.5	1.8	ug/l	
67-72-1	Hexachloroethane	ND	4.8	0.95	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	0.48	ug/l	
78-59-1	Isophorone	ND	4.8	0.48	ug/l	
90-12-0	1-Methylnaphthalene	2.0	4.8	0.48	ug/l	J
91-57-6	2-Methylnaphthalene	ND	4.8	0.54	ug/l	
88-74-4	2-Nitroaniline	ND	4.8	0.48	ug/l	
99-09-2	3-Nitroaniline	ND	4.8	0.48	ug/l	
100-01-6	4-Nitroaniline	ND	4.8	0.48	ug/l	
91-20-3	Naphthalene	ND	4.8	0.76	ug/l	
98-95-3	Nitrobenzene	ND	4.8	0.56	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	4.8	2.3	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	4.8	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.8	0.95	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.48	ug/l	
129-00-0	Pyrene	ND	4.8	0.48	ug/l	
110-86-1	Pyridine	ND	9.5	1.5	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	4.8	0.48	ug/l	

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RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-03		
Lab Sample ID:	F77967-19	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	42%		14-62%
4165-62-2	Phenol-d5	36%		10-40%
118-79-6	2,4,6-Tribromophenol	86%		33-118%
4165-60-0	Nitrobenzene-d5	88%		42-108%
321-60-8	2-Fluorobiphenyl	77%		40-106%
1718-51-0	Terphenyl-d14	46%		39-121%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-03		
Lab Sample ID:	F77967-19	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
Method:	SW846 8015C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD100531.D	1	11/17/10	WV	n/a	n/a	GCD4154
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	0.217	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	117%		57-129%
98-08-8	aaa-Trifluorotoluene	86%		58-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-03		
Lab Sample ID:	F77967-19	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF37689.D	1	11/18/10	FEA	11/15/10	OP35043	GZF1576
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28) [a]	0.247	0.24	0.095	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	93%		42-114%

(a) Petroleum hydrocarbon pattern begins before C10.

ND = Not detected MDL - Method Detection Limit
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E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-03		
Lab Sample ID:	F77967-19	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	8.0 U	40	8.0	ug/l	4	11/12/10	11/15/10	RS	SW846 6010C [3]	SW846 3010A [5]
Barium	67.9 B	200	5.0	ug/l	1	11/12/10	11/12/10	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium [a]	4.0 U	20	4.0	ug/l	4	11/12/10	11/15/10	RS	SW846 6010C [3]	SW846 3010A [5]
Chromium [a]	4.0 U	40	4.0	ug/l	4	11/12/10	11/15/10	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	5.0 U	25	5.0	ug/l	5	11/12/10	11/16/10	RS	SW846 6010C [4]	SW846 3010A [5]
Mercury	0.072 B	1.0	0.050	ug/l	1	11/15/10	11/15/10	LM	SW846 7470A [1]	SW846 7470A [6]
Selenium [a]	8.0 U	40	8.0	ug/l	4	11/12/10	11/15/10	RS	SW846 6010C [3]	SW846 3010A [5]
Silver [a]	4.0 U	40	4.0	ug/l	4	11/12/10	11/15/10	RS	SW846 6010C [3]	SW846 3010A [5]

(1) Instrument QC Batch: MA8508
(2) Instrument QC Batch: MA8509
(3) Instrument QC Batch: MA8510
(4) Instrument QC Batch: MA8512
(5) Prep QC Batch: MP19475
(6) Prep QC Batch: MP19477

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-03		
Lab Sample ID:	F77967-19	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	28200	10000	1000	mg/l	100	11/12/10 08:15	LE	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-03		
Lab Sample ID:	F77967-19F	**Date Sampled:**	11/10/10
Matrix:	AQ - Groundwater Filtered	**Date Received:**	11/11/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.5 B	10	2.0	ug/l	1	11/17/10	11/17/10	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	55.9 B	200	5.0	ug/l	1	11/17/10	11/17/10	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium	1.0 U	5.0	1.0	ug/l	1	11/17/10	11/17/10	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	4.0 U	40	4.0	ug/l	4	11/17/10	11/18/10	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	4.0 U	20	4.0	ug/l	4	11/17/10	11/18/10	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.050 U	1.0	0.050	ug/l	1	11/15/10	11/15/10	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	8.0 U	40	8.0	ug/l	4	11/17/10	11/18/10	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	11/17/10	11/17/10	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8508
(2) Instrument QC Batch: MA8516
(3) Instrument QC Batch: MA8519
(4) Prep QC Batch: MP19478
(5) Prep QC Batch: MP19495

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-02		
Lab Sample ID:	F77967-20	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	F046093.D	2	11/29/10	SH	n/a	n/a	VF1352
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	24.6	50	20	ug/l	J
75-05-8	Acetonitrile	ND	40	10	ug/l	
107-02-8	Acrolein	ND	40	10	ug/l	
107-13-1	Acrylonitrile	ND	20	6.0	ug/l	
107-05-1	Allyl chloride	ND	4.0	0.60	ug/l	
71-43-2	Benzene	6.4	2.0	0.40	ug/l	
100-44-7	Benzyl Chloride	ND	4.0	1.0	ug/l	
108-86-1	Bromobenzene	ND	2.0	0.50	ug/l	
74-97-5	Bromochloromethane	ND	2.0	0.44	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	0.40	ug/l	
75-25-2	Bromoform	ND	2.0	0.40	ug/l	
104-51-8	n-Butylbenzene	3.9	2.0	0.52	ug/l	
135-98-8	sec-Butylbenzene	20.0	2.0	0.44	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.54	ug/l	
108-90-7	Chlorobenzene	ND	2.0	0.40	ug/l	
75-00-3	Chloroethane	ND	4.0	1.0	ug/l	
67-66-3	Chloroform	3.1	2.0	0.44	ug/l	
544-10-5	1-Chlorohexane	ND	4.0	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.44	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.40	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	10	2.4	ug/l	
75-15-0	Carbon disulfide	ND	4.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	0.46	ug/l	
563-58-6	1,1-Dichloropropene	ND	2.0	0.56	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.74	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	2.0	0.40	ug/l	
594-20-7	2,2-Dichloropropane	ND	2.0	0.88	ug/l	

ND = Not detected MDL - Method Detection Limit
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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-02		
Lab Sample ID:	F77967-20	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	2.0	0.40	ug/l	
75-71-8	Dichlorodifluoromethane	ND	4.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	0.52	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.40	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	20	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	2.0	0.40	ug/l	
95-50-1	o-Dichlorobenzene	ND	2.0	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	2.0	0.46	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.70	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.40	ug/l	
100-41-4	Ethylbenzene	168	2.0	0.40	ug/l	
97-63-2	Ethyl methacrylate	ND	10	2.0	ug/l	
76-13-1	Freon 113	ND	2.0	0.94	ug/l	
591-78-6	2-Hexanone	ND	20	8.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.0	1.6	ug/l	
110-54-3	Hexane	ND	4.0	1.2	ug/l	
98-82-8	Isopropylbenzene	48.7	2.0	0.40	ug/l	
99-87-6	p-Isopropyltoluene	30.7	2.0	0.42	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	4.0	ug/l	
126-98-7	Methacrylonitrile	ND	40	10	ug/l	
74-83-9	Methyl bromide	ND	4.0	1.0	ug/l	
74-87-3	Methyl chloride	ND	4.0	1.0	ug/l	
74-88-4	Methyl iodide	ND	2.0	0.40	ug/l	
80-62-6	Methyl methacrylate	ND	10	2.0	ug/l	
74-95-3	Methylene bromide	ND	4.0	0.50	ug/l	
75-09-2	Methylene chloride	ND	10	4.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	4.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.68	ug/l	
91-20-3	Naphthalene	5.4	10	2.0	ug/l	J
76-01-7	Pentachloroethane	ND	20	4.0	ug/l	
107-12-0	Propionitrile	ND	40	10	ug/l	
103-65-1	n-Propylbenzene	57.0	2.0	0.40	ug/l	
100-42-5	Styrene	ND	2.0	0.40	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.0	0.40	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.40	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.44	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	4.0	0.60	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	1.0	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-02		
Lab Sample ID:	F77967-20	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	168	4.0	0.54	ug/l	
108-67-8	1,3,5-Trimethylbenzene	50.6	4.0	0.42	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	0.50	ug/l	
108-88-3	Toluene	4.5	2.0	0.40	ug/l	
79-01-6	Trichloroethylene	ND	2.0	0.52	ug/l	
75-69-4	Trichlorofluoromethane	ND	4.0	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	20	4.0	ug/l	
75-01-4	Vinyl chloride	ND	2.0	0.44	ug/l	
108-05-4	Vinyl Acetate	ND	20	4.0	ug/l	
	m,p-Xylene	147	4.0	0.64	ug/l	
95-47-6	o-Xylene	74.5	2.0	0.40	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		87-116%
17060-07-0	1,2-Dichloroethane-D4	95%		76-127%
2037-26-5	Toluene-D8	100%		86-112%
460-00-4	4-Bromofluorobenzene	97%		84-120%

(a) Sample re-analyzed beyond hold time; reported results are considered minimum values.

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N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-02		
Lab Sample ID:	F77967-20	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	U022546.D	4	11/24/10	NAF	11/12/10	OP35019	SU1075
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	190	38	ug/l	
95-57-8	2-Chlorophenol	ND	19	1.9	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	19	1.9	ug/l	
120-83-2	2,4-Dichlorophenol	ND	19	1.9	ug/l	
105-67-9	2,4-Dimethylphenol	ND	19	4.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	95	38	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	38	7.6	ug/l	
95-48-7	2-Methylphenol	ND	19	2.1	ug/l	
	3&4-Methylphenol	ND	19	4.2	ug/l	
88-75-5	2-Nitrophenol	ND	19	2.1	ug/l	
100-02-7	4-Nitrophenol	ND	95	19	ug/l	
87-86-5	Pentachlorophenol	ND	95	21	ug/l	
108-95-2	Phenol	ND	19	1.9	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	19	1.9	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	19	1.9	ug/l	
83-32-9	Acenaphthene	ND	19	1.9	ug/l	
208-96-8	Acenaphthylene	ND	19	1.9	ug/l	
62-53-3	Aniline	ND	19	2.0	ug/l	
120-12-7	Anthracene	ND	19	1.9	ug/l	
92-87-5	Benzidine	ND	95	18	ug/l	
56-55-3	Benzo(a)anthracene	ND	19	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	19	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	19	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	19	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	19	1.9	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	19	1.9	ug/l	
85-68-7	Butyl benzyl phthalate	ND	19	4.2	ug/l	
100-51-6	Benzyl Alcohol	ND	19	3.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	19	1.9	ug/l	
106-47-8	4-Chloroaniline	ND	19	1.9	ug/l	
86-74-8	Carbazole	ND	19	1.9	ug/l	
218-01-9	Chrysene	ND	19	1.9	ug/l	

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N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-02		
Lab Sample ID:	F77967-20	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	19	1.9	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	19	2.1	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	19	2.1	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	19	1.9	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	19	3.8	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	19	1.9	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	19	3.8	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	19	3.8	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	19	1.9	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	19	1.9	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	38	3.8	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	19	2.0	ug/l	
132-64-9	Dibenzofuran	ND	19	1.9	ug/l	
84-74-2	Di-n-butyl phthalate	ND	19	3.3	ug/l	
117-84-0	Di-n-octyl phthalate	ND	19	4.2	ug/l	
84-66-2	Diethyl phthalate	ND	19	4.2	ug/l	
131-11-3	Dimethyl phthalate	ND	19	3.8	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	19	4.2	ug/l	
206-44-0	Fluoranthene	ND	19	1.9	ug/l	
86-73-7	Fluorene	ND	19	1.9	ug/l	
118-74-1	Hexachlorobenzene	ND	19	2.1	ug/l	
87-68-3	Hexachlorobutadiene	ND	19	3.8	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	38	7.2	ug/l	
67-72-1	Hexachloroethane	ND	19	3.8	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	19	1.9	ug/l	
78-59-1	Isophorone	ND	19	1.9	ug/l	
90-12-0	1-Methylnaphthalene	41.0	19	1.9	ug/l	
91-57-6	2-Methylnaphthalene	11.3	19	2.2	ug/l	J
88-74-4	2-Nitroaniline	ND	19	1.9	ug/l	
99-09-2	3-Nitroaniline	ND	19	1.9	ug/l	
100-01-6	4-Nitroaniline	ND	19	1.9	ug/l	
91-20-3	Naphthalene	7.7	19	3.0	ug/l	J
98-95-3	Nitrobenzene	ND	19	2.2	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	19	9.1	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	19	1.9	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	19	3.8	ug/l	
85-01-8	Phenanthrene	ND	19	1.9	ug/l	
129-00-0	Pyrene	ND	19	1.9	ug/l	
110-86-1	Pyridine	ND	38	6.1	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	19	1.9	ug/l	

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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-02		
Lab Sample ID:	F77967-20	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	39%		14-62%
4165-62-2	Phenol-d5	31%		10-40%
118-79-6	2,4,6-Tribromophenol	81%		33-118%
4165-60-0	Nitrobenzene-d5	91%		42-108%
321-60-8	2-Fluorobiphenyl	69%		40-106%
1718-51-0	Terphenyl-d14	65%		39-121%

(a) Dilution required due to matrix interference.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-02		
Lab Sample ID:	F77967-20	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
Method:	SW846 8015C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD100553.D	5	11/17/10	WV	n/a	n/a	GCD4155
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	3.31	0.50	0.25	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	120%		57-129%
98-08-8	aaa-Trifluorotoluene	98%		58-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-02		
Lab Sample ID:	F77967-20	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF37690.D	1	11/18/10	FEA	11/15/10	OP35043	GZF1576
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28) [a]	1.38	0.24	0.096	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	73%		42-114%

(a) Petroleum hydrocarbon pattern begins before C10.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-02		
Lab Sample ID:	F77967-20	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	8.0 U	40	8.0	ug/l	4	11/12/10	11/15/10	RS	SW846 6010C [3]	SW846 3010A [4]
Barium	46.9 B	200	5.0	ug/l	1	11/12/10	11/12/10	RS	SW846 6010C [2]	SW846 3010A [4]
Cadmium [a]	4.0 U	20	4.0	ug/l	4	11/12/10	11/15/10	RS	SW846 6010C [3]	SW846 3010A [4]
Chromium [a]	7.6 B	40	4.0	ug/l	4	11/12/10	11/15/10	RS	SW846 6010C [3]	SW846 3010A [4]
Lead [a]	4.0 U	20	4.0	ug/l	4	11/12/10	11/15/10	RS	SW846 6010C [3]	SW846 3010A [4]
Mercury	0.086 B	1.0	0.050	ug/l	1	11/15/10	11/15/10	LM	SW846 7470A [1]	SW846 7470A [5]
Selenium [a]	8.0 U	40	8.0	ug/l	4	11/12/10	11/15/10	RS	SW846 6010C [3]	SW846 3010A [4]
Silver	1.0 U	10	1.0	ug/l	1	11/12/10	11/12/10	RS	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA8508
(2) Instrument QC Batch: MA8509
(3) Instrument QC Batch: MA8510
(4) Prep QC Batch: MP19475
(5) Prep QC Batch: MP19478

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-02		
Lab Sample ID:	F77967-20	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	16300	1000	100	mg/l	10	11/12/10 08:15	LE	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-02		
Lab Sample ID:	F77967-20F	**Date Sampled:**	11/10/10
Matrix:	AQ - Groundwater Filtered	**Date Received:**	11/11/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	7.7 B	10	2.0	ug/l	1	11/17/10	11/17/10	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	29.2 B	200	5.0	ug/l	1	11/17/10	11/17/10	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium	1.0 U	5.0	1.0	ug/l	1	11/17/10	11/17/10	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	4.0 U	40	4.0	ug/l	4	11/17/10	11/18/10	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	4.0 U	20	4.0	ug/l	4	11/17/10	11/18/10	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.056 B	1.0	0.050	ug/l	1	11/15/10	11/15/10	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	9.4 B	40	8.0	ug/l	4	11/17/10	11/18/10	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	11/17/10	11/17/10	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8508
(2) Instrument QC Batch: MA8516
(3) Instrument QC Batch: MA8519
(4) Prep QC Batch: MP19478
(5) Prep QC Batch: MP19495

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-02-FD		
Lab Sample ID:	F77967-21	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	F046094.D	2	11/29/10	SH	n/a	n/a	VF1352
Run #2	F046059.D	50	11/24/10	SH	n/a	n/a	VF1350

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	25.8	50	20	ug/l	J
75-05-8	Acetonitrile	ND	40	10	ug/l	
107-02-8	Acrolein	ND	40	10	ug/l	
107-13-1	Acrylonitrile	ND	20	6.0	ug/l	
107-05-1	Allyl chloride	ND	4.0	0.60	ug/l	
71-43-2	Benzene	6.7	2.0	0.40	ug/l	
100-44-7	Benzyl Chloride	ND	4.0	1.0	ug/l	
108-86-1	Bromobenzene	ND	2.0	0.50	ug/l	
74-97-5	Bromochloromethane	ND	2.0	0.44	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	0.40	ug/l	
75-25-2	Bromoform	ND	2.0	0.40	ug/l	
104-51-8	n-Butylbenzene	4.2	2.0	0.52	ug/l	
135-98-8	sec-Butylbenzene	21.0	2.0	0.44	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.54	ug/l	
108-90-7	Chlorobenzene	ND	2.0	0.40	ug/l	
75-00-3	Chloroethane	ND	4.0	1.0	ug/l	
67-66-3	Chloroform	3.4	2.0	0.44	ug/l	
544-10-5	1-Chlorohexane	ND	4.0	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.44	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.40	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	10	2.4	ug/l	
75-15-0	Carbon disulfide	ND	4.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	0.46	ug/l	
563-58-6	1,1-Dichloropropene	ND	2.0	0.56	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.74	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	2.0	0.40	ug/l	
594-20-7	2,2-Dichloropropane	ND	2.0	0.88	ug/l	

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N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-02-FD		
Lab Sample ID:	F77967-21	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	2.0	0.40	ug/l	
75-71-8	Dichlorodifluoromethane	ND	4.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	0.52	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.40	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	20	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	2.0	0.40	ug/l	
95-50-1	o-Dichlorobenzene	ND	2.0	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	2.0	0.46	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.70	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.40	ug/l	
100-41-4	Ethylbenzene	140 [b]	50	10	ug/l	
97-63-2	Ethyl methacrylate	ND	10	2.0	ug/l	
76-13-1	Freon 113	ND	2.0	0.94	ug/l	
591-78-6	2-Hexanone	ND	20	8.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.0	1.6	ug/l	
110-54-3	Hexane	ND	4.0	1.2	ug/l	
98-82-8	Isopropylbenzene	53.2	2.0	0.40	ug/l	
99-87-6	p-Isopropyltoluene	32.5	2.0	0.42	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	4.0	ug/l	
126-98-7	Methacrylonitrile	ND	40	10	ug/l	
74-83-9	Methyl bromide	ND	4.0	1.0	ug/l	
74-87-3	Methyl chloride	ND	4.0	1.0	ug/l	
74-88-4	Methyl iodide	ND	2.0	0.40	ug/l	
80-62-6	Methyl methacrylate	ND	10	2.0	ug/l	
74-95-3	Methylene bromide	ND	4.0	0.50	ug/l	
75-09-2	Methylene chloride	ND	10	4.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	4.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.68	ug/l	
91-20-3	Naphthalene	6.6	10	2.0	ug/l	J
76-01-7	Pentachloroethane	ND	20	4.0	ug/l	
107-12-0	Propionitrile	ND	40	10	ug/l	
103-65-1	n-Propylbenzene	64.2	2.0	0.40	ug/l	
100-42-5	Styrene	ND	2.0	0.40	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.0	0.40	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.40	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.44	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	4.0	0.60	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	1.0	ug/l	

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N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-02-FD		
Lab Sample ID:	F77967-21	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	190	4.0	0.54	ug/l	
108-67-8	1,3,5-Trimethylbenzene	56.7	4.0	0.42	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	0.50	ug/l	
108-88-3	Toluene	5.8	2.0	0.40	ug/l	
79-01-6	Trichloroethylene	ND	2.0	0.52	ug/l	
75-69-4	Trichlorofluoromethane	ND	4.0	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	20	4.0	ug/l	
75-01-4	Vinyl chloride	ND	2.0	0.44	ug/l	
108-05-4	Vinyl Acetate	ND	20	4.0	ug/l	
	m,p-Xylene	182	4.0	0.64	ug/l	
95-47-6	o-Xylene	90.4	2.0	0.40	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%	104%	87-116%
17060-07-0	1,2-Dichloroethane-D4	98%	94%	76-127%
2037-26-5	Toluene-D8	98%	100%	86-112%
460-00-4	4-Bromofluorobenzene	96%	96%	84-120%

(a) Sample re-analyzed beyond hold time; reported results are considered minimum values.
(b) Result is from Run# 2

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Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-02-FD		
Lab Sample ID:	F77967-21	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	U022547.D	4	11/24/10	NAF	11/12/10	OP35019	SU1075
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	190	38	ug/l	
95-57-8	2-Chlorophenol	ND	19	1.9	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	19	1.9	ug/l	
120-83-2	2,4-Dichlorophenol	ND	19	1.9	ug/l	
105-67-9	2,4-Dimethylphenol	ND	19	4.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	95	38	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	38	7.6	ug/l	
95-48-7	2-Methylphenol	ND	19	2.1	ug/l	
	3&4-Methylphenol	ND	19	4.2	ug/l	
88-75-5	2-Nitrophenol	ND	19	2.1	ug/l	
100-02-7	4-Nitrophenol	ND	95	19	ug/l	
87-86-5	Pentachlorophenol	ND	95	21	ug/l	
108-95-2	Phenol	ND	19	1.9	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	19	1.9	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	19	1.9	ug/l	
83-32-9	Acenaphthene	ND	19	1.9	ug/l	
208-96-8	Acenaphthylene	ND	19	1.9	ug/l	
62-53-3	Aniline	ND	19	2.0	ug/l	
120-12-7	Anthracene	ND	19	1.9	ug/l	
92-87-5	Benzidine	ND	95	18	ug/l	
56-55-3	Benzo(a)anthracene	ND	19	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	19	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	19	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	19	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	19	1.9	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	19	1.9	ug/l	
85-68-7	Butyl benzyl phthalate	ND	19	4.2	ug/l	
100-51-6	Benzyl Alcohol	ND	19	3.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	19	1.9	ug/l	
106-47-8	4-Chloroaniline	ND	19	1.9	ug/l	
86-74-8	Carbazole	ND	19	1.9	ug/l	
218-01-9	Chrysene	ND	19	1.9	ug/l	

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Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-02-FD		
Lab Sample ID:	F77967-21	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	19	1.9	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	19	2.1	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	19	2.1	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	19	1.9	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	19	3.8	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	19	1.9	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	19	3.8	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	19	3.8	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	19	1.9	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	19	1.9	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	38	3.8	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	19	2.0	ug/l	
132-64-9	Dibenzofuran	ND	19	1.9	ug/l	
84-74-2	Di-n-butyl phthalate	ND	19	3.3	ug/l	
117-84-0	Di-n-octyl phthalate	ND	19	4.2	ug/l	
84-66-2	Diethyl phthalate	ND	19	4.2	ug/l	
131-11-3	Dimethyl phthalate	ND	19	3.8	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	19	4.2	ug/l	
206-44-0	Fluoranthene	ND	19	1.9	ug/l	
86-73-7	Fluorene	ND	19	1.9	ug/l	
118-74-1	Hexachlorobenzene	ND	19	2.1	ug/l	
87-68-3	Hexachlorobutadiene	ND	19	3.8	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	38	7.2	ug/l	
67-72-1	Hexachloroethane	ND	19	3.8	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	19	1.9	ug/l	
78-59-1	Isophorone	ND	19	1.9	ug/l	
90-12-0	1-Methylnaphthalene	32.4	19	1.9	ug/l	
91-57-6	2-Methylnaphthalene	9.8	19	2.2	ug/l	J
88-74-4	2-Nitroaniline	ND	19	1.9	ug/l	
99-09-2	3-Nitroaniline	ND	19	1.9	ug/l	
100-01-6	4-Nitroaniline	ND	19	1.9	ug/l	
91-20-3	Naphthalene	6.2	19	3.0	ug/l	J
98-95-3	Nitrobenzene	ND	19	2.2	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	19	9.1	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	19	1.9	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	19	3.8	ug/l	
85-01-8	Phenanthrene	ND	19	1.9	ug/l	
129-00-0	Pyrene	ND	19	1.9	ug/l	
110-86-1	Pyridine	ND	38	6.1	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	19	1.9	ug/l	

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N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-02-FD		
Lab Sample ID:	F77967-21	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	42%		14-62%
4165-62-2	Phenol-d5	36%		10-40%
118-79-6	2,4,6-Tribromophenol	80%		33-118%
4165-60-0	Nitrobenzene-d5	82%		42-108%
321-60-8	2-Fluorobiphenyl	69%		40-106%
1718-51-0	Terphenyl-d14	81%		39-121%

(a) Dilution required due to matrix interference.

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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-02-FD		
Lab Sample ID:	F77967-21	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
Method:	SW846 8015C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD100554.D	5	11/17/10	WV	n/a	n/a	GCD4155
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	3.55	0.50	0.25	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	127%		57-129%
98-08-8	aaa-Trifluorotoluene	97%		58-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-02-FD		
Lab Sample ID:	F77967-21	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF37691.D	1	11/18/10	FEA	11/15/10	OP35043	GZF1576
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28) [a]	1.16	0.24	0.095	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	89%		42-114%

(a) Petroleum hydrocarbon pattern begins before C10.

ND = Not detected MDL - Method Detection Limit
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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-02-FD		
Lab Sample ID:	F77967-21	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	8.0 U	40	8.0	ug/l	4	11/12/10	11/15/10	RS	SW846 6010C [3]	SW846 3010A [4]
Barium	37.5 B	200	5.0	ug/l	1	11/12/10	11/12/10	RS	SW846 6010C [2]	SW846 3010A [4]
Cadmium [a]	4.0 U	20	4.0	ug/l	4	11/12/10	11/15/10	RS	SW846 6010C [3]	SW846 3010A [4]
Chromium [a]	4.2 B	40	4.0	ug/l	4	11/12/10	11/15/10	RS	SW846 6010C [3]	SW846 3010A [4]
Lead [a]	4.0 U	20	4.0	ug/l	4	11/12/10	11/15/10	RS	SW846 6010C [3]	SW846 3010A [4]
Mercury	0.050 U	1.0	0.050	ug/l	1	11/15/10	11/15/10	LM	SW846 7470A [1]	SW846 7470A [5]
Selenium [a]	8.0 U	40	8.0	ug/l	4	11/12/10	11/15/10	RS	SW846 6010C [3]	SW846 3010A [4]
Silver	1.0 U	10	1.0	ug/l	1	11/12/10	11/12/10	RS	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA8508
(2) Instrument QC Batch: MA8509
(3) Instrument QC Batch: MA8510
(4) Prep QC Batch: MP19475
(5) Prep QC Batch: MP19478

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-02-FD		
Lab Sample ID:	F77967-21	**Date Sampled:**	11/10/10
Matrix:	AQ - Ground Water	**Date Received:**	11/11/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	16700	1000	100	mg/l	10	11/12/10 08:15	LE	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TTMW-02-FD		
Lab Sample ID:	F77967-21F	**Date Sampled:**	11/10/10
Matrix:	AQ - Groundwater Filtered	**Date Received:**	11/11/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	5.4 B	10	2.0	ug/l	1	11/17/10	11/17/10	RS	SW846 6010C [2]	SW846 3010A [5]
Barium	25.6 B	200	5.0	ug/l	1	11/17/10	11/17/10	RS	SW846 6010C [2]	SW846 3010A [5]
Cadmium	1.0 U	5.0	1.0	ug/l	1	11/17/10	11/17/10	RS	SW846 6010C [2]	SW846 3010A [5]
Chromium [a]	4.0 U	40	4.0	ug/l	4	11/17/10	11/18/10	RS	SW846 6010C [3]	SW846 3010A [5]
Lead [a]	4.0 U	20	4.0	ug/l	4	11/17/10	11/18/10	RS	SW846 6010C [3]	SW846 3010A [5]
Mercury	0.051 B	1.0	0.050	ug/l	1	11/15/10	11/15/10	LM	SW846 7470A [1]	SW846 7470A [4]
Selenium [a]	8.0 U	40	8.0	ug/l	4	11/17/10	11/18/10	RS	SW846 6010C [3]	SW846 3010A [5]
Silver	1.0 U	10	1.0	ug/l	1	11/17/10	11/17/10	RS	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA8508
(2) Instrument QC Batch: MA8516
(3) Instrument QC Batch: MA8519
(4) Prep QC Batch: MP19478
(5) Prep QC Batch: MP19495

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TB-11102010-A		
Lab Sample ID:	F77967-22	**Date Sampled:**	11/10/10
Matrix:	AQ - Trip Blank Water	**Date Received:**	11/11/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F046054.D	1	11/24/10	SH	n/a	n/a	VF1350
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	2.0	0.30	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.22	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.20	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.26	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.22	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.27	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.22	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.25	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.20	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.2	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.25	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.25	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.23	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.44	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TB-11102010-A		
Lab Sample ID:	F77967-22	**Date Sampled:**	11/10/10
Matrix:	AQ - Trip Blank Water	**Date Received:**	11/11/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.25	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.23	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.35	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.47	ug/l	
591-78-6	2-Hexanone	ND	10	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.80	ug/l	
110-54-3	Hexane	ND	2.0	0.59	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.20	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.25	ug/l	
75-09-2	Methylene chloride	4.5	5.0	2.0	ug/l	JB
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.30	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TB-11102010-A		
Lab Sample ID:	F77967-22	**Date Sampled:**	11/10/10
Matrix:	AQ - Trip Blank Water	**Date Received:**	11/11/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.27	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.32	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		87-116%
17060-07-0	1,2-Dichloroethane-D4	94%		76-127%
2037-26-5	Toluene-D8	103%		86-112%
460-00-4	4-Bromofluorobenzene	99%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SD27-TB-11102010-A		
Lab Sample ID:	F77967-22	**Date Sampled:**	11/10/10
Matrix:	AQ - Trip Blank Water	**Date Received:**	11/11/10
Method:	SW846 8015C	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD100635.D	1	11/19/10	WV	n/a	n/a	GCD4158
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	86%		57-129%
98-08-8	aaa-Trifluorotoluene	86%		58-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody

Parameter Certification Exceptions

Job Number: F77967
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

The following parameters included in this report are exceptions to NELAC certification.
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Freon 113	76-13-1	**SW846 8260B**	AQ	Certified by SOP MS005

Southeast ACCUTEST LABORATORIES

Reissue #1
05/09/11

Technical Report for

Tetra Tech, Inc

Holloman AFB; Alamogordo, NM

T93002

Accutest Job Number: F74974

Sampling Dates: 07/07/10 - 07/08/10

Report to:

Tetra Tech

Jeremy.Bennett@tetratech.com

ATTN: Jeremy Bennett

Total number of pages in report: **254**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Sue Bell 407-425-6700

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK

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Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

May 9, 2011

Maureen McMyler
Tetra Tech
800 Oak Ridge Turnpike
Suite A 600
Oak Ridge, TN 37838

RE: Accutest job F74974 Reissue

Dear Ms. McMyler,

The final report for job number F74974 has been edited to reflect requested corrections. These edits have been incorporated into the revised report.

Calcium, iron, magnesium, and sodium have been removed from the report for F74974-6F.

Accutest apologies for any inconvenience this may have caused. Please feel free to contact us if we can be of further assistance.

Sincerely,

Accutest Laboratories, SE

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Accutest Laboratories

Sample Summary

Tetra Tech, Inc

Job No: F74974

Holloman AFB; Alamogordo, NM
Project No: T93002

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F74974-1	07/07/10	11:28	JBBC	07/09/10	AQ	Ground Water	MW39-11-070710
F74974-1F	07/07/10	11:28	JBBC	07/09/10	AQ	Groundwater Filtered	MW39-11-070710
F74974-2	07/07/10	11:45	JBBC	07/09/10	AQ	Ground Water	MW39-12-070710
F74974-2F	07/07/10	11:45	JBBC	07/09/10	AQ	Groundwater Filtered	MW39-12-070710
F74974-3	07/07/10	14:32	JBBC	07/09/10	AQ	Ground Water	MW39-08-070710
F74974-3F	07/07/10	14:32	JBBC	07/09/10	AQ	Groundwater Filtered	MW39-08-070710
F74974-4	07/07/10	15:10	JBBC	07/09/10	AQ	Ground Water	MW39-09-070710
F74974-4F	07/07/10	15:10	JBBC	07/09/10	AQ	Groundwater Filtered	MW39-09-070710
F74974-5	07/07/10	17:24	JBBC	07/09/10	AQ	Ground Water	MW39-10-070710
F74974-5F	07/07/10	17:24	JBBC	07/09/10	AQ	Groundwater Filtered	MW39-10-070710
F74974-6	07/07/10	18:00	JBBC	07/09/10	AQ	Ground Water	MW39-07-070710
F74974-6D	07/07/10	18:00	JBBC	07/09/10	AQ	Water Dup/MSD	MW39-07-070710
F74974-6F	07/07/10	18:00	JBBC	07/09/10	AQ	Groundwater Filtered	MW39-07-070710

Sample Summary
(continued)

Tetra Tech, Inc

Job No: F74974

Holloman AFB; Alamogordo, NM
Project No: T93002

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F74974-6FD	07/07/10	18:00	JBBC	07/09/10	AQ	Water Dup/MSD	MW39-07-070710
F74974-6FS	07/07/10	18:00	JBBC	07/09/10	AQ	Water Matrix Spike	MW39-07-070710
F74974-6S	07/07/10	18:00	JBBC	07/09/10	AQ	Water Matrix Spike	MW39-07-070710
F74974-7	07/08/10	10:20	JBBC	07/09/10	AQ	Ground Water	MW39-05-070810
F74974-7F	07/08/10	10:20	JBBC	07/09/10	AQ	Groundwater Filtered	MW39-05-070810
F74974-8	07/08/10	10:34	JBBC	07/09/10	AQ	Ground Water	MW39-02-070810
F74974-8F	07/08/10	10:34	JBBC	07/09/10	AQ	Groundwater Filtered	MW39-02-070810
F74974-9	07/08/10	12:08	JBBC	07/09/10	AQ	Ground Water	MW39-06D-070810
F74974-9F	07/08/10	12:08	JBBC	07/09/10	AQ	Groundwater Filtered	MW39-06D-070810
F74974-10	07/08/10	00:00	JBBC	07/09/10	AQ	Ground Water	MW39-DUP01-070810
F74974-10F	07/08/10	00:00	JBBC	07/09/10	AQ	Groundwater Filtered	MW39-DUP01-070810
F74974-11	07/08/10	12:15	JBBC	07/09/10	AQ	Ground Water	MW39-06-070810
F74974-11F	07/08/10	12:15	JBBC	07/09/10	AQ	Groundwater Filtered	MW39-06-070810

Sample Summary
(continued)

Tetra Tech, Inc

Job No: F74974

Holloman AFB; Alamogordo, NM
Project No: T93002

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F74974-12	07/08/10	15:44	JBBC	07/09/10	AQ	Ground Water	MW39-03-070810
F74974-12F	07/08/10	15:44	JBBC	07/09/10	AQ	Groundwater Filtered	MW39-03-070810
F74974-13	07/08/10	00:00	JBBC	07/09/10	AQ	Trip Blank Water	TB01-070810

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Tetra Tech, Inc **Job No:** F74974

Site: Holloman AFB; Alamogordo, NM **Report Date:** 7/26/2010 10:53:10

12 Samples and 1 Trip Blank were collected on 07/07/2010 and 07/08/2010 and were received at Accutest SE on 07/09/2010 properly preserved, at 2.4 Deg. C and intact. These Samples received an Accutest job number of F74974. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS by Method SW846 8260B

Matrix: AQ **Batch ID:** VF1252

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F74973-1MS, F74973-1MSD were used as the QC samples indicated.

Blank Spike Recoverys for 2-Chloroethyl vinyl ether, Acrolein, cis-1,4-Dichloro-2-Butene, Trans-1,4-Dichloro-2-Butene are outside control limits.

Matrix Spike Recoverys for 1,1,2,2-Tetrachloroethane, 2-Hexanone, 4-Methyl-2-pentanone, Acetonitrile, Acrolein, cis-1,4-Dichloro-2-Butene, trans-1,3-Dichloropropene, Trans-1,4-Dichloro-2-Butene are outside control limits. Probable cause due to matrix interference.

Matrix Spike Duplicate Recoverys for 2-Chloroethyl vinyl ether, 2-Hexanone, 4-Methyl-2-pentanone, Acetonitrile, Acrolein are outside control limits. Probable cause due to matrix interference.

RPDs for MSD for 1,1-Dichloropropene, 2-Chloroethyl vinyl ether, p-Isopropyltoluene are outside control limits for sample F74973-1MSD. Probable cause due to sample non-homogeneity.

F74974-2, F74974-4 for Methyl chloride: CCV outside of control limits.

F74974-1, F74974-4 for Methyl ethyl ketone: CCV outside of control limits.

Matrix: AQ **Batch ID:** VF1253

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F74974-6MS, F74974-6MSD were used as the QC samples indicated.

Blank Spike Recoverys for 2-Chloroethyl vinyl ether, Acrolein, cis-1,4-Dichloro-2-Butene, Trans-1,4-Dichloro-2-Butene are outside control limits.

Matrix Spike Recoverys for 1,1,2,2-Tetrachloroethane, 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 2-Chloroethyl vinyl ether, 2-Hexanone, 4-Methyl-2-pentanone, Acetonitrile, Acrolein, Benzyl Chloride, cis-1,4-Dichloro-2-Butene, Ethyl methacrylate, Pentachloroethane, trans-1,3-Dichloropropene, Trans-1,4-Dichloro-2-Butene are outside control limits. Probable cause due to matrix interference.

Matrix Spike Duplicate Recoverys for 1,1,2,2-Tetrachloroethane, 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 2-Chloroethyl vinyl ether, 2-Hexanone, 4-Methyl-2-pentanone, Acetonitrile, Acrolein, Ethyl methacrylate, Pentachloroethane, trans-1,3-Dichloropropene are outside control limits. Probable cause due to matrix interference.

F74974-1, F74974-2, F74974-3, F74974-4, F74974-5, F74974-6: Confirmation run for internal standard areas.

Metals by Method SW846 6010B

Matrix: AQ **Batch ID:** MP18652

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F74974-6DUP, F74974-6MS, F74974-6MSD, F74974-6SDL were used as the QC samples for metals.

RPD for Duplicate for Selenium is outside control limits for sample MP18652-D1. RPD acceptable due to low duplicate and sample concentrations.

Metals by Method SW846 6010B

Matrix: AQ **Batch ID:** MP18652

RPD for Serial Dilution for Selenium is outside control limits for sample MP18652-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

F74974-1, F74974-2, F74974-3, F74974-4, F74974-5, F74974-6, F74974-7, F74974-8, F74974-9, F74974-10, F74974-11, F74974-12 for Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver: Elevated reporting limit(s) due to matrix interference.

Matrix: AQ **Batch ID:** MP18659

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F74974-6FDUP, F74974-6FMS, F74974-6FMSD, F74974-6FSDL, F74974-6FPS were used as the QC samples for metals.

Matrix Spike Recovery for Selenium is outside control limits. Spike recovery indicates possible matrix interference.

Matrix Spike Recoverys for Calcium, Magnesium, Sodium are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

RPDs for Serial Dilution for Selenium, Sodium are outside control limits for sample MP18659-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

MP18659-PS1 for Selenium: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

F74974-6F for Calcium, Iron, Magnesium: Elevated reporting limit(s) due to matrix interference.

Metals by Method SW846 7470A

Matrix: AQ **Batch ID:** MP18638

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F74974-6DUP, F74974-6MS, F74974-6MSD, F74974-6SDL were used as the QC samples for metals.

Matrix: AQ **Batch ID:** MP18644

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F74974-6FDUP, F74974-6FMS, F74974-6FMSD, F74974-6FSDL were used as the QC samples for metals.

RPD for Serial Dilution for Mercury is outside control limits for sample MP18644-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Wet Chemistry by Method SM19 2540C

Matrix: AQ **Batch ID:** GN40377

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample F74974-6DUP was used as the QC sample for Solids, Total Dissolved.

Matrix: AQ **Batch ID:** GN40405

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample F75013-1DUP was used as the QC sample for Solids, Total Dissolved.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

_____ Date: July 26, 2010

Ellen Pampel, Inorganic QA (signature on file)

Monday, July 26, 2010

Southeast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW39-11-070710		
Lab Sample ID:	F74974-1	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F043559.D	1	07/14/10	LD	n/a	n/a	VF1252
Run #2 [a]	F043575.D	1	07/15/10	LD	n/a	n/a	VF1253

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	20.2	25	10	ug/l	J
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	10	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.24	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.24	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.23	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.51	ug/l	
67-66-3	Chloroform	ND	1.0	0.25	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.29	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.23	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.1	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.22	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.29	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.25	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.59	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.33	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.27	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.37	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-11-070710		
Lab Sample ID:	F74974-1	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.32	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.29	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.43	ug/l	
591-78-6	2-Hexanone	16.8	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.40	ug/l	
110-54-3	Hexane	ND	2.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	0.74	1.0	0.21	ug/l	J
108-10-1	4-Methyl-2-pentanone	3.2	5.0	2.0	ug/l	J
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.31	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.27	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone [b]	2.8	5.0	2.0	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.29	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.37	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-11-070710		
Lab Sample ID:	F74974-1	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.44	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	11.6	1.0	0.24	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.28	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.4	ug/l	
	m,p-Xylene	ND	2.0	0.34	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%	106%	87-116%
17060-07-0	1,2-Dichloroethane-D4	116%	118%	76-127%
2037-26-5	Toluene-D8	105%	106%	86-112%
460-00-4	4-Bromofluorobenzene	106%	107%	84-120%

(a) Confirmation run for internal standard areas.
(b) CCV outside of control limits.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-11-070710		
Lab Sample ID:	F74974-1	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	80 U	400	80	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Barium [a]	200 U	8000	200	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Cadmium [a]	40 U	200	40	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Chromium [a]	40 U	400	40	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Lead [a]	40 U	200	40	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/12/10	07/12/10	LM	SW846 7470A [1]	SW846 7470A [3]
Selenium [a]	80 U	400	80	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Silver [a]	40 U	400	40	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA8222
(2) Instrument QC Batch: MA8234
(3) Prep QC Batch: MP18638
(4) Prep QC Batch: MP18652

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-11-070710		
Lab Sample ID:	F74974-1	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	116000	10000	1000	mg/l	100	07/12/10 12:30	LE	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-11-070710		
Lab Sample ID:	F74974-1F	**Date Sampled:**	07/07/10
Matrix:	AQ - Groundwater Filtered	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	80 U	400	80	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Barium	200 U	8000	200	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Cadmium	40 U	200	40	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Chromium	40 U	400	40	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Lead	40 U	200	40	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/13/10	07/13/10	LM	SW846 7470A [1]	SW846 7470A [3]
Selenium	128 B	400	80	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Silver	40 U	400	40	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA8224
(2) Instrument QC Batch: MA8234
(3) Prep QC Batch: MP18644
(4) Prep QC Batch: MP18659

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-12-070710		
Lab Sample ID:	F74974-2	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F043560.D	1	07/14/10	LD	n/a	n/a	VF1252
Run #2 [a]	F043576.D	1	07/15/10	LD	n/a	n/a	VF1253

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	10	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.24	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.24	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.23	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.51	ug/l	
67-66-3	Chloroform	ND	1.0	0.25	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.29	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.23	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.1	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.22	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.29	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.25	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.59	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.33	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.27	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.37	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-12-070710		
Lab Sample ID:	F74974-2	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.32	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.29	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.43	ug/l	
591-78-6	2-Hexanone	8.6	10	5.0	ug/l	J
87-68-3	Hexachlorobutadiene	ND	2.0	0.40	ug/l	
110-54-3	Hexane	ND	2.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride [b]	0.56	2.0	0.50	ug/l	J
74-88-4	Methyl iodide	ND	1.0	0.31	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.27	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.29	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.37	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-12-070710		
Lab Sample ID:	F74974-2	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.44	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	1.6	1.0	0.24	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.28	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.4	ug/l	
	m,p-Xylene	ND	2.0	0.34	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%	105%	87-116%
17060-07-0	1,2-Dichloroethane-D4	115%	117%	76-127%
2037-26-5	Toluene-D8	106%	106%	86-112%
460-00-4	4-Bromofluorobenzene	106%	108%	84-120%

(a) Confirmation run for internal standard areas.
(b) CCV outside of control limits.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-12-070710		
Lab Sample ID:	F74974-2	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	80 U	400	80	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Barium [a]	200 U	8000	200	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Cadmium [a]	40 U	200	40	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Chromium [a]	40 U	400	40	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Lead [a]	40 U	200	40	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/12/10	07/12/10	LM	SW846 7470A [1]	SW846 7470A [3]
Selenium [a]	90.2 B	400	80	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Silver [a]	40 U	400	40	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA8222
(2) Instrument QC Batch: MA8234
(3) Prep QC Batch: MP18638
(4) Prep QC Batch: MP18652

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-12-070710		
Lab Sample ID:	F74974-2	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	106000	10000	1000	mg/l	100	07/12/10 12:30	LE	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-12-070710		
Lab Sample ID:	F74974-2F	**Date Sampled:**	07/07/10
Matrix:	AQ - Groundwater Filtered	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	80 U	400	80	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Barium	200 U	8000	200	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Cadmium	40 U	200	40	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Chromium	40 U	400	40	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Lead	40 U	200	40	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/13/10	07/13/10	LM	SW846 7470A [1]	SW846 7470A [3]
Selenium	98.1 B	400	80	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Silver	40 U	400	40	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA8224
(2) Instrument QC Batch: MA8234
(3) Prep QC Batch: MP18644
(4) Prep QC Batch: MP18659

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-08-070710		
Lab Sample ID:	F74974-3	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F043561.D	1	07/14/10	LD	n/a	n/a	VF1252
Run #2 [a]	F043577.D	1	07/15/10	LD	n/a	n/a	VF1253

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	10	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.24	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.24	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.23	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.51	ug/l	
67-66-3	Chloroform	ND	1.0	0.25	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.29	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.23	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.1	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.22	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.29	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.25	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.59	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.33	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.27	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.37	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-08-070710		
Lab Sample ID:	F74974-3	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.52	1.0	0.32	ug/l	J
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.29	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.43	ug/l	
591-78-6	2-Hexanone	20.6	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.40	ug/l	
110-54-3	Hexane	ND	2.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.31	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.27	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.29	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.37	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-08-070710		
Lab Sample ID:	F74974-3	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.44	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	18.8	1.0	0.24	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.28	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.4	ug/l	
	m,p-Xylene	ND	2.0	0.34	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%	105%	87-116%
17060-07-0	1,2-Dichloroethane-D4	114%	116%	76-127%
2037-26-5	Toluene-D8	104%	105%	86-112%
460-00-4	4-Bromofluorobenzene	105%	105%	84-120%

(a) Confirmation run for internal standard areas.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-08-070710		
Lab Sample ID:	F74974-3	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	80 U	400	80	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Barium [a]	200 U	8000	200	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Cadmium [a]	40 U	200	40	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Chromium [a]	40 U	400	40	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Lead [a]	40 U	200	40	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/12/10	07/12/10	LM	SW846 7470A [1]	SW846 7470A [3]
Selenium [a]	80 U	400	80	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Silver [a]	40 U	400	40	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA8222
(2) Instrument QC Batch: MA8234
(3) Prep QC Batch: MP18638
(4) Prep QC Batch: MP18652

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-08-070710		
Lab Sample ID:	F74974-3	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	107000	10000	1000	mg/l	100	07/12/10 12:30	LE	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-08-070710		
Lab Sample ID:	F74974-3F	**Date Sampled:**	07/07/10
Matrix:	AQ - Groundwater Filtered	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	80 U	400	80	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Barium	200 U	8000	200	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Cadmium	40 U	200	40	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Chromium	40 U	400	40	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Lead	40 U	200	40	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/13/10	07/13/10	LM	SW846 7470A [1]	SW846 7470A [3]
Selenium	96.1 B	400	80	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Silver	40 U	400	40	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA8224
(2) Instrument QC Batch: MA8234
(3) Prep QC Batch: MP18644
(4) Prep QC Batch: MP18659

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-09-070710		
Lab Sample ID:	F74974-4	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F043562.D	1	07/14/10	LD	n/a	n/a	VF1252
Run #2 [a]	F043578.D	1	07/15/10	LD	n/a	n/a	VF1253

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	18.1	25	10	ug/l	J
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	10	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.24	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.24	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.23	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.51	ug/l	
67-66-3	Chloroform	ND	1.0	0.25	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.29	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.23	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.1	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.22	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.29	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.25	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.59	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.33	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.27	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.37	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-09-070710		
Lab Sample ID:	F74974-4	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.32	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.29	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.43	ug/l	
591-78-6	2-Hexanone	55.7	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.40	ug/l	
110-54-3	Hexane	ND	2.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	0.43	1.0	0.21	ug/l	J
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride [b]	0.58	2.0	0.50	ug/l	J
74-88-4	Methyl iodide	ND	1.0	0.31	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.27	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone [b]	3.0	5.0	2.0	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.29	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.37	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-09-070710		
Lab Sample ID:	F74974-4	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.44	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.24	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.28	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.4	ug/l	
	m,p-Xylene	ND	2.0	0.34	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%	105%	87-116%
17060-07-0	1,2-Dichloroethane-D4	113%	115%	76-127%
2037-26-5	Toluene-D8	103%	103%	86-112%
460-00-4	4-Bromofluorobenzene	105%	106%	84-120%

(a) Confirmation run for internal standard areas.
(b) CCV outside of control limits.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-09-070710		
Lab Sample ID:	F74974-4	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	80 U	400	80	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Barium [a]	200 U	8000	200	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Cadmium [a]	40 U	200	40	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Chromium [a]	40 U	400	40	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Lead [a]	40 U	200	40	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/12/10	07/12/10	LM	SW846 7470A [1]	SW846 7470A [3]
Selenium [a]	80 U	400	80	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Silver [a]	40 U	400	40	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA8222
(2) Instrument QC Batch: MA8234
(3) Prep QC Batch: MP18638
(4) Prep QC Batch: MP18652

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-09-070710		
Lab Sample ID:	F74974-4	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	109000	10000	1000	mg/l	100	07/12/10 12:30	LE	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-09-070710		
Lab Sample ID:	F74974-4F	**Date Sampled:**	07/07/10
Matrix:	AQ - Groundwater Filtered	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	80 U	400	80	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Barium	200 U	8000	200	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Cadmium	40 U	200	40	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Chromium	40 U	400	40	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Lead	40 U	200	40	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/13/10	07/13/10	LM	SW846 7470A [1]	SW846 7470A [3]
Selenium	91.4 B	400	80	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Silver	40 U	400	40	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA8224
(2) Instrument QC Batch: MA8234
(3) Prep QC Batch: MP18644
(4) Prep QC Batch: MP18659

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-10-070710		
Lab Sample ID:	F74974-5	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F043563.D	1	07/14/10	LD	n/a	n/a	VF1252
Run #2 [a]	F043579.D	1	07/15/10	LD	n/a	n/a	VF1253

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	10	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.24	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.24	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.23	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.51	ug/l	
67-66-3	Chloroform	ND	1.0	0.25	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.29	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.23	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.1	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.22	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.29	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.25	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.59	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.33	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.27	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.37	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-10-070710		
Lab Sample ID:	F74974-5	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.32	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.29	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.43	ug/l	
591-78-6	2-Hexanone	ND	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.40	ug/l	
110-54-3	Hexane	ND	2.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.31	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.27	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.29	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.37	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-10-070710		
Lab Sample ID:	F74974-5	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.44	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.24	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.28	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.4	ug/l	
	m,p-Xylene	ND	2.0	0.34	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%	105%	87-116%
17060-07-0	1,2-Dichloroethane-D4	109%	113%	76-127%
2037-26-5	Toluene-D8	104%	105%	86-112%
460-00-4	4-Bromofluorobenzene	106%	109%	84-120%

(a) Confirmation run for internal standard areas.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-10-070710		
Lab Sample ID:	F74974-5	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	40 U	200	40	ug/l	20	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Barium [a]	369 B	4000	100	ug/l	20	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Cadmium [a]	20 U	100	20	ug/l	20	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Chromium [a]	100 B	200	20	ug/l	20	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Lead [a]	20 U	100	20	ug/l	20	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/12/10	07/12/10	LM	SW846 7470A [1]	SW846 7470A [3]
Selenium [a]	40 U	200	40	ug/l	20	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Silver [a]	20 U	200	20	ug/l	20	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA8222
(2) Instrument QC Batch: MA8234
(3) Prep QC Batch: MP18638
(4) Prep QC Batch: MP18652

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-10-070710		
Lab Sample ID:	F74974-5	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	39800	10000	1000	mg/l	100	07/12/10 12:30	LE	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-10-070710		
Lab Sample ID:	F74974-5F	**Date Sampled:**	07/07/10
Matrix:	AQ - Groundwater Filtered	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	40 U	200	40	ug/l	20	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Barium	100 U	4000	100	ug/l	20	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Cadmium	20 U	100	20	ug/l	20	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Chromium	20 U	200	20	ug/l	20	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Lead	20 U	100	20	ug/l	20	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/13/10	07/13/10	LM	SW846 7470A [1]	SW846 7470A [3]
Selenium	50.7 B	200	40	ug/l	20	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Silver	20 U	200	20	ug/l	20	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA8224
(2) Instrument QC Batch: MA8234
(3) Prep QC Batch: MP18644
(4) Prep QC Batch: MP18659

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-07-070710		
Lab Sample ID:	F74974-6	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F043580.D	1	07/15/10	LD	n/a	n/a	VF1253
Run #2 [a]	F043585.D	1	07/15/10	LD	n/a	n/a	VF1253

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	10	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.24	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.24	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.23	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.51	ug/l	
67-66-3	Chloroform	ND	1.0	0.25	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.29	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.23	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.1	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.22	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.29	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.25	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.59	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.33	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.27	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.37	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-07-070710		
Lab Sample ID:	F74974-6	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.32	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.29	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.43	ug/l	
591-78-6	2-Hexanone	ND	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.40	ug/l	
110-54-3	Hexane	ND	2.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.31	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.27	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.29	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.37	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-07-070710		
Lab Sample ID:	F74974-6	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.44	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	0.77	1.0	0.24	ug/l	J
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.28	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.4	ug/l	
	m,p-Xylene	ND	2.0	0.34	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%	106%	87-116%
17060-07-0	1,2-Dichloroethane-D4	112%	116%	76-127%
2037-26-5	Toluene-D8	105%	107%	86-112%
460-00-4	4-Bromofluorobenzene	107%	110%	84-120%

(a) Confirmation run for internal standard areas.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-07-070710		
Lab Sample ID:	F74974-6	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	20 U	100	20	ug/l	10	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Barium [a]	50 U	2000	50	ug/l	10	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Cadmium [a]	10 U	50	10	ug/l	10	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Chromium [a]	10 U	100	10	ug/l	10	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Lead [a]	10 U	50	10	ug/l	10	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/12/10	07/12/10	LM	SW846 7470A [1]	SW846 7470A [3]
Selenium [a]	42.1 B	100	20	ug/l	10	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Silver [a]	10 U	100	10	ug/l	10	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA8222
(2) Instrument QC Batch: MA8234
(3) Prep QC Batch: MP18638
(4) Prep QC Batch: MP18652

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-07-070710		
Lab Sample ID:	F74974-6	**Date Sampled:**	07/07/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	40300	10000	1000	mg/l	100	07/12/10 12:30	LE	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-07-070710		
Lab Sample ID:	F74974-6F	**Date Sampled:**	07/07/10
Matrix:	AQ - Groundwater Filtered	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	20 U	100	20	ug/l	10	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Barium	50 U	2000	50	ug/l	10	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Cadmium	10 U	50	10	ug/l	10	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Chromium	10 U	100	10	ug/l	10	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Lead	10 U	50	10	ug/l	10	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/13/10	07/13/10	LM	SW846 7470A [1]	SW846 7470A [3]
Selenium	34.8 B	100	20	ug/l	10	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Silver	10 U	100	10	ug/l	10	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA8224
(2) Instrument QC Batch: MA8234
(3) Prep QC Batch: MP18644
(4) Prep QC Batch: MP18659

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-05-070810		
Lab Sample ID:	F74974-7	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F043564.D	1	07/14/10	LD	n/a	n/a	VF1252
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	10	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.24	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.24	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.23	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.51	ug/l	
67-66-3	Chloroform	ND	1.0	0.25	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.29	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.23	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.1	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.22	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.29	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.25	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.59	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.33	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.27	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.37	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-05-070810		
Lab Sample ID:	F74974-7	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.32	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.29	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.43	ug/l	
591-78-6	2-Hexanone	ND	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.40	ug/l	
110-54-3	Hexane	ND	2.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.31	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.27	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.29	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.37	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-05-070810		
Lab Sample ID:	F74974-7	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.44	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	15.6	1.0	0.24	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.28	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.4	ug/l	
	m,p-Xylene	ND	2.0	0.34	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		87-116%
17060-07-0	1,2-Dichloroethane-D4	112%		76-127%
2037-26-5	Toluene-D8	105%		86-112%
460-00-4	4-Bromofluorobenzene	109%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-05-070810		
Lab Sample ID:	F74974-7	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	40 U	200	40	ug/l	20	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Barium [a]	100 U	4000	100	ug/l	20	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Cadmium [a]	20 U	100	20	ug/l	20	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Chromium [a]	20 U	200	20	ug/l	20	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Lead [a]	20 U	100	20	ug/l	20	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/12/10	07/12/10	LM	SW846 7470A [1]	SW846 7470A [3]
Selenium [a]	78.7 B	200	40	ug/l	20	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Silver [a]	20 U	200	20	ug/l	20	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA8222
(2) Instrument QC Batch: MA8234
(3) Prep QC Batch: MP18638
(4) Prep QC Batch: MP18652

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-05-070810		
Lab Sample ID:	F74974-7	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	60000	10000	1000	mg/l	100	07/12/10 12:30	LE	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-05-070810		
Lab Sample ID:	F74974-7F	**Date Sampled:**	07/08/10
Matrix:	AQ - Groundwater Filtered	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	40 U	200	40	ug/l	20	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Barium	100 U	4000	100	ug/l	20	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Cadmium	20 U	100	20	ug/l	20	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Chromium	20 U	200	20	ug/l	20	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Lead	20 U	100	20	ug/l	20	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/13/10	07/13/10	LM	SW846 7470A [1]	SW846 7470A [3]
Selenium	40 U	200	40	ug/l	20	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Silver	20 U	200	20	ug/l	20	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA8224
(2) Instrument QC Batch: MA8234
(3) Prep QC Batch: MP18644
(4) Prep QC Batch: MP18659

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-02-070810		
Lab Sample ID:	F74974-8	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F043565.D	1	07/14/10	LD	n/a	n/a	VF1252
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	10	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.24	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.24	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.23	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.51	ug/l	
67-66-3	Chloroform	1.8	1.0	0.25	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.29	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.23	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.1	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	2.9	1.0	0.34	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.22	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.29	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.25	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.59	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.33	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.27	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.37	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-02-070810		
Lab Sample ID:	F74974-8	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.32	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.29	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.43	ug/l	
591-78-6	2-Hexanone	ND	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.40	ug/l	
110-54-3	Hexane	ND	2.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.31	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.27	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.29	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.37	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-02-070810		
Lab Sample ID:	F74974-8	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.44	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	15.3	1.0	0.24	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.28	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.4	ug/l	
	m,p-Xylene	ND	2.0	0.34	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		87-116%
17060-07-0	1,2-Dichloroethane-D4	110%		76-127%
2037-26-5	Toluene-D8	104%		86-112%
460-00-4	4-Bromofluorobenzene	109%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-02-070810		
Lab Sample ID:	F74974-8	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	8.0 U	40	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Barium [a]	20 U	800	20	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Cadmium [a]	4.0 U	20	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Chromium [a]	4.0 U	40	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Lead [a]	4.0 U	20	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/12/10	07/12/10	LM	SW846 7470A [1]	SW846 7470A [3]
Selenium [a]	22.7 B	40	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Silver [a]	4.0 U	40	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA8222
(2) Instrument QC Batch: MA8234
(3) Prep QC Batch: MP18638
(4) Prep QC Batch: MP18652

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-02-070810		
Lab Sample ID:	F74974-8	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	14800	10000	1000	mg/l	100	07/12/10 12:30	LE	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-02-070810		
Lab Sample ID:	F74974-8F	**Date Sampled:**	07/08/10
Matrix:	AQ - Groundwater Filtered	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	8.0 U	40	8.0	ug/l	4	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Barium	20 U	800	20	ug/l	4	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Cadmium	4.0 U	20	4.0	ug/l	4	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Chromium	4.0 U	40	4.0	ug/l	4	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Lead	4.3 B	20	4.0	ug/l	4	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/13/10	07/13/10	LM	SW846 7470A [1]	SW846 7470A [3]
Selenium	21.3 B	40	8.0	ug/l	4	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Silver	4.0 U	40	4.0	ug/l	4	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA8224
(2) Instrument QC Batch: MA8234
(3) Prep QC Batch: MP18644
(4) Prep QC Batch: MP18659

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-06D-070810		
Lab Sample ID:	F74974-9	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F043581.D	5	07/15/10	LD	n/a	n/a	VF1253
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	130	50	ug/l	
75-05-8	Acetonitrile	ND	100	25	ug/l	
107-02-8	Acrolein	ND	100	50	ug/l	
107-13-1	Acrylonitrile	ND	50	15	ug/l	
107-05-1	Allyl chloride	ND	50	10	ug/l	
71-43-2	Benzene	ND	5.0	1.1	ug/l	
100-44-7	Benzyl Chloride	ND	10	2.0	ug/l	
108-86-1	Bromobenzene	ND	5.0	1.1	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.2	ug/l	
75-27-4	Bromodichloromethane	ND	5.0	1.4	ug/l	
75-25-2	Bromoform	ND	5.0	1.2	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	1.2	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	1.2	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	1.2	ug/l	
108-90-7	Chlorobenzene	ND	5.0	1.0	ug/l	
75-00-3	Chloroethane	ND	10	2.6	ug/l	
67-66-3	Chloroform	ND	5.0	1.3	ug/l	
544-10-5	1-Chlorohexane	ND	10	1.5	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	1.3	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	1.2	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	25	5.5	ug/l	
75-15-0	Carbon disulfide	ND	10	2.0	ug/l	
56-23-5	Carbon tetrachloride	ND	5.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	5.0	1.1	ug/l	
75-35-4	1,1-Dichloroethylene	ND	5.0	1.5	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	1.3	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	3.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	5.0	1.2	ug/l	
107-06-2	1,2-Dichloroethane	ND	5.0	1.7	ug/l	
78-87-5	1,2-Dichloropropane	ND	5.0	1.4	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	1.4	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.9	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-06D-070810		
Lab Sample ID:	F74974-9	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	5.0	1.7	ug/l	
75-71-8	Dichlorodifluoromethane	ND	10	3.4	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	5.0	1.6	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	1.0	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	50	10	ug/l	
541-73-1	m-Dichlorobenzene	ND	5.0	1.5	ug/l	
95-50-1	o-Dichlorobenzene	ND	5.0	1.3	ug/l	
106-46-7	p-Dichlorobenzene	ND	5.0	1.1	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	5.0	1.7	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	1.1	ug/l	
100-41-4	Ethylbenzene	ND	5.0	1.0	ug/l	
97-63-2	Ethyl methacrylate	ND	25	5.0	ug/l	
76-13-1	Freon 113	ND	5.0	2.2	ug/l	
591-78-6	2-Hexanone	ND	50	25	ug/l	
87-68-3	Hexachlorobutadiene	ND	10	2.0	ug/l	
110-54-3	Hexane	ND	10	3.3	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	1.1	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	25	10	ug/l	
126-98-7	Methacrylonitrile	ND	100	25	ug/l	
74-83-9	Methyl bromide	ND	10	3.9	ug/l	
74-87-3	Methyl chloride	ND	10	2.5	ug/l	
74-88-4	Methyl iodide	ND	5.0	1.6	ug/l	
80-62-6	Methyl methacrylate	ND	25	5.0	ug/l	
74-95-3	Methylene bromide	ND	10	1.4	ug/l	
75-09-2	Methylene chloride	ND	25	10	ug/l	
78-93-3	Methyl ethyl ketone	ND	25	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	1.3	ug/l	
91-20-3	Naphthalene	ND	25	5.0	ug/l	
76-01-7	Pentachloroethane	ND	50	10	ug/l	
107-12-0	Propionitrile	ND	100	25	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	5.0	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	5.0	1.1	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	1.5	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	5.0	1.5	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	2.5	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	10	1.9	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	2.5	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-06D-070810		
Lab Sample ID:	F74974-9	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	10	1.1	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	10	1.1	ug/l	
127-18-4	Tetrachloroethylene	ND	5.0	2.2	ug/l	
108-88-3	Toluene	ND	5.0	1.0	ug/l	
79-01-6	Trichloroethylene	301	5.0	1.2	ug/l	
75-69-4	Trichlorofluoromethane	ND	10	2.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	50	10	ug/l	
75-01-4	Vinyl chloride	ND	5.0	1.4	ug/l	
108-05-4	Vinyl Acetate	ND	50	12	ug/l	
	m,p-Xylene	ND	10	1.7	ug/l	
95-47-6	o-Xylene	ND	5.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		87-116%
17060-07-0	1,2-Dichloroethane-D4	109%		76-127%
2037-26-5	Toluene-D8	105%		86-112%
460-00-4	4-Bromofluorobenzene	108%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-06D-070810		
Lab Sample ID:	F74974-9	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	80 U	400	80	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Barium [a]	200 U	8000	200	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Cadmium [a]	40 U	200	40	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Chromium [a]	40 U	400	40	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Lead [a]	40 U	200	40	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/12/10	07/12/10	LM	SW846 7470A [1]	SW846 7470A [3]
Selenium [a]	80 U	400	80	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Silver [a]	40 U	400	40	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA8222
(2) Instrument QC Batch: MA8234
(3) Prep QC Batch: MP18638
(4) Prep QC Batch: MP18652

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-06D-070810		
Lab Sample ID:	F74974-9	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	78700	10000	1000	mg/l	100	07/12/10 12:30	LE	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-06D-070810		
Lab Sample ID:	F74974-9F	**Date Sampled:**	07/08/10
Matrix:	AQ - Groundwater Filtered	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	80 U	400	80	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Barium	200 U	8000	200	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Cadmium	40 U	200	40	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Chromium	40 U	400	40	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Lead	40 U	200	40	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/13/10	07/13/10	LM	SW846 7470A [1]	SW846 7470A [3]
Selenium	80 U	400	80	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Silver	40 U	400	40	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA8224
(2) Instrument QC Batch: MA8234
(3) Prep QC Batch: MP18644
(4) Prep QC Batch: MP18659

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-DUP01-070810		
Lab Sample ID:	F74974-10	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F043582.D	5	07/15/10	LD	n/a	n/a	VF1253
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	130	50	ug/l	
75-05-8	Acetonitrile	ND	100	25	ug/l	
107-02-8	Acrolein	ND	100	50	ug/l	
107-13-1	Acrylonitrile	ND	50	15	ug/l	
107-05-1	Allyl chloride	ND	50	10	ug/l	
71-43-2	Benzene	ND	5.0	1.1	ug/l	
100-44-7	Benzyl Chloride	ND	10	2.0	ug/l	
108-86-1	Bromobenzene	ND	5.0	1.1	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.2	ug/l	
75-27-4	Bromodichloromethane	ND	5.0	1.4	ug/l	
75-25-2	Bromoform	ND	5.0	1.2	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	1.2	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	1.2	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	1.2	ug/l	
108-90-7	Chlorobenzene	ND	5.0	1.0	ug/l	
75-00-3	Chloroethane	ND	10	2.6	ug/l	
67-66-3	Chloroform	ND	5.0	1.3	ug/l	
544-10-5	1-Chlorohexane	ND	10	1.5	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	1.3	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	1.2	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	25	5.5	ug/l	
75-15-0	Carbon disulfide	ND	10	2.0	ug/l	
56-23-5	Carbon tetrachloride	ND	5.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	5.0	1.1	ug/l	
75-35-4	1,1-Dichloroethylene	1.6	5.0	1.5	ug/l	J
563-58-6	1,1-Dichloropropene	ND	5.0	1.3	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	3.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	5.0	1.2	ug/l	
107-06-2	1,2-Dichloroethane	ND	5.0	1.7	ug/l	
78-87-5	1,2-Dichloropropane	ND	5.0	1.4	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	1.4	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.9	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-DUP01-070810		
Lab Sample ID:	F74974-10	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	5.0	1.7	ug/l	
75-71-8	Dichlorodifluoromethane	ND	10	3.4	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	5.0	1.6	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	1.0	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	50	10	ug/l	
541-73-1	m-Dichlorobenzene	ND	5.0	1.5	ug/l	
95-50-1	o-Dichlorobenzene	ND	5.0	1.3	ug/l	
106-46-7	p-Dichlorobenzene	ND	5.0	1.1	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	5.0	1.7	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	1.1	ug/l	
100-41-4	Ethylbenzene	ND	5.0	1.0	ug/l	
97-63-2	Ethyl methacrylate	ND	25	5.0	ug/l	
76-13-1	Freon 113	ND	5.0	2.2	ug/l	
591-78-6	2-Hexanone	ND	50	25	ug/l	
87-68-3	Hexachlorobutadiene	ND	10	2.0	ug/l	
110-54-3	Hexane	ND	10	3.3	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	1.1	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	25	10	ug/l	
126-98-7	Methacrylonitrile	ND	100	25	ug/l	
74-83-9	Methyl bromide	ND	10	3.9	ug/l	
74-87-3	Methyl chloride	ND	10	2.5	ug/l	
74-88-4	Methyl iodide	ND	5.0	1.6	ug/l	
80-62-6	Methyl methacrylate	ND	25	5.0	ug/l	
74-95-3	Methylene bromide	ND	10	1.4	ug/l	
75-09-2	Methylene chloride	ND	25	10	ug/l	
78-93-3	Methyl ethyl ketone	ND	25	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	1.3	ug/l	
91-20-3	Naphthalene	ND	25	5.0	ug/l	
76-01-7	Pentachloroethane	ND	50	10	ug/l	
107-12-0	Propionitrile	ND	100	25	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	5.0	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	5.0	1.1	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	1.5	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	5.0	1.5	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	2.5	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	10	1.9	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	2.5	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-DUP01-070810		
Lab Sample ID:	F74974-10	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	10	1.1	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	10	1.1	ug/l	
127-18-4	Tetrachloroethylene	ND	5.0	2.2	ug/l	
108-88-3	Toluene	ND	5.0	1.0	ug/l	
79-01-6	Trichloroethylene	330	5.0	1.2	ug/l	
75-69-4	Trichlorofluoromethane	ND	10	2.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	50	10	ug/l	
75-01-4	Vinyl chloride	ND	5.0	1.4	ug/l	
108-05-4	Vinyl Acetate	ND	50	12	ug/l	
	m,p-Xylene	ND	10	1.7	ug/l	
95-47-6	o-Xylene	ND	5.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		87-116%
17060-07-0	1,2-Dichloroethane-D4	112%		76-127%
2037-26-5	Toluene-D8	104%		86-112%
460-00-4	4-Bromofluorobenzene	110%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-DUP01-070810		
Lab Sample ID:	F74974-10	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	80 U	400	80	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Barium [a]	200 U	8000	200	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Cadmium [a]	40 U	200	40	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Chromium [a]	40 U	400	40	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Lead [a]	40 U	200	40	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/12/10	07/12/10	LM	SW846 7470A [1]	SW846 7470A [3]
Selenium [a]	97.8 B	400	80	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Silver [a]	40 U	400	40	ug/l	40	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA8222
(2) Instrument QC Batch: MA8234
(3) Prep QC Batch: MP18638
(4) Prep QC Batch: MP18652

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-DUP01-070810		
Lab Sample ID:	F74974-10	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	85000	10000	1000	mg/l	100	07/12/10 12:30	LE	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-DUP01-070810		
Lab Sample ID:	F74974-10F	**Date Sampled:**	07/08/10
Matrix:	AQ - Groundwater Filtered	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	80 U	400	80	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Barium	200 U	8000	200	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Cadmium	40 U	200	40	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Chromium	40 U	400	40	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Lead	40 U	200	40	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/13/10	07/13/10	LM	SW846 7470A [1]	SW846 7470A [3]
Selenium	116 B	400	80	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Silver	40 U	400	40	ug/l	40	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA8224
(2) Instrument QC Batch: MA8234
(3) Prep QC Batch: MP18644
(4) Prep QC Batch: MP18659

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-06-070810		
Lab Sample ID:	F74974-11	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F043583.D	1	07/15/10	LD	n/a	n/a	VF1253
Run #2	F043568.D	5	07/14/10	LD	n/a	n/a	VF1252

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	10	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.24	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.24	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.23	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.51	ug/l	
67-66-3	Chloroform	2.1	1.0	0.25	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.29	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.23	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.1	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	1.6	1.0	0.34	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.22	ug/l	
75-35-4	1,1-Dichloroethylene	1.1	1.0	0.29	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.25	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.59	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.33	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.27	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.37	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-06-070810		
Lab Sample ID:	F74974-11	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.32	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.29	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.43	ug/l	
591-78-6	2-Hexanone	ND	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.40	ug/l	
110-54-3	Hexane	ND	2.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.31	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.27	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.29	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.37	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-06-070810		
Lab Sample ID:	F74974-11	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.44	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	98.6 [a]	5.0	1.2	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.28	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.4	ug/l	
	m,p-Xylene	ND	2.0	0.34	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%	104%	87-116%
17060-07-0	1,2-Dichloroethane-D4	117%	111%	76-127%
2037-26-5	Toluene-D8	105%	107%	86-112%
460-00-4	4-Bromofluorobenzene	109%	109%	84-120%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-06-070810		
Lab Sample ID:	F74974-11	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	11.4 B	50	10	ug/l	5	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Barium [a]	25 U	1000	25	ug/l	5	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Cadmium [a]	5.0 U	25	5.0	ug/l	5	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Chromium [a]	5.0 U	50	5.0	ug/l	5	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Lead [a]	5.0 U	25	5.0	ug/l	5	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/12/10	07/12/10	LM	SW846 7470A [1]	SW846 7470A [3]
Selenium [a]	30.7 B	50	10	ug/l	5	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Silver [a]	5.0 U	50	5.0	ug/l	5	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA8222
(2) Instrument QC Batch: MA8234
(3) Prep QC Batch: MP18638
(4) Prep QC Batch: MP18652

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-06-070810		
Lab Sample ID:	F74974-11	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	26400	10000	1000	mg/l	100	07/14/10 12:25	LE	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-06-070810		
Lab Sample ID:	F74974-11F	**Date Sampled:**	07/08/10
Matrix:	AQ - Groundwater Filtered	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	10 U	50	10	ug/l	5	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Barium	25 U	1000	25	ug/l	5	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Cadmium	5.0 U	25	5.0	ug/l	5	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Chromium	5.0 U	50	5.0	ug/l	5	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Lead	6.9 B	25	5.0	ug/l	5	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/13/10	07/13/10	LM	SW846 7470A [1]	SW846 7470A [3]
Selenium	38.8 B	50	10	ug/l	5	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Silver	5.0 U	50	5.0	ug/l	5	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA8224
(2) Instrument QC Batch: MA8234
(3) Prep QC Batch: MP18644
(4) Prep QC Batch: MP18659

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-03-070810		
Lab Sample ID:	F74974-12	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F043584.D	1	07/15/10	LD	n/a	n/a	VF1253
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	10	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.24	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.24	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.23	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.51	ug/l	
67-66-3	Chloroform	0.67	1.0	0.25	ug/l	J
544-10-5	1-Chlorohexane	ND	2.0	0.29	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.23	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.1	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.22	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.29	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.25	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.59	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.33	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.27	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.37	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-03-070810		
Lab Sample ID:	F74974-12	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.32	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.29	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.43	ug/l	
591-78-6	2-Hexanone	ND	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.40	ug/l	
110-54-3	Hexane	ND	2.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.31	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.27	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.29	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.37	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-03-070810		
Lab Sample ID:	F74974-12	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.44	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	1.3	1.0	0.24	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.28	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.4	ug/l	
	m,p-Xylene	ND	2.0	0.34	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		87-116%
17060-07-0	1,2-Dichloroethane-D4	115%		76-127%
2037-26-5	Toluene-D8	106%		86-112%
460-00-4	4-Bromofluorobenzene	110%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW39-03-070810		
Lab Sample ID:	F74974-12	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	7.4 B	20	4.0	ug/l	2	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Barium [a]	12.3 B	400	10	ug/l	2	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Cadmium [a]	2.0 U	10	2.0	ug/l	2	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Chromium [a]	2.0 U	20	2.0	ug/l	2	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Lead [a]	2.8 B	10	2.0	ug/l	2	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/12/10	07/12/10	LM	SW846 7470A [1]	SW846 7470A [3]
Selenium [a]	7.8 B	20	4.0	ug/l	2	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Silver [a]	2.0 U	20	2.0	ug/l	2	07/14/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA8222
(2) Instrument QC Batch: MA8234
(3) Prep QC Batch: MP18638
(4) Prep QC Batch: MP18652

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-03-070810		
Lab Sample ID:	F74974-12	**Date Sampled:**	07/08/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	10900	1000	100	mg/l	10	07/14/10 12:25	LE	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW39-03-070810		
Lab Sample ID:	F74974-12F	**Date Sampled:**	07/08/10
Matrix:	AQ - Groundwater Filtered	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	10.1 B	20	4.0	ug/l	2	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Barium	11.3 B	400	10	ug/l	2	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Cadmium	2.0 U	10	2.0	ug/l	2	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Chromium	2.0 U	20	2.0	ug/l	2	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Lead	4.2 B	10	2.0	ug/l	2	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/13/10	07/13/10	LM	SW846 7470A [1]	SW846 7470A [3]
Selenium	10.2 B	20	4.0	ug/l	2	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]
Silver	2.0 U	20	2.0	ug/l	2	07/15/10	07/15/10	RS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA8224
(2) Instrument QC Batch: MA8234
(3) Prep QC Batch: MP18644
(4) Prep QC Batch: MP18659

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	TB01-070810		
Lab Sample ID:	F74974-13	**Date Sampled:**	07/08/10
Matrix:	AQ - Trip Blank Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F043569.D	1	07/14/10	LD	n/a	n/a	VF1252
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	10	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.24	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.24	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.23	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.51	ug/l	
67-66-3	Chloroform	ND	1.0	0.25	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.29	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.23	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.1	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.22	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.29	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.25	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.59	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.33	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.27	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.37	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB01-070810		
Lab Sample ID:	F74974-13	**Date Sampled:**	07/08/10
Matrix:	AQ - Trip Blank Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.32	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.29	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.43	ug/l	
591-78-6	2-Hexanone	ND	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.40	ug/l	
110-54-3	Hexane	ND	2.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.31	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.27	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.29	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.37	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB01-070810		
Lab Sample ID:	F74974-13	**Date Sampled:**	07/08/10
Matrix:	AQ - Trip Blank Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.44	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.24	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.28	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.4	ug/l	
	m,p-Xylene	ND	2.0	0.34	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		87-116%
17060-07-0	1,2-Dichloroethane-D4	112%		76-127%
2037-26-5	Toluene-D8	107%		86-112%
460-00-4	4-Bromofluorobenzene	110%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody

Parameter Certification Exceptions

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

The following parameters included in this report are exceptions to NELAC certification.
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Freon 113	76-13-1	**SW846 8260B**	AQ	Certified by SOP MS005

Accutest Laboratories Southeast
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

COC-021

Accutest JOB # F74974 PAGE 1 OF 2

Accutest Quote # | SKIFF#

Client / Reporting Information

Company Name: Tetra Tech
Address: 880 Oak Ridge Turnpike A-600
City: Oak Ridge State: TN Zip: 37830
Project Contact: mike.higgins@tetratech.com E-mail:
Phone#: 865 705-1290
Sampler(s) Name(s) (Printed): T Bennett J B Clowers

Project Information

Project Name: Holloman AFB SS39
Street:
City: Alamogordo State: NM
Project #: T93002
Fax #:
Client Purchase Order #:

Analytical Information

Accutest Sample #	Field ID / Point of Collection	DATE	TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MeOH	VOCs 8260	8 RCRA Metals Total	8 RCRA Metals Dissolved	TDS
1	MW39-11-070710	07/07/10	1128	JB	GW	6			X		X					X	X	X	X
2	MW39-12-070710	07/07/10	1145	JB	GW	6			X		X					X	X	X	X
3	MW39-08-070710	7/7/10	1432	JB	GW	6			X		X					X	X	X	X
4	MW39-09-070710	7/7/10	1510	BC	GW	6			X		X					X	X	X	X
5	MW39-10-070710	7/7/10	1724	JB	GW	6			X		X					X	X	X	X
6	MW39-07-070710	7/7/10	1800	BC	GW	6			X		X					X	X	X	X
	MW39-07-MS-070710	7/7/10	1800	BC	GW	6			X		X					X	X	X	X
	MW39-07-MSD-070710	7/7/10	1800	BC	GW	6			X		X					X	X	X	X
7	MW39-05-070810	7/8/10	1030	BC	GW	6			X		X					X	X	X	X
8	MW39-02-070810	7/8/10	1034	JB	GW	6			X		X					X	X	X	X
9	MW39-06D-070810	7/8/10	1203	JB	GW	6			X		X					X	X	X	X
10	MW39-DUP01-070810	7/8/10	—	—	GW	6			X		X					X	X	X	X

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

LAB USE ONLY

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [X] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [X] REDT1 (EPA LEVEL 3) ERPIMS
- [ ] FULT1 (EPA LEVEL 4)
- [X] EDD'S

Comments / Remarks

Lab Filtered Metals
FEDX 8723 7968 9060
8723 7968 9059

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date, Time:	Received By:	Relinquished by:	Date, Time:	Received By:
1	7/8/10 1300	2	3	7/8/10 1400	4 FEDEX
Relinquished by: 5 FX	Date Time: 07-9-10	Received By: 6 (ACCUTEST) 07/10	Relinquished by: 7	Date Time:	Received By: 8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: 3 Cooler Temperature (s) Celsius: 3.8 2.8 2.4

4.2
4

F74974: Chain of Custody
Page 1 of 3

Accutest Laboratories Southeast
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX. 407-425-0707
www.accutest.com

COC-021

Accutest JOB # F74974 PAGE 2 OF 2

Accutest Quote #

SKIFF# 34628

Client / Reporting Information

Company Name: TETRA TECH
Address: 800 OAK RIDGE TURNPIKE A-600
City: OAK RIDGE State: TN Zip: 37830
Project Contact: MIKE HIGHINSON E-mail: MIKE.HIGHINSON@TETRATECH.COM
Phone#: 865-705-1290
Sampler(s) Name(s) (Printed): J. BARRETT / B. CLOWERS

Project Information

Project Name: HOLLOMAN AFB SS-39
Street:
City: ALAMOGORDO State: NM
Project #: T93002-1
Fax #:
Client Purchase Order #:

Analytical Information

Accutest Sample #	Field ID / Point of Collection	DATE	TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MeOH	VOCS 8260	8 RCRA METALS TOTAL	8 RCRA METALS DISSOLVED	TDS
11	MW39-06-070810	7/8/10	1215	BC	GW	6			X		X					X	X	X	X
12	MW39-03-070810	7/8/10	1314	JB	GW	6			X		X					X	X	X	X
	~~TRIP BLANK~~																		
13	TB01-070810	7/8/10	—	—	W	3			X							X			

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

LAB USE ONLY

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [x] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [x] REDT1 (EPA LEVEL 3) ERPIMS
- [ ] FULT1 (EPA LEVEL 4)
- [x] EDD'S

Comments / Remarks

LAB FILTERED METALS
8723 7968 9048
8723 7968 9037

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1	7/8/10 1700	2	3	7/8/10 1900	4 FED EX
Relinquished by: 5	Date Time:	Received By: 6	Relinquished by: 7	Date Time:	Received By: 8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: 4 Cooler Temperature (s) Celsius: 3.8 2.8 2.1 2.4

F74974: Chain of Custody
Page 2 of 3

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F74974 CLIENT: TETRA TECH PROJECT: HOLLOMAN AFB SS39

DATE/TIME RECEIVED: 07-09-10 09:00 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 4

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 8723 7968 9059

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET
- [ ] WET ICE PRESENT

TRIP BLANK INFORMATION

- [X] TRIP BLANK PROVIDED
- JC [X] TRIP BLANK NOT PROVIDED
- JC [X] TRIP BLANK NOT ON COC
- [X] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [X] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? _____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OR LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR +0.4
- [ ] OBSERVED TEMPS: 3.4 2.4 2.0
- [ ] CORRECTED TEMPS: 3.8 2.8 2.4 2.6

SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS: _____

TECHNICIAN SIGNATURE/DATE JC 07-09-10 REVIEWER SIGNATURE/DATE _____

NF 10/09

RECEIPT CONFIRMATION 100609 (2).xls

4.2

4

F74974: Chain of Custody

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Southeast ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF1252-MB	F043547.D	1	07/14/10	LD	n/a	n/a	VF1252

The QC reported here applies to the following samples: **Method:** SW846 8260B

F74974-1, F74974-2, F74974-3, F74974-4, F74974-5, F74974-7, F74974-8, F74974-11, F74974-13

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	10	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.24	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.24	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.23	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.51	ug/l	
67-66-3	Chloroform	ND	1.0	0.25	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.29	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.23	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.1	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.22	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.29	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.25	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.59	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.33	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.27	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.37	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.32	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	

Method Blank Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF1252-MB	F043547.D	1	07/14/10	LD	n/a	n/a	VF1252

The QC reported here applies to the following samples: **Method:** SW846 8260B

F74974-1, F74974-2, F74974-3, F74974-4, F74974-5, F74974-7, F74974-8, F74974-11, F74974-13

CAS No.	Compound	Result	RL	MDL	Units	Q
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.29	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.43	ug/l	
591-78-6	2-Hexanone	ND	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.40	ug/l	
110-54-3	Hexane	ND	2.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.31	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.27	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.29	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.37	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

Method Blank Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF1252-MB	F043547.D	1	07/14/10	LD	n/a	n/a	VF1252

The QC reported here applies to the following samples: **Method:** SW846 8260B

F74974-1, F74974-2, F74974-3, F74974-4, F74974-5, F74974-7, F74974-8, F74974-11, F74974-13

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.44	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.24	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.28	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.4	ug/l	
	m,p-Xylene	ND	2.0	0.34	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	87-116%
17060-07-0	1,2-Dichloroethane-D4	100%	76-127%
2037-26-5	Toluene-D8	105%	86-112%
460-00-4	4-Bromofluorobenzene	106%	84-120%

Method Blank Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF1253-MB	F043574.D	1	07/15/10	LD	n/a	n/a	VF1253

The QC reported here applies to the following samples: **Method:** SW846 8260B

F74974-6, F74974-9, F74974-10, F74974-11, F74974-12

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	10	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.24	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.24	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.23	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.51	ug/l	
67-66-3	Chloroform	ND	1.0	0.25	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.29	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.23	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.1	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.22	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.29	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.25	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.59	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.33	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.27	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.37	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.32	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	

Method Blank Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF1253-MB	F043574.D	1	07/15/10	LD	n/a	n/a	VF1253

The QC reported here applies to the following samples: **Method:** SW846 8260B

F74974-6, F74974-9, F74974-10, F74974-11, F74974-12

CAS No.	Compound	Result	RL	MDL	Units	Q
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.29	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.43	ug/l	
591-78-6	2-Hexanone	ND	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.40	ug/l	
110-54-3	Hexane	ND	2.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.31	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.27	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.29	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.37	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

Method Blank Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF1253-MB	F043574.D	1	07/15/10	LD	n/a	n/a	VF1253

The QC reported here applies to the following samples: **Method:** SW846 8260B

F74974-6, F74974-9, F74974-10, F74974-11, F74974-12

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.44	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.24	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.28	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.4	ug/l	
	m,p-Xylene	ND	2.0	0.34	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	104%	87-116%
17060-07-0	1,2-Dichloroethane-D4	107%	76-127%
2037-26-5	Toluene-D8	106%	86-112%
460-00-4	4-Bromofluorobenzene	109%	84-120%

Blank Spike Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF1252-BS	F043546.D	1	07/14/10	LD	n/a	n/a	VF1252

The QC reported here applies to the following samples: **Method:** SW846 8260B

F74974-1, F74974-2, F74974-3, F74974-4, F74974-5, F74974-7, F74974-8, F74974-11, F74974-13

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	90.9	73	59-134
75-05-8	Acetonitrile	250	193	77	57-123
107-02-8	Acrolein	125	437	350*	33-157
107-13-1	Acrylonitrile	125	101	81	62-124
107-05-1	Allyl chloride	25	28.6	114	48-136
71-43-2	Benzene	25	24.6	98	83-124
100-44-7	Benzyl Chloride	25	25.2	101	61-118
108-86-1	Bromobenzene	25	26.1	104	83-115
74-97-5	Bromochloromethane	25	23.1	92	78-112
75-27-4	Bromodichloromethane	25	22.8	91	76-116
75-25-2	Bromoform	25	23.9	96	68-128
104-51-8	n-Butylbenzene	25	28.9	116	84-124
135-98-8	sec-Butylbenzene	25	29.1	116	86-127
98-06-6	tert-Butylbenzene	25	28.0	112	83-126
108-90-7	Chlorobenzene	25	26.4	106	87-115
75-00-3	Chloroethane	25	23.4	94	54-166
67-66-3	Chloroform	25	24.0	96	85-123
544-10-5	1-Chlorohexane	25	28.2	113	87-128
95-49-8	o-Chlorotoluene	25	27.9	112	84-121
106-43-4	p-Chlorotoluene	25	27.1	108	84-120
110-75-8	2-Chloroethyl vinyl ether	125	400	320*	63-125
75-15-0	Carbon disulfide	25	27.0	108	67-147
56-23-5	Carbon tetrachloride	25	24.4	98	74-139
75-34-3	1,1-Dichloroethane	25	24.5	98	82-127
75-35-4	1,1-Dichloroethylene	25	25.2	101	75-133
563-58-6	1,1-Dichloropropene	25	26.1	104	87-127
96-12-8	1,2-Dibromo-3-chloropropane	25	21.9	88	61-118
106-93-4	1,2-Dibromoethane	25	24.1	96	80-115
107-06-2	1,2-Dichloroethane	25	22.2	89	76-122
78-87-5	1,2-Dichloropropane	25	23.6	94	81-120
142-28-9	1,3-Dichloropropane	25	24.6	98	81-113
594-20-7	2,2-Dichloropropane	25	25.5	102	77-138
124-48-1	Dibromochloromethane	25	25.4	102	74-116
75-71-8	Dichlorodifluoromethane	25	22.8	91	34-158
156-59-2	cis-1,2-Dichloroethylene	25	24.1	96	81-114
10061-01-5	cis-1,3-Dichloropropene	25	24.5	98	83-119

Blank Spike Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF1252-BS	F043546.D	1	07/14/10	LD	n/a	n/a	VF1252

The QC reported here applies to the following samples: **Method:** SW846 8260B

F74974-1, F74974-2, F74974-3, F74974-4, F74974-5, F74974-7, F74974-8, F74974-11, F74974-13

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
1476-11-5	cis-1,4-Dichloro-2-Butene	25	104	416*	41-130
541-73-1	m-Dichlorobenzene	25	26.6	106	86-115
95-50-1	o-Dichlorobenzene	25	26.2	105	85-115
106-46-7	p-Dichlorobenzene	25	26.7	107	87-113
156-60-5	trans-1,2-Dichloroethylene	25	24.6	98	82-126
10061-02-6	trans-1,3-Dichloropropene	25	29.7	119	87-123
100-41-4	Ethylbenzene	25	26.7	107	87-118
97-63-2	Ethyl methacrylate	25	22.4	90	68-110
76-13-1	Freon 113	25	29.4	118	74-139
591-78-6	2-Hexanone	125	113	90	58-125
87-68-3	Hexachlorobutadiene	25	29.0	116	71-133
110-54-3	Hexane	25	31.3	125	71-134
98-82-8	Isopropylbenzene	25	31.5	126	87-131
99-87-6	p-Isopropyltoluene	25	28.7	115	83-125
108-10-1	4-Methyl-2-pentanone	125	115	92	62-125
126-98-7	Methacrylonitrile	250	211	84	62-133
74-83-9	Methyl bromide	25	26.4	106	55-151
74-87-3	Methyl chloride	25	21.4	86	55-173
74-88-4	Methyl iodide	25	25.7	103	72-125
80-62-6	Methyl methacrylate	25	18.5	74	63-115
74-95-3	Methylene bromide	25	22.2	89	81-116
75-09-2	Methylene chloride	25	24.6	98	69-125
78-93-3	Methyl ethyl ketone	125	95.4	76	61-127
1634-04-4	Methyl Tert Butyl Ether	25	23.2	93	75-116
91-20-3	Naphthalene	25	22.9	92	59-125
76-01-7	Pentachloroethane	25	27.8	111	82-111
107-12-0	Propionitrile	250	199	80	69-119
103-65-1	n-Propylbenzene	25	29.1	116	86-125
100-42-5	Styrene	25	25.9	104	78-118
630-20-6	1,1,1,2-Tetrachloroethane	25	26.6	106	81-119
71-55-6	1,1,1-Trichloroethane	25	25.4	102	79-133
79-34-5	1,1,2,2-Tetrachloroethane	25	25.2	101	71-120
79-00-5	1,1,2-Trichloroethane	25	24.2	97	80-114
87-61-6	1,2,3-Trichlorobenzene	25	24.4	98	64-126
96-18-4	1,2,3-Trichloropropane	25	22.3	89	77-115
120-82-1	1,2,4-Trichlorobenzene	25	25.8	103	68-123

Blank Spike Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF1252-BS	F043546.D	1	07/14/10	LD	n/a	n/a	VF1252

The QC reported here applies to the following samples: **Method:** SW846 8260B

F74974-1, F74974-2, F74974-3, F74974-4, F74974-5, F74974-7, F74974-8, F74974-11, F74974-13

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-63-6	1,2,4-Trimethylbenzene	25	27.6	110	82-120
108-67-8	1,3,5-Trimethylbenzene	25	27.7	111	83-123
127-18-4	Tetrachloroethylene	25	28.4	114	80-131
108-88-3	Toluene	25	26.8	107	86-116
79-01-6	Trichloroethylene	25	25.1	100	85-124
75-69-4	Trichlorofluoromethane	25	25.4	102	66-156
110-57-6	Trans-1,4-Dichloro-2-Butene	25	99.1	396*	51-137
75-01-4	Vinyl chloride	25	25.3	101	57-153
108-05-4	Vinyl Acetate	125	134	107	38-159
	m,p-Xylene	50	54.0	108	86-121
95-47-6	o-Xylene	25	26.0	104	83-121

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	87-116%
17060-07-0	1,2-Dichloroethane-D4	100%	76-127%
2037-26-5	Toluene-D8	104%	86-112%
460-00-4	4-Bromofluorobenzene	100%	84-120%

Blank Spike Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF1253-BS	F043573.D	1	07/15/10	LD	n/a	n/a	VF1253

The QC reported here applies to the following samples: **Method:** SW846 8260B

F74974-6, F74974-9, F74974-10, F74974-11, F74974-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	94.8	76	59-134
75-05-8	Acetonitrile	250	245	98	57-123
107-02-8	Acrolein	125	443	354*	33-157
107-13-1	Acrylonitrile	125	108	86	62-124
107-05-1	Allyl chloride	25	30.3	121	48-136
71-43-2	Benzene	25	24.5	98	83-124
100-44-7	Benzyl Chloride	25	23.7	95	61-118
108-86-1	Bromobenzene	25	25.0	100	83-115
74-97-5	Bromochloromethane	25	21.7	87	78-112
75-27-4	Bromodichloromethane	25	23.2	93	76-116
75-25-2	Bromoform	25	23.4	94	68-128
104-51-8	n-Butylbenzene	25	28.2	113	84-124
135-98-8	sec-Butylbenzene	25	28.2	113	86-127
98-06-6	tert-Butylbenzene	25	27.5	110	83-126
108-90-7	Chlorobenzene	25	25.6	102	87-115
75-00-3	Chloroethane	25	23.8	95	54-166
67-66-3	Chloroform	25	24.2	97	85-123
544-10-5	1-Chlorohexane	25	27.1	108	87-128
95-49-8	o-Chlorotoluene	25	27.0	108	84-121
106-43-4	p-Chlorotoluene	25	27.1	108	84-120
110-75-8	2-Chloroethyl vinyl ether	125	395	316*	63-125
75-15-0	Carbon disulfide	25	27.1	108	67-147
56-23-5	Carbon tetrachloride	25	24.3	97	74-139
75-34-3	1,1-Dichloroethane	25	24.9	100	82-127
75-35-4	1,1-Dichloroethylene	25	26.2	105	75-133
563-58-6	1,1-Dichloropropene	25	26.5	106	87-127
96-12-8	1,2-Dibromo-3-chloropropane	25	21.0	84	61-118
106-93-4	1,2-Dibromoethane	25	23.1	92	80-115
107-06-2	1,2-Dichloroethane	25	23.4	94	76-122
78-87-5	1,2-Dichloropropane	25	23.4	94	81-120
142-28-9	1,3-Dichloropropane	25	24.4	98	81-113
594-20-7	2,2-Dichloropropane	25	25.3	101	77-138
124-48-1	Dibromochloromethane	25	24.6	98	74-116
75-71-8	Dichlorodifluoromethane	25	23.4	94	34-158
156-59-2	cis-1,2-Dichloroethylene	25	23.5	94	81-114
10061-01-5	cis-1,3-Dichloropropene	25	24.3	97	83-119

Blank Spike Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF1253-BS	F043573.D	1	07/15/10	LD	n/a	n/a	VF1253

The QC reported here applies to the following samples: **Method:** SW846 8260B

F74974-6, F74974-9, F74974-10, F74974-11, F74974-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
1476-11-5	cis-1,4-Dichloro-2-Butene	25	111	444*	41-130
541-73-1	m-Dichlorobenzene	25	25.6	102	86-115
95-50-1	o-Dichlorobenzene	25	24.5	98	85-115
106-46-7	p-Dichlorobenzene	25	25.5	102	87-113
156-60-5	trans-1,2-Dichloroethylene	25	24.7	99	82-126
10061-02-6	trans-1,3-Dichloropropene	25	29.6	118	87-123
100-41-4	Ethylbenzene	25	26.4	106	87-118
97-63-2	Ethyl methacrylate	25	22.1	88	68-110
76-13-1	Freon 113	25	29.2	117	74-139
591-78-6	2-Hexanone	125	115	92	58-125
87-68-3	Hexachlorobutadiene	25	26.8	107	71-133
110-54-3	Hexane	25	32.0	128	71-134
98-82-8	Isopropylbenzene	25	30.1	120	87-131
99-87-6	p-Isopropyltoluene	25	26.9	108	83-125
108-10-1	4-Methyl-2-pentanone	125	118	94	62-125
126-98-7	Methacrylonitrile	250	230	92	62-133
74-83-9	Methyl bromide	25	27.0	108	55-151
74-87-3	Methyl chloride	25	22.3	89	55-173
74-88-4	Methyl iodide	25	25.3	101	72-125
80-62-6	Methyl methacrylate	25	19.2	77	63-115
74-95-3	Methylene bromide	25	21.9	88	81-116
75-09-2	Methylene chloride	25	24.2	97	69-125
78-93-3	Methyl ethyl ketone	125	99.8	80	61-127
1634-04-4	Methyl Tert Butyl Ether	25	21.6	86	75-116
91-20-3	Naphthalene	25	20.4	82	59-125
76-01-7	Pentachloroethane	25	27.1	108	82-111
107-12-0	Propionitrile	250	210	84	69-119
103-65-1	n-Propylbenzene	25	28.5	114	86-125
100-42-5	Styrene	25	24.7	99	78-118
630-20-6	1,1,1,2-Tetrachloroethane	25	24.9	100	81-119
71-55-6	1,1,1-Trichloroethane	25	25.2	101	79-133
79-34-5	1,1,2,2-Tetrachloroethane	25	24.7	99	71-120
79-00-5	1,1,2-Trichloroethane	25	24.3	97	80-114
87-61-6	1,2,3-Trichlorobenzene	25	22.4	90	64-126
96-18-4	1,2,3-Trichloropropane	25	21.8	87	77-115
120-82-1	1,2,4-Trichlorobenzene	25	23.1	92	68-123

Blank Spike Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF1253-BS	F043573.D	1	07/15/10	LD	n/a	n/a	VF1253

The QC reported here applies to the following samples: **Method:** SW846 8260B

F74974-6, F74974-9, F74974-10, F74974-11, F74974-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-63-6	1,2,4-Trimethylbenzene	25	26.9	108	82-120
108-67-8	1,3,5-Trimethylbenzene	25	26.3	105	83-123
127-18-4	Tetrachloroethylene	25	26.6	106	80-131
108-88-3	Toluene	25	25.9	104	86-116
79-01-6	Trichloroethylene	25	24.5	98	85-124
75-69-4	Trichlorofluoromethane	25	27.5	110	66-156
110-57-6	Trans-1,4-Dichloro-2-Butene	25	107	428*	51-137
75-01-4	Vinyl chloride	25	26.2	105	57-153
108-05-4	Vinyl Acetate	125	145	116	38-159
	m,p-Xylene	50	53.2	106	86-121
95-47-6	o-Xylene	25	24.8	99	83-121

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	103%	87-116%
17060-07-0	1,2-Dichloroethane-D4	108%	76-127%
2037-26-5	Toluene-D8	104%	86-112%
460-00-4	4-Bromofluorobenzene	102%	84-120%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F74973-1MS	F043556.D	1	07/14/10	LD	n/a	n/a	VF1252
F74973-1MSD	F043557.D	1	07/14/10	LD	n/a	n/a	VF1252
F74973-1	F043549.D	1	07/14/10	LD	n/a	n/a	VF1252

The QC reported here applies to the following samples: **Method:** SW846 8260B

F74974-1, F74974-2, F74974-3, F74974-4, F74974-5, F74974-7, F74974-8, F74974-11, F74974-13

CAS No.	Compound	F74973-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		125	108	86	98.8	79	9	59-134/14
75-05-8	Acetonitrile	ND		250	507	203*	465	186*	9	57-123/15
107-02-8	Acrolein	ND		125	341	273*	330	264*	3	33-157/21
107-13-1	Acrylonitrile	ND		125	110	88	100	80	10	62-124/13
107-05-1	Allyl chloride	ND		25	29.6	118	26.9	108	10	48-136/13
71-43-2	Benzene	ND		25	25.0	100	23.0	92	8	83-124/11
100-44-7	Benzyl Chloride	ND		25	29.2	117	26.5	106	10	61-118/12
108-86-1	Bromobenzene	ND		25	25.7	103	24.2	97	6	83-115/10
74-97-5	Bromochloromethane	ND		25	23.3	93	21.2	85	9	78-112/10
75-27-4	Bromodichloromethane	ND		25	24.4	98	22.2	89	9	76-116/10
75-25-2	Bromoform	ND		25	25.6	102	24.0	96	6	68-128/11
104-51-8	n-Butylbenzene	ND		25	28.9	116	26.4	106	9	84-124/10
135-98-8	sec-Butylbenzene	ND		25	28.5	114	26.0	104	9	86-127/10
98-06-6	tert-Butylbenzene	ND		25	28.1	112	25.8	103	9	83-126/10
108-90-7	Chlorobenzene	ND		25	26.3	105	24.6	98	7	87-115/9
75-00-3	Chloroethane	ND		25	25.5	102	23.0	92	10	54-166/20
67-66-3	Chloroform	ND		25	25.3	101	22.8	91	10	85-123/10
544-10-5	1-Chlorohexane	ND		25	26.5	106	24.7	99	7	87-128/10
95-49-8	o-Chlorotoluene	ND		25	27.9	112	25.9	104	7	84-121/10
106-43-4	p-Chlorotoluene	ND		25	27.6	110	25.5	102	8	84-120/10
110-75-8	2-Chloroethyl vinyl ether	ND		125	146	117	49.4	40*	99*	63-125/24
75-15-0	Carbon disulfide	ND		25	27.6	110	25.2	101	9	67-147/12
56-23-5	Carbon tetrachloride	ND		25	25.0	100	22.7	91	10	74-139/13
75-34-3	1,1-Dichloroethane	ND		25	25.6	102	23.1	92	10	82-127/10
75-35-4	1,1-Dichloroethylene	ND		25	26.6	106	23.9	96	11	75-133/13
563-58-6	1,1-Dichloropropene	ND		25	26.6	106	23.9	96	11*	87-127/10
96-12-8	1,2-Dibromo-3-chloropropane	ND		25	29.3	117	27.0	108	8	61-118/15
106-93-4	1,2-Dibromoethane	ND		25	25.9	104	24.3	97	6	80-115/10
107-06-2	1,2-Dichloroethane	ND		25	25.3	101	23.3	93	8	76-122/11
78-87-5	1,2-Dichloropropane	ND		25	24.5	98	22.4	90	9	81-120/11
142-28-9	1,3-Dichloropropane	ND		25	26.6	106	24.8	99	7	81-113/11
594-20-7	2,2-Dichloropropane	ND		25	26.7	107	23.7	95	12	77-138/12
124-48-1	Dibromochloromethane	ND		25	25.9	104	24.3	97	6	74-116/11
75-71-8	Dichlorodifluoromethane	ND		25	23.8	95	21.8	87	9	34-158/22
156-59-2	cis-1,2-Dichloroethylene	ND		25	23.9	96	22.4	90	6	81-114/10
10061-01-5	cis-1,3-Dichloropropene	ND		25	25.1	100	23.3	93	7	83-119/10

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F74973-1MS	F043556.D	1	07/14/10	LD	n/a	n/a	VF1252
F74973-1MSD	F043557.D	1	07/14/10	LD	n/a	n/a	VF1252
F74973-1	F043549.D	1	07/14/10	LD	n/a	n/a	VF1252

The QC reported here applies to the following samples: **Method:** SW846 8260B

F74974-1, F74974-2, F74974-3, F74974-4, F74974-5, F74974-7, F74974-8, F74974-11, F74974-13

CAS No.	Compound	F74973-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1476-11-5	cis-1,4-Dichloro-2-Butene	ND		25	110	440*	106	424*	4	41-130/33
541-73-1	m-Dichlorobenzene	ND		25	26.3	105	24.3	97	8	86-115/9
95-50-1	o-Dichlorobenzene	ND		25	26.1	104	24.4	98	7	85-115/9
106-46-7	p-Dichlorobenzene	ND		25	26.9	108	25.0	100	7	87-113/10
156-60-5	trans-1,2-Dichloroethylene	ND		25	25.4	102	23.1	92	9	82-126/10
10061-02-6	trans-1,3-Dichloropropene	ND		25	31.0	124*	29.6	118	5	87-123/10
100-41-4	Ethylbenzene	ND		25	27.0	108	24.7	99	9	87-118/10
97-63-2	Ethyl methacrylate	ND		25	27.1	108	25.8	103	5	68-110/11
76-13-1	Freon 113	ND		25	30.4	122	27.6	110	10	74-139/13
591-78-6	2-Hexanone	ND		125	176	141*	164	131*	7	58-125/14
87-68-3	Hexachlorobutadiene	ND		25	26.4	106	24.7	99	7	71-133/12
110-54-3	Hexane	ND		25	32.2	129	29.1	116	10	71-134/11
98-82-8	Isopropylbenzene	ND		25	30.4	122	28.4	114	7	87-131/10
99-87-6	p-Isopropyltoluene	ND		25	27.6	110	25.0	100	10*	83-125/9
108-10-1	4-Methyl-2-pentanone	ND		125	175	140*	162	130*	8	62-125/13
126-98-7	Methacrylonitrile	ND		250	279	112	257	103	8	62-133/17
74-83-9	Methyl bromide	ND		25	28.6	114	25.7	103	11	55-151/21
74-87-3	Methyl chloride	ND		25	24.3	97	22.3	89	9	55-173/22
74-88-4	Methyl iodide	ND		25	27.3	109	24.9	100	9	72-125/11
80-62-6	Methyl methacrylate	ND		25	24.2	97	22.6	90	7	63-115/10
74-95-3	Methylene bromide	ND		25	24.6	98	22.7	91	8	81-116/10
75-09-2	Methylene chloride	ND		25	25.5	102	23.6	94	8	69-125/11
78-93-3	Methyl ethyl ketone	ND		125	129	103	116	93	11	61-127/13
1634-04-4	Methyl Tert Butyl Ether	ND		25	25.1	100	23.4	94	7	75-116/10
91-20-3	Naphthalene	ND		25	26.1	104	24.8	99	5	59-125/15
76-01-7	Pentachloroethane	ND		25	27.5	110	26.0	104	6	82-111/8
107-12-0	Propionitrile	ND		250	260	104	237	95	9	69-119/12
103-65-1	n-Propylbenzene	ND		25	28.9	116	26.4	106	9	86-125/10
100-42-5	Styrene	ND		25	25.4	102	23.4	94	8	78-118/11
630-20-6	1,1,1,2-Tetrachloroethane	ND		25	26.1	104	24.6	98	6	81-119/10
71-55-6	1,1,1-Trichloroethane	ND		25	26.4	106	24.0	96	10	79-133/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		25	30.2	121*	27.8	111	8	71-120/11
79-00-5	1,1,2-Trichloroethane	ND		25	26.7	107	24.8	99	7	80-114/11
87-61-6	1,2,3-Trichlorobenzene	ND		25	24.6	98	23.2	93	6	64-126/16
96-18-4	1,2,3-Trichloropropane	ND		25	26.7	107	24.5	98	9	77-115/12
120-82-1	1,2,4-Trichlorobenzene	ND		25	25.2	101	23.9	96	5	68-123/11

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F74973-1MS	F043556.D	1	07/14/10	LD	n/a	n/a	VF1252
F74973-1MSD	F043557.D	1	07/14/10	LD	n/a	n/a	VF1252
F74973-1	F043549.D	1	07/14/10	LD	n/a	n/a	VF1252

The QC reported here applies to the following samples: **Method:** SW846 8260B

F74974-1, F74974-2, F74974-3, F74974-4, F74974-5, F74974-7, F74974-8, F74974-11, F74974-13

CAS No.	Compound	F74973-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-63-6	1,2,4-Trimethylbenzene	ND		25	27.4	110	25.3	101	8	82-120/10
108-67-8	1,3,5-Trimethylbenzene	ND		25	27.0	108	24.9	100	8	83-123/10
127-18-4	Tetrachloroethylene	ND		25	26.1	104	24.4	98	7	80-131/12
108-88-3	Toluene	ND		25	26.1	104	24.5	98	6	86-116/10
79-01-6	Trichloroethylene	ND		25	25.1	100	22.7	91	10	85-124/10
75-69-4	Trichlorofluoromethane	ND		25	27.7	111	24.7	99	11	66-156/15
110-57-6	Trans-1,4-Dichloro-2-Butene	ND		25	107	428*	103	412*	4	51-137/24
75-01-4	Vinyl chloride	ND		25	25.8	103	23.4	94	10	57-153/22
108-05-4	Vinyl Acetate	ND		125	144	115	134	107	7	38-159/11
	m,p-Xylene	ND		50	53.6	107	50.5	101	6	86-121/10
95-47-6	o-Xylene	ND		25	25.7	103	24.2	97	6	83-121/10

CAS No.	Surrogate Recoveries	MS	MSD	F74973-1	Limits
1868-53-7	Dibromofluoromethane	104%	102%	102%	87-116%
17060-07-0	1,2-Dichloroethane-D4	115%	110%	102%	76-127%
2037-26-5	Toluene-D8	101%	103%	103%	86-112%
460-00-4	4-Bromofluorobenzene	103%	101%	102%	84-120%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F74974-6MS	F043586.D	1	07/15/10	LD	n/a	n/a	VF1253
F74974-6MSD	F043587.D	1	07/15/10	LD	n/a	n/a	VF1253
F74974-6	F043580.D	1	07/15/10	LD	n/a	n/a	VF1253
F74974-6 [a]	F043585.D	1	07/15/10	LD	n/a	n/a	VF1253

The QC reported here applies to the following samples: **Method:** SW846 8260B

F74974-6, F74974-9, F74974-10, F74974-11, F74974-12

CAS No.	Compound	F74974-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		125	121	97	124	99	2	59-134/14
75-05-8	Acetonitrile	ND		250	543	217*	543	217*	0	57-123/15
107-02-8	Acrolein	ND		125	343	274*	350	280*	2	33-157/21
107-13-1	Acrylonitrile	ND		125	145	116	146	117	1	62-124/13
107-05-1	Allyl chloride	ND		25	29.8	119	29.4	118	1	48-136/13
71-43-2	Benzene	ND		25	25.4	102	25.1	100	1	83-124/11
100-44-7	Benzyl Chloride	ND		25	30.7	123*	29.6	118	4	61-118/12
108-86-1	Bromobenzene	ND		25	26.1	104	25.7	103	2	83-115/10
74-97-5	Bromochloromethane	ND		25	23.3	93	23.4	94	0	78-112/10
75-27-4	Bromodichloromethane	ND		25	25.0	100	24.8	99	1	76-116/10
75-25-2	Bromoform	ND		25	28.3	113	28.5	114	1	68-128/11
104-51-8	n-Butylbenzene	ND		25	27.5	110	27.1	108	1	84-124/10
135-98-8	sec-Butylbenzene	ND		25	27.4	110	26.8	107	2	86-127/10
98-06-6	tert-Butylbenzene	ND		25	27.4	110	27.0	108	1	83-126/10
108-90-7	Chlorobenzene	ND		25	26.3	105	26.1	104	1	87-115/9
75-00-3	Chloroethane	ND		25	24.3	97	23.5	94	3	54-166/20
67-66-3	Chloroform	ND		25	25.6	102	25.1	100	2	85-123/10
544-10-5	1-Chlorohexane	ND		25	25.8	103	25.1	100	3	87-128/10
95-49-8	o-Chlorotoluene	ND		25	28.2	113	28.0	112	1	84-121/10
106-43-4	p-Chlorotoluene	ND		25	27.6	110	27.1	108	2	84-120/10
110-75-8	2-Chloroethyl vinyl ether	ND		125	48.2	39*	48.1	38*	0	63-125/24
75-15-0	Carbon disulfide	ND		25	28.9	116	27.1	108	6	67-147/12
56-23-5	Carbon tetrachloride	ND		25	25.2	101	24.3	97	4	74-139/13
75-34-3	1,1-Dichloroethane	ND		25	25.8	103	25.7	103	0	82-127/10
75-35-4	1,1-Dichloroethylene	ND		25	26.8	107	26.5	106	1	75-133/13
563-58-6	1,1-Dichloropropene	ND		25	26.5	106	25.9	104	2	87-127/10
96-12-8	1,2-Dibromo-3-chloropropane	ND		25	34.6	138*	35.2	141*	2	61-118/15
106-93-4	1,2-Dibromoethane	ND		25	27.2	109	27.3	109	0	80-115/10
107-06-2	1,2-Dichloroethane	ND		25	26.5	106	26.0	104	2	76-122/11
78-87-5	1,2-Dichloropropane	ND		25	24.8	99	24.7	99	0	81-120/11
142-28-9	1,3-Dichloropropane	ND		25	27.4	110	27.8	111	1	81-113/11
594-20-7	2,2-Dichloropropane	ND		25	24.9	100	23.7	95	5	77-138/12
124-48-1	Dibromochloromethane	ND		25	27.0	108	26.9	108	0	74-116/11
75-71-8	Dichlorodifluoromethane	ND		25	22.7	91	22.9	92	1	34-158/22
156-59-2	cis-1,2-Dichloroethylene	ND		25	24.1	96	23.9	96	1	81-114/10
10061-01-5	cis-1,3-Dichloropropene	ND		25	25.1	100	25.2	101	0	83-119/10

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F74974-6MS	F043586.D	1	07/15/10	LD	n/a	n/a	VF1253
F74974-6MSD	F043587.D	1	07/15/10	LD	n/a	n/a	VF1253
F74974-6	F043580.D	1	07/15/10	LD	n/a	n/a	VF1253
F74974-6 [a]	F043585.D	1	07/15/10	LD	n/a	n/a	VF1253

The QC reported here applies to the following samples: **Method:** SW846 8260B

F74974-6, F74974-9, F74974-10, F74974-11, F74974-12

CAS No.	Compound	F74974-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1476-11-5	cis-1,4-Dichloro-2-Butene	ND		25	146	584*	144	576*	1	41-130/33
541-73-1	m-Dichlorobenzene	ND		25	25.8	103	25.7	103	0	86-115/9
95-50-1	o-Dichlorobenzene	ND		25	25.6	102	25.8	103	1	85-115/9
106-46-7	p-Dichlorobenzene	ND		25	26.1	104	26.1	104	0	87-113/10
156-60-5	trans-1,2-Dichloroethylene	ND		25	25.0	100	25.0	100	0	82-126/10
10061-02-6	trans-1,3-Dichloropropene	ND		25	32.6	130*	32.4	130*	1	87-123/10
100-41-4	Ethylbenzene	ND		25	26.5	106	26.1	104	2	87-118/10
97-63-2	Ethyl methacrylate	ND		25	30.0	120*	30.2	121*	1	68-110/11
76-13-1	Freon 113	ND		25	29.7	119	29.8	119	0	74-139/13
591-78-6	2-Hexanone	ND		125	233	186*	231	185*	1	58-125/14
87-68-3	Hexachlorobutadiene	ND		25	24.1	96	24.3	97	1	71-133/12
110-54-3	Hexane	ND		25	30.9	124	30.7	123	1	71-134/11
98-82-8	Isopropylbenzene	ND		25	28.8	115	29.2	117	1	87-131/10
99-87-6	p-Isopropyltoluene	ND		25	26.1	104	25.9	104	1	83-125/9
108-10-1	4-Methyl-2-pentanone	ND		125	224	179*	220	176*	2	62-125/13
126-98-7	Methacrylonitrile	ND		250	327	131	326	130	0	62-133/17
74-83-9	Methyl bromide	ND		25	26.7	107	25.9	104	3	55-151/21
74-87-3	Methyl chloride	ND		25	22.5	90	23.0	92	2	55-173/22
74-88-4	Methyl iodide	ND		25	25.3	101	26.5	106	5	72-125/11
80-62-6	Methyl methacrylate	ND		25	28.6	114	28.5	114	0	63-115/10
74-95-3	Methylene bromide	ND		25	25.3	101	25.6	102	1	81-116/10
75-09-2	Methylene chloride	ND		25	26.2	105	26.1	104	0	69-125/11
78-93-3	Methyl ethyl ketone	ND		125	153	122	152	122	1	61-127/13
1634-04-4	Methyl Tert Butyl Ether	ND		25	24.2	97	25.2	101	4	75-116/10
91-20-3	Naphthalene	ND		25	28.7	115	29.6	118	3	59-125/15
76-01-7	Pentachloroethane	ND		25	28.3	113*	28.6	114*	1	82-111/8
107-12-0	Propionitrile	ND		250	294	118	292	117	1	69-119/12
103-65-1	n-Propylbenzene	ND		25	28.6	114	27.6	110	4	86-125/10
100-42-5	Styrene	ND		25	24.6	98	24.8	99	1	78-118/11
630-20-6	1,1,1,2-Tetrachloroethane	ND		25	25.8	103	26.1	104	1	81-119/10
71-55-6	1,1,1-Trichloroethane	ND		25	26.2	105	25.4	102	3	79-133/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		25	34.2	137*	33.9	136*	1	71-120/11
79-00-5	1,1,2-Trichloroethane	ND		25	27.9	112	28.4	114	2	80-114/11
87-61-6	1,2,3-Trichlorobenzene	ND		25	23.9	96	24.7	99	3	64-126/16
96-18-4	1,2,3-Trichloropropane	ND		25	30.8	123*	30.5	122*	1	77-115/12
120-82-1	1,2,4-Trichlorobenzene	ND		25	23.9	96	24.2	97	1	68-123/11

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F74974-6MS	F043586.D	1	07/15/10	LD	n/a	n/a	VF1253
F74974-6MSD	F043587.D	1	07/15/10	LD	n/a	n/a	VF1253
F74974-6	F043580.D	1	07/15/10	LD	n/a	n/a	VF1253
F74974-6 [a]	F043585.D	1	07/15/10	LD	n/a	n/a	VF1253

The QC reported here applies to the following samples: **Method:** SW846 8260B

F74974-6, F74974-9, F74974-10, F74974-11, F74974-12

CAS No.	Compound	F74974-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-63-6	1,2,4-Trimethylbenzene	ND		25	26.9	108	26.6	106	1	82-120/10
108-67-8	1,3,5-Trimethylbenzene	ND		25	26.3	105	26.0	104	1	83-123/10
127-18-4	Tetrachloroethylene	ND		25	25.9	104	25.4	102	2	80-131/12
108-88-3	Toluene	ND		25	26.0	104	26.2	105	1	86-116/10
79-01-6	Trichloroethylene	0.77	J	25	25.6	99	25.1	97	2	85-124/10
75-69-4	Trichlorofluoromethane	ND		25	27.3	109	26.2	105	4	66-156/15
110-57-6	Trans-1,4-Dichloro-2-Butene	ND		25	146	584*	143	572*	2	51-137/24
75-01-4	Vinyl chloride	ND		25	24.8	99	24.8	99	0	57-153/22
108-05-4	Vinyl Acetate	ND		125	184	147	184	147	0	38-159/11
	m,p-Xylene	ND		50	53.8	108	52.9	106	2	86-121/10
95-47-6	o-Xylene	ND		25	25.2	101	25.4	102	1	83-121/10

CAS No.	Surrogate Recoveries	MS	MSD	F74974-6	F74974-6	Limits
1868-53-7	Dibromofluoromethane	105%	104%	104%	106%	87-116%
17060-07-0	1,2-Dichloroethane-D4	120%	117%	112%	116%	76-127%
2037-26-5	Toluene-D8	103%	104%	105%	107%	86-112%
460-00-4	4-Bromofluorobenzene	103%	100%	107%	110%	84-120%

(a) Confirmation run for internal standard areas.

Instrument Performance Check (BFB)

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1243-BFB
Lab File ID: F043312.D
Instrument ID: GCMSF
Injection Date: 06/30/10
Injection Time: 09:41

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	11373	17.8		Pass
75	30.0 - 60.0% of mass 95	28690	44.9		Pass
95	Base peak, 100% relative abundance	63968	100.0		Pass
96	5.0 - 9.0% of mass 95	4570	7.1		Pass
173	Less than 2.0% of mass 174	107	0.17	(0.18) [a]	Pass
174	50.0 - 100.0% of mass 95	60197	94.1		Pass
175	5.0 - 9.0% of mass 174	4422	6.9	(7.3) [a]	Pass
176	95.0 - 101.0% of mass 174	58224	91.0	(96.7) [a]	Pass
177	5.0 - 9.0% of mass 176	3721	5.8	(6.4) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VF1243-IC1243	F043313.D	06/30/10	10:18	00:37	Initial cal 1
VF1243-IC1243	F043314.D	06/30/10	10:45	01:04	Initial cal 2
VF1243-IC1243	F043315.D	06/30/10	11:10	01:29	Initial cal 3
VF1243-ICC1243	F043316.D	06/30/10	11:35	01:54	Initial cal 4
VF1243-IC1243	F043317.D	06/30/10	12:00	02:19	Initial cal 5
VF1243-IC1243	F043318.D	06/30/10	12:25	02:44	Initial cal 6
VF1243-ICV1243	F043323.D	06/30/10	14:33	04:52	Initial cal verification 4
VF1243-BS	F043324.D	06/30/10	15:08	05:27	Blank Spike
VF1243-MB	F043325.D	06/30/10	15:40	05:59	Method Blank
ZZZZZZ	F043326.D	06/30/10	16:05	06:24	(unrelated sample)
ZZZZZZ	F043327.D	06/30/10	16:30	06:49	(unrelated sample)
ZZZZZZ	F043328.D	06/30/10	16:55	07:14	(unrelated sample)
ZZZZZZ	F043329.D	06/30/10	17:20	07:39	(unrelated sample)
ZZZZZZ	F043330.D	06/30/10	17:45	08:04	(unrelated sample)
ZZZZZZ	F043331.D	06/30/10	18:10	08:29	(unrelated sample)
ZZZZZZ	F043332.D	06/30/10	18:35	08:54	(unrelated sample)
F74646-3	F043333.D	06/30/10	19:00	09:19	(used for QC only; not part of job F74974)
ZZZZZZ	F043334.D	06/30/10	19:25	09:44	(unrelated sample)
ZZZZZZ	F043335.D	06/30/10	19:50	10:09	(unrelated sample)
F74646-3MS	F043336.D	06/30/10	20:15	10:34	Matrix Spike
F74646-3MSD	F043337.D	06/30/10	20:40	10:59	Matrix Spike Duplicate

Instrument Performance Check (BFB)

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1252-BFB
Lab File ID: F043544.D
Instrument ID: GCMSF
Injection Date: 07/14/10
Injection Time: 09:17

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	11850	17.7		Pass
75	30.0 - 60.0% of mass 95	31240	46.7		Pass
95	Base peak, 100% relative abundance	66858	100.0		Pass
96	5.0 - 9.0% of mass 95	4630	6.9		Pass
173	Less than 2.0% of mass 174	0	0.0	(0.0) [a]	Pass
174	50.0 - 100.0% of mass 95	60626	90.7		Pass
175	5.0 - 9.0% of mass 174	4431	6.6	(7.3) [a]	Pass
176	95.0 - 101.0% of mass 174	59714	89.3	(98.5) [a]	Pass
177	5.0 - 9.0% of mass 176	4122	6.2	(6.9) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VF1252-CC1243	F043545.D	07/14/10	09:47	00:30	Continuing cal 4
VF1252-BS	F043546.D	07/14/10	10:28	01:11	Blank Spike
VF1252-MB	F043547.D	07/14/10	11:07	01:50	Method Blank
ZZZZZZ	F043548.D	07/14/10	11:42	02:25	(unrelated sample)
F74973-1	F043549.D	07/14/10	12:07	02:50	(used for QC only; not part of job F74974)
ZZZZZZ	F043550.D	07/14/10	12:32	03:15	(unrelated sample)
ZZZZZZ	F043551.D	07/14/10	12:57	03:40	(unrelated sample)
ZZZZZZ	F043552.D	07/14/10	13:22	04:05	(unrelated sample)
ZZZZZZ	F043553.D	07/14/10	13:47	04:30	(unrelated sample)
ZZZZZZ	F043554.D	07/14/10	14:12	04:55	(unrelated sample)
ZZZZZZ	F043555.D	07/14/10	14:37	05:20	(unrelated sample)
F74973-1MS	F043556.D	07/14/10	15:02	05:45	Matrix Spike
F74973-1MSD	F043557.D	07/14/10	15:27	06:10	Matrix Spike Duplicate
ZZZZZZ	F043558.D	07/14/10	15:53	06:36	(unrelated sample)
F74974-1	F043559.D	07/14/10	16:18	07:01	MW39-11-070710
F74974-2	F043560.D	07/14/10	16:43	07:26	MW39-12-070710
F74974-3	F043561.D	07/14/10	17:08	07:51	MW39-08-070710
F74974-4	F043562.D	07/14/10	17:32	08:15	MW39-09-070710
F74974-5	F043563.D	07/14/10	17:57	08:40	MW39-10-070710
F74974-7	F043564.D	07/14/10	18:22	09:05	MW39-05-070810
F74974-8	F043565.D	07/14/10	18:47	09:30	MW39-02-070810
F74974-11	F043568.D	07/14/10	20:01	10:44	MW39-06-070810
F74974-13	F043569.D	07/14/10	20:26	11:09	TB01-070810

Instrument Performance Check (BFB)

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1253-BFB
Lab File ID: F043571.D
Instrument ID: GCMSF
Injection Date: 07/15/10
Injection Time: 08:41

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	11111	19.8		Pass
75	30.0 - 60.0% of mass 95	26605	47.4		Pass
95	Base peak, 100% relative abundance	56128	100.0		Pass
96	5.0 - 9.0% of mass 95	3753	6.7		Pass
173	Less than 2.0% of mass 174	300	0.53	(0.62) [a]	Pass
174	50.0 - 100.0% of mass 95	48112	85.7		Pass
175	5.0 - 9.0% of mass 174	3594	6.4	(7.5) [a]	Pass
176	95.0 - 101.0% of mass 174	46205	82.3	(96.0) [a]	Pass
177	5.0 - 9.0% of mass 176	3196	5.7	(6.9) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VF1253-CC1243	F043572.D	07/15/10	09:10	00:29	Continuing cal 4
VF1253-BS	F043573.D	07/15/10	09:52	01:11	Blank Spike
VF1253-MB	F043574.D	07/15/10	10:30	01:49	Method Blank
F74974-1	F043575.D	07/15/10	11:03	02:22	MW39-11-070710
F74974-2	F043576.D	07/15/10	11:28	02:47	MW39-12-070710
F74974-3	F043577.D	07/15/10	11:53	03:12	MW39-08-070710
F74974-4	F043578.D	07/15/10	12:18	03:37	MW39-09-070710
F74974-5	F043579.D	07/15/10	12:43	04:02	MW39-10-070710
F74974-6	F043580.D	07/15/10	13:08	04:27	MW39-07-070710
F74974-9	F043581.D	07/15/10	13:33	04:52	MW39-06D-070810
F74974-10	F043582.D	07/15/10	13:58	05:17	MW39-DUP01-070810
F74974-11	F043583.D	07/15/10	14:23	05:42	MW39-06-070810
F74974-12	F043584.D	07/15/10	14:48	06:07	MW39-03-070810
F74974-6	F043585.D	07/15/10	15:13	06:32	MW39-07-070710
F74974-6MS	F043586.D	07/15/10	15:38	06:57	Matrix Spike
F74974-6MSD	F043587.D	07/15/10	16:03	07:22	Matrix Spike Duplicate
ZZZZZZ	F043588.D	07/15/10	16:28	07:47	(unrelated sample)
ZZZZZZ	F043589.D	07/15/10	16:53	08:12	(unrelated sample)
ZZZZZZ	F043590.D	07/15/10	17:18	08:37	(unrelated sample)
ZZZZZZ	F043591.D	07/15/10	17:43	09:02	(unrelated sample)
ZZZZZZ	F043592.D	07/15/10	18:07	09:26	(unrelated sample)
ZZZZZZ	F043593.D	07/15/10	18:32	09:51	(unrelated sample)
ZZZZZZ	F043594.D	07/15/10	18:57	10:16	(unrelated sample)
ZZZZZZ	F043595.D	07/15/10	19:22	10:41	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample:	VF1253-BFB	**Injection Date:**	07/15/10
Lab File ID:	F043571.D	**Injection Time:**	08:41
Instrument ID:	GCMSF		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	F043596.D	07/15/10	19:46	11:05	(unrelated sample)

Volatile Internal Standard Area Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	VF1252-CC1243	**Injection Date:**	07/14/10
Lab File ID:	F043545.D	**Injection Time:**	09:47
Instrument ID:	GCMSF	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Check Std	839491	10.32	704077	13.71	432480	16.21	67663	7.53
Upper Limit [a]	1678982	10.82	1408154	14.21	864960	16.71	135326	8.03
Lower Limit [b]	419746	9.82	352039	13.21	216240	15.71	33832	7.03

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
VF1252-BS	772856	10.32	641055	13.71	390394	16.21	66868	7.53
VF1252-MB	748940	10.32	610001	13.71	349669	16.21	65073	7.55
ZZZZZZ	645049	10.31	532823	13.71	328623	16.21	62338	7.53
F74973-1	778958	10.32	647148	13.71	385954	16.21	97512	7.54
ZZZZZZ	696515	10.31	583962	13.71	339264	16.21	91902	7.54
ZZZZZZ	726167	10.31	602773	13.71	356358	16.21	102171	7.54
ZZZZZZ	672125	10.31	549315	13.71	319313	16.21	91439	7.54
ZZZZZZ	652727	10.32	543218	13.71	317193	16.21	89918	7.54
ZZZZZZ	624129	10.31	520393	13.71	295965	16.21	81513	7.54
ZZZZZZ	626099	10.31	519936	13.71	297822	16.21	60412	7.54
F74973-1MS	645663	10.31	545027	13.71	330224	16.21	88851	7.54
F74973-1MSD	708298	10.31	589955	13.71	360711	16.21	93602	7.53
ZZZZZZ	657284	10.31	532185	13.71	310984	16.21	64095	7.53
F74974-1	630925	10.32	516982	13.71	297647	16.21	193544*	7.53
F74974-2	670574	10.31	540361	13.71	320011	16.21	183744*	7.54
F74974-3	644515	10.31	530600	13.71	323627	16.21	149884*	7.53
F74974-4	677452	10.31	568917	13.71	333985	16.21	174132*	7.53
F74974-5	692736	10.31	572363	13.71	326093	16.21	175462*	7.53
F74974-7	713787	10.31	594240	13.71	334199	16.21	132388	7.53
F74974-8	667775	10.31	547656	13.71	310745	16.21	75649	7.53
F74974-11	638797	10.31	515712	13.71	289750	16.21	59828	7.54
F74974-13	635225	10.31	522192	13.71	289416	16.21	54885	7.53

IS 1 = Fluorobenzene
IS 2 = Chlorobenzene-D5
IS 3 = 1,4-Dichlorobenzene-d4
IS 4 = Tert Butyl Alcohol-D10

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	VF1253-CC1243	**Injection Date:**	07/15/10
Lab File ID:	F043572.D	**Injection Time:**	09:10
Instrument ID:	GCMSF	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Check Std	719512	10.32	612506	13.71	368028	16.21	58810	7.54
Upper Limit [a]	1439024	10.82	1225012	14.21	736056	16.71	117620	8.04
Lower Limit [b]	359756	9.82	306253	13.21	184014	15.71	29405	7.04

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
VF1253-BS	753472	10.32	628874	13.71	380776	16.21	63991	7.53
VF1253-MB	753576	10.32	612601	13.71	338074	16.21	66185	7.54
F74974-1 [c]	677724	10.32	550465	13.71	318934	16.21	191772*	7.54
F74974-2 [c]	660723	10.32	538751	13.71	314282	16.21	173449*	7.54
F74974-3 [c]	698044	10.31	566777	13.71	344811	16.21	154828*	7.53
F74974-4 [c]	671192	10.31	565448	13.71	329850	16.21	187736*	7.53
F74974-5 [c]	700657	10.31	576810	13.71	327249	16.21	185947*	7.53
F74974-6	721309	10.31	586920	13.71	339021	16.21	120811*	7.53
F74974-9	719438	10.31	580681	13.71	332463	16.21	89514	7.54
F74974-10	673898	10.31	553435	13.71	311138	16.21	82965	7.54
F74974-11	633907	10.31	523937	13.71	291469	16.21	88794	7.54
F74974-12	619520	10.31	506531	13.71	282595	16.21	69865	7.54
F74974-6 [c]	677111	10.32	548858	13.71	307669	16.21	109797	7.53
F74974-6MS	662264	10.32	565161	13.71	338117	16.21	110968	7.54
F74974-6MSD	672322	10.31	569352	13.71	344912	16.21	112822	7.53
ZZZZZZ	682135	10.31	558667	13.71	315297	16.21	70565	7.54
ZZZZZZ	684146	10.31	555908	13.71	311683	16.21	61760	7.53
ZZZZZZ	646642	10.31	524093	13.71	288075	16.21	57859	7.54
ZZZZZZ	633890	10.31	522541	13.71	283939	16.21	55820	7.53
ZZZZZZ	674463	10.31	548905	13.71	296430	16.21	53862	7.54
ZZZZZZ	679086	10.31	549885	13.71	296002	16.21	54634	7.53
ZZZZZZ	646553	10.31	558934	13.71	302292	16.21	52052	7.53
ZZZZZZ	690756	10.32	575963	13.71	326323	16.21	53327	7.54
ZZZZZZ	620938	10.31	505546	13.71	271100	16.21	50826	7.54

IS 1 = Fluorobenzene
IS 2 = Chlorobenzene-D5
IS 3 = 1,4-Dichlorobenzene-d4
IS 4 = Tert Butyl Alcohol-D10

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Confirmation run for internal standard areas.

Volatile Surrogate Recovery Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Method: SW846 8260B **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
F74974-1	F043575.D	106.0	118.0	106.0	107.0
F74974-1	F043559.D	105.0	116.0	105.0	106.0
F74974-2	F043576.D	105.0	117.0	106.0	108.0
F74974-2	F043560.D	105.0	115.0	106.0	106.0
F74974-3	F043577.D	105.0	116.0	105.0	105.0
F74974-3	F043561.D	105.0	114.0	104.0	105.0
F74974-4	F043578.D	105.0	115.0	103.0	106.0
F74974-4	F043562.D	105.0	113.0	103.0	105.0
F74974-5	F043579.D	105.0	113.0	105.0	109.0
F74974-5	F043563.D	103.0	109.0	104.0	106.0
F74974-6	F043585.D	106.0	116.0	107.0	110.0
F74974-6	F043580.D	104.0	112.0	105.0	107.0
F74974-7	F043564.D	105.0	112.0	105.0	109.0
F74974-8	F043565.D	105.0	110.0	104.0	109.0
F74974-9	F043581.D	104.0	109.0	105.0	108.0
F74974-10	F043582.D	104.0	112.0	104.0	110.0
F74974-11	F043583.D	106.0	117.0	105.0	109.0
F74974-11	F043568.D	104.0	111.0	107.0	109.0
F74974-12	F043584.D	105.0	115.0	106.0	110.0
F74974-13	F043569.D	106.0	112.0	107.0	110.0
F74973-1MS	F043556.D	104.0	115.0	101.0	103.0
F74973-1MSD	F043557.D	102.0	110.0	103.0	101.0
F74974-6MS	F043586.D	105.0	120.0	103.0	103.0
F74974-6MSD	F043587.D	104.0	117.0	104.0	100.0
VF1252-BS	F043546.D	101.0	100.0	104.0	100.0
VF1252-MB	F043547.D	102.0	100.0	105.0	106.0
VF1253-BS	F043573.D	103.0	108.0	104.0	102.0
VF1253-MB	F043574.D	104.0	107.0	106.0	109.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	87-116%
S2 = 1,2-Dichloroethane-D4	76-127%
S3 = Toluene-D8	86-112%
S4 = 4-Bromofluorobenzene	84-120%

Initial Calibration Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1243-ICC1243
Lab FileID: F043316.D

Response Factor Report MSVOA9

Method : C:\MSDCHEM\1\METHODS\8260FW.M (RTE Integrator)
Title : SW-846 Method 5035A/8260B
Last Update : Wed Jun 30 13:01:35 2010
Response via : Initial Calibration

Calibration Files
1 =F043313.D 2 =F043314.D 3 =F043315.D 4 =F043316.D
5 =F043317.D 6 =F043318.D

	Compound	1	2	3	4	5	6	Avg	%RSD
1) I	Fluorobenzene	----------ISTD----------							
2)	Dichlorodifluoromet	0.206	0.198	0.307	0.294	0.284	0.289	0.263	18.29
	---- Linear regr., Force(0,0) ---- Coefficient = 0.9992								
	Response Ratio = 0.00000 + 0.28850 *A								
3) P	Chloromethane	0.663	0.354	0.525	0.506	0.493	0.484	0.504	19.60
	---- Linear regr., Force(0,0) ---- Coefficient = 0.9991								
	Response Ratio = 0.00000 + 0.48940 *A								
4) C	Vinyl Chloride	0.269	0.249	0.353	0.336	0.334	0.351	0.315	14.14
5)	Bromomethane	0.192	0.254	0.270	0.245	0.211	0.196	0.228	14.33
6)	Chloroethane	0.207	0.178	0.213	0.203	0.184	0.180	0.194	7.82
7)	Trichlorofluorometh	0.409	0.359	0.504	0.486	0.461	0.478	0.449	12.19
8)	Ethyl Ether	0.192	0.241	0.245	0.247	0.236	0.237	0.233	8.84
9)	1,2-Dichlorotrifluo	0.429	0.273	0.328	0.322	0.303	0.311	0.328	16.23
	---- Linear regr., Force(0,0) ---- Coefficient = 0.9991								
	Response Ratio = 0.00000 + 0.31028 *A								
10) C	1,1-Dichloroethene	0.401	0.357	0.485	0.482	0.452	0.468	0.441	11.61
11)	Freon 113	0.156	0.223	0.322	0.317	0.286	0.301	0.268	24.35
	---- Linear regr., Force(0,0) ---- Coefficient = 0.9974								
	Response Ratio = 0.00000 + 0.29881 *A								
12)	Carbon Disulfide	1.553	0.871	1.101	1.051	0.999	1.027	1.100	21.34
	---- Linear regr., Force(0,0) ---- Coefficient = 0.9991								
	Response Ratio = 0.00000 + 1.02264 *A								
13)	Iodomethane	0.721	0.652	0.868	0.810	0.825	0.806	0.780	10.13
14)	Allyl chloride	0.528	0.439	0.569	0.547	0.547	0.556	0.531	8.82
15)	Methylene Chloride	0.880	0.589	0.603	0.584	0.557	0.549	0.627	20.05
	---- Linear regr., Force(0,0) ---- Coefficient = 0.9994								
	Response Ratio = 0.00000 + 0.55603 *A								
16)	Acetone	0.135	0.127	0.124	0.122	0.117	0.113	0.123	6.33
17)	Methyl acetate	0.224	0.223	0.235	0.232	0.228	0.222	0.227	2.49
18)	trans-1,2-Dichloroe	0.498	0.456	0.580	0.563	0.540	0.551	0.531	8.67
19)	Hexane	0.249	0.197	0.268	0.256	0.237	0.240	0.241	10.10
20)	Methyl Tert Butyl E	0.845	0.858	0.906	0.872	0.843	0.853	0.863	2.73
21)	Acetonitrile	0.037	0.036	0.034	0.032	0.032	0.033	0.034	6.12
22)	Di-isopropyl ether	1.258	1.210	1.329	1.321	1.277	1.268	1.277	3.43
23)	Chloroprene	0.479	0.432	0.595	0.564	0.556	0.558	0.531	11.63
24) P	1,1-Dichloroethane	0.612	0.571	0.697	0.701	0.670	0.672	0.654	7.88
25)	Acrylonitrile	0.139	0.127	0.129	0.124	0.123	0.122	0.127	4.89
26)	ETBE	0.997	1.017	1.111	1.053	1.002	0.997	1.029	4.38
27)	Vinyl acetate	0.492	0.522	0.539	0.499	0.482	0.465	0.500	5.39
28)	cis-1,2-Dichloroeth	0.427	0.357	0.440	0.434	0.421	0.431	0.418	7.35

Initial Calibration Summary

Job Number: F74974 **Sample:** VF1243-ICC1243
Account: TETTNOAK Tetra Tech, Inc **Lab FileID:** F043316.D
Project: Holloman AFB; Alamogordo, NM

29)		2,2-Dichloropropane	0.492	0.447	0.573	0.556	0.529	0.529	0.521	8.75
30)		Bromochloromethane	0.240	0.246	0.271	0.277	0.270	0.271	0.262	5.95
31)		Cyclohexane	0.517	0.458	0.638	0.619	0.585	0.593	0.568	12.00
32)	C	Chloroform	1.026	0.685	0.754	0.731	0.708	0.704	0.768	16.74

---- Linear regr., Force(0,0) ---- Coefficient = 0.9997
Response Ratio = 0.00000 + 0.70859 *A

33)		Ethyl acetate	0.343	0.356	0.357	0.397	0.391	0.378	0.370	5.79
34)		Tetrahydrofuran	0.168	0.124	0.118	0.111	0.108	0.107	0.123	18.84

---- Linear regr., Force(0,0) ---- Coefficient = 0.9997
Response Ratio = 0.00000 + 0.10775 *A

35)	S	Dibromofluoromethan	0.282	0.278	0.279	0.279	0.277	0.274	0.278	0.96
36)		Carbon Tetrachlorid	0.462	0.489	0.677	0.668	0.649	0.673	0.603	16.54

---- Linear regr., Force(0,0) ---- Coefficient = 0.9993
Response Ratio = 0.00000 + 0.66568 *A

37)		1,1,1-Trichloroetha	0.527	0.502	0.678	0.669	0.641	0.661	0.613	12.68
38)		2-Butanone	0.166	0.185	0.184	0.183	0.176	0.172	0.177	4.38
39)		1,1-Dichloropropene	0.411	0.375	0.511	0.507	0.488	0.500	0.465	12.41
40)		Propionitrile	0.048	0.053	0.053	0.051	0.049	0.047	0.050	5.31
41)		Methacrylonitrile	0.277	0.271	0.269	0.256	0.238	0.225	0.256	8.02
42)		Benzene	1.395	1.282	1.522	1.486	1.404	1.386	1.413	5.99
43)		TAME	0.939	0.966	1.010	0.970	0.903	0.928	0.953	3.93
44)	S	1,2-Dichloroethane-	0.292	0.286	0.294	0.304	0.282	0.280	0.290	2.99
45)		1,2-Dichloroethane	0.515	0.501	0.540	0.539	0.523	0.524	0.524	2.81
46)		Trichloroethene	0.363	0.342	0.428	0.419	0.409	0.421	0.397	8.98
47)		Methylcyclohexane	0.461	0.406	0.594	0.572	0.550	0.577	0.527	14.35
48)		Dibromomethane	0.247	0.240	0.264	0.262	0.256	0.261	0.255	3.76
49)	C	1,2-Dichloropropane	0.355	0.342	0.388	0.382	0.374	0.380	0.370	4.77
50)		Bromodichloromethan	0.466	0.453	0.530	0.531	0.525	0.532	0.506	7.17
51)		Methyl methacrylate	0.435	0.363	0.352	0.348	0.348	0.347	0.365	9.47
52)		2-Chloroethyl vinyl	0.023	0.015	0.022	0.028	0.046	0.076	0.035	65.17

---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9964
Response Ratio = 0.00000 + -0.00678 *A + 0.00818 *A^2

53)		cis-1,3-Dichloropro	0.536	0.514	0.605	0.621	0.605	0.619	0.583	7.93
54)	I	Chlorobenzene-d5	----------ISTD----------							
55)	S	Toluene-d8	1.088	1.105	1.116	1.129	1.152	1.135	1.121	2.05
56)	C	Toluene	1.576	1.500	1.856	1.843	1.791	1.796	1.727	8.72
57)		2-Nitropropane	0.088	0.100	0.113	0.116	0.116	0.114	0.108	10.51
58)		4-Methyl-2-pentanon	0.376	0.414	0.414	0.419	0.400	0.384	0.401	4.45
59)		trans-1,3-Dichlorop	0.456	0.473	0.541	0.559	0.570	0.580	0.530	9.93
60)		Tetrachloroethene	0.420	0.407	0.539	0.545	0.530	0.548	0.498	13.27
61)		Ethyl methacrylate	0.465	0.511	0.550	0.550	0.549	0.546	0.529	6.52
62)		1,1,2-Trichloroetha	0.295	0.297	0.327	0.328	0.326	0.328	0.317	5.08
63)		Dibromochloromethan	0.412	0.441	0.501	0.523	0.524	0.538	0.490	10.48
64)		1,3-Dichloropropane	0.576	0.591	0.632	0.644	0.635	0.639	0.619	4.62
65)		1,2-Dibromoethane	0.382	0.416	0.447	0.459	0.451	0.457	0.435	6.95
66)		2-hexanone	0.282	0.296	0.295	0.299	0.285	0.277	0.289	3.07
67)		1-Chlorohexane	0.484	0.426	0.587	0.586	0.567	0.585	0.539	12.62
68)	C	Ethylbenzene	1.815	1.680	2.082	2.057	2.001	2.016	1.942	8.19
69)	P	Chlorobenzene	1.166	1.130	1.339	1.354	1.320	1.329	1.273	7.72
70)		1,1,1,2-Tetrachloro	0.447	0.440	0.529	0.530	0.534	0.544	0.504	9.36
71)		m,p-Xylene	1.356	1.331	1.621	1.605	1.537	1.507	1.493	8.25
72)		o-Xylene	1.529	1.469	1.739	1.760	1.708	1.727	1.655	7.48
73)		Styrene	1.111	1.133	1.385	1.420	1.429	1.448	1.321	11.78
74)	P	Bromoform	0.252	0.269	0.311	0.335	0.345	0.359	0.312	13.83
75)		Isopropylbenzene	1.519	1.527	1.965	1.949	1.908	1.939	1.801	12.01

Initial Calibration Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1243-ICC1243
Lab FileID: F043316.D

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 76) I   1,4-Dichlorobenzene-d ----------------ISTD---------------------
 77) S   4-Bromofluorobenzen 0.783 0.777 0.766 0.755 0.767 0.761 0.768   1.33
 78)     cis-1,4-Dichloro-2-       0.010 0.007 0.010 0.019 0.028 0.015  57.77
             ---- Quadratic regression ----  Coefficient =  0.9998
               Response Ratio = 0.00156 + -0.00421 *A + 0.01566 *A^2

 79)     n-Propylbenzene     3.283 3.084 3.846 3.752 3.629 3.600 3.532   8.24
 80)     Bromobenzene        0.918 0.935 1.035 1.040 1.025 1.021 0.996   5.43
 81) P   1,1,2,2-Tetrachloro 0.798 0.833 0.818 0.819 0.802 0.785 0.809   2.12
 82)     1,3,5-Trimethylbenz 2.626 2.510 3.049 2.977 2.928 2.911 2.834   7.56
 83)     2-Chlorotoluene     2.260 2.101 2.412 2.370 2.343 2.335 2.304   4.82
 84)     trans-1,4-Dichloro- 0.069 0.065 0.007 0.010 0.020 0.029 0.033  81.85
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9867
               Response Ratio = 0.00000 + 0.00065 *A + 0.01408 *A^2

 85)     1,2,3-Trichloroprop 0.245 0.252 0.260 0.264 0.258 0.257 0.256   2.66
 86)     Cyclohexanone       0.032 0.031 0.027 0.025 0.025 0.025 0.028  11.94
 87)     4-Chlorotoluene     2.243 2.120 2.420 2.430 2.363 2.350 2.321   5.13
 88)     tert-Butylbenzene   1.460 1.290 1.603 1.579 1.556 1.557 1.508   7.77
 89)     1,2,4-Trimethylbenz 2.705 2.641 3.080 3.053 2.943 2.885 2.884   6.23
 90)     Pentachloroethane   0.525 0.511 0.593 0.589 0.595 0.587 0.567   6.75
 91)     sec-Butylbenzene    3.182 2.922 3.742 3.714 3.578 3.552 3.448   9.46
 92)     4-Isopropyltoluene  2.787 2.624 3.367 3.282 3.206 3.175 3.074   9.67
 93)     1,3-Dichlorobenzene 1.741 1.724 1.987 1.986 1.942 1.965 1.891   6.57
 94)     1,4-Dichlorobenzene 1.849 1.805 2.037 2.065 2.007 2.011 1.962   5.49
 95)     n-Butylbenzene      1.298 1.282 1.681 1.659 1.631 1.638 1.531  12.28
 96)     Benzyl Chloride     0.267 0.270 0.330 0.365 0.381 0.390 0.334  16.34
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9992
               Response Ratio = 0.00000 + 0.38342 *A

 97)     1,2-Dichlorobenzene 1.804 1.795 1.980 2.004 1.964 1.975 1.920   4.94
 98)     1,2-Dibromo-3-Chlor 0.160 0.175 0.168 0.171 0.168 0.168 0.168   3.02
 99)     Hexachlorobutadiene 0.394 0.358 0.482 0.464 0.456 0.463 0.436  11.19
100)     1,2,4-Trichlorobenz 1.067 1.145 1.350 1.381 1.377 1.344 1.277  10.61
101)     Naphthalene         2.658 3.022 3.339 3.436 3.411 3.287 3.192   9.43
102)     1,2,3-Trichlorobenz 0.996 1.053 1.232 1.238 1.240 1.203 1.160   9.28

103) I   Tert Butyl Alcohol-d1 ----------------ISTD---------------------
104)     Ethanol             0.541 0.321 0.176 0.137 0.163 0.166 0.251  62.39
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9943
               Response Ratio = 0.00000 + 0.14721 *A + 0.00233 *A^2

105)     Acrolein            1.326 0.250 0.275 0.330 0.576 0.688 0.574  71.06
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9966
               Response Ratio = 0.00000 + 0.17590 *A + 0.26043 *A^2

106)     Tert butyl alcohol  2.010 1.875 1.780 1.857 1.792 1.808 1.854   4.59
107)     Isobutyl alcohol    0.667 0.550 0.487 0.718 0.717 0.684 0.637  15.07
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9950
               Response Ratio = 0.00000 + 0.69159 *A

108)     Tert Amyl Alcohol   1.392 1.440 1.385 1.446 1.414 1.464 1.423   2.23
109)     1,4-Dioxane         0.118 0.168 0.181 0.190 0.188 0.188 0.172  16.20
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9999
               Response Ratio = 0.00000 + 0.18807 *A

 ---------------------------------------------------------------------------
 (#) = Out of Range
```

Initial Calibration Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1243-ICC1243
Lab FileID: F043316.D

8260FW.M Thu Jul 01 11:31:12 2010

Initial Calibration Verification

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1243-ICV1243
Lab FileID: F043323.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\063010\F043323.D          Vial: 11
Acq On    : 30 Jun 2010   2:33 pm                   Operator: logand
Sample    : icv1243-4                               Inst    : MSVOA9
Misc      : ms14505,vf1243,,,,,                     Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\8260FW.M (RTE Integrator)
Title        : SW-846 Method 5035A/8260B
Last Update  : Wed Jun 30 13:01:35 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.001  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	98	0.00	10.32
		Amount	Calc.	%Drift			
2	Dichlorodifluoromethane	40.000	35.665	10.8	86	0.00	4.28
3 P	Chloromethane	40.000	38.291	4.3	91	0.00	4.63
		AvgRF	CCRF	%Dev			
4 C	Vinyl Chloride	0.315	0.312	1.0	91	0.00	4.82
5	Bromomethane	0.228	0.227	0.4	91	0.00	5.39
6	Chloroethane	0.194	0.178	8.2	86	0.00	5.55
7	Trichlorofluoromethane	0.449	0.450	-0.2	91	0.00	5.81
8	Ethyl Ether	0.233	0.240	-3.0	96	0.00	6.16
		Amount	Calc.	%Drift			
9	1,2-Dichlorotrifluoroetha	40.000	43.497	-8.7	103	0.00	6.42
		AvgRF	CCRF	%Dev			
10 C	1,1-Dichloroethene	0.441	0.401	9.1	82	0.00	6.50
		Amount	Calc.	%Drift			
11	Freon 113	40.000	38.744	3.1	90	0.00	6.57
12	Carbon Disulfide	40.000	37.330	6.7	89	0.00	6.61
		AvgRF	CCRF	%Dev			
13	Iodomethane	0.780	0.849	-8.8	103	0.00	6.75
14	Allyl chloride	0.531	0.607	-14.3	109	0.00	7.12
		Amount	Calc.	%Drift			
15	Methylene Chloride	40.000	39.169	2.1	92	0.00	7.27
		AvgRF	CCRF	%Dev			
16	Acetone	0.123	0.109	11.4	88	0.00	7.31
17	Methyl acetate	0.227	0.237	-4.4	100	0.00	7.44
18	trans-1,2-Dichloroethene	0.531	0.503	5.3	88	0.00	7.48
19	Hexane	0.241	0.257	-6.6	99	0.00	7.54
20	Methyl Tert Butyl Ether	0.863	0.867	-0.5	98	0.00	7.58
21	Acetonitrile	0.034	0.032	5.9	98	0.00	7.93
22	Di-isopropyl ether	1.277	1.324	-3.7	98	0.00	8.00
23	Chloroprene	0.531	0.569	-7.2	99	0.00	8.21
24 P	1,1-Dichloroethane	0.654	0.636	2.8	89	0.00	8.24
25	Acrylonitrile	0.127	0.133	-4.7	105	0.00	8.30
26	ETBE	1.029	1.003	2.5	94	0.00	8.45

Initial Calibration Verification

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1243-ICV1243
Lab FileID: F043323.D

27		Vinyl acetate	0.500	0.643	-28.6#	127	0.00	8.46
28		cis-1,2-Dichloroethene	0.418	0.432	-3.3	98	0.00	8.89
29		2,2-Dichloropropane	0.521	0.530	-1.7	94	0.00	9.04
30		Bromochloromethane	0.262	0.261	0.4	92	0.00	9.13
31		Cyclohexane	0.568	0.562	1.1	89	0.00	9.18
		----------	Amount	Calc.	%Drift	----------		
32	C	Chloroform	40.000	39.905	0.2	95	0.00	9.17
		----------	AvgRF	CCRF	%Dev	----------		
33		Ethyl acetate	0.370	0.319	13.8	79	0.00	9.24
		----------	Amount	Calc.	%Drift	----------		
34		Tetrahydrofuran	40.000	43.807	-9.5	105	0.00	9.40
		----------	AvgRF	CCRF	%Dev	----------		
35	S	Dibromofluoromethane	0.278	0.281	-1.1	99	0.00	9.39
		----------	Amount	Calc.	%Drift	----------		
36		Carbon Tetrachloride	40.000	36.960	7.6	90	0.00	9.40
		----------	AvgRF	CCRF	%Dev	----------		
37		1,1,1-Trichloroethane	0.613	0.611	0.3	90	0.00	9.47
38		2-Butanone	0.177	0.169	4.5	91	0.00	9.50
39		1,1-Dichloropropene	0.465	0.466	-0.2	90	0.00	9.59
40		Propionitrile	0.050	0.050	0.0	97	0.00	9.86
41		Methacrylonitrile	0.256	0.254	0.8	98	0.00	9.89
42		Benzene	1.413	1.397	1.1	92	0.00	9.88
43		TAME	0.953	0.945	0.8	96	0.00	9.93
44	S	1,2-Dichloroethane-d4	0.290	0.301	-3.8	97	0.00	10.02
45		1,2-Dichloroethane	0.524	0.521	0.6	95	0.00	10.09
46		Trichloroethene	0.397	0.404	-1.8	95	0.00	10.51
47		Methylcyclohexane	0.527	0.565	-7.2	97	0.00	10.54
48		Dibromomethane	0.255	0.260	-2.0	97	0.00	11.00
49	C	1,2-Dichloropropane	0.370	0.373	-0.8	96	0.00	11.09
50		Bromodichloromethane	0.506	0.506	0.0	94	0.00	11.13
51		Methyl methacrylate	0.365	0.354	3.0	100	0.00	11.21
		----------	Amount	Calc.	%Drift	----------		
52		2-Chloroethyl vinyl ether	200.000	504.582	-152.3#	677	0.00	11.67
		----------	AvgRF	CCRF	%Dev	----------		
53		cis-1,3-Dichloropropene	0.583	0.637	-9.3	101	0.00	11.81
54	I	Chlorobenzene-d5	1.000	1.000	0.0	101	0.00	13.71
55	S	Toluene-d8	1.121	1.110	1.0	99	0.00	12.01
56	C	Toluene	1.727	1.736	-0.5	95	0.00	12.07
57		2-Nitropropane	0.108	0.104	3.7	91	0.00	12.31
58		4-Methyl-2-pentanone	0.401	0.390	2.7	94	0.00	12.41
59		trans-1,3-Dichloropropene	0.530	0.632	-19.2	114	0.00	12.48
60		Tetrachloroethene	0.498	0.520	-4.4	96	0.00	12.52
61		Ethyl methacrylate	0.529	0.532	-0.6	97	0.00	12.56
62		1,1,2-Trichloroethane	0.317	0.321	-1.3	99	0.00	12.67
63		Dibromochloromethane	0.490	0.511	-4.3	98	0.00	12.89
64		1,3-Dichloropropane	0.619	0.623	-0.6	97	0.00	12.99
65		1,2-Dibromoethane	0.435	0.442	-1.6	97	0.00	13.20
66		2-hexanone	0.289	0.286	1.0	96	0.00	13.30
67		1-Chlorohexane	0.539	0.528	2.0	91	0.00	13.63
68	C	Ethylbenzene	1.942	1.961	-1.0	96	0.00	13.71
69	P	Chlorobenzene	1.273	1.320	-3.7	98	0.00	13.73

Initial Calibration Verification

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1243-ICV1243
Lab FileID: F043323.D

70		1,1,1,2-Tetrachloroethane	0.504	0.522	-3.6	99	0.00	13.78
71		m,p-Xylene	1.493	1.515	-1.5	95	0.00	13.85
72		o-Xylene	1.655	1.666	-0.7	95	0.00	14.33
73		Styrene	1.321	1.395	-5.6	99	0.00	14.38
74	P	Bromoform	0.312	0.323	-3.5	97	0.00	14.47
75		Isopropylbenzene	1.801	2.134	-18.5	110	0.00	14.65
76	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	98	0.00	16.21
77	S	4-Bromofluorobenzene	0.768	0.765	0.4	99	0.00	15.00
		----------	Amount	Calc.	%Drift		----------	
78		cis-1,4-Dichloro-2-butene	40.000	117.881	-194.7#	919	0.00	15.02
		----------	AvgRF	CCRF	%Dev		----------	
79		n-Propylbenzene	3.532	3.690	-4.5	96	0.00	15.09
80		Bromobenzene	0.996	1.035	-3.9	97	0.00	15.15
81	P	1,1,2,2-Tetrachloroethane	0.809	0.832	-2.8	99	0.00	15.15
82		1,3,5-Trimethylbenzene	2.834	2.943	-3.8	97	0.00	15.27
83		2-Chlorotoluene	2.304	2.367	-2.7	98	0.00	15.31
		----------	Amount	Calc.	%Drift		----------	
84		trans-1,4-Dichloro-2-Bute	40.000	110.295	-175.7#	849	0.00	15.35
		----------	AvgRF	CCRF	%Dev		----------	
85		1,2,3-Trichloropropane	0.256	0.241	5.9	89	0.00	15.34
86		Cyclohexanone	0.028	0.026	7.1	101	0.00	15.44
87		4-Chlorotoluene	2.321	2.399	-3.4	97	0.00	15.49
88		tert-Butylbenzene	1.508	1.560	-3.4	97	0.00	15.64
89		1,2,4-Trimethylbenzene	2.884	3.015	-4.5	97	0.00	15.71
90		Pentachloroethane	0.567	0.612	-7.9	102	0.00	15.72
91		sec-Butylbenzene	3.448	3.598	-4.4	95	0.00	15.83
92		4-Isopropyltoluene	3.074	3.200	-4.1	95	0.00	15.96
93		1,3-Dichlorobenzene	1.891	1.968	-4.1	97	0.00	16.14
94		1,4-Dichlorobenzene	1.962	2.033	-3.6	96	0.00	16.23
95		n-Butylbenzene	1.531	1.608	-5.0	95	0.00	16.42
		----------	Amount	Calc.	%Drift		----------	
96		Benzyl Chloride	40.000	43.095	-7.7	111	0.00	16.47
		----------	AvgRF	CCRF	%Dev		----------	
97		1,2-Dichlorobenzene	1.920	2.011	-4.7	98	0.00	16.70
98		1,2-Dibromo-3-Chloropropa	0.168	0.166	1.2	95	0.00	17.53
99		Hexachlorobutadiene	0.436	0.464	-6.4	98	0.00	18.18
100		1,2,4-Trichlorobenzene	1.277	1.412	-10.6	100	0.00	18.27
101		Naphthalene	3.192	3.389	-6.2	97	0.00	18.65
102		1,2,3-Trichlorobenzene	1.160	1.244	-7.2	98	0.00	18.87
103	I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	99	0.00	7.53
		----------	Amount	Calc.	%Drift		----------	
104		Ethanol	800.000	682.040	14.7	94	0.00	6.38
105		Acrolein	200.000	603.367	-201.7#	729	0.00	6.95
		----------	AvgRF	CCRF	%Dev		----------	
106		Tert butyl alcohol	1.854	1.776	4.2	95	0.00	7.64
		----------	Amount	Calc.	%Drift		----------	
107		Isobutyl alcohol	800.000	807.107	-0.9	96	0.00	9.93
		----------	AvgRF	CCRF	%Dev		----------	

Initial Calibration Verification

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1243-ICV1243
Lab FileID: F043323.D

```
108     Tert Amyl Alcohol           1.423   1.394      2.0   95   0.00   10.08

            ----------------------- Amount  Calc.    %Drift   -------------
109     1,4-Dioxane                800.000 781.929      2.3   96   0.00   11.33
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range               SPCC's out = 0  CCC's out = 0
     F043316.D  8260FW.M         Thu Jul 01 11:31:30 2010
```

Continuing Calibration Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1252-CC1243
Lab FileID: F043545.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\071410\F043545.D          Vial: 1
Acq On    : 14 Jul 2010   9:47 am                   Operator: logand
Sample    : cc1243-4                                Inst    : MSVOA9
Misc      : ms14937,vf1252,,,,,                     Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\8260FW.M (RTE Integrator)
Title        : SW-846 Method 5035A/8260B
Last Update  : Wed Jun 30 13:01:35 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.001  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	152	0.00	10.32
		Amount	Calc.	%Drift			
2	Dichlorodifluoromethane	40.000	28.234	29.4#	106	0.00	4.29
3 P	Chloromethane	40.000	29.150	27.1#	107	0.00	4.64
		AvgRF	CCRF	%Dev			
4 C	Vinyl Chloride	0.315	0.283	10.2	128	0.00	4.81
5	Bromomethane	0.228	0.209	8.3	130	0.00	5.38
6	Chloroethane	0.194	0.168	13.4	126	0.00	5.55
7	Trichlorofluoromethane	0.449	0.435	3.1	136	0.00	5.81
8	Ethyl Ether	0.233	0.206	11.6	127	0.00	6.16
		Amount	Calc.	%Drift			
9	1,2-Dichlorotrifluoroetha	40.000	36.524	8.7	134	0.00	6.42
		AvgRF	CCRF	%Dev			
10 C	1,1-Dichloroethene	0.441	0.420	4.8	133	0.00	6.51
		Amount	Calc.	%Drift			
11	Freon 113	40.000	37.502	6.2	135	0.00	6.57
12	Carbon Disulfide	40.000	38.550	3.6	143	0.00	6.61
		AvgRF	CCRF	%Dev			
13	Iodomethane	0.780	0.735	5.8	138	0.00	6.75
14	Allyl chloride	0.531	0.518	2.4	144	0.00	7.13
		Amount	Calc.	%Drift			
15	Methylene Chloride	40.000	37.211	7.0	135	0.00	7.27
		AvgRF	CCRF	%Dev			
16	Acetone	0.123	0.094	23.6#	117	0.00	7.31
17	Methyl acetate	0.227	0.185	18.5	121	0.00	7.44
18	trans-1,2-Dichloroethene	0.531	0.486	8.5	131	0.00	7.48
19	Hexane	0.241	0.233	3.3	139	0.00	7.54
20	Methyl Tert Butyl Ether	0.863	0.717	16.9	125	0.00	7.58
21	Acetonitrile	0.034	0.024	29.4#	112	0.00	7.92
22	Di-isopropyl ether	1.277	1.097	14.1	126	0.00	8.01
23	Chloroprene	0.531	0.478	10.0	129	0.00	8.21
24 P	1,1-Dichloroethane	0.654	0.593	9.3	129	0.00	8.25
25	Acrylonitrile	0.127	0.097	23.6#	119	0.00	8.29
26	ETBE	1.029	0.923	10.3	133	0.00	8.45

Continuing Calibration Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1252-CC1243
Lab FileID: F043545.D

27		Vinyl acetate	0.500	0.413	17.4	126	0.00	8.46
28		cis-1,2-Dichloroethene	0.418	0.363	13.2	127	0.00	8.89
29		2,2-Dichloropropane	0.521	0.469	10.0	128	0.00	9.04
30		Bromochloromethane	0.262	0.227	13.4	125	0.00	9.13
31		Cyclohexane	0.568	0.533	6.2	131	0.00	9.18
		----------	Amount	Calc.	%Drift	----------		
32	C	Chloroform	40.000	34.584	13.5	128	0.00	9.17
		----------	AvgRF	CCRF	%Dev	----------		
33		Ethyl acetate	0.370	0.255	31.1#	98	0.00	9.23
		----------	Amount	Calc.	%Drift	----------		
34		Tetrahydrofuran	40.000	29.391	26.5#	109	0.00	9.39
		----------	AvgRF	CCRF	%Dev	----------		
35	S	Dibromofluoromethane	0.278	0.283	-1.8	155	0.00	9.39
		----------	Amount	Calc.	%Drift	----------		
36		Carbon Tetrachloride	40.000	34.315	14.2	130	0.00	9.40
		----------	AvgRF	CCRF	%Dev	----------		
37		1,1,1-Trichloroethane	0.613	0.557	9.1	127	0.00	9.47
38		2-Butanone	0.177	0.135	23.7#	113	0.00	9.50
39		1,1-Dichloropropene	0.465	0.426	8.4	128	0.00	9.59
40		Propionitrile	0.050	0.037	26.0#	112	0.00	9.86
41		Methacrylonitrile	0.256	0.195	23.8#	116	0.00	9.89
42		Benzene	1.413	1.248	11.7	128	0.00	9.88
43		TAME	0.953	0.831	12.8	130	0.00	9.93
44	S	1,2-Dichloroethane-d4	0.290	0.294	-1.4	147	0.00	10.02
45		1,2-Dichloroethane	0.524	0.433	17.4	122	0.00	10.10
46		Trichloroethene	0.397	0.352	11.3	128	0.00	10.51
47		Methylcyclohexane	0.527	0.499	5.3	133	0.00	10.54
48		Dibromomethane	0.255	0.210	17.6	122	0.00	10.99
49	C	1,2-Dichloropropane	0.370	0.321	13.2	128	0.00	11.09
50		Bromodichloromethane	0.506	0.438	13.4	126	0.00	11.13
51		Methyl methacrylate	0.365	0.252	31.0#	110	0.00	11.21
		----------	Amount	Calc.	%Drift	----------		
52		2-Chloroethyl vinyl ether	200.000	484.596	-142.3#	965	0.00	11.67
		----------	AvgRF	CCRF	%Dev	----------		
53		cis-1,3-Dichloropropene	0.583	0.519	11.0	127	0.00	11.80
54	I	Chlorobenzene-d5	1.000	1.000	0.0	140	0.00	13.71
55	S	Toluene-d8	1.121	1.154	-2.9	143	0.00	12.01
56	C	Toluene	1.727	1.636	5.3	124	0.00	12.07
57		2-Nitropropane	0.108	0.081	25.0#	98	0.00	12.31
58		4-Methyl-2-pentanone	0.401	0.339	15.5	113	0.00	12.41
59		trans-1,3-Dichloropropene	0.530	0.531	-0.2	133	0.00	12.49
60		Tetrachloroethene	0.498	0.481	3.4	123	0.00	12.52
61		Ethyl methacrylate	0.529	0.450	14.9	114	0.00	12.57
62		1,1,2-Trichloroethane	0.317	0.287	9.5	122	0.00	12.68
63		Dibromochloromethane	0.490	0.457	6.7	122	0.00	12.90
64		1,3-Dichloropropane	0.619	0.559	9.7	121	0.00	12.99
65		1,2-Dibromoethane	0.435	0.382	12.2	116	0.00	13.20
66		2-hexanone	0.289	0.245	15.2	115	0.00	13.30
67		1-Chlorohexane	0.539	0.526	2.4	125	0.00	13.63
68	C	Ethylbenzene	1.942	1.838	5.4	125	0.00	13.71
69	P	Chlorobenzene	1.273	1.211	4.9	125	0.00	13.73

Continuing Calibration Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1252-CC1243
Lab FileID: F043545.D

70		1,1,1,2-Tetrachloroethane	0.504	0.483	4.2	127	0.00	13.78
71		m,p-Xylene	1.493	1.411	5.5	123	0.00	13.85
72		o-Xylene	1.655	1.546	6.6	123	0.00	14.33
73		Styrene	1.321	1.259	4.7	124	0.00	14.38
74	P	Bromoform	0.312	0.282	9.6	118	0.00	14.47
75		Isopropylbenzene	1.801	1.747	3.0	125	0.00	14.65
76	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	134	0.00	16.21
77	S	4-Bromofluorobenzene	0.768	0.756	1.6	134	0.00	15.00
		----------	Amount	Calc.	%Drift		----------	
78		cis-1,4-Dichloro-2-butene	40.000	130.007	-225.0#	1539	0.00	15.02
		----------	AvgRF	CCRF	%Dev		----------	
79		n-Propylbenzene	3.532	3.439	2.6	122	0.00	15.09
80		Bromobenzene	0.996	0.930	6.6	119	0.00	15.15
81	P	1,1,2,2-Tetrachloroethane	0.809	0.712	12.0	116	0.00	15.15
82		1,3,5-Trimethylbenzene	2.834	2.737	3.4	123	0.00	15.27
83		2-Chlorotoluene	2.304	2.240	2.8	126	0.00	15.31
		----------	Amount	Calc.	%Drift		----------	
84		trans-1,4-Dichloro-2-Bute	40.000	129.411	-223.5#	1590	0.00	15.35
		----------	AvgRF	CCRF	%Dev		----------	
85		1,2,3-Trichloropropane	0.256	0.222	13.3	112	0.00	15.34
86		Cyclohexanone	0.028	0.019	32.1#	102	0.00	15.44
87		4-Chlorotoluene	2.321	2.234	3.7	123	0.00	15.49
88		tert-Butylbenzene	1.508	1.448	4.0	122	0.00	15.64
89		1,2,4-Trimethylbenzene	2.884	2.799	2.9	122	0.00	15.71
90		Pentachloroethane	0.567	0.559	1.4	127	0.00	15.72
91		sec-Butylbenzene	3.448	3.359	2.6	121	0.00	15.83
92		4-Isopropyltoluene	3.074	2.984	2.9	121	0.00	15.96
93		1,3-Dichlorobenzene	1.891	1.796	5.0	121	0.00	16.14
94		1,4-Dichlorobenzene	1.962	1.877	4.3	121	0.00	16.23
95		n-Butylbenzene	1.531	1.536	-0.3	124	0.00	16.42
		----------	Amount	Calc.	%Drift		----------	
96		Benzyl Chloride	40.000	38.172	4.6	134	0.00	16.47
		----------	AvgRF	CCRF	%Dev		----------	
97		1,2-Dichlorobenzene	1.920	1.776	7.5	118	0.00	16.70
98		1,2-Dibromo-3-Chloropropa	0.168	0.132	21.4#	103	0.00	17.53
99		Hexachlorobutadiene	0.436	0.395	9.4	114	0.00	18.19
100		1,2,4-Trichlorobenzene	1.277	1.153	9.7	112	0.00	18.27
101		Naphthalene	3.192	2.602	18.5	101	0.00	18.65
102		1,2,3-Trichlorobenzene	1.160	0.970	16.4	105	0.00	18.88
103	I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	103	0.00	7.53
		----------	Amount	Calc.	%Drift		----------	
104		Ethanol	800.000	709.912	11.3	103	-0.04	6.34
105		Acrolein	200.000	614.241	-207.1#	785	0.00	6.94
		----------	AvgRF	CCRF	%Dev		----------	
106		Tert butyl alcohol	1.854	1.643	11.4	91	0.00	7.62
		----------	Amount	Calc.	%Drift		----------	
107		Isobutyl alcohol	800.000	875.700	-9.5	109	0.00	9.93
		----------	AvgRF	CCRF	%Dev		----------	

Continuing Calibration Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1252-CC1243
Lab FileID: F043545.D

```
108     Tert Amyl Alcohol           1.423   1.335      6.2   95   0.00   10.08

            ----------------------- Amount  Calc.    %Drift   -------------
109     1,4-Dioxane               800.000 727.301      9.1   93   0.00   11.32
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range              SPCC's out = 0  CCC's out = 0
     F043316.D  8260FW.M         Thu Jul 15 08:43:09 2010
```

5.7.3

5

Continuing Calibration Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1253-CC1243
Lab FileID: F043572.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\071510\F043572.D          Vial: 1
Acq On    : 15 Jul 2010   9:10 am                   Operator: logand
Sample    : cc1243-4                                Inst    : MSVOA9
Misc      : ms14937,vf1253,,,,,                     Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\8260FW.M (RTE Integrator)
Title        : SW-846 Method 5035A/8260B
Last Update  : Wed Jun 30 13:01:35 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.001  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	130	0.00	10.32
		Amount	Calc.	%Drift			
2	Dichlorodifluoromethane	40.000	30.232	24.4#	97	0.00	4.29
3 P	Chloromethane	40.000	33.416	16.5	106	0.00	4.64
		AvgRF	CCRF	%Dev			
4 C	Vinyl Chloride	0.315	0.309	1.9	120	0.00	4.81
5	Bromomethane	0.228	0.245	-7.5	131	0.00	5.38
6	Chloroethane	0.194	0.191	1.5	123	0.00	5.55
7	Trichlorofluoromethane	0.449	0.523	-16.5	141	0.00	5.81
8	Ethyl Ether	0.233	0.241	-3.4	128	0.00	6.16
		Amount	Calc.	%Drift			
9	1,2-Dichlorotrifluoroetha	40.000	41.271	-3.2	130	0.00	6.42
		AvgRF	CCRF	%Dev			
10 C	1,1-Dichloroethene	0.441	0.486	-10.2	132	0.00	6.50
		Amount	Calc.	%Drift			
11	Freon 113	40.000	42.499	-6.2	131	0.00	6.57
12	Carbon Disulfide	40.000	40.528	-1.3	129	0.00	6.61
		AvgRF	CCRF	%Dev			
13	Iodomethane	0.780	0.726	6.9	117	0.00	6.75
14	Allyl chloride	0.531	0.602	-13.4	143	0.00	7.13
		Amount	Calc.	%Drift			
15	Methylene Chloride	40.000	41.989	-5.0	130	0.00	7.27
		AvgRF	CCRF	%Dev			
16	Acetone	0.123	0.111	9.8	119	0.00	7.31
17	Methyl acetate	0.227	0.217	4.4	122	0.00	7.44
18	trans-1,2-Dichloroethene	0.531	0.556	-4.7	129	0.00	7.48
19	Hexane	0.241	0.266	-10.4	136	0.00	7.54
20	Methyl Tert Butyl Ether	0.863	0.754	12.6	113	0.00	7.58
21	Acetonitrile	0.034	0.031	8.8	128	0.00	7.93
22	Di-isopropyl ether	1.277	1.249	2.2	123	0.00	8.00
23	Chloroprene	0.531	0.533	-0.4	123	0.00	8.21
24 P	1,1-Dichloroethane	0.654	0.679	-3.8	126	0.00	8.24
25	Acrylonitrile	0.127	0.112	11.8	118	0.00	8.30
26	ETBE	1.029	0.995	3.3	123	0.00	8.46

Continuing Calibration Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1253-CC1243
Lab FileID: F043572.D

27		Vinyl acetate	0.500	0.490	2.0	128	0.00	8.46
28		cis-1,2-Dichloroethene	0.418	0.389	6.9	117	0.00	8.89
29		2,2-Dichloropropane	0.521	0.522	-0.2	123	0.00	9.04
30		Bromochloromethane	0.262	0.240	8.4	113	0.00	9.13
31		Cyclohexane	0.568	0.575	-1.2	121	0.00	9.18
		----------	Amount	Calc.	%Drift	----------		
32	C	Chloroform	40.000	39.810	0.5	126	0.00	9.17
		----------	AvgRF	CCRF	%Dev	----------		
33		Ethyl acetate	0.370	0.310	16.2	102	0.00	9.24
		----------	Amount	Calc.	%Drift	----------		
34		Tetrahydrofuran	40.000	33.416	16.5	106	0.00	9.40
		----------	AvgRF	CCRF	%Dev	----------		
35	S	Dibromofluoromethane	0.278	0.288	-3.6	135	0.00	9.39
		----------	Amount	Calc.	%Drift	----------		
36		Carbon Tetrachloride	40.000	38.320	4.2	124	0.00	9.41
		----------	AvgRF	CCRF	%Dev	----------		
37		1,1,1-Trichloroethane	0.613	0.619	-1.0	121	0.00	9.47
38		2-Butanone	0.177	0.161	9.0	115	0.00	9.51
39		1,1-Dichloropropene	0.465	0.485	-4.3	125	0.00	9.59
40		Propionitrile	0.050	0.043	14.0	111	0.00	9.86
41		Methacrylonitrile	0.256	0.237	7.4	121	0.00	9.89
42		Benzene	1.413	1.420	-0.5	125	0.00	9.88
43		TAME	0.953	0.876	8.1	118	0.00	9.93
44	S	1,2-Dichloroethane-d4	0.290	0.315	-8.6	135	0.00	10.02
45		1,2-Dichloroethane	0.524	0.528	-0.8	128	0.00	10.10
46		Trichloroethene	0.397	0.394	0.8	123	0.00	10.51
47		Methylcyclohexane	0.527	0.525	0.4	120	0.00	10.54
48		Dibromomethane	0.255	0.239	6.3	119	0.00	11.00
49	C	1,2-Dichloropropane	0.370	0.366	1.1	125	0.00	11.09
50		Bromodichloromethane	0.506	0.512	-1.2	126	0.00	11.13
51		Methyl methacrylate	0.365	0.290	20.5#	109	0.00	11.21
		----------	Amount	Calc.	%Drift	----------		
52		2-Chloroethyl vinyl ether	200.000	512.595	-156.3#	930	0.00	11.67
		----------	AvgRF	CCRF	%Dev	----------		
53		cis-1,3-Dichloropropene	0.583	0.599	-2.7	126	0.00	11.80
54	I	Chlorobenzene-d5	1.000	1.000	0.0	122	0.00	13.71
55	S	Toluene-d8	1.121	1.153	-2.9	124	0.00	12.01
56	C	Toluene	1.727	1.811	-4.9	119	0.00	12.07
57		2-Nitropropane	0.108	0.103	4.6	108	0.00	12.31
58		4-Methyl-2-pentanone	0.401	0.400	0.2	116	0.00	12.42
59		trans-1,3-Dichloropropene	0.530	0.611	-15.3	133	0.00	12.49
60		Tetrachloroethene	0.498	0.508	-2.0	113	0.00	12.52
61		Ethyl methacrylate	0.529	0.493	6.8	109	0.00	12.57
62		1,1,2-Trichloroethane	0.317	0.322	-1.6	119	0.00	12.67
63		Dibromochloromethane	0.490	0.506	-3.3	118	0.00	12.90
64		1,3-Dichloropropane	0.619	0.627	-1.3	118	0.00	12.99
65		1,2-Dibromoethane	0.435	0.410	5.7	109	0.00	13.20
66		2-hexanone	0.289	0.288	0.3	117	0.00	13.30
67		1-Chlorohexane	0.539	0.565	-4.8	117	0.00	13.63
68	C	Ethylbenzene	1.942	2.059	-6.0	122	0.00	13.71
69	P	Chlorobenzene	1.273	1.329	-4.4	119	0.00	13.73

Continuing Calibration Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1253-CC1243
Lab FileID: F043572.D

70		1,1,1,2-Tetrachloroethane	0.504	0.520	-3.2	119	0.00	13.78
71		m,p-Xylene	1.493	1.589	-6.4	120	0.00	13.85
72		o-Xylene	1.655	1.704	-3.0	118	0.00	14.33
73		Styrene	1.321	1.388	-5.1	119	0.00	14.38
74	P	Bromoform	0.312	0.320	-2.6	116	0.00	14.47
75		Isopropylbenzene	1.801	1.879	-4.3	117	0.00	14.65
76	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	114	0.00	16.21
77	S	4-Bromofluorobenzene	0.768	0.770	-0.3	116	0.00	15.00
		----------	Amount	Calc.	%Drift		----------	
78		cis-1,4-Dichloro-2-butene	40.000	151.126	-277.8#	1790	0.00	15.02
		----------	AvgRF	CCRF	%Dev		----------	
79		n-Propylbenzene	3.532	4.022	-13.9	122	0.00	15.09
80		Bromobenzene	0.996	1.046	-5.0	114	0.00	15.15
81	P	1,1,2,2-Tetrachloroethane	0.809	0.824	-1.9	114	0.00	15.16
82		1,3,5-Trimethylbenzene	2.834	3.069	-8.3	117	0.00	15.27
83		2-Chlorotoluene	2.304	2.558	-11.0	123	0.00	15.31
		----------	Amount	Calc.	%Drift		----------	
84		trans-1,4-Dichloro-2-Bute	40.000	151.266	-278.2#	1844	0.00	15.35
		----------	AvgRF	CCRF	%Dev		----------	
85		1,2,3-Trichloropropane	0.256	0.253	1.2	109	0.00	15.34
86		Cyclohexanone	0.028	0.021	25.0#	96	0.00	15.44
87		4-Chlorotoluene	2.321	2.611	-12.5	122	0.00	15.49
88		tert-Butylbenzene	1.508	1.672	-10.9	120	0.00	15.64
89		1,2,4-Trimethylbenzene	2.884	3.158	-9.5	118	0.00	15.71
90		Pentachloroethane	0.567	0.618	-9.0	119	0.00	15.71
91		sec-Butylbenzene	3.448	3.806	-10.4	117	0.00	15.83
92		4-Isopropyltoluene	3.074	3.283	-6.8	114	0.00	15.96
93		1,3-Dichlorobenzene	1.891	1.995	-5.5	114	0.00	16.14
94		1,4-Dichlorobenzene	1.962	2.099	-7.0	116	0.00	16.23
95		n-Butylbenzene	1.531	1.783	-16.5	122	0.00	16.43
		----------	Amount	Calc.	%Drift		----------	
96		Benzyl Chloride	40.000	42.552	-6.4	127	0.00	16.47
		----------	AvgRF	CCRF	%Dev		----------	
97		1,2-Dichlorobenzene	1.920	1.982	-3.2	112	0.00	16.70
98		1,2-Dibromo-3-Chloropropa	0.168	0.153	8.9	102	0.00	17.53
99		Hexachlorobutadiene	0.436	0.441	-1.1	108	0.00	18.18
100		1,2,4-Trichlorobenzene	1.277	1.221	4.4	101	0.00	18.27
101		Naphthalene	3.192	2.706	15.2	90	0.00	18.65
102		1,2,3-Trichlorobenzene	1.160	1.044	10.0	96	0.00	18.88
103	I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	90	0.00	7.54
		----------	Amount	Calc.	%Drift		----------	
104		Ethanol	800.000	782.127	2.2	99	0.00	6.38
105		Acrolein	200.000	641.303	-220.7#	737	0.00	6.95
		----------	AvgRF	CCRF	%Dev		----------	
106		Tert butyl alcohol	1.854	1.778	4.1	86	0.00	7.63
		----------	Amount	Calc.	%Drift		----------	
107		Isobutyl alcohol	800.000	1014.420	-26.8#	110	0.00	9.94
		----------	AvgRF	CCRF	%Dev		----------	

Continuing Calibration Summary

Job Number: F74974
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1253-CC1243
Lab FileID: F043572.D

```
108     Tert Amyl Alcohol           1.423   1.397      1.8   87   0.00   10.08

            ----------------------- Amount  Calc.    %Drift   -------------
109     1,4-Dioxane               800.000 746.961      6.6   83   0.00   11.32
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range              SPCC's out = 0  CCC's out = 0
     F043316.D  8260FW.M         Fri Jul 16 09:54:20 2010
```

5.7.4

5

Southeast ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20712W1.PRN Date Analyzed: 07/12/10 Methods: SW846 7470A
Analyst: LM Run ID: MA8222
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:31	MA8222-STD1	1		STD01REP1
10:34	MA8222-STD2	1		STD02REP1
10:36	MA8222-STD3	1		STD03REP1
10:39	MA8222-STD4	1		STD04REP1
10:41	MA8222-STD5	1		STD05REP1
10:43	MA8222-STD6	1		STD06REP1
10:46	MA8222-HSTD1	1		
10:48	MA8222-ICV1	1		
10:50	MA8222-ICB1	1		
10:53	MA8222-CRI1	1		
10:55	MA8222-CCV1	1		
10:58	MA8222-CCB1	1		
11:01	MP18636-MB1	1		
11:03	MP18636-B1	1		
11:05	F74904-1	1		(sample used for QC only; not part of login F74974)
11:08	MP18636-D1	1		
11:10	MP18636-SD1	5		
11:13	MP18636-S1	1		
11:15	MP18636-S2	1		
11:17	MP18636-MB2	1		
11:19	MP18636-B2	1		
11:22	MP18637-MB1	1		
11:24	MA8222-CCV2	1		
11:27	MA8222-CCB2	1		
11:29	MP18637-B1	1		
11:32	F74973-1	1		(sample used for QC only; not part of login F74974)
11:34	MP18637-D1	1		
11:36	MP18637-SD1	5		
11:39	MP18637-S1	1		
11:41	MP18637-S2	1		
11:44	ZZZZZZ	1		
11:47	ZZZZZZ	1		
11:49	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20712W1.PRN Date Analyzed: 07/12/10 Methods: SW846 7470A
Analyst: LM Run ID: MA8222
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:52	ZZZZZZ	1		
11:54	MA8222-CCV3	1		
11:57	MA8222-CCB3	1		
11:59	ZZZZZZ	1		
12:01	ZZZZZZ	1		
12:03	ZZZZZZ	1		
12:06	ZZZZZZ	1		
12:08	ZZZZZZ	1		
12:10	ZZZZZZ	1		
12:13	ZZZZZZ	1		
12:15	ZZZZZZ	1		
12:19	ZZZZZZ	1		
12:21	ZZZZZZ	1		
12:23	MA8222-CCV4	1		
12:26	MA8222-CCB4	1		
12:29	ZZZZZZ	1		
12:31	ZZZZZZ	1		
12:34	MP18638-MB1	1		
12:37	MP18638-B1	1		
12:41	F74974-6	1		
12:44	MP18638-D1	1		
12:47	MP18638-SD1	5		
12:49	MP18638-S1	1		
12:51	MP18638-S2	1		
12:54	F74974-1	1		
12:56	MA8222-CCV5	1		
12:58	MA8222-CCB5	1		
13:01	F74974-2	1		
13:04	F74974-3	1		
13:06	F74974-4	1		
13:08	F74974-5	1		
13:11	F74974-7	1		
13:13	F74974-8	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20712W1.PRN Date Analyzed: 07/12/10 Methods: SW846 7470A
Analyst: LM Run ID: MA8222
Parameters: Hg

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	13:15	F74974-9	1		
	13:17	F74974-10	1		
	13:20	F74974-11	1		
	13:23	F74974-12	1		
---------->	Last reportable sample/prep for job F74974				
	13:26	MA8222-CCV6	1		
	13:28	MA8222-CCB6	1		
	13:30	ZZZZZZ	1		
	13:33	ZZZZZZ	1		
	13:35	ZZZZZZ	1		
	13:38	ZZZZZZ	1		
	13:40	ZZZZZZ	1		
	13:43	ZZZZZZ	1		
	13:45	MA8222-CRI2	1		
	13:47	MA8222-CCV7	1		
	13:50	MA8222-CCB7	1		
---------->	Last reportable CCB for job F74974				

Refer to raw data for calibration curve and standards.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20712W1.PRN Date Analyzed: 07/12/10 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA8222 Units: ug/l

Time:			10:50		10:58		11:27		11:57	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	1.0	.071	-0.026	<1.0	-0.045	<1.0	-0.036	<1.0	-0.029	<1.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20712W1.PRN Date Analyzed: 07/12/10 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA8222 Units: ug/l

Time:			12:26		12:58		13:28		13:50	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	1.0	.071	-0.020	<1.0	-0.025	<1.0	-0.040	<1.0	-0.034	<1.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20712W1.PRN Date Analyzed: 07/12/10 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA8222 Units: ug/l

Time:		10:48			10:55			11:24	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	2.9	96.7	3	3.1	103.3	3	3.4	113.3

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20712W1.PRN Date Analyzed: 07/12/10 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA8222 Units: ug/l

Time:		11:54			12:23			12:56	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	3.3	110.0	3	3.3	110.0	3	3.2	106.7

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20712W1.PRN Date Analyzed: 07/12/10 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA8222 Units: ug/l

Time:		13:26			13:47	
Sample ID:	CCV	CCV6		CCV	CCV7	
Metal	True	Results	% Rec	True	Results	% Rec
Mercury	3	3.2	106.7	3	3.2	106.7

(*) Outside of QC limits
(anr) Analyte not requested

6.1.2
6

HIGH STANDARD CHECK SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20712W1.PRN Date Analyzed: 07/12/10 Methods: SW846 7470A
QC Limits: 95 to 105 % Recovery Run ID: MA8222 Units: ug/l

Time:		10:46	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Mercury	6.0	6.0	100.0

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20712W1.PRN Date Analyzed: 07/12/10 Methods: SW846 7470A
QC Limits: 80 to 120 % Recovery Run ID: MA8222 Units: ug/l

Time:			10:53		13:45	
Sample ID:	CRI	CRIA	CRI1		CRI2	
Metal	True	True	Results	% Rec	Results	% Rec
Mercury	0.20		0.20	100.0	0.26	130.0*(a

(*) Outside of QC limits
(anr) Analyte not requested
(a) Possible instrument baseline drift.

6.1.4

6

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20713W4.PRN Date Analyzed: 07/13/10 Methods: SW846 7470A
Analyst: LM Run ID: MA8224
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:18	MA8224-STD1	1		STD01REP1
11:21	MA8224-STD2	1		STD02REP1
11:23	MA8224-STD3	1		STD03REP1
11:25	MA8224-STD4	1		STD04REP1
11:28	MA8224-STD5	1		STD05REP1
11:30	MA8224-STD6	1		STD06REP1
11:33	MA8224-HSTD1	1		
11:35	MA8224-ICV1	1		
11:38	MA8224-ICB1	1		
11:40	MA8224-CRI1	1		
11:42	MA8224-CCV1	1		
11:44	MA8224-CCB1	1		
12:09	MA8224-CCV2	1		
12:12	MA8224-CCB2	1		
12:15	MP18644-MB1	1		
12:17	MP18644-B1	1		
12:20	F74974-6F	1		
12:22	MP18644-D1	1		
12:24	MP18644-SD1	5		
12:26	MP18644-S1	1		
12:29	MP18644-S2	1		
12:31	F74974-1F	1		
12:33	F74974-2F	1		
12:36	F74974-3F	1		
12:38	MA8224-CCV3	1		
12:41	MA8224-CCB3	1		
12:44	F74974-4F	1		
12:46	F74974-5F	1		
12:48	F74974-7F	1		
12:51	F74974-8F	1		
12:53	F74974-9F	1		
12:55	F74974-10F	1		
12:57	F74974-11F	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20713W4.PRN Date Analyzed: 07/13/10 Methods: SW846 7470A
Analyst: LM Run ID: MA8224
Parameters: Hg

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	13:00	F74974-12F	1		
---------->	Last reportable sample/prep for job F74974				
	13:02	ZZZZZZ	1		
	13:04	ZZZZZZ	1		
	13:07	MA8224-CCV4	1		
	13:09	MA8224-CCB4	1		
	13:12	ZZZZZZ	1		
	13:14	ZZZZZZ	1		
	13:17	ZZZZZZ	1		
	13:19	MA8224-CRI2	1		
	13:22	MA8224-CCV5	1		
	13:25	MA8224-CCB5	1		
---------->	Last reportable CCB for job F74974				
	Refer to raw data for calibration curve and standards.				

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20713W4.PRN Date Analyzed: 07/13/10 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA8224 Units: ug/l

Time:			11:38		11:44		12:12		12:41	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	1.0	.071	-0.052	<1.0	-0.064	<1.0	-0.043	<1.0	-0.038	<1.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20713W4.PRN Date Analyzed: 07/13/10 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA8224 Units: ug/l

Time:			13:09		13:25	
Sample ID:			CCB4		CCB5	
Metal	RL	IDL	raw	final	raw	final
Mercury	1.0	.071	-0.043	<1.0	-0.045	<1.0

(*) Outside of QC limits
(anr) Analyte not requested

6.2.1
6

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20713W4.PRN Date Analyzed: 07/13/10 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA8224 Units: ug/l

Time:		11:35			11:42			12:09	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	2.9	96.7	3.0	3.0	100.0	3	3.2	106.7

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20713W4.PRN Date Analyzed: 07/13/10 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA8224 Units: ug/l

Time:		12:38			13:07			13:22	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	2.9	96.7	3	2.9	96.7	3	2.9	96.7

(*) Outside of QC limits
(anr) Analyte not requested

6.2.2
6

HIGH STANDARD CHECK SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20713W4.PRN Date Analyzed: 07/13/10 Methods: SW846 7470A
QC Limits: 95 to 105 % Recovery Run ID: MA8224 Units: ug/l

Time:		11:33	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Mercury	6	5.8	96.7

(*) Outside of QC limits
(anr) Analyte not requested

6.2.3
6

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20713W4.PRN Date Analyzed: 07/13/10 Methods: SW846 7470A
QC Limits: 80 to 120 % Recovery Run ID: MA8224 Units: ug/l

Time:			11:40		13:19	
Sample ID:	CRI	CRIA	CRI1		CRI2	
Metal	True	True	Results	% Rec	Results	% Rec
Mercury	0.20		0.17	85.0	0.16	80.0

(*) Outside of QC limits
(anr) Analyte not requested

6.2.4

6

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8231
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:32	MA8231-STD1	1		STDA
09:36	MA8231-STD2	1		STDB
09:50	MA8231-STD3	1		STDC
09:54	MA8231-HSTD1	1		
09:58	MA8231-ICV1	1		
10:08	MA8231-ICB1	1		
10:12	MA8231-CRIA1	1		
10:34	MA8231-CRI1	1		
10:38	MA8231-ICSA1	1		
10:45	MA8231-ICSAB1	1		
10:54	MA8231-CCV1	1		
11:00	MA8231-CCB1	1		
11:05	F74734-14R	4		(sample used for QC only; not part of login F74974)
11:09	MP18647-D1	4		
11:13	MP18647-S1	4		
11:16	MP18647-S2	4		
11:24	MP18647-SD1	20		
11:28	ZZZZZZ	4		
11:31	ZZZZZZ	20		
11:35	ZZZZZZ	20		
11:39	MP18648-MB1	1		
11:43	MA8231-CCV2	1		
11:47	MA8231-CCB2	1		
11:50	MP18648-B1	1		
11:54	F74982-1	1		(sample used for QC only; not part of login F74974)
11:58	MP18648-D1	1		
12:02	MP18648-SD1	5		
12:05	MP18648-PS1	1		
12:09	MP18648-S1	1		
12:13	MP18648-S2	1		
12:16	ZZZZZZ	1		
12:20	ZZZZZZ	1		
12:28	MA8231-CCV3	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8231
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:31	MA8231-CCB3	1		
12:35	ZZZZZZ	1		
12:39	ZZZZZZ	1		
12:43	ZZZZZZ	1		
12:47	ZZZZZZ	1		
12:50	ZZZZZZ	1		
12:54	ZZZZZZ	1		
12:58	ZZZZZZ	1		
13:02	ZZZZZZ	1		
13:06	ZZZZZZ	1		
13:10	ZZZZZZ	1		
13:13	MA8231-CCV4	1		
13:17	MA8231-CCB4	1		
13:53	MA8231-CCV5	1		
13:58	MA8231-CCB5	1		
14:02	ZZZZZZ	1		
14:06	ZZZZZZ	1		
14:10	ZZZZZZ	1		
14:14	ZZZZZZ	1		
14:17	ZZZZZZ	1		
14:21	ZZZZZZ	1		
14:25	ZZZZZZ	1		
14:29	MP18649-MB1	1		
14:33	MP18649-B1	1		
14:36	F75033-1	1		(sample used for QC only; not part of login F74974)
14:40	MA8231-CCV6	1		
14:44	MA8231-CCB6	1		
14:48	MP18649-D1	1		
14:52	MP18649-SD1	5		
14:55	MP18649-PS1	1		
14:59	MP18649-S1	1		
15:03	MP18649-S2	1		
15:06	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8231
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:10	ZZZZZZ	1		
15:14	ZZZZZZ	1		
15:18	ZZZZZZ	1		
15:22	ZZZZZZ	1		
15:25	MA8231-CCV7	1		
15:29	MA8231-CCB7	1		
15:33	ZZZZZZ	1		
15:37	ZZZZZZ	1		
15:41	MP18652-MB2	1		
15:44	F74877-1	20		(sample used for QC only; not part of login F74974)
15:48	MP18641-D1	20		
15:52	MP18641-S1	20		
15:56	MP18641-S2	20		
16:00	MP18641-PS1	20		
16:04	MP18641-SD1	100		
16:08	ZZZZZZ	10		
16:11	MA8231-CCV8	1		
16:15	MA8231-CCB8	1		
16:19	ZZZZZZ	10		
16:23	ZZZZZZ	10		
16:27	ZZZZZZ	10		
16:30	ZZZZZZ	40		
16:34	ZZZZZZ	20		
16:38	ZZZZZZ	10		
16:42	F74877-7	10		(sample used for QC only; not part of login F74974)
16:46	MP18642-D1	10		
16:50	MP18642-S1	10		
16:53	MP18642-S2	10		
16:57	MA8231-CCV9	1		
17:01	MA8231-CCB9	1		
17:05	MP18642-PS1	10		
17:08	MP18642-SD1	50		
17:12	ZZZZZZ	20		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8231
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:16	ZZZZZZ	10		
17:20	ZZZZZZ	20		
17:24	ZZZZZZ	20		
17:28	ZZZZZZ	2		
17:32	F74877-7	1		(sample used for QC only; not part of login F74974)
17:36	MP18642-D1	1		
17:40	MP18642-S1	1		
17:44	MA8231-CCV10	1		
17:47	MA8231-CCB10	1		
17:51	MP18642-S2	1		
17:55	MP18642-PS1	1		
17:59	MP18642-SD1	5		
18:03	ZZZZZZ	1		
18:07	ZZZZZZ	1		
18:11	ZZZZZZ	1		
18:15	ZZZZZZ	1		
18:19	F74973-1	4		(sample used for QC only; not part of login F74974)
18:23	MP18639-D1	4		
18:27	MP18639-S1	4		
18:31	MA8231-CCV11	1		
18:35	MA8231-CCB11	1		
18:39	MP18639-S2	4		
18:43	MP18639-PS1	4		
18:47	MP18639-SD1	20		
18:51	ZZZZZZ	4		
18:55	ZZZZZZ	4		
18:59	ZZZZZZ	4		
19:03	ZZZZZZ	4		
19:07	ZZZZZZ	4		
19:11	MP18653-MB1	1		
19:15	MP18653-B1	1		
19:18	MA8231-CCV12	1		
19:22	MA8231-CCB12	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8231
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:26	F74973-1F	100		(sample used for QC only; not part of login F74974)
19:30	MP18653-D1	100		
19:34	MP18653-SD1	500		
19:37	MP18653-PS1	100		
19:41	MP18653-S1	100		
19:45	MP18653-S2	100		
19:49	ZZZZZZ	100		
19:53	ZZZZZZ	100		
19:57	ZZZZZZ	100		
20:01	ZZZZZZ	100		
20:04	MA8231-CCV13	1		
20:08	MA8231-CCB13	1		
20:12	ZZZZZZ	100		
20:16	ZZZZZZ	1		
20:19	ZZZZZZ	1		
20:23	ZZZZZZ	1		
20:27	ZZZZZZ	1		
20:31	ZZZZZZ	1		
20:35	ZZZZZZ	1		
20:39	ZZZZZZ	1		
20:43	ZZZZZZ	1		
20:46	ZZZZZZ	1		
20:51	MA8231-CCV14	1		
20:54	MA8231-CCB14	1		
20:58	ZZZZZZ	1		
21:02	ZZZZZZ	1		
21:06	ZZZZZZ	1		
21:10	ZZZZZZ	1		
21:14	MP18653-MB2A	1		
21:18	MP18652-MB1	1		
21:22	MP18652-B1	1		
---------->	Last reportable sample/prep for job F74974			
21:37	MA8231-CCV15	1		
21:40	MA8231-CCB15	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8231
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:23	MA8231-CCV16	1		
22:26	MA8231-CCB16	1		
22:46	ZZZZZZ	1		
22:49	ZZZZZZ	1		
22:53	MP18654-MB1	1		
22:57	MP18654-B1	1		
23:08	MA8231-CCV17	1		
23:12	MA8231-CCB17	1		
23:39	ZZZZZZ	1		
23:47	ZZZZZZ	1		
23:55	MA8231-CCV18	1		
23:58	MA8231-CCB18	1		
00:10	MA8231-CRIA2	1		
00:14	MA8231-CRI2	1		
00:18	MA8231-ICSA2	1		
00:21	MA8231-ICSAB2	1		
00:41	MA8231-CCV19	1		
00:44	MA8231-CCB19	1		

----------> Last reportable CCB for job F74974
Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8231
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
09:32	MA8231-STD1	3790	2756	47879	10270	1686
09:36	MA8231-STD2	3633	2822	46808	10341	1433
09:50	MA8231-STD3	3491	2844	45580	10108	1329
09:54	MA8231-HSTD1	3513	2886	46226	10247	1338
09:58	MA8231-ICV1	3654	2841	47191	10425	1436
10:08	MA8231-ICB1	3799 R	2800 R	48576 R	10412 R	1683 R
10:12	MA8231-CRIA1	3795	2804	48429	10280	1623
10:34	MA8231-CRI1	3717				
10:38	MA8231-ICSA1	3285	3003	43279	9930	1169
10:45	MA8231-ICSAB1	3268	2981	43389	9906	1158
10:54	MA8231-CCV1	3571	2839	46785	10126	1399
11:00	MA8231-CCB1	3826	2840	49257	10316	1691
11:05	F74734-14R	3680	2763	47680	10211	1558
11:09	MP18647-D1	3700	2755	47637	10283	1563
11:13	MP18647-S1	3709	2792	47708	10279	1522
11:16	MP18647-S2	3712	2787	47653	10322	1522
11:24	MP18647-SD1	3817	2815	48837	10456	1660
11:28	ZZZZZZ	3699	2732	47399	10388	1555
11:31	ZZZZZZ	3805	2816	48665	10485	1659
11:35	ZZZZZZ	4538	3368	57794	12415	1605
11:39	MP18648-MB1	3828	2805	48929	10481	1700
11:43	MA8231-CCV2	3662	2855	47257	10389	1434
11:47	MA8231-CCB2	3855	2821	48935	10515	1714
11:50	MP18648-B1	3669	2773	47023	10365	1482
11:54	F74982-1	3788	2780	48461	10498	1637
11:58	MP18648-D1	3781	2782	48330	10501	1635
12:02	MP18648-SD1	3762	2749	47852	10302	1657
12:05	MP18648-PS1	3789	2786	48503	10535	1618
12:09	MP18648-S1	3606	2744	46289	10264	1447
12:13	MP18648-S2	3664	2774	47053	10467	1470
12:16	ZZZZZZ	3744	2759	47982	10510	1589
12:20	ZZZZZZ	3645	2728	46527	10430	1388
12:28	MA8231-CCV3	3607	2801	46865	10454	1422

INTERNAL STANDARD SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8231
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
12:31	MA8231-CCB3	3825	2784	48684	10543	1708
12:35	ZZZZZZ	3763	2738	48047	10661	1648
12:39	ZZZZZZ	3657	2713	47228	10476	1523
12:43	ZZZZZZ	3752	2742	48273	10630	1647
12:47	ZZZZZZ	3582	2754	46688	10845	1305
12:50	ZZZZZZ	3485	2713	46814	11373	1256
12:54	ZZZZZZ	3431	2564	46557	11344	1390
12:58	ZZZZZZ	3532	2589	48151	11450	1622
13:02	ZZZZZZ	3528	2574	47789	11436	1604
13:06	ZZZZZZ	3368	2669	46453	11473	1225
13:10	ZZZZZZ	3443	2551	47296	11689	1495
13:13	MA8231-CCV4	3351	2622	46453	11459	1377
13:17	MA8231-CCB4	3546	2595	48192	11625	1650
13:53	MA8231-CCV5	3529	2717	46797	11402	1414
13:58	MA8231-CCB5	3716	2694	49020	11645	1690
14:02	ZZZZZZ	3670	2768	47936	12141	1297
14:06	ZZZZZZ	3460	2540	46738	11546	1497
14:10	ZZZZZZ	3585	2628	48262	11799	1567
14:14	ZZZZZZ	3513	2568	47103	11504	1536
14:17	ZZZZZZ	3600	2637	48349	11708	1599
14:21	ZZZZZZ	3584	2619	48045	11770	1562
14:25	ZZZZZZ	3610	2660	48074	11800	1475
14:29	MP18649-MB1	3634	2654	49126	11836	1668
14:33	MP18649-B1	3507	2639	47052	11599	1459
14:36	F75033-1	3627	2682	48948	11828	1607
14:40	MA8231-CCV6	3481	2672	46815	11535	1410
14:44	MA8231-CCB6	3672	2669	48914	11929	1679
14:48	MP18649-D1	3644	2653	48593	11825	1607
14:52	MP18649-SD1	3689	2673	49031	11773	1669
14:55	MP18649-PS1	3628	2631	48350	11832	1585
14:59	MP18649-S1	3522	2653	46865	11650	1450
15:03	MP18649-S2	3522	2645	47077	11727	1458
15:06	ZZZZZZ	3624	2615	48293	11689	1613

INTERNAL STANDARD SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8231
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
15:10	ZZZZZZ	3608	2632	48197	11708	1613
15:14	ZZZZZZ	3535	2540	46955	11686	1499
15:18	ZZZZZZ	3423	2465	45251	11465	1386
15:22	ZZZZZZ	3579	2585	47825	11749	1564
15:25	MA8231-CCV7	3500	2675	46800	11573	1415
15:29	MA8231-CCB7	3688	2647	48819	11873	1686
15:33	ZZZZZZ	3586	2572	46835	11835	1437
15:37	ZZZZZZ	3383	2436	44574	11398	1384
15:41	MP18652-MB2	3645	2623	48676	11940	1668
15:44	F74877-1	3547	2570	47079	11607	1522
15:48	MP18641-D1	3538	2570	46929	11710	1517
15:52	MP18641-S1	3548	2549	46749	11665	1513
15:56	MP18641-S2	3520	2539	46365	11574	1500
16:00	MP18641-PS1	3535	2538	46618	11685	1517
16:04	MP18641-SD1	3628	2621	48263	11718	1626
16:08	ZZZZZZ	3521	2533	46724	11680	1516
16:11	MA8231-CCV8	3490	2669	46508	11585	1420
16:15	MA8231-CCB8	3689	2640	48684	11803	1696
16:19	ZZZZZZ	3522	2531	46456	11669	1516
16:23	ZZZZZZ	3484	2503	46070	11680	1492
16:27	ZZZZZZ	3478	2500	45935	11616	1488
16:30	ZZZZZZ	3556	2568	47287	11716	1555
16:34	ZZZZZZ	3510	2513	46330	11659	1511
16:38	ZZZZZZ	3448	2476	45826	11531	1477
16:42	F74877-7	3487	2505	46057	11584	1497
16:46	MP18642-D1	3494	2527	46358	11627	1500
16:50	MP18642-S1	3490	2514	46256	11582	1480
16:53	MP18642-S2	3492	2525	46248	11512	1479
16:57	MA8231-CCV9	3471	2643	46293	11527	1407
17:01	MA8231-CCB9	3654	2637	48494	11690	1679
17:05	MP18642-PS1	3500	2518	46182	11630	1500
17:08	MP18642-SD1	3598	2583	47739	11761	1615
17:12	ZZZZZZ	3519	2549	46479	11635	1489

INTERNAL STANDARD SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8231
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
17:16	ZZZZZZ	3452	2494	45768	11540	1483
17:20	ZZZZZZ	3498	2519	46180	11537	1499
17:24	ZZZZZZ	3475	2523	46001	11710	1461
17:28	ZZZZZZ	3182	2549	43315	11635	1151
17:32	F74877-7	3096	2246	41522	11079	1216
17:36	MP18642-D1	3100	2252	41762	11061	1217
17:40	MP18642-S1	3101	2327	41634	11038	1182
17:44	MA8231-CCV10	3476	2648	46599	11595	1407
17:47	MA8231-CCB10	3675	2655	48643	11822	1676
17:51	MP18642-S2	3103	2316	41529	10939	1182
17:55	MP18642-PS1	3123	2261	41652	11017	1208
17:59	MP18642-SD1	3420	2454	45136	11484	1429
18:03	ZZZZZZ	3285	2552	43853	11952	1082
18:07	ZZZZZZ	2997	2228	40261	10898	1174
18:11	ZZZZZZ	2954	2130	39371	10683	1113
18:15	ZZZZZZ	3170	2721	43027	11846	1028
18:19	F74973-1	2905	2086	38183	10578	1106
18:23	MP18639-D1	2870	2078	37933	10495	1093
18:27	MP18639-S1	2928	2124	38594	10535	1090
18:31	MA8231-CCV11	3465	2663	46448	11531	1398
18:35	MA8231-CCB11	3654	2655	48703	11724	1670
18:39	MP18639-S2	2938	2118	38492	10595	1099
18:43	MP18639-PS1	2894	2067	37753	10507	1098
18:47	MP18639-SD1	3294	2368	43338	11225	1336
18:51	ZZZZZZ	2919	2111	38735	10642	1130
18:55	ZZZZZZ	2813	1998	37054	10451	1064
18:59	ZZZZZZ	2855	2051	37671	10482	1083
19:03	ZZZZZZ	2829	2029	37091	10322	1068
19:07	ZZZZZZ	2928	2115	38564	10490	1123
19:11	MP18653-MB1	3619	2621	48526	11688	1660
19:15	MP18653-B1	3489	2629	46718	11616	1450
19:18	MA8231-CCV12	3448	2654	46328	11453	1394
19:22	MA8231-CCB12	3656	2666	48731	11684	1669

INTERNAL STANDARD SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8231
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
19:26	F74973-1F	3479	2552	46860	11482	1491
19:30	MP18653-D1	3524	2561	46701	11469	1510
19:34	MP18653-SD1	3611	2613	47826	11574	1606
19:37	MP18653-PS1	3526	2567	46930	11524	1511
19:41	MP18653-S1	3513	2554	46913	11446	1501
19:45	MP18653-S2	3529	2573	46718	11492	1507
19:49	ZZZZZZ	3520	2550	46979	11565	1518
19:53	ZZZZZZ	3495	2542	46835	11580	1492
19:57	ZZZZZZ	3514	2567	46909	11419	1503
20:01	ZZZZZZ	3489	2577	46650	11379	1480
20:04	MA8231-CCV13	3462	2665	46400	11347	1396
20:08	MA8231-CCB13	3661	2652	48623	11628	1666
20:12	ZZZZZZ	3534	2559	46863	11445	1521
20:16	ZZZZZZ	3474	2530	46790	11529	1489
20:19	ZZZZZZ	3457	2523	47013	11668	1491
20:23	ZZZZZZ	3467	2537	47115	11666	1489
20:27	ZZZZZZ	3479	2551	47202	11574	1525
20:31	ZZZZZZ	3516	2578	47552	11581	1550
20:35	ZZZZZZ	3509	2583	47450	11531	1524
20:39	ZZZZZZ	3502	2627	46347	11916	1298
20:43	ZZZZZZ	3570	2624	48596	11837	1598
20:46	ZZZZZZ	3163	2367	43113	11100	1297
20:51	MA8231-CCV14	3434	2651	46215	11351	1388
20:54	MA8231-CCB14	3651	2648	48647	11571	1664
20:58	ZZZZZZ	3312	2429	45073	11459	1396
21:02	ZZZZZZ	3152	2499	43613	11236	1278
21:06	ZZZZZZ	3272	2405	44571	11263	1360
21:10	ZZZZZZ	3434	2524	46037	11405	1454
21:14	MP18653-MB2A	3616	2641	48656	11739	1648
21:18	MP18652-MB1	3619	2626	48725	11825	1658
21:22	MP18652-B1	3471	2625	47117	11695	1449
21:37	MA8231-CCV15	3437	2646	46260	11435	1389
21:40	MA8231-CCB15	3646	2653	49138	11833	1672

INTERNAL STANDARD SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8231
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
22:23	MA8231-CCV16	3445	2655	46905	11540	1402
22:26	MA8231-CCB16	3642	2663	49048	11632	1666
22:46	ZZZZZZ	3437	2517	46838	11529	1469
22:49	ZZZZZZ	3591	2626	48645	11646	1620
22:53	MP18654-MB1	3533	2569	47567	11129	1601
22:57	MP18654-B1	3431	2555	45543	11038	1422
23:08	MA8231-CCV17	3520	2748	47593	11453	1413
23:12	MA8231-CCB17	3672	2698	49375	11524	1668
23:39	ZZZZZZ	4022	3200	54388	13272 !	1333
23:47	ZZZZZZ	4489	3827 !	60844 !	14788 !	1268
23:55	MA8231-CCV18	3510	2744	47715	11544	1418
23:58	MA8231-CCB18	3706	2716	49934	11732	1687
00:10	MA8231-CRIA2	3679	2692	48821	11605	1616
00:14	MA8231-CRI2	3581	2602	47782	11641	1551
00:18	MA8231-ICSA2	3163	2784	42273	10931	1151
00:21	MA8231-ICSAB2	3135	2739	41999	10824	1139
00:41	MA8231-CCV19	3358	2575	45344	11154	1362
00:44	MA8231-CCB19	3598	2611	47872	11297	1633

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	60-125 %
Istd#2	Yttrium (2422)	60-125 %
Istd#3	Yttrium (3242)	60-125 %
Istd#4	Yttrium (3710)	60-125 %
Istd#5	Indium	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8231 Units: ug/l

Time:			10:08		11:00		11:47		12:31	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	12	2	anr							
Arsenic	10	2	-0.70	<10	-0.80	<10	-1.2	<10	-0.90	<10
Barium	200	5	-0.20	<200	0.0	<200	0.0	<200	0.10	<200
Beryllium	4.0	1	anr							
Cadmium	5.0	1	0.0	<5.0	0.0	<5.0	0.10	<5.0	0.10	<5.0
Calcium	1000	100	anr							
Chromium	10	1	-0.50	<10	-0.20	<10	0.0	<10	0.0	<10
Cobalt	50	1	anr							
Copper	25	2	anr							
Iron	300	30	anr							
Lead	5.0	1	0.60	<5.0	0.60	<5.0	1.3	<5.0	0.50	<5.0
Magnesium	5000	100	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	500	anr							
Selenium	10	2	1.1	<10	1.4	<10	-0.90	<10	1.9	<10
Silver	10	1	0.0	<10	0.10	<10	-0.10	<10	0.10	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1.5	anr							
Tin	50	1								
Titanium	10	2								
Vanadium	50	1	anr							
Zinc	20	5	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8231 Units: ug/l

Time:			13:17		13:58		14:44		15:29	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	12	2	anr							
Arsenic	10	2	-1.2	<10	0.50	<10	0.90	<10	0.20	<10
Barium	200	5	-0.50	<200	0.0	<200	0.10	<200	0.20	<200
Beryllium	4.0	1	anr							
Cadmium	5.0	1	0.10	<5.0	0.0	<5.0	0.0	<5.0	-0.10	<5.0
Calcium	1000	100	anr							
Chromium	10	1	0.0	<10	-0.40	<10	-0.10	<10	-0.10	<10
Cobalt	50	1	anr							
Copper	25	2	anr							
Iron	300	30	anr							
Lead	5.0	1	0.60	<5.0	1.2	<5.0	0.60	<5.0	0.10	<5.0
Magnesium	5000	100	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	500	anr							
Selenium	10	2	1.1	<10	-1.1	<10	-0.80	<10	0.80	<10
Silver	10	1	0.10	<10	-0.10	<10	0.10	<10	0.40	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1.5	anr							
Tin	50	1								
Titanium	10	2								
Vanadium	50	1	anr							
Zinc	20	5	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8231 Units: ug/l

Time:			16:15		17:01		17:47		18:35	
Sample ID:			CCB8		CCB9		CCB10		CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	12	2	anr							
Arsenic	10	2	0.70	<10	0.30	<10	0.70	<10	0.0	<10
Barium	200	5	0.10	<200	0.10	<200	0.10	<200	0.20	<200
Beryllium	4.0	1	anr							
Cadmium	5.0	1	-0.10	<5.0	0.10	<5.0	0.0	<5.0	-0.10	<5.0
Calcium	1000	100	anr							
Chromium	10	1	-0.20	<10	0.10	<10	-0.20	<10	-0.40	<10
Cobalt	50	1	anr							
Copper	25	2	anr							
Iron	300	30	anr							
Lead	5.0	1	0.20	<5.0	-0.20	<5.0	-0.50	<5.0	0.70	<5.0
Magnesium	5000	100	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	500	anr							
Selenium	10	2	-1.2	<10	-1.7	<10	-1.2	<10	-1.0	<10
Silver	10	1	0.10	<10	0.10	<10	0.20	<10	0.20	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1.5	anr							
Tin	50	1								
Titanium	10	2								
Vanadium	50	1	anr							
Zinc	20	5	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8231 Units: ug/l

Time:			19:22		20:08		20:54		21:40	
Sample ID:			CCB12		CCB13		CCB14		CCB15	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	12	2	anr							
Arsenic	10	2	-0.10	<10	1.7	<10	1.2	<10	0.0	<10
Barium	200	5	-0.10	<200	0.20	<200	-0.10	<200	0.30	<200
Beryllium	4.0	1	anr							
Cadmium	5.0	1	0.0	<5.0	0.0	<5.0	0.0	<5.0	0.0	<5.0
Calcium	1000	100	anr							
Chromium	10	1	-0.30	<10	-0.20	<10	-0.10	<10	-0.10	<10
Cobalt	50	1	anr							
Copper	25	2	anr							
Iron	300	30	anr							
Lead	5.0	1	0.20	<5.0	-0.20	<5.0	0.80	<5.0	0.40	<5.0
Magnesium	5000	100	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	500	anr							
Selenium	10	2	-0.20	<10	1.1	<10	-0.20	<10	1.1	<10
Silver	10	1	-0.10	<10	0.0	<10	-0.10	<10	0.20	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1.5	anr							
Tin	50	1								
Titanium	10	2								
Vanadium	50	1	anr							
Zinc	20	5	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8231 Units: ug/l

Time:			22:26		23:12		23:58		00:44	
Sample ID:			CCB16		CCB17		CCB18		CCB19	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	12	2	anr							
Arsenic	10	2	-0.10	<10	0.30	<10	-0.60	<10	0.20	<10
Barium	200	5	0.30	<200	0.20	<200	0.50	<200	0.20	<200
Beryllium	4.0	1	anr							
Cadmium	5.0	1	0.0	<5.0	0.0	<5.0	0.10	<5.0	0.10	<5.0
Calcium	1000	100	anr							
Chromium	10	1	0.0	<10	-0.10	<10	0.0	<10	0.10	<10
Cobalt	50	1	anr							
Copper	25	2	anr							
Iron	300	30	anr							
Lead	5.0	1	0.30	<5.0	0.80	<5.0	1.1	<5.0	1.0	<5.0
Magnesium	5000	100	anr							
Manganese	15	1	anr							
Molybdenum	50	1								
Nickel	40	1	anr							
Potassium	10000	500	anr							
Selenium	10	2	-1.3	<10	-0.50	<10	-0.30	<10	0.20	<10
Silver	10	1	0.20	<10	0.0	<10	0.0	<10	0.0	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1.5	anr							
Tin	50	1								
Titanium	10	2								
Vanadium	50	1	anr							
Zinc	20	5	anr							

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8231 Units: ug/l

Time:		09:58			10:54			11:43	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1910	95.5	2000	1960	98.0	2000	1890	94.5
Barium	2000	2070	103.5	2000	2080	104.0	2000	2040	102.0
Beryllium	anr								
Cadmium	2000	2020	101.0	2000	2050	102.5	2000	2000	100.0
Calcium	anr								
Chromium	2000	2070	103.5	2000	2090	104.5	2000	2090	104.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2000	100.0	2000	1990	99.5	2000	1990	99.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2010	100.5	2000	2060	103.0	2000	1990	99.5
Silver	250	251	100.4	250	248	99.2	250	249	99.6
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8231 Units: ug/l

Time:		12:28			13:13			13:53	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1900	95.0	2000	1970	98.5	2000	1910	95.5
Barium	2000	2060	103.0	2000	2170	108.5	2000	2080	104.0
Beryllium	anr								
Cadmium	2000	1990	99.5	2000	1970	98.5	2000	2020	101.0
Calcium	anr								
Chromium	2000	2090	104.5	2000	2130	106.5	2000	2080	104.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1980	99.0	2000	1910	95.5	2000	2010	100.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2010	100.5	2000	2120	106.0	2000	2000	100.0
Silver	250	250	100.0	250	254	101.6	250	253	101.2
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8231 Units: ug/l

Time:		14:40			15:25			16:11	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1900	95.0	2000	1880	94.0	2000	1880	94.0
Barium	2000	2100	105.0	2000	2080	104.0	2000	2090	104.5
Beryllium	anr								
Cadmium	2000	2010	100.5	2000	2000	100.0	2000	1990	99.5
Calcium	anr								
Chromium	2000	2060	103.0	2000	2080	104.0	2000	2080	104.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1990	99.5	2000	1990	99.5	2000	1990	99.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2000	100.0	2000	1990	99.5	2000	1980	99.0
Silver	250	252	100.8	250	254	101.6	250	255	102.0
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8231 Units: ug/l

Time:		16:57			17:44			18:31	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1900	95.0	2000	1890	94.5	2000	1910	95.5
Barium	2000	2090	104.5	2000	2090	104.5	2000	2100	105.0
Beryllium	anr								
Cadmium	2000	2000	100.0	2000	2000	100.0	2000	2010	100.5
Calcium	anr								
Chromium	2000	2090	104.5	2000	2080	104.0	2000	2090	104.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2000	100.0	2000	2000	100.0	2000	2010	100.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	1990	99.5	2000	2000	100.0	2000	2010	100.5
Silver	250	255	102.0	250	255	102.0	250	255	102.0
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8231 Units: ug/l

Time:		19:18			20:04			20:51	
Sample ID:	CCV	CCV12		CCV	CCV13		CCV	CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1910	95.5	2000	1920	96.0	2000	1920	96.0
Barium	2000	2120	106.0	2000	2120	106.0	2000	2120	106.0
Beryllium	anr								
Cadmium	2000	2010	100.5	2000	2020	101.0	2000	2020	101.0
Calcium	anr								
Chromium	2000	2090	104.5	2000	2090	104.5	2000	2100	105.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2010	100.5	2000	2010	100.5	2000	2010	100.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2020	101.0	2000	2010	100.5	2000	2020	101.0
Silver	250	254	101.6	250	255	102.0	250	255	102.0
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8231 Units: ug/l

Time:		21:37			22:23			23:08	
Sample ID:	CCV	CCV15		CCV	CCV16		CCV	CCV17	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1920	96.0	2000	1920	96.0	2000	1920	96.0
Barium	2000	2130	106.5	2000	2150	107.5	2000	2130	106.5
Beryllium	anr								
Cadmium	2000	2010	100.5	2000	2020	101.0	2000	2030	101.5
Calcium	anr								
Chromium	2000	2090	104.5	2000	2070	103.5	2000	2080	104.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2010	100.5	2000	2000	100.0	2000	2030	101.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	2000	2020	101.0	2000	2020	101.0	2000	2010	100.5
Silver	250	255	102.0	250	254	101.6	250	254	101.6
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8231 Units: ug/l

Time:		23:55			00:41	
Sample ID:	CCV	CCV18		CCV	CCV19	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	anr					
Antimony	anr					
Arsenic	2000	1920	96.0	2000	1930	96.5
Barium	2000	2130	106.5	2000	2170	108.5
Beryllium	anr					
Cadmium	2000	2020	101.0	2000	2010	100.5
Calcium	anr					
Chromium	2000	2080	104.0	2000	2110	105.5
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	2000	2010	100.5	2000	2000	100.0
Magnesium	anr					
Manganese	anr					
Molybdenum						
Nickel	anr					
Potassium	anr					
Selenium	2000	2010	100.5	2000	2030	101.5
Silver	250	255	102.0	250	256	102.4
Sodium	anr					
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium	anr					
Zinc	anr					

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: 95 to 105 % Recovery Run ID: MA8231 Units: ug/l

Time:		09:54	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	4000	4010	100.3
Barium	4000	3970	99.3
Beryllium	anr		
Cadmium	4000	3980	99.5
Calcium	anr		
Chromium	4000	3890	97.3
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	4000	4000	100.0
Magnesium	anr		
Manganese	anr		
Molybdenum			
Nickel	anr		
Potassium	anr		
Selenium	4000	4000	100.0
Silver	500	498	99.6
Sodium	anr		
Strontium			
Thallium	anr		
Tin			
Titanium			
Vanadium	anr		
Zinc	anr		

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA8231 Units: ug/l

Time:			10:12		10:34		00:10		00:14	
Sample ID:	CRI	CRIA	CRIA1		CRI1		CRIA2		CRI2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	400	200	anr							
Antimony	10	5.0								
Arsenic	20	10	8.8	88.0			8.8	88.0		
Barium	400	200	205	102.5			211	105.5		
Beryllium	10	5.0	anr							
Cadmium	10	5.0	5.3	106.0			5.3	106.0		
Calcium	2000	1000	anr							
Chromium	20	10	10.8	108.0			11.5	115.0		
Cobalt	100	50	anr							
Copper	50	25	anr							
Iron	600	300	anr							
Lead	10	5.0	5.2	104.0			6.2	124.0		
Magnesium	10000	5000	anr							
Manganese	30	15	anr							
Molybdenum	100	50								
Nickel	80	40	anr							
Potassium	20000	10000	anr							
Selenium	20	10	10.0	100.0			8.2	82.0		
Silver	20	10	10.2	102.0			10.3	103.0		
Sodium	20000	10000	anr							
Strontium	20	10								
Thallium	20	10	anr							
Tin	100	50								
Titanium	20	10								
Vanadium	100	50	anr							
Zinc	40	20	anr							

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: 80 to 120 % Recovery Run ID: MA8231 Units: ug/l

Time:			10:38		10:45		00:18		00:21	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	494000	98.8	488000	97.6	467000	93.4	462000	92.4
Antimony		1000	1.0		1020	102.0	-2.4		1030	103.0
Arsenic		1000	0.0		987	98.7	1.8		973	97.3
Barium		500	1.1		510	102.0	1.5		528	105.6
Beryllium		500	-0.20		491	98.2	-0.30		482	96.4
Cadmium		1000	0.0		948	94.8	1.4		927	92.7
Calcium	500000	500000	446000	89.2	448000	89.6	434000	86.8	435000	87.0
Chromium		500	0.40		427	85.4	0.20		430	86.0
Cobalt		500	0.10		499	99.8	-0.10		496	99.2
Copper		500	-2.7		475	95.0	-2.7		502	100.4
Iron	200000	200000	187000	93.5	181000	90.5	174000	87.0	169000	84.5
Lead		1000	0.0		995	99.5	0.0		1010	101.0
Magnesium	500000	500000	504000	100.8	506000	101.2	471000	94.2	476000	95.2
Manganese		500	0.0		427	85.4	-0.40		432	86.4
Molybdenum		1000	-2.7		962	96.2	-2.5		965	96.5
Nickel		1000	0.0		1000	100.0	0.30		1010	101.0
Potassium			34.4		-42		-24		-37	
Selenium		1000	0.0		994	99.4	-6.9		973	97.3
Silver		1000	0.50		1070	107.0	0.30		1120	112.0
Sodium			-170		-95		-1500		-1400	
Strontium		1000	-6.0		-6.0	0.0	-5.6		-5.6	0.0
Thallium		1000	2.4		963	96.3	-2.6		981	98.1
Tin		1000	1.4		935	93.5	0.30		941	94.1
Titanium		1000	6.9		6.9	0.7	6.4		7.6	0.8
Vanadium		500	-0.40		431	86.2	0.80		434	86.8
Zinc		1000	1.0		922	92.2	0.80		931	93.1

(*) Outside of QC limits
(anr) Analyte not requested

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8234
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:34	MA8234-STD1	1		STDA
09:37	MA8234-STD2	1		STDB
09:40	MA8234-STD3	1		STDC
09:45	MA8234-HSTD1	1		
09:50	MA8234-ICV1	1		
09:57	MA8234-ICB1	1		
10:05	MA8234-CRIA1	1		
10:09	MA8234-ICSA1	1		
10:18	MA8234-ICSAB1	1		
10:24	MA8234-CCV1	1		
10:32	MA8234-CCB1	1		
10:36	ZZZZZZ	10		
10:40	ZZZZZZ	10		
10:44	ZZZZZZ	10		
10:47	ZZZZZZ	4		
10:51	ZZZZZZ	20		
10:55	ZZZZZZ	10		
10:59	ZZZZZZ	2		
11:03	ZZZZZZ	10		
11:07	ZZZZZZ	4		
11:10	ZZZZZZ	10		
11:14	MA8234-CCV2	1		
11:18	MA8234-CCB2	1		
11:22	F74974-6	10		
11:26	MP18652-D1	10		
11:29	MP18652-S1	10		
11:33	MP18652-S2	10		
11:37	MP18652-PS1	10		
11:41	MP18652-SD1	50		
11:45	F74974-1	40		
11:49	F74974-2	40		
11:52	F74974-3	40		
11:56	F74974-4	40		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8234
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:00	MA8234-CCV3	1		
12:04	MA8234-CCB3	1		
12:07	F74974-5	20		
12:11	F74974-7	20		
12:15	F74974-8	4		
12:19	F74974-9	40		
12:23	F74974-10	40		
12:27	F74974-11	5		
12:31	F74974-12	2		
12:35	F74888-11	20		(sample used for QC only; not part of login F74974)
12:39	MP18654-D1	20		
12:42	MP18654-S1	20		
12:46	MA8234-CCV4	1		
12:50	MA8234-CCB4	1		
12:54	MP18654-S2	20		
12:57	MP18654-PS1	20		
13:01	MP18654-SD1	100		
13:05	ZZZZZZ	500		
13:09	ZZZZZZ	5		
13:13	ZZZZZZ	4		
13:16	ZZZZZZ	5		
13:22	ZZZZZZ	4		
13:26	ZZZZZZ	4		
13:29	MP18655-MB1	1		
13:33	MA8234-CCV5	1		
13:37	MA8234-CCB5	1		
13:41	MP18655-B1	1		
13:44	F75024-1	1		(sample used for QC only; not part of login F74974)
13:48	MP18655-D1	1		
13:52	MP18655-SD1	5		
13:56	MP18655-PS1	1		
14:00	MP18655-S1	1		
14:04	MP18655-S2	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8234
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:08	ZZZZZZ	1		
14:12	ZZZZZZ	1		
14:16	ZZZZZZ	1		
14:20	MA8234-CCV6	1		
14:23	MA8234-CCB6	1		
14:27	ZZZZZZ	1		
14:31	ZZZZZZ	1		
14:34	ZZZZZZ	1		
14:38	ZZZZZZ	1		
15:05	MA8234-CCV7	1		
15:09	MA8234-CCB7	1		
15:37	MP18661-MB1	1		
15:40	MP18661-B1	1		
15:44	F75062-1	1		(sample used for QC only; not part of login F74974)
15:48	MP18661-D1	1		
15:52	MA8234-CCV8	1		
15:55	MA8234-CCB8	1		
16:10	MA8234-CCV9	1		
16:15	MA8234-CCB9	1		
16:18	MP18661-SD1	5		
16:22	MP18661-PS1	1		
16:26	MP18661-S1	1		
16:29	MP18661-S2	1		
16:33	F74973-1F	4		(sample used for QC only; not part of login F74974)
16:37	MP18653-D1	4		
16:41	MP18653-S1	4		
16:45	MP18653-S2	4		
16:49	MP18653-PS1	4		
16:53	MP18653-SD1	20		
16:57	MA8234-CCV10	1		
17:00	MA8234-CCB10	1		
17:04	ZZZZZZ	4		
17:08	ZZZZZZ	4		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8234
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:12	ZZZZZZ	4		
17:17	ZZZZZZ	4		
17:21	ZZZZZZ	4		
17:25	MP18660-MB1	1		
17:29	MP18660-B1	1		
17:32	F74982-21	1		(sample used for QC only; not part of login F74974)
17:36	MP18660-D1	1		
17:40	MP18660-SD1	5		
17:44	MA8234-CCV11	1		
17:47	MA8234-CCB11	1		
17:51	MP18660-PS1	1		
17:55	MP18660-S1	1		
17:59	MP18660-S2	1		
18:02	ZZZZZZ	1		
18:06	ZZZZZZ	1		
18:10	ZZZZZZ	1		
18:14	ZZZZZZ	1		
18:17	ZZZZZZ	1		
18:21	ZZZZZZ	1		
18:25	ZZZZZZ	1		
18:29	MA8234-CCV12	1		
18:32	MA8234-CCB12	1		
18:36	ZZZZZZ	1		
18:40	ZZZZZZ	1		
18:44	ZZZZZZ	1		
18:48	ZZZZZZ	1		
18:52	ZZZZZZ	1		
18:55	ZZZZZZ	1		
18:59	ZZZZZZ	1		
19:03	ZZZZZZ	1		
19:07	ZZZZZZ	1		
19:11	ZZZZZZ	1		
19:15	MA8234-CCV13	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8234
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	19:18	MA8234-CCB13	1		
	19:22	ZZZZZZ	1		
	19:26	ZZZZZZ	1		
	19:30	MP18659-MB1	1		
	19:34	MP18659-B1	1		
	19:37	F74974-6F	10		
	19:41	MP18659-D1	10		
	19:45	MP18659-SD1	50		
	19:49	MP18659-PS1	10		
	19:53	MP18659-S1	10		
	19:57	MP18659-S2	10		
	20:01	MA8234-CCV14	1		
	20:04	MA8234-CCB14	1		
	20:08	F74974-1F	40		
	20:12	F74974-2F	40		
	20:16	F74974-3F	40		
	20:20	F74974-4F	40		
	20:24	F74974-5F	20		
	20:28	F74974-7F	20		
	20:31	F74974-8F	4		
	20:36	F74974-9F	40		
	20:39	F74974-10F	40		
	20:43	F74974-11F	5		
	20:47	MA8234-CCV15	1		
	20:51	MA8234-CCB15	1		
	20:55	F74974-12F	2		
---------->	Last reportable sample/prep for job F74974				
	20:59	ZZZZZZ	1		
	21:03	ZZZZZZ	1		
	21:34	MA8234-CCV16	1		
	21:38	MA8234-CCB16	1		
	21:41	MA8234-CRIA2	1		
	21:45	MA8234-ICSA2	1		
	21:49	MA8234-ICSAB2	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8234
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:53	MA8234-CCV17	1		
21:56	MA8234-CCB17	1		

----------> Last reportable CCB for job F74974
Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8234
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
09:34	MA8234-STD1	3637	2739	46902	10209	1570
09:37	MA8234-STD2	3454	2775	45185	10060	1337
09:40	MA8234-STD3	3319	2816	44013	10046	1255
09:45	MA8234-HSTD1	3325	2814	44066	10070	1256
09:50	MA8234-ICV1	3471	2779	45315	10189	1346
09:57	MA8234-ICB1	3664 R	2755 R	47026 R	10304 R	1593 R
10:05	MA8234-CRIA1	3599	2706	46163	10219	1514
10:09	MA8234-ICSA1	3192	2943	41706	9976	1134
10:18	MA8234-ICSAB1	3165	2927	41618	9868	1121
10:24	MA8234-CCV1	3468	2787	45517	10157	1350
10:32	MA8234-CCB1	3669	2764	47278	10281	1591
10:36	ZZZZZZ	3621	2765	46880	10229	1493
10:40	ZZZZZZ	3585	2760	46583	10168	1458
10:44	ZZZZZZ	3589	2753	46528	10285	1437
10:47	ZZZZZZ	3585	2749	46627	10321	1467
10:51	ZZZZZZ	3589	2735	46536	10335	1475
10:55	ZZZZZZ	3581	2735	46642	10443	1447
10:59	ZZZZZZ	3596	2750	47232	10683	1464
11:03	ZZZZZZ	3548	2732	46699	10520	1443
11:07	ZZZZZZ	3403	2621	45873	10612	1410
11:10	ZZZZZZ	3499	2689	46648	10636	1469
11:14	MA8234-CCV2	3416	2761	45741	10509	1342
11:18	MA8234-CCB2	3631	2752	47741	10634	1591
11:22	F74974-6	2977	2253	38380	9659	1097
11:26	MP18652-D1	2967	2233	38394	9701	1092
11:29	MP18652-S1	2998	2265	38928	9705	1097
11:33	MP18652-S2	2981	2246	38510	9566	1088
11:37	MP18652-PS1	2983	2244	38589	9672	1102
11:41	MP18652-SD1	3300	2511	43178	10115	1295
11:45	F74974-1	3104	2333	39936	9788	1163
11:49	F74974-2	3119	2352	40158	9829	1169
11:52	F74974-3	3122	2345	40264	9810	1173
11:56	F74974-4	3125	2337	40251	9781	1172

INTERNAL STANDARD SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8234
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
12:00	MA8234-CCV3	3420	2752	45372	10299	1341
12:04	MA8234-CCB3	3638	2729	47708	10419	1592
12:07	F74974-5	3019	2259	38502	9555	1100
12:11	F74974-7	3082	2301	39600	9662	1151
12:15	F74974-8	3023	2279	39573	9645	1134
12:19	F74974-9	3158	2376	40720	9802	1202
12:23	F74974-10	3147	2370	40701	9803	1198
12:27	F74974-11	2928	2184	37709	9480	1073
12:31	F74974-12	2964	2223	38941	9606	1106
12:35	F74888-11	3607	2748	47677	10454	1550
12:39	MP18654-D1	3608	2725	47680	10472	1558
12:42	MP18654-S1	3600	2727	47526	10410	1540
12:46	MA8234-CCV4	3406	2751	45573	10250	1340
12:50	MA8234-CCB4	3620	2729	47753	10364	1587
12:54	MP18654-S2	3610	2744	47738	10478	1541
12:57	MP18654-PS1	3621	2739	47814	10486	1559
13:01	MP18654-SD1	3602	2728	47476	10398	1571
13:05	ZZZZZZ	3606	2701	47323	10293	1581
13:09	ZZZZZZ	3544	2857	47293	10942	1298
13:13	ZZZZZZ	3790	3111	50111	11303	1400
13:16	ZZZZZZ	3897	3160	51516	11499	1464
13:22	ZZZZZZ	3916	3221	51977	11635	1442
13:26	ZZZZZZ	3920	3202	51968	11455	1456
13:29	MP18655-MB1	3619	2706	47909	10532	1581
13:33	MA8234-CCV5	3460	2768	45972	10272	1358
13:37	MA8234-CCB5	3649	2736	47668	10485	1596
13:41	MP18655-B1	3465	2678	45605	10319	1393
13:44	F75024-1	3385	2625	45173	10883	1101
13:48	MP18655-D1	3399	2657	45521	10819	1136
13:52	MP18655-SD1	3440	2639	45682	10385	1325
13:56	MP18655-PS1	3376	2635	45219	10870	1100
14:00	MP18655-S1	3314	2668	44807	10790	1062
14:04	MP18655-S2	3356	2700	45163	10779	1107

INTERNAL STANDARD SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8234
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
14:08	ZZZZZZ	3587	2831	48068	10738	1361
14:12	ZZZZZZ	3400	2741	45780	11115	1014
14:16	ZZZZZZ	4062	3420	53881	11974	1400
14:20	MA8234-CCV6	3475	2798	46453	10307	1365
14:23	MA8234-CCB6	3667	2755	48129	10391	1604
14:27	ZZZZZZ	3997	3320	52883	11636	1406
14:31	ZZZZZZ	3665	2785	48644	10627	1493
14:34	ZZZZZZ	6123 !	5999 !	83361 !	18858 !	1247
14:38	ZZZZZZ	5337 !	5209 !	72265 !	16148 !	1324
15:05	MA8234-CCV7	3404	2738	45678	10238	1340
15:09	MA8234-CCB7	3627	2725	47874	10412	1593
15:37	MP18661-MB1	3583	2705	47914	10502	1570
15:40	MP18661-B1	3462	2730	46595	10392	1394
15:44	F75062-1	3542	2713	47614	10448	1521
15:48	MP18661-D1	3538	2698	47495	10362	1524
15:52	MA8234-CCV8	3394	2738	45587	10057	1333
15:55	MA8234-CCB8	3621	2750	48177	10355	1587
16:10	MA8234-CCV9	3404	2741	45369	10110	1338
16:15	MA8234-CCB9	3631	2723	47727	10333	1587
16:18	MP18661-SD1	3588	2698	47069	10257	1564
16:22	MP18661-PS1	3547	2693	47131	10411	1505
16:26	MP18661-S1	3464	2725	46223	10357	1388
16:29	MP18661-S2	3477	2715	46212	10338	1389
16:33	F74973-1F	2925	2194	38037	9426	1079
16:37	MP18653-D1	2920	2180	37936	9507	1080
16:41	MP18653-S1	2949	2226	38540	9516	1067
16:45	MP18653-S2	2960	2228	38724	9587	1079
16:49	MP18653-PS1	2925	2198	38271	9479	1082
16:53	MP18653-SD1	3260	2446	42741	9930	1282
16:57	MA8234-CCV10	3400	2735	45678	10219	1339
17:00	MA8234-CCB10	3606	2713	47650	10397	1587
17:04	ZZZZZZ	2921	2174	37874	9420	1084
17:08	ZZZZZZ	2836	2088	36807	9449	1048

INTERNAL STANDARD SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8234
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
17:12	ZZZZZZ	2882	2136	37666	9606	1069
17:17	ZZZZZZ	2806	2065	36160	9315	1025
17:21	ZZZZZZ	2923	2171	38110	9528	1091
17:25	MP18660-MB1	3582	2670	47830	10476	1586
17:29	MP18660-B1	3474	2717	46650	10523	1411
17:32	F74982-21	3568	2708	48170	10542	1542
17:36	MP18660-D1	3577	2699	47914	10509	1536
17:40	MP18660-SD1	3615	2700	47587	10311	1579
17:44	MA8234-CCV11	3413	2716	45574	10130	1347
17:47	MA8234-CCB11	3619	2707	48073	10455	1595
17:51	MP18660-PS1	3560	2699	47881	10545	1521
17:55	MP18660-S1	3450	2715	46483	10405	1393
17:59	MP18660-S2	3460	2728	46359	10257	1389
18:02	ZZZZZZ	3533	2677	47194	10335	1524
18:06	ZZZZZZ	3492	2655	46649	10448	1404
18:10	ZZZZZZ	3521	2667	46706	10456	1421
18:14	ZZZZZZ	3580	2758	47533	10553	1370
18:17	ZZZZZZ	3336	2536	43161	10234	1209
18:21	ZZZZZZ	3737	3150	52045	12079	1230
18:25	ZZZZZZ	3410	2607	48393	11406	1511
18:29	MA8234-CCV12	3292	2666	46514	11077	1331
18:32	MA8234-CCB12	3477	2642	48644	11250	1558
18:36	ZZZZZZ	3292	2604	45902	11467	1225
18:40	ZZZZZZ	3328	2578	47031	11644	1333
18:44	ZZZZZZ	3377	2605	47535	11648	1339
18:48	ZZZZZZ	3352	2579	46858	11537	1332
18:52	ZZZZZZ	3364	2587	47476	11515	1394
18:55	ZZZZZZ	3370	2580	48203	11536	1458
18:59	ZZZZZZ	3277	2535	46106	11346	1301
19:03	ZZZZZZ	3345	2565	47776	11401	1464
19:07	ZZZZZZ	3263	2493	46420	11359	1397
19:11	ZZZZZZ	3118	2376	43496	11118	1234
19:15	MA8234-CCV13	3239	2615	46734	11292	1322

INTERNAL STANDARD SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8234
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
19:18	MA8234-CCB13	3432	2629	48843	11410	1547
19:22	ZZZZZZ	3284	2564	46202	11308	1286
19:26	ZZZZZZ	3284	2541	46691	11544	1312
19:30	MP18659-MB1	3396	2619	49464	11644	1543
19:34	MP18659-B1	3275	2607	47053	11333	1369
19:37	F74974-6F	2825	2123	38541	10234	1076
19:41	MP18659-D1	2779	2083	38235	10228	1067
19:45	MP18659-SD1	3098	2343	43576	11059	1271
19:49	MP18659-PS1	2790	2099	38611	10322	1071
19:53	MP18659-S1	2804	2111	38454	10143	1062
19:57	MP18659-S2	2783	2095	38486	10219	1060
20:01	MA8234-CCV14	3232	2629	46494	11152	1314
20:04	MA8234-CCB14	3424	2616	49051	11349	1549
20:08	F74974-1F	2936	2217	40178	10380	1141
20:12	F74974-2F	2902	2166	39569	10369	1125
20:16	F74974-3F	2919	2176	40459	10561	1155
20:20	F74974-4F	2915	2199	40678	10586	1151
20:24	F74974-5F	2786	2080	38183	10216	1069
20:28	F74974-7F	2911	2193	39884	10356	1133
20:31	F74974-8F	2811	2116	39270	10332	1104
20:36	F74974-9F	2951	2227	41125	10613	1172
20:39	F74974-10F	2950	2230	40928	10505	1168
20:43	F74974-11F	2715	2012	36993	9907	1028
20:47	MA8234-CCV15	3203	2580	45853	10985	1308
20:51	MA8234-CCB15	3407	2593	48962	11467	1552
20:55	F74974-12F	2768	2085	39181	10314	1081
20:59	ZZZZZZ	3092	2361	44246	10835	1317
21:03	ZZZZZZ	3176	2423	45265	10964	1350
21:34	MA8234-CCV16	3235	2632	46379	10940	1314
21:38	MA8234-CCB16	3409	2609	48669	11202	1548
21:41	MA8234-CRIA2	3347	2568	48091	11276	1481
21:45	MA8234-ICSA2	2949	2730	42354	10645	1096
21:49	MA8234-ICSAB2	2951	2711	42037	10546	1089

INTERNAL STANDARD SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8234
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
21:53	MA8234-CCV17	3210	2612	46249	11001	1309
21:56	MA8234-CCB17	3413	2606	48891	11339	1554

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	60-125 %
Istd#2	Yttrium (2422)	60-125 %
Istd#3	Yttrium (3242)	60-125 %
Istd#4	Yttrium (3710)	60-125 %
Istd#5	Indium	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8234 Units: ug/l

Time:			09:57		10:32		11:18		12:04	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	2	anr							
Arsenic	10	2	-0.70	<10	0.50	<10	0.10	<10	1.0	<10
Barium	200	5	0.10	<200	0.0	<200	0.10	<200	0.10	<200
Beryllium	4.0	1	anr							
Cadmium	5.0	1	-0.10	<5.0	-0.10	<5.0	0.10	<5.0	0.0	<5.0
Calcium	1000	100	anr							
Chromium	10	1	0.0	<10	0.30	<10	0.20	<10	0.30	<10
Cobalt	50	1	anr							
Copper	25	2	anr							
Iron	300	30	anr							
Lead	5.0	1	0.10	<5.0	-0.70	<5.0	-0.50	<5.0	0.30	<5.0
Magnesium	5000	100	anr							
Manganese	15	1	anr							
Molybdenum	50	1	anr							
Nickel	40	1	anr							
Potassium	10000	500	anr							
Selenium	10	2	0.10	<10	2.0	<10	-0.40	<10	0.20	<10
Silver	10	1	-0.10	<10	-0.20	<10	0.0	<10	-0.20	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1.5	anr							
Tin	50	1	anr							
Titanium	10	2								
Vanadium	50	1	anr							
Zinc	20	5	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8234 Units: ug/l

Time:			12:50		13:37		14:23		15:09	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	2	anr							
Arsenic	10	2	-0.10	<10	-0.30	<10	1.5	<10	0.20	<10
Barium	200	5	0.20	<200	0.10	<200	0.10	<200	-0.40	<200
Beryllium	4.0	1	anr							
Cadmium	5.0	1	0.20	<5.0	0.10	<5.0	0.10	<5.0	-0.30	<5.0
Calcium	1000	100	anr							
Chromium	10	1	0.20	<10	0.20	<10	0.50	<10	-0.10	<10
Cobalt	50	1	anr							
Copper	25	2	anr							
Iron	300	30	anr							
Lead	5.0	1	-0.30	<5.0	-0.60	<5.0	-0.30	<5.0	-1.0	<5.0
Magnesium	5000	100	anr							
Manganese	15	1	anr							
Molybdenum	50	1	anr							
Nickel	40	1	anr							
Potassium	10000	500	anr							
Selenium	10	2	-1.1	<10	1.1	<10	0.30	<10	1.4	<10
Silver	10	1	-0.40	<10	0.10	<10	-0.20	<10	-0.10	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1.5	anr							
Tin	50	1	anr							
Titanium	10	2								
Vanadium	50	1	anr							
Zinc	20	5	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8234 Units: ug/l

Time:			15:55		16:15		17:00		17:47	
Sample ID:			CCB8		CCB9		CCB10		CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	2	anr							
Arsenic	10	2	0.40	<10	-0.30	<10	-1.5	<10	0.30	<10
Barium	200	5	-0.20	<200	0.10	<200	-0.30	<200	0.0	<200
Beryllium	4.0	1	anr							
Cadmium	5.0	1	-0.10	<5.0	0.20	<5.0	-0.10	<5.0	-0.10	<5.0
Calcium	1000	100	anr							
Chromium	10	1	-0.30	<10	0.60	<10	-0.20	<10	0.10	<10
Cobalt	50	1	anr							
Copper	25	2	anr							
Iron	300	30	anr							
Lead	5.0	1	-0.60	<5.0	-0.30	<5.0	0.0	<5.0	0.60	<5.0
Magnesium	5000	100	anr							
Manganese	15	1	anr							
Molybdenum	50	1	anr							
Nickel	40	1	anr							
Potassium	10000	500	anr							
Selenium	10	2	2.0	<10	0.90	<10	1.2	<10	0.0	<10
Silver	10	1	0.0	<10	-0.20	<10	-0.30	<10	-0.10	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1.5	anr							
Tin	50	1	anr							
Titanium	10	2								
Vanadium	50	1	anr							
Zinc	20	5	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8234 Units: ug/l

Time:			18:32		19:18		20:04		20:51	
Sample ID:			CCB12		CCB13		CCB14		CCB15	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	2	anr							
Arsenic	10	2	-0.70	<10	-0.90	<10	-0.10	<10	0.80	<10
Barium	200	5	-0.40	<200	-0.30	<200	-0.20	<200	0.0	<200
Beryllium	4.0	1	anr							
Cadmium	5.0	1	-0.10	<5.0	0.10	<5.0	0.20	<5.0	0.20	<5.0
Calcium	1000	100	anr							
Chromium	10	1	0.40	<10	0.20	<10	0.40	<10	0.40	<10
Cobalt	50	1	anr							
Copper	25	2	anr							
Iron	300	30	anr							
Lead	5.0	1	0.20	<5.0	0.60	<5.0	0.40	<5.0	1.1	<5.0
Magnesium	5000	100	anr							
Manganese	15	1	anr							
Molybdenum	50	1	anr							
Nickel	40	1	anr							
Potassium	10000	500	anr							
Selenium	10	2	0.80	<10	1.3	<10	1.2	<10	2.4	<10
Silver	10	1	-0.30	<10	-0.10	<10	-0.20	<10	0.0	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1.5	anr							
Tin	50	1	anr							
Titanium	10	2								
Vanadium	50	1	anr							
Zinc	20	5	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8234 Units: ug/l

Time:			21:38		21:56	
Sample ID:			CCB16		CCB17	
Metal	RL	IDL	raw	final	raw	final
Aluminum	200	20	anr			
Antimony	6.0	2	anr			
Arsenic	10	2	-0.10	<10	-1.4	<10
Barium	200	5	-0.20	<200	0.0	<200
Beryllium	4.0	1	anr			
Cadmium	5.0	1	0.20	<5.0	0.30	<5.0
Calcium	1000	100	anr			
Chromium	10	1	0.20	<10	0.20	<10
Cobalt	50	1	anr			
Copper	25	2	anr			
Iron	300	30	anr			
Lead	5.0	1	1.1	<5.0	1.1	<5.0
Magnesium	5000	100	anr			
Manganese	15	1	anr			
Molybdenum	50	1	anr			
Nickel	40	1	anr			
Potassium	10000	500	anr			
Selenium	10	2	0.10	<10	3.6	<10
Silver	10	1	-0.10	<10	0.0	<10
Sodium	10000	750	anr			
Strontium	10	1				
Thallium	10	1.5	anr			
Tin	50	1	anr			
Titanium	10	2				
Vanadium	50	1	anr			
Zinc	20	5	anr			

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8234 Units: ug/l

Time:		09:50			10:24			11:14	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1910	95.5	2000	1900	95.0	2000	1930	96.5
Barium	2000	2070	103.5	2000	2070	103.5	2000	2100	105.0
Beryllium	anr								
Cadmium	2000	2000	100.0	2000	2000	100.0	2000	2010	100.5
Calcium	anr								
Chromium	2000	2070	103.5	2000	2050	102.5	2000	2070	103.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1990	99.5	2000	1980	99.0	2000	1970	98.5
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	2000	1990	99.5	2000	2000	100.0	2000	2040	102.0
Silver	250	252	100.8	250	251	100.4	250	251	100.4
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8234 Units: ug/l

Time:		12:00			12:46			13:33	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1930	96.5	2000	1940	97.0	2000	1930	96.5
Barium	2000	2120	106.0	2000	2130	106.5	2000	2120	106.0
Beryllium	anr								
Cadmium	2000	1990	99.5	2000	2000	100.0	2000	1980	99.0
Calcium	anr								
Chromium	2000	2070	103.5	2000	2070	103.5	2000	2080	104.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1970	98.5	2000	1960	98.0	2000	1970	98.5
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	2000	2020	101.0	2000	2040	102.0	2000	2010	100.5
Silver	250	252	100.8	250	253	101.2	250	254	101.6
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8234 Units: ug/l

Time:		14:20			15:05			15:52	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1930	96.5	2000	1960	98.0	2000	1950	97.5
Barium	2000	2120	106.0	2000	2150	107.5	2000	2160	108.0
Beryllium	anr								
Cadmium	2000	1990	99.5	2000	2000	100.0	2000	2010	100.5
Calcium	anr								
Chromium	2000	2070	103.5	2000	2090	104.5	2000	2080	104.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1970	98.5	2000	1980	99.0	2000	1970	98.5
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	2000	2020	101.0	2000	2050	102.5	2000	2050	102.5
Silver	250	253	101.2	250	254	101.6	250	253	101.2
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8234 Units: ug/l

Time:		16:10			16:57			17:44	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1920	96.0	2000	1920	96.0	2000	1930	96.5
Barium	2000	2060	103.0	2000	2070	103.5	2000	2080	104.0
Beryllium	anr								
Cadmium	2000	2020	101.0	2000	2000	100.0	2000	1990	99.5
Calcium	anr								
Chromium	2000	2080	104.0	2000	2080	104.0	2000	2090	104.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2000	100.0	2000	1990	99.5	2000	1990	99.5
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	2000	2010	100.5	2000	2000	100.0	2000	2000	100.0
Silver	250	253	101.2	250	253	101.2	250	252	100.8
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8234 Units: ug/l

Time:		18:29			19:15			20:01	
Sample ID:	CCV	CCV12		CCV	CCV13		CCV	CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1950	97.5	2000	1950	97.5	2000	1960	98.0
Barium	2000	2150	107.5	2000	2190	109.5	2000	2200	110.0
Beryllium	anr								
Cadmium	2000	1970	98.5	2000	1970	98.5	2000	1970	98.5
Calcium	anr								
Chromium	2000	2070	103.5	2000	2070	103.5	2000	2060	103.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1910	95.5	2000	1880	94.0	2000	1880	94.0
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	2000	2050	102.5	2000	2080	104.0	2000	2080	104.0
Silver	250	251	100.4	250	251	100.4	250	250	100.0
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8234 Units: ug/l

Time:		20:47			21:34			21:53	
Sample ID:	CCV	CCV15		CCV	CCV16		CCV	CCV17	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1970	98.5	2000	1960	98.0	2000	1970	98.5
Barium	2000	2200	110.0	2000	2180	109.0	2000	2190	109.5
Beryllium	anr								
Cadmium	2000	1960	98.0	2000	1960	98.0	2000	1960	98.0
Calcium	anr								
Chromium	2000	2080	104.0	2000	2080	104.0	2000	2070	103.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1880	94.0	2000	1880	94.0	2000	1870	93.5
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	2000	2080	104.0	2000	2070	103.5	2000	2080	104.0
Silver	250	252	100.8	250	248	99.2	250	250	100.0
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
QC Limits: 95 to 105 % Recovery Run ID: MA8234 Units: ug/l

Time:		09:45	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	4000	4000	100.0
Barium	4000	3990	99.8
Beryllium	anr		
Cadmium	4000	3950	98.8
Calcium	anr		
Chromium	4000	3910	97.8
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	4000	3980	99.5
Magnesium	anr		
Manganese	anr		
Molybdenum	anr		
Nickel	anr		
Potassium	anr		
Selenium	4000	3990	99.8
Silver	500	498	99.6
Sodium	anr		
Strontium			
Thallium	anr		
Tin	anr		
Titanium			
Vanadium	anr		
Zinc	anr		

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA8234 Units: ug/l

Time:			10:05		21:41	
Sample ID:	CRI	CRIA	CRIA1		CRIA2	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	400	200	anr			
Antimony	10	5.0	anr			
Arsenic	20	10	9.5	95.0	9.7	97.0
Barium	400	200	206	103.0	219	109.5
Beryllium	10	5.0	anr			
Cadmium	10	5.0	5.0	100.0	5.0	100.0
Calcium	2000	1000	anr			
Chromium	20	10	10.9	109.0	11.1	111.0
Cobalt	100	50	anr			
Copper	50	25	anr			
Iron	600	300	anr			
Lead	10	5.0	5.4	108.0	5.2	104.0
Magnesium	10000	5000	anr			
Manganese	30	15	anr			
Molybdenum	100	50	anr			
Nickel	80	40	anr			
Potassium	20000	10000	anr			
Selenium	20	10	9.1	91.0	10.4	104.0
Silver	20	10	10.0	100.0	9.7	97.0
Sodium	20000	10000	anr			
Strontium	20	10				
Thallium	20	10	anr			
Tin	100	50	anr			
Titanium	20	10				
Vanadium	100	50	anr			
Zinc	40	20	anr			

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
QC Limits: 80 to 120 % Recovery Run ID: MA8234 Units: ug/l

Time:			10:09		10:18		21:45		21:49	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	480000	96.0	475000	95.0	463000	92.6	461000	92.2
Antimony		1000	0.0		1000	100.0	3.2		1040	104.0
Arsenic		1000	0.0		959	95.9	-1.2		986	98.6
Barium		500	0.60		506	101.2	0.40		537	107.4
Beryllium		500	-0.20		484	96.8	-0.20		457	91.4
Cadmium		1000	-1.7		925	92.5	2.7		900	90.0
Calcium	500000	500000	437000	87.4	442000	88.4	384000	76.8*(a)	387000	77.4*(a)
Chromium		500	-0.70		415	83.0	-0.20		418	83.6
Cobalt		500	-0.20		488	97.6	-0.10		470	94.0
Copper		500	-3.6		475	95.0	-2.6		515	103.0
Iron	200000	200000	184000	92.0	179000	89.5	157000	78.5*(a)	153000	76.5*(a)
Lead		1000	0.0		989	98.9	6.5		934	93.4
Magnesium	500000	500000	490000	98.0	497000	99.4	410000	82.0	419000	83.8
Manganese		500	-1.5		423	84.6	-1.5		425	85.0
Molybdenum		1000	-0.80		950	95.0	-1.6		961	96.1
Nickel		1000	-0.10		986	98.6	0.50		947	94.7
Potassium			0.50		-3.7		-5.5		17.0	
Selenium		1000	-3.3		974	97.4	-14		1010	101.0
Silver		1000	0.50		1080	108.0	0.20		1090	109.0
Sodium			18.6		203		483		440	
Strontium		1000	-5.8		-6.0	0.0	-4.4		-4.4	0.0
Thallium		1000	-0.10		957	95.7	3.4		928	92.8
Tin		1000	0.10		920	92.0	0.60		866	86.6
Titanium		1000	8.6		9.0	0.9	7.5		7.7	0.8
Vanadium		500	0.40		422	84.4	1.3		440	88.0
Zinc		1000	-4.8		905	90.5	-4.7		838	83.8

(*) Outside of QC limits
(anr) Analyte not requested
(a) Possible instrument baseline drift.

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071610M1.ICP Date Analyzed: 07/16/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8239
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
08:11	MA8239-STD1	1		STDA
08:15	MA8239-STD2	1		STDB
08:18	MA8239-STD3	1		STDC
08:22	MA8239-HSTD1	1		
08:26	MA8239-ICV1	1		
08:33	MA8239-ICB1	1		
08:45	MA8239-CRIA1	1		
08:50	MA8239-ICSA1	1		
08:56	MA8239-ICSAB1	1		
09:01	MA8239-CCV1	1		
09:09	MA8239-CCB1	1		
09:15	F75024-1	2		(sample used for QC only; not part of login F74974)
09:19	MP18655-PS1	2		
09:23	MP18655-SD1	10		
09:27	ZZZZZZ	5		
09:31	ZZZZZZ	5		
09:34	ZZZZZZ	2		
09:38	ZZZZZZ	2		
09:42	ZZZZZZ	4		
09:46	ZZZZZZ	20		
09:50	ZZZZZZ	10		
09:53	MA8239-CCV2	1		
09:57	MA8239-CCB2	1		
10:01	ZZZZZZ	10		
10:05	ZZZZZZ	5		
10:09	ZZZZZZ	5		
10:13	ZZZZZZ	5		
10:16	ZZZZZZ	5		
10:20	ZZZZZZ	10		
10:24	ZZZZZZ	5		
10:28	ZZZZZZ	5		
10:32	ZZZZZZ	1		
10:36	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071610M1.ICP Date Analyzed: 07/16/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8239
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	10:39	MA8239-CCV3	1		
	10:43	MA8239-CCB3	1		
	10:47	ZZZZZZ	1		
	10:51	ZZZZZZ	1		
	10:55	ZZZZZZ	1		
	10:58	MP18659-MB2A	1		
	11:02	MP18659-MB3A	1		
	11:06	MP18659-MB1	1		
	11:10	MP18659-B1	1		
	11:14	F74974-6F	10		
	11:18	MP18659-D1	10		
	11:22	MP18659-S1	10		
	11:25	MA8239-CCV4	1		
	11:29	MA8239-CCB4	1		
	11:33	MP18659-S2	10		
	11:37	MP18659-PS1	10		
	11:41	MP18659-SD1	50		
	11:45	F74974-6F	500		
	11:48	MP18659-D1	500		
	11:52	MP18659-S1	500		
	11:56	MP18659-S2	500		
	12:00	MP18659-PS1	500		
	12:04	MP18659-SD1	2500		
---------->	Last reportable sample/prep for job F74974				
	12:08	MP18663-MB1	1		
	12:11	MA8239-CCV5	1		
	12:15	MA8239-CCB5	1		
	12:19	MP18663-B1	1		
	12:23	F75091-3	1		(sample used for QC only; not part of login F74974)
	12:26	MP18663-D1	1		
	12:30	MP18663-SD1	5		
	12:34	MP18663-PS1	1		
	12:38	MP18663-S1	1		
	12:42	MP18663-S2	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071610M1.ICP Date Analyzed: 07/16/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8239
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:46	ZZZZZZ	1		
12:50	ZZZZZZ	1		
12:54	ZZZZZZ	1		
12:57	MA8239-CCV6	1		
13:01	MA8239-CCB6	1		
13:26	MP18666-MB1	1		
13:30	MP18666-B1	1		
13:33	F75080-3	1		(sample used for QC only; not part of login F74974)
13:37	MP18666-D1	1		
13:41	MP18666-SD1	5		
13:45	MP18666-PS1	1		
13:49	MP18666-S1	1		
13:52	MP18666-S2	1		
13:56	ZZZZZZ	1		
13:59	ZZZZZZ	1		
14:04	MA8239-CCV7	1		
14:07	MA8239-CCB7	1		
14:11	ZZZZZZ	1		
14:15	ZZZZZZ	1		
14:19	ZZZZZZ	1		
14:23	ZZZZZZ	1		
14:27	ZZZZZZ	1		
14:31	MP18667-MB1	1		
14:35	ZZZZZZ	1		
14:39	MP18667-B1	1		
14:43	F75100-1	1		(sample used for QC only; not part of login F74974)
15:06	MA8239-CCV8	1		
15:11	MA8239-CCB8	1		
15:16	MP18667-D1	1		
15:20	MP18667-SD1	5		
15:24	MP18667-S1	1		
15:27	MP18667-S2	1		
15:31	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071610M1.ICP Date Analyzed: 07/16/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8239
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:35	ZZZZZZ	1		
15:39	F75089-1	1		(sample used for QC only; not part of login F74974)
15:43	MP18667-D2	1		
15:47	MP18667-MB2	1		
15:51	MP18667-B2	1		
15:54	MA8239-CCV9	1		
15:58	MA8239-CCB9	1		
16:23	MA8239-CCV10	1		
16:27	MA8239-CCB10	1		
16:32	ZZZZZZ	1		
16:35	ZZZZZZ	1		
16:39	ZZZZZZ	1		
16:43	ZZZZZZ	1		
16:47	ZZZZZZ	1		
16:51	ZZZZZZ	1		
16:55	MP18668-MB1	1		
16:59	MP18668-B1	1		
17:03	F75082-2	1		(sample used for QC only; not part of login F74974)
17:06	MP18668-D1	1		
17:10	MA8239-CCV11	1		
17:14	MA8239-CCB11	1		
17:18	MP18668-SD1	5		
17:22	MP18668-PS1	1		
17:25	MP18668-S1	1		
17:29	MP18668-S2	1		
17:33	ZZZZZZ	1		
17:36	ZZZZZZ	1		
17:40	ZZZZZZ	1		
17:44	ZZZZZZ	1		
17:48	ZZZZZZ	1		
17:52	ZZZZZZ	1		
17:56	MA8239-CCV12	1		
17:59	MA8239-CCB12	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071610M1.ICP Date Analyzed: 07/16/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8239
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:03	ZZZZZZ	1		
18:07	ZZZZZZ	1		
18:11	ZZZZZZ	1		
18:15	ZZZZZZ	1		
18:19	ZZZZZZ	1		
18:23	ZZZZZZ	1		
18:27	ZZZZZZ	1		
18:30	ZZZZZZ	1		
18:34	ZZZZZZ	1		
18:38	ZZZZZZ	1		
18:42	MA8239-CCV13	1		
18:46	MA8239-CCB13	1		
18:50	ZZZZZZ	1		
18:53	ZZZZZZ	1		
19:21	ZZZZZZ	1		
19:25	ZZZZZZ	1		
19:29	MA8239-CCV14	1		
19:32	MA8239-CCB14	1		
19:36	ZZZZZZ	1		
19:40	ZZZZZZ	1		
19:44	ZZZZZZ	1		
19:48	ZZZZZZ	1		
19:52	MP18662-MB1	1		
19:56	MP18662-B1	1		
19:59	F75051-1	1		(sample used for QC only; not part of login F74974)
20:03	MP18662-D1	1		
20:07	MP18662-SD1	5		
20:11	MP18662-PS1	1		
20:15	MA8239-CCV15	1		
20:19	MA8239-CCB15	1		
20:23	MP18662-S1	1		
20:27	MP18662-S2	1		
20:31	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071610M1.ICP Date Analyzed: 07/16/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8239
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:35	ZZZZZZ	1		
20:39	ZZZZZZ	1		
20:42	ZZZZZZ	1		
20:46	ZZZZZZ	1		
20:50	ZZZZZZ	1		
20:54	ZZZZZZ	1		
20:58	ZZZZZZ	1		
21:02	MA8239-CCV16	1		
21:06	MA8239-CCB16	1		
21:10	ZZZZZZ	1		
21:14	ZZZZZZ	1		
21:18	ZZZZZZ	1		
21:21	MA8239-CRIA2	1		
21:25	MA8239-ICSA2	1		
21:29	MA8239-ICSAB2	1		
21:33	MA8239-CCV17	1		
21:37	MA8239-CCB17	1		

----------> Last reportable CCB for job F74974
Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071610M1.ICP Date Analyzed: 07/16/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8239
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
08:11	MA8239-STD1	3802	2554	43228	11912	1682
08:15	MA8239-STD2	3587	2592	42209	11960	1417
08:18	MA8239-STD3	3474	2654	41797	11954	1332
08:22	MA8239-HSTD1	3473	2654	41714	11973	1325
08:26	MA8239-ICV1	3611	2626	42416	12033	1414
08:33	MA8239-ICB1	3866 R	2624 R	44332 R	12145 R	1707 R
08:45	MA8239-CRIA1	3780	2573	43570	12068	1607
08:50	MA8239-ICSA1	3261	2750	38628	11519	1160
08:56	MA8239-ICSAB1	3259	2714	38429	11605	1154
09:01	MA8239-CCV1	3603	2633	42425	12011	1415
09:09	MA8239-CCB1	3867	2623	44517	12316	1711
09:15	F75024-1	3454	2446	41606	12266	1235
09:19	MP18655-PS1	3463	2435	41521	12309	1230
09:23	MP18655-SD1	3656	2522	43064	12237	1472
09:27	ZZZZZZ	4389	3438	51271	14456	1517
09:31	ZZZZZZ	4192	3180	48750	13663	1559
09:34	ZZZZZZ	3751	2575	43509	12297	1543
09:38	ZZZZZZ	3755	2573	43676	12437	1554
09:42	ZZZZZZ	3804	2590	44037	12521	1560
09:46	ZZZZZZ	3744	2565	43587	12361	1559
09:50	ZZZZZZ	3802	2617	44160	12681	1530
09:53	MA8239-CCV2	3571	2573	42322	12246	1413
09:57	MA8239-CCB2	3806	2575	44112	12458	1701
10:01	ZZZZZZ	3720	2554	43550	12460	1531
10:05	ZZZZZZ	3740	2541	43545	12483	1568
10:09	ZZZZZZ	3752	2557	43793	12580	1572
10:13	ZZZZZZ	3743	2538	43588	12538	1566
10:16	ZZZZZZ	3706	2527	43035	12469	1528
10:20	ZZZZZZ	3672	2504	42905	12465	1543
10:24	ZZZZZZ	3699	2516	43203	12504	1523
10:28	ZZZZZZ	3701	2522	43512	12495	1546
10:32	ZZZZZZ	3580	2426	42571	12516	1513
10:36	ZZZZZZ	3705	2534	43737	12647	1596

INTERNAL STANDARD SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071610M1.ICP Date Analyzed: 07/16/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8239
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
10:39	MA8239-CCV3	3554	2560	42239	12312	1413
10:43	MA8239-CCB3	3792	2544	43747	12442	1696
10:47	ZZZZZZ	3639	2575	42883	12549	1539
10:51	ZZZZZZ	3771	2556	44282	12887	1603
10:55	ZZZZZZ	3788	2550	44404	12545	1699
10:58	MP18659-MB2A	3767	2525	44067	12645	1690
11:02	MP18659-MB3A	3782	2538	44250	12625	1693
11:06	MP18659-MB1	3778	2542	44277	12692	1692
11:10	MP18659-B1	3628	2567	43068	12555	1482
11:14	F74974-6F	3027	2122	36501	11441	1128
11:18	MP18659-D1	3002	2118	36578	11426	1117
11:22	MP18659-S1	3029	2107	36494	11404	1121
11:25	MA8239-CCV4	3532	2549	42143	12293	1400
11:29	MA8239-CCB4	3765	2554	43992	12420	1688
11:33	MP18659-S2	3044	2128	36600	11351	1125
11:37	MP18659-PS1	3013	2091	36284	11398	1123
11:41	MP18659-SD1	3405	2365	40733	12056	1357
11:45	F74974-6F	3676	2504	43081	12346	1573
11:48	MP18659-D1	3675	2501	43148	12338	1573
11:52	MP18659-S1	3682	2506	43178	12250	1578
11:56	MP18659-S2	3684	2479	42742	12238	1576
12:00	MP18659-PS1	3665	2502	43064	12300	1572
12:04	MP18659-SD1	3755	2526	43567	12350	1652
12:08	MP18663-MB1	3783	2540	44480	12640	1692
12:11	MA8239-CCV5	3584	2592	42544	12284	1422
12:15	MA8239-CCB5	3813	2595	44521	12493	1709
12:19	MP18663-B1	3652	2570	43219	12616	1490
12:23	F75091-3	2994	2237	37985	11977	1008
12:26	MP18663-D1	2940	2194	37940	12413	964
12:30	MP18663-SD1	3213	2278	40637	12783	1261
12:34	MP18663-PS1	2855	2106	36953	12275	980
12:38	MP18663-S1	2862	2157	36933	12205	980
12:42	MP18663-S2	2901	2197	37705	12461	1000

INTERNAL STANDARD SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071610M1.ICP Date Analyzed: 07/16/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8239
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
12:46	ZZZZZZ	3583	2662	45000	14281	1211
12:50	ZZZZZZ	3204	2459	41568	13469	1108
12:54	ZZZZZZ	2775	2017	36350	12441	953 !
12:57	MA8239-CCV6	3445	2511	42905	13192	1399
13:01	MA8239-CCB6	3689	2523	45034	13418	1691
13:26	MP18666-MB1	3533	2442	43601	13095	1625
13:30	MP18666-B1	3372	2413	41991	12953	1406
13:33	F75080-3	3376	2347	42305	12928	1465
13:37	MP18666-D1	3385	2336	42237	12954	1466
13:41	MP18666-SD1	3558	2460	44018	13215	1603
13:45	MP18666-PS1	3389	2343	41985	12887	1451
13:49	MP18666-S1	3338	2402	41515	12783	1360
13:52	MP18666-S2	3330	2386	41350	12826	1359
13:56	ZZZZZZ	3318	2311	41688	12817	1427
13:59	ZZZZZZ	3134	2194	39629	12475	1280
14:04	MA8239-CCV7	3379	2475	42077	12883	1371
14:07	MA8239-CCB7	3643	2487	44237	13140	1671
14:11	ZZZZZZ	3266	2268	41142	12758	1384
14:15	ZZZZZZ	3230	2238	40696	12612	1365
14:19	ZZZZZZ	3473	2396	42889	13133	1533
14:23	ZZZZZZ	3328	2299	41794	12842	1435
14:27	ZZZZZZ	3563	2431	43794	13159	1645
14:31	MP18667-MB1	3567	2414	43544	12998	1642
14:35	ZZZZZZ	4244	3653 !	54027	17358 !	1054
14:39	MP18667-B1	3427	2475	43219	12951	1439
14:43	F75100-1	2734	1924	35107	11788	1041
15:06	MA8239-CCV8	3368	2459	41967	12643	1366
15:11	MA8239-CCB8	3630	2472	44163	12992	1672
15:16	MP18667-D1	2699	1898	34541	11619	1027
15:20	MP18667-SD1	3144	2196	39746	12433	1272
15:24	MP18667-S1	2778	1983	35234	11669	1019 !
15:27	MP18667-S2	2765	2006	35404	11631	1014 !
15:31	ZZZZZZ	2780	1956	35753	11811	1067

INTERNAL STANDARD SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071610M1.ICP Date Analyzed: 07/16/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8239
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
15:35	ZZZZZZ	2888	2024	36717	12088	1113
15:39	F75089-1	2871	2027	36313	12006	1099
15:43	MP18667-D2	2874	2019	36126	11904	1095
15:47	MP18667-MB2	2893	2046	36621	11936	1132
15:51	MP18667-B2	3019	2150	37507	12050	1108
15:54	MA8239-CCV9	3387	2468	42267	12412	1378
15:58	MA8239-CCB9	3649	2491	44379	12690	1679
16:23	MA8239-CCV10	3625	2601	42246	11904	1431
16:27	MA8239-CCB10	3895	2583	43968	12208	1724
16:32	ZZZZZZ	4015	3699 !	48358	13248	1327
16:35	ZZZZZZ	4052	4166 !	55223	13980	1175
16:39	ZZZZZZ	4599	3941 !	55192	15362 !	1255
16:43	ZZZZZZ	4486	4074 !	53528	14887	1277
16:47	ZZZZZZ	3754	3989 !	47706	12808	1172
16:51	ZZZZZZ	4366	3010	49898	13988	1409
16:55	MP18668-MB1	3866	2571	43632	11956	1703
16:59	MP18668-B1	3670	2563	42215	11826	1487
17:03	F75082-2	3812	2554	43607	11940	1659
17:06	MP18668-D1	3775	2527	43138	11920	1643
17:10	MA8239-CCV11	3658	2594	42251	11901	1445
17:14	MA8239-CCB11	3915	2625	44335	12143	1727
17:18	MP18668-SD1	3906	2602	44171	12065	1713
17:22	MP18668-PS1	3780	2519	43160	11996	1618
17:25	MP18668-S1	3625	2538	41921	11788	1454
17:29	MP18668-S2	3667	2554	42362	11915	1478
17:33	ZZZZZZ	3760	2639	43438	12092	1614
17:36	ZZZZZZ	3638	2471	42560	11929	1533
17:40	ZZZZZZ	3738	2538	43336	12048	1583
17:44	ZZZZZZ	3653	2595	42528	11883	1541
17:48	ZZZZZZ	3792	2545	43606	12039	1678
17:52	ZZZZZZ	3758	2534	43444	12111	1584
17:56	MA8239-CCV12	3619	2615	42635	11949	1432
17:59	MA8239-CCB12	3888	2598	44206	12268	1716

INTERNAL STANDARD SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071610M1.ICP Date Analyzed: 07/16/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8239
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
18:03	ZZZZZZ	3722	2520	42917	12012	1571
18:07	ZZZZZZ	3819	2587	44155	12181	1679
18:11	ZZZZZZ	3752	2528	43315	12019	1647
18:15	ZZZZZZ	3492	2412	41604	11753	1423
18:19	ZZZZZZ	3466	2444	41210	11697	1394
18:23	ZZZZZZ	3474	2441	41374	11839	1384
18:27	ZZZZZZ	3626	2472	42742	11948	1535
18:30	ZZZZZZ	3539	2484	41895	11889	1447
18:34	ZZZZZZ	3816	2692	44447	12415	1591
18:38	ZZZZZZ	3739	2543	43788	12231	1589
18:42	MA8239-CCV13	3571	2591	42417	11936	1411
18:46	MA8239-CCB13	3826	2595	43885	12050	1688
18:50	ZZZZZZ	3753	2557	43641	12138	1645
18:53	ZZZZZZ	3715	2537	43533	12079	1614
19:21	ZZZZZZ	3133	2432	38812	11584	995 !
19:25	ZZZZZZ	3405	2762	42190	12501	1007 !
19:29	MA8239-CCV14	3608	2617	42717	11886	1423
19:32	MA8239-CCB14	3847	2607	44122	11975	1699
19:36	ZZZZZZ	2827	2064	35244	10637	972 !
19:40	ZZZZZZ	3502	2768	43344	12966	1031
19:44	ZZZZZZ	2974	2093	35944	11099	1031
19:48	ZZZZZZ	2939	2140	36564	11108	1003 !
19:52	MP18662-MB1	3681	2453	42962	11899	1635
19:56	MP18662-B1	3551	2486	41659	11632	1443
19:59	F75051-1	3637	2892	44343	12782	1134
20:03	MP18662-D1	3893	3161	46782	13501	1127
20:07	MP18662-SD1	3715	2620	43663	12113	1430
20:11	MP18662-PS1	3636	2864	44025	12630	1136
20:15	MA8239-CCV15	3672	2656	43175	11882	1453
20:19	MA8239-CCB15	3920	2630	44993	12237	1739
20:23	MP18662-S1	3989	3343 !	47989	13886	1101
20:27	MP18662-S2	3830	3170	46371	13146	1105
20:31	ZZZZZZ	2977	2185	36761	10941	984 !

INTERNAL STANDARD SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071610M1.ICP Date Analyzed: 07/16/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8239
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
20:35	ZZZZZZ	2849	2039	35614	10633	986 !
20:39	ZZZZZZ	3028	2275	37888	11236	1009 !
20:42	ZZZZZZ	2953	2196	37007	11143	980 !
20:46	ZZZZZZ	3010	2342	38138	11628	914 !
20:50	ZZZZZZ	3061	2282	38532	11634	1007 !
20:54	ZZZZZZ	2564	1787	32982	10217	934 !
20:58	ZZZZZZ	3983	3328 !	49543	14623	1087
21:02	MA8239-CCV16	3588	2607	43558	12235	1441
21:06	MA8239-CCB16	3846	2579	45071	12511	1738
21:10	ZZZZZZ	2751	2055	34976	10687	909 !
21:14	ZZZZZZ	3228	2533	41285	12420	1000 !
21:18	ZZZZZZ	3145	2443	39778	12016	1024
21:21	MA8239-CRIA2	3740	2551	44780	12437	1634
21:25	MA8239-ICSA2	3181	2651	39024	11674	1164
21:29	MA8239-ICSAB2	3161	2625	38867	11573	1151
21:33	MA8239-CCV17	3527	2551	42807	12109	1421
21:37	MA8239-CCB17	3775	2561	44759	12379	1714

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	60-125 %
Istd#2	Yttrium (2422)	60-125 %
Istd#3	Yttrium (3242)	60-125 %
Istd#4	Yttrium (3710)	60-125 %
Istd#5	Indium	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071610M1.ICP Date Analyzed: 07/16/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8239 Units: ug/l

Time:			08:33		09:09		09:57		10:43	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	2	anr							
Arsenic	10	2	1.5	<10	0.10	<10	1.1	<10	1.3	<10
Barium	200	5	0.0	<200	-0.20	<200	0.20	<200	0.20	<200
Beryllium	4.0	1	anr							
Cadmium	5.0	1	-0.10	<5.0	-0.10	<5.0	-0.10	<5.0	-0.10	<5.0
Calcium	1000	100	anr							
Chromium	10	1	-0.10	<10	-0.10	<10	0.0	<10	-0.10	<10
Cobalt	50	1	anr							
Copper	25	2	anr							
Iron	300	30	anr							
Lead	5.0	1	0.30	<5.0	-0.30	<5.0	0.30	<5.0	-0.40	<5.0
Magnesium	5000	100	anr							
Manganese	15	1	anr							
Molybdenum	50	1	anr							
Nickel	40	1	anr							
Potassium	10000	500	anr							
Selenium	10	2	0.0	<10	-0.90	<10	-0.20	<10	-1.8	<10
Silver	10	1	-0.20	<10	-0.20	<10	-0.20	<10	-0.10	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1.5	anr							
Tin	50	1	anr							
Titanium	10	2								
Vanadium	50	1	anr							
Zinc	20	5	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071610M1.ICP Date Analyzed: 07/16/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8239 Units: ug/l

Time:			11:29		12:15		13:01		14:07	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	2	anr							
Arsenic	10	2	1.1	<10	0.30	<10	0.40	<10	0.40	<10
Barium	200	5	0.20	<200	0.20	<200	-0.10	<200	-0.20	<200
Beryllium	4.0	1	anr							
Cadmium	5.0	1	0.0	<5.0	0.0	<5.0	0.0	<5.0	-0.10	<5.0
Calcium	1000	100	anr							
Chromium	10	1	0.30	<10	0.30	<10	0.10	<10	0.10	<10
Cobalt	50	1	anr							
Copper	25	2	anr							
Iron	300	30	anr							
Lead	5.0	1	0.0	<5.0	-0.20	<5.0	0.0	<5.0	-0.40	<5.0
Magnesium	5000	100	anr							
Manganese	15	1	anr							
Molybdenum	50	1	anr							
Nickel	40	1	anr							
Potassium	10000	500	anr							
Selenium	10	2	1.0	<10	1.7	<10	1.3	<10	0.30	<10
Silver	10	1	-0.20	<10	-0.20	<10	0.10	<10	-0.10	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1.5	anr							
Tin	50	1	anr							
Titanium	10	2								
Vanadium	50	1	anr							
Zinc	20	5	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071610M1.ICP Date Analyzed: 07/16/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8239 Units: ug/l

Time:			15:11		15:58		16:27		17:14	
Sample ID:			CCB8		CCB9		CCB10		CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	2	anr							
Arsenic	10	2	1.6	<10	-0.50	<10	0.30	<10	-0.40	<10
Barium	200	5	-0.10	<200	0.10	<200	1.0	<200	0.10	<200
Beryllium	4.0	1	anr							
Cadmium	5.0	1	0.0	<5.0	0.0	<5.0	0.0	<5.0	0.0	<5.0
Calcium	1000	100	anr							
Chromium	10	1	0.0	<10	-0.10	<10	-0.20	<10	0.20	<10
Cobalt	50	1	anr							
Copper	25	2	anr							
Iron	300	30	anr							
Lead	5.0	1	0.70	<5.0	-0.40	<5.0	-0.60	<5.0	-0.70	<5.0
Magnesium	5000	100	anr							
Manganese	15	1	anr							
Molybdenum	50	1	anr							
Nickel	40	1	anr							
Potassium	10000	500	anr							
Selenium	10	2	0.20	<10	0.90	<10	-1.0	<10	0.20	<10
Silver	10	1	0.10	<10	0.10	<10	0.40	<10	0.20	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1.5	anr							
Tin	50	1	anr							
Titanium	10	2								
Vanadium	50	1	anr							
Zinc	20	5	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071610M1.ICP Date Analyzed: 07/16/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8239 Units: ug/l

Time:			17:59		18:46		19:32		20:19	
Sample ID:			CCB12		CCB13		CCB14		CCB15	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	anr							
Antimony	6.0	2	anr							
Arsenic	10	2	0.50	<10	-0.60	<10	0.60	<10	0.30	<10
Barium	200	5	0.20	<200	0.40	<200	0.20	<200	0.30	<200
Beryllium	4.0	1	anr							
Cadmium	5.0	1	0.10	<5.0	0.10	<5.0	0.10	<5.0	0.10	<5.0
Calcium	1000	100	anr							
Chromium	10	1	0.10	<10	0.10	<10	0.0	<10	0.20	<10
Cobalt	50	1	anr							
Copper	25	2	anr							
Iron	300	30	anr							
Lead	5.0	1	-0.50	<5.0	-0.60	<5.0	-0.30	<5.0	0.0	<5.0
Magnesium	5000	100	anr							
Manganese	15	1	anr							
Molybdenum	50	1	anr							
Nickel	40	1	anr							
Potassium	10000	500	anr							
Selenium	10	2	-0.90	<10	-0.30	<10	-0.60	<10	-0.20	<10
Silver	10	1	0.30	<10	0.40	<10	0.20	<10	0.10	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1.5	anr							
Tin	50	1	anr							
Titanium	10	2								
Vanadium	50	1	anr							
Zinc	20	5	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071610M1.ICP Date Analyzed: 07/16/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8239 Units: ug/l

Time:			21:06		21:37	
Sample ID:			CCB16		CCB17	
Metal	RL	IDL	raw	final	raw	final
Aluminum	200	20	anr			
Antimony	6.0	2	anr			
Arsenic	10	2	-1.6	<10	-1.2	<10
Barium	200	5	-0.10	<200	-0.30	<200
Beryllium	4.0	1	anr			
Cadmium	5.0	1	-0.10	<5.0	-0.10	<5.0
Calcium	1000	100	anr			
Chromium	10	1	-0.10	<10	-0.10	<10
Cobalt	50	1	anr			
Copper	25	2	anr			
Iron	300	30	anr			
Lead	5.0	1	-0.10	<5.0	-0.60	<5.0
Magnesium	5000	100	anr			
Manganese	15	1	anr			
Molybdenum	50	1	anr			
Nickel	40	1	anr			
Potassium	10000	500	anr			
Selenium	10	2	-0.30	<10	0.60	<10
Silver	10	1	0.20	<10	0.40	<10
Sodium	10000	750	anr			
Strontium	10	1				
Thallium	10	1.5	anr			
Tin	50	1	anr			
Titanium	10	2				
Vanadium	50	1	anr			
Zinc	20	5	anr			

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071610M1.ICP Date Analyzed: 07/16/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8239 Units: ug/l

Time:		08:26			09:01			09:53	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1920	96.0	2000	1910	95.5	2000	1920	96.0
Barium	2000	2020	101.0	2000	2030	101.5	2000	2050	102.5
Beryllium	anr								
Cadmium	2000	2020	101.0	2000	2020	101.0	2000	2010	100.5
Calcium	anr								
Chromium	2000	2080	104.0	2000	2070	103.5	2000	2100	105.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2000	100.0	2000	2000	100.0	2000	1990	99.5
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	2000	2000	100.0	2000	2010	100.5	2000	2020	101.0
Silver	250	253	101.2	250	251	100.4	250	254	101.6
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071610M1.ICP Date Analyzed: 07/16/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8239 Units: ug/l

Time:		10:39			11:25			12:11	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1930	96.5	2000	1940	97.0	2000	1940	97.0
Barium	2000	2070	103.5	2000	2080	104.0	2000	2070	103.5
Beryllium	anr								
Cadmium	2000	2020	101.0	2000	2020	101.0	2000	2020	101.0
Calcium	anr								
Chromium	2000	2110	105.5	2000	2120	106.0	2000	2110	105.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1990	99.5	2000	2000	100.0	2000	2000	100.0
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	2000	2040	102.0	2000	2040	102.0	2000	2030	101.5
Silver	250	256	102.4	250	256	102.4	250	257	102.8
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071610M1.ICP Date Analyzed: 07/16/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8239 Units: ug/l

Time:		12:57			14:04			15:06	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1980	99.0	2000	2000	100.0	2000	2010	100.5
Barium	2000	2120	106.0	2000	2090	104.5	2000	2130	106.5
Beryllium	anr								
Cadmium	2000	2000	100.0	2000	2010	100.5	2000	2010	100.5
Calcium	anr								
Chromium	2000	2100	105.0	2000	2110	105.5	2000	2130	106.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1930	96.5	2000	1930	96.5	2000	1950	97.5
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	2000	2110	105.5	2000	2130	106.5	2000	2130	106.5
Silver	250	255	102.0	250	255	102.0	250	257	102.8
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071610M1.ICP Date Analyzed: 07/16/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8239 Units: ug/l

Time:		15:54			16:23			17:10	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1990	99.5	2000	1930	96.5	2000	1920	96.0
Barium	2000	2140	107.0	2000	2070	103.5	2000	2090	104.5
Beryllium	anr								
Cadmium	2000	1990	99.5	2000	2040	102.0	2000	2030	101.5
Calcium	anr								
Chromium	2000	2100	105.0	2000	2100	105.0	2000	2110	105.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1920	96.0	2000	2010	100.5	2000	2000	100.0
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	2000	2130	106.5	2000	2020	101.0	2000	2020	101.0
Silver	250	253	101.2	250	255	102.0	250	258	103.2
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071610M1.ICP Date Analyzed: 07/16/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8239 Units: ug/l

Time:		17:56			18:42			19:29	
Sample ID:	CCV	CCV12		CCV	CCV13		CCV	CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1940	97.0	2000	1980	99.0	2000	1960	98.0
Barium	2000	2080	104.0	2000	2090	104.5	2000	2080	104.0
Beryllium	anr								
Cadmium	2000	2040	102.0	2000	2070	103.5	2000	2050	102.5
Calcium	anr								
Chromium	2000	2060	103.0	2000	2080	104.0	2000	2080	104.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1990	99.5	2000	2010	100.5	2000	1990	99.5
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	2000	2040	102.0	2000	2070	103.5	2000	2040	102.0
Silver	250	253	101.2	250	254	101.6	250	253	101.2
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071610M1.ICP Date Analyzed: 07/16/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8239 Units: ug/l

Time:		20:15			21:02			21:33	
Sample ID:	CCV	CCV15		CCV	CCV16		CCV	CCV17	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1920	96.0	2000	1970	98.5	2000	1970	98.5
Barium	2000	2090	104.5	2000	2150	107.5	2000	2180	109.0
Beryllium	anr								
Cadmium	2000	2010	100.5	2000	2020	101.0	2000	2020	101.0
Calcium	anr								
Chromium	2000	2060	103.0	2000	2090	104.5	2000	2090	104.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1970	98.5	2000	1960	98.0	2000	1960	98.0
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	2000	2010	100.5	2000	2060	103.0	2000	2080	104.0
Silver	250	251	100.4	250	255	102.0	250	255	102.0
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071610M1.ICP Date Analyzed: 07/16/10 Methods: SW846 6010B
QC Limits: 95 to 105 % Recovery Run ID: MA8239 Units: ug/l

Time:		08:22	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	4000	4000	100.0
Barium	4000	3950	98.8
Beryllium	anr		
Cadmium	4000	3970	99.3
Calcium	anr		
Chromium	4000	3920	98.0
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	4000	4010	100.3
Magnesium	anr		
Manganese	anr		
Molybdenum	anr		
Nickel	anr		
Potassium	anr		
Selenium	4000	3990	99.8
Silver	500	503	100.6
Sodium	anr		
Strontium			
Thallium	anr		
Tin	anr		
Titanium			
Vanadium	anr		
Zinc	anr		

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071610M1.ICP Date Analyzed: 07/16/10 Methods: SW846 6010B
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA8239 Units: ug/l

Time:			08:45		21:21	
Sample ID:	CRI	CRIA	CRIA1		CRIA2	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	400	200	anr			
Antimony	10	5.0	anr			
Arsenic	20	10	9.1	91.0	10.0	100.0
Barium	400	200	200	100.0	213	106.5
Beryllium	10	5.0	anr			
Cadmium	10	5.0	5.2	104.0	5.1	102.0
Calcium	2000	1000	anr			
Chromium	20	10	11.2	112.0	11.0	110.0
Cobalt	100	50	anr			
Copper	50	25	anr			
Iron	600	300	anr			
Lead	10	5.0	5.5	110.0	4.7	94.0
Magnesium	10000	5000	anr			
Manganese	30	15	anr			
Molybdenum	100	50	anr			
Nickel	80	40	anr			
Potassium	20000	10000	anr			
Selenium	20	10	9.4	94.0	9.5	95.0
Silver	20	10	9.9	99.0	10.1	101.0
Sodium	20000	10000	anr			
Strontium	20	10				
Thallium	20	10	anr			
Tin	100	50	anr			
Titanium	20	10				
Vanadium	100	50	anr			
Zinc	40	20	anr			

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071610M1.ICP Date Analyzed: 07/16/10 Methods: SW846 6010B
QC Limits: 80 to 120 % Recovery Run ID: MA8239 Units: ug/l

Time:			08:50		08:56		21:25		21:29	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	492000	98.4	488000	97.6	483000	96.6	479000	95.8
Antimony		1000	0.0		1010	101.0	5.4		1060	106.0
Arsenic		1000	-3.3		971	97.1	-5.1		998	99.8
Barium		500	0.80		505	101.0	0.70		540	108.0
Beryllium		500	-0.10		497	99.4	-0.20		481	96.2
Cadmium		1000	-1.0		936	93.6	1.3		935	93.5
Calcium	500000	500000	455000	91.0	451000	90.2	423000	84.6	421000	84.2
Chromium		500	-0.60		429	85.8	-0.30		431	86.2
Cobalt		500	-0.10		500	100.0	-0.10		490	98.0
Copper		500	-2.7		500	100.0	-2.2		514	102.8
Iron	200000	200000	189000	94.5	182000	91.0	179000	89.5	172000	86.0
Lead		1000	1.6		1000	100.0	5.7		973	97.3
Magnesium	500000	500000	523000	104.6	516000	103.2	471000	94.2	466000	93.2
Manganese		500	-1.4		429	85.8	-1.3		444	88.8
Molybdenum		1000	-0.60		962	96.2	-0.90		980	98.0
Nickel		1000	-0.30		1010	101.0	0.20		982	98.2
Potassium			-20		-19		14.7		12.5	
Selenium		1000	-2.6		981	98.1	-7.3		1010	101.0
Silver		1000	0.40		1100	110.0	0.80		1100	110.0
Sodium			-70		-490		10.2		545	
Strontium		1000	-6.0		-6.0	0.0	-5.2		-5.2	0.0
Thallium		1000	0.0		961	96.1	4.3		952	95.2
Tin		1000	0.80		939	93.9	2.1		907	90.7
Titanium		1000	9.8		9.7	1.0	9.4		9.3	0.9
Vanadium		500	0.10		434	86.8	0.40		452	90.4
Zinc		1000	-2.9		924	92.4	-2.9		879	87.9

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18638
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 07/12/10

Metal	RL	IDL	MDL	MB raw	final
Mercury	1.0	.071	.071	-0.035	<1.0

Associated samples MP18638: F74974-1, F74974-2, F74974-3, F74974-4, F74974-5, F74974-6, F74974-7, F74974-8, F74974-9, F74974-10, F74974-11, F74974-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18638
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 07/12/10 07/12/10

Metal	F74974-6 Original	DUP	RPD	QC Limits	F74974-6 Original	MS	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.0	0.0	NC	0-20	0.0	3.3	3	110.0	80-120

Associated samples MP18638: F74974-1, F74974-2, F74974-3, F74974-4, F74974-5, F74974-6, F74974-7, F74974-8, F74974-9, F74974-10, F74974-11, F74974-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18638
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 07/12/10

Metal	F74974-6 Original	MSD	Spikelot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	3.3	3	110.0	0.0	20

Associated samples MP18638: F74974-1, F74974-2, F74974-3, F74974-4, F74974-5, F74974-6, F74974-7, F74974-8, F74974-9, F74974-10, F74974-11, F74974-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18638
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 07/12/10

Metal	BSP Result	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	3.2	3	106.7	80-120

Associated samples MP18638: F74974-1, F74974-2, F74974-3, F74974-4, F74974-5, F74974-6, F74974-7, F74974-8, F74974-9, F74974-10, F74974-11, F74974-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18638
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 07/12/10

Metal	F74974-6 Original	SDL 1:5	%DIF	QC Limits
Mercury	0.00	0.00	NC	0-10

Associated samples MP18638: F74974-1, F74974-2, F74974-3, F74974-4, F74974-5, F74974-6, F74974-7, F74974-8, F74974-9, F74974-10, F74974-11, F74974-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18644
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 07/13/10

Metal	RL	IDL	MDL	MB raw	final
Mercury	1.0	.071	.071	-0.050	<1.0

Associated samples MP18644: F74974-1F, F74974-2F, F74974-3F, F74974-4F, F74974-5F, F74974-6F, F74974-7F, F74974-8F, F74974-9F, F74974-10F, F74974-11F, F74974-12F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18644
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 07/13/10 07/13/10

Metal	F74974-6F Original	DUP	RPD	QC Limits	F74974-6F Original	MS	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.0	0.0	NC	0-20	0.0	2.8	3	93.3	80-120

Associated samples MP18644: F74974-1F, F74974-2F, F74974-3F, F74974-4F, F74974-5F, F74974-6F, F74974-7F, F74974-8F, F74974-9F, F74974-10F, F74974-11F, F74974-12F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18644
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 07/13/10

Metal	F74974-6F Original	MSD	Spikelot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	2.8	3	93.3	0.0	20

Associated samples MP18644: F74974-1F, F74974-2F, F74974-3F, F74974-4F, F74974-5F, F74974-6F, F74974-7F, F74974-8F, F74974-9F, F74974-10F, F74974-11F, F74974-12F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18644
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 07/13/10

Metal	BSP Result	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	2.9	3	96.7	80-120

Associated samples MP18644: F74974-1F, F74974-2F, F74974-3F, F74974-4F, F74974-5F, F74974-6F, F74974-7F, F74974-8F, F74974-9F, F74974-10F, F74974-11F, F74974-12F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18644
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 07/13/10

Metal	F74974-6F Original	SDL 1:5	%DIF	QC Limits
Mercury	0.00	0.00	NC (a)	0-10

Associated samples MP18644: F74974-1F, F74974-2F, F74974-3F, F74974-4F, F74974-5F, F74974-6F, F74974-7F, F74974-8F, F74974-9F, F74974-10F, F74974-11F, F74974-12F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18652
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:					07/14/10		07/14/10
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Aluminum	40	4	5				
Antimony	1.2	.4	.4				
Arsenic	2.0	.4	.4	-0.38	<2.0	-0.30	<10
Barium	40	1	1	-0.020	<40	0.0	<200
Beryllium	0.80	.2	.2				
Cadmium	1.0	.2	.2	-0.040	<1.0	-0.30	<5.0
Calcium	200	20	20				
Chromium	2.0	.2	.2	-0.020	<2.0	-0.10	<10
Cobalt	10	.2	.2				
Copper	5.0	.4	.4				
Iron	60	6	7				
Lead	1.0	.2	.2	0.12	<1.0	0.70	<5.0
Magnesium	1000	20	20				
Manganese	3.0	.2	.2				
Molybdenum	10	.2	.4				
Nickel	8.0	.2	.4				
Potassium	2000	100	100				
Selenium	2.0	.4	.4	0.22	<2.0	-0.10	<10
Silver	2.0	.2	.2	0.0	<2.0	-0.10	<10
Sodium	2000	150	150				
Strontium	2.0	.2	.2				
Thallium	2.0	.3	.3				
Tin	10	.2	.2				
Titanium	2.0	.4	.4				
Vanadium	10	.2	.2				
Zinc	4.0	1	1				

Associated samples MP18652: F74974-1, F74974-2, F74974-3, F74974-4, F74974-5, F74974-6, F74974-7, F74974-8, F74974-9, F74974-10, F74974-11, F74974-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18652
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:			07/14/10					07/14/10	
Metal	F74974-6 Original	DUP	RPD	QC Limits	F74974-6 Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic	0.00	0.0 (a)	NC	0-20	0.00	2160 (a)	2000	108.0	80-120
Barium	0.00	0.00 (a)	NC	0-20	0.00	2150 (a)	2000	107.5	80-120
Beryllium									
Cadmium	0.0	0.0 (a)	NC	0-20	0.0	47.3 (a)	50	94.6	80-120
Calcium									
Chromium	0.0	0.0 (a)	NC	0-20	0.0	221 (a)	200	110.5	80-120
Cobalt									
Copper	anr								
Iron	anr								
Lead	0.0	0.0 (a)	NC	0-20	0.0	500 (a)	500	100.0	80-120
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium	42.1	27.0 (a)	43.7 (b)	0-20	42.1	2310 (a)	2000	113.4	80-120
Silver	0.0	0.0 (a)	NC	0-20	0.0	59.8 (a)	50	119.6	80-120
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc	anr								

Associated samples MP18652: F74974-1, F74974-2, F74974-3, F74974-4, F74974-5, F74974-6, F74974-7, F74974-8, F74974-9, F74974-10, F74974-11, F74974-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Elevated reporting limit(s) due to matrix interference.
(b) RPD acceptable due to low duplicate and sample concentrations.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18652
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/14/10

Metal	F74974-6 Original	MSD	Spikelot MPFLICP1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	0.00	2210 (a)	2000	110.5	2.3	20
Barium	0.00	2200 (a)	2000	110.0	2.3	20
Beryllium						
Cadmium	0.0	48.8 (a)	50	97.6	3.1	20
Calcium						
Chromium	0.0	225 (a)	200	112.5	1.8	20
Cobalt						
Copper	anr					
Iron	anr					
Lead	0.0	516 (a)	500	103.2	3.1	20
Magnesium						
Manganese	anr					
Molybdenum						
Nickel	anr					
Potassium						
Selenium	42.1	2370 (a)	2000	116.4	2.6	20
Silver	0.0	58.0 (a)	50	116.0	3.1	20
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc	anr					

Associated samples MP18652: F74974-1, F74974-2, F74974-3, F74974-4, F74974-5, F74974-6, F74974-7, F74974-8, F74974-9, F74974-10, F74974-11, F74974-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Elevated reporting limit(s) due to matrix interference.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18652
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/14/10

Metal	BSP Result	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	1940	2000	97.0	80-120
Barium	2160	2000	108.0	80-120
Beryllium				
Cadmium	51.4	50	102.8	80-120
Calcium				
Chromium	220	200	110.0	80-120
Cobalt				
Copper	anr			
Iron	anr			
Lead	505	500	101.0	80-120
Magnesium				
Manganese	anr			
Molybdenum				
Nickel	anr			
Potassium				
Selenium	2020	2000	101.0	80-120
Silver	50.2	50	100.4	80-120
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP18652: F74974-1, F74974-2, F74974-3, F74974-4, F74974-5, F74974-6, F74974-7, F74974-8, F74974-9, F74974-10, F74974-11, F74974-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18652
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/14/10

Metal	F74974-6 Original	SDL 10:50%DIF		QC Limits
Aluminum				
Antimony				
Arsenic	0.00	0.00	NC	0-10
Barium	0.00	0.00	NC	0-10
Beryllium				
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	0.00	0.00	NC	0-10
Cobalt				
Copper	anr			
Iron	anr			
Lead	0.00	0.00	NC	0-10
Magnesium				
Manganese	anr			
Molybdenum				
Nickel	anr			
Potassium				
Selenium	42.1	0.00	100.0(a)	0-10
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP18652: F74974-1, F74974-2, F74974-3, F74974-4, F74974-5, F74974-6, F74974-7, F74974-8, F74974-9, F74974-10, F74974-11, F74974-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18659
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:					07/15/10		07/15/10		07/15/10
Metal	RL	IDL	MDL	MB raw	final	MB raw	final	MB raw	final
Aluminum	200	20	25						
Antimony	6.0	2	2						
Arsenic	10	2	2	-1.4	<10	-0.50	<10	-1.0	<10
Barium	200	5	5	-0.80	<200	0.0	<200	-0.30	<200
Beryllium	4.0	1	1						
Cadmium	5.0	1	1	-0.30	<5.0	-0.20	<5.0	-0.20	<5.0
Calcium	1000	100	100						
Chromium	10	1	1	0.0	<10	0.0	<10	0.0	<10
Cobalt	50	1	1						
Copper	25	2	2						
Iron	300	30	35						
Lead	5.0	1	1	0.30	<5.0	0.10	<5.0	-0.20	<5.0
Magnesium	5000	100	100						
Manganese	15	1	1						
Molybdenum	50	1	2						
Nickel	40	1	2						
Potassium	10000	500	500						
Selenium	10	2	2	2.0	<10	-0.10	<10	0.50	<10
Silver	10	1	1	-0.40	<10	0.10	<10	-0.30	<10
Sodium	10000	750	750						
Strontium	10	1	1						
Thallium	10	1.5	1.5						
Tin	50	1	1						
Titanium	10	2	2						
Vanadium	50	1	1						
Zinc	20	5	5						

Associated samples MP18659: F74974-1F, F74974-2F, F74974-3F, F74974-4F, F74974-5F, F74974-6F, F74974-7F, F74974-8F, F74974-9F, F74974-10F, F74974-11F, F74974-12F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18659
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:			07/15/10					07/15/10	
Metal	F74974-6F Original	DUP	RPD	QC Limits	F74974-6F Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum	anr								
Antimony	anr								
Arsenic	0.0	0.00	NC	0-20	0.0	2280	2000	114.0	80-120
Barium	0.00	0.00	NC	0-20	0.00	2260	2000	113.0	80-120
Beryllium	anr								
Cadmium	0.0	0.0	NC	0-20	0.0	48.9	50	97.8	80-120
Calcium	anr								
Chromium	0.0	0.0	NC	0-20	0.0	230	200	115.0	80-120
Cobalt									
Copper	anr								
Iron	anr								
Lead	0.0	0.0	NC	0-20	0.0	502	500	100.4	80-120
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium									
Selenium	34.8	33.4	4.1	0-20	34.8	2470	2000	121.8N(a	80-120
Silver	0.0	0.0	NC	0-20	0.0	58.9	50	117.8	80-120
Sodium	anr								
Strontium									
Thallium									
Tin	anr								
Titanium									
Vanadium									
Zinc	anr								

Associated samples MP18659: F74974-1F, F74974-2F, F74974-3F, F74974-4F, F74974-5F, F74974-6F, F74974-7F, F74974-8F, F74974-9F, F74974-10F, F74974-11F, F74974-12F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18659
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/15/10

Metal	F74974-6F Original	MSD	Spikelot MPFLICP1	% Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony	anr					
Arsenic	0.0	2170	2000	108.5	4.9	20
Barium	0.00	2150	2000	107.5	5.0	20
Beryllium	anr					
Cadmium	0.0	46.0	50	92.0	6.1	20
Calcium	anr					
Chromium	0.0	217	200	108.5	5.8	20
Cobalt						
Copper	anr					
Iron	anr					
Lead	0.0	488	500	97.6	2.8	20
Magnesium	anr					
Manganese	anr					
Molybdenum	anr					
Nickel	anr					
Potassium						
Selenium	34.8	2350	2000	115.8	5.0	20
Silver	0.0	55.0	50	110.0	6.8	20
Sodium	anr					
Strontium						
Thallium						
Tin	anr					
Titanium						
Vanadium						
Zinc	anr					

Associated samples MP18659: F74974-1F, F74974-2F, F74974-3F, F74974-4F, F74974-5F, F74974-6F, F74974-7F, F74974-8F, F74974-9F, F74974-10F, F74974-11F, F74974-12F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18659
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/15/10

Metal	BSP Result	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	1940	2000	97.0	80-120
Barium	2170	2000	108.5	80-120
Beryllium	anr			
Cadmium	49.6	50	99.2	80-120
Calcium	anr			
Chromium	216	200	108.0	80-120
Cobalt				
Copper	anr			
Iron	anr			
Lead	465	500	93.0	80-120
Magnesium	anr			
Manganese	anr			
Molybdenum	anr			
Nickel	anr			
Potassium				
Selenium	2050	2000	102.5	80-120
Silver	48.9	50	97.8	80-120
Sodium	anr			
Strontium				
Thallium				
Tin	anr			
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP18659: F74974-1F, F74974-2F, F74974-3F, F74974-4F, F74974-5F, F74974-6F, F74974-7F, F74974-8F, F74974-9F, F74974-10F, F74974-11F, F74974-12F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18659
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/15/10

Metal	F74974-6F Original	SDL 10:50%	DIF	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	0.00	0.00	NC	0-10
Barium	0.00	0.00	NC	0-10
Beryllium	anr			
Cadmium	0.00	0.00	NC	0-10
Calcium	anr			
Chromium	0.00	0.00	NC	0-10
Cobalt				
Copper	anr			
Iron	anr			
Lead	0.00	0.00	NC	0-10
Magnesium	anr			
Manganese	anr			
Molybdenum	anr			
Nickel	anr			
Potassium				
Selenium	34.8	0.00	100.0(a)	0-10
Silver	0.00	0.00	NC	0-10
Sodium	anr			
Strontium				
Thallium				
Tin	anr			
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP18659: F74974-1F, F74974-2F, F74974-3F, F74974-4F, F74974-5F, F74974-6F, F74974-7F, F74974-8F, F74974-9F, F74974-10F, F74974-11F, F74974-12F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18659
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/15/10

Metal	Sample ml	Final ml	F74974-6F Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Molybdenum										
Nickel										
Potassium										
Selenium	9.8	10	34.8	34.104	287	0.2	10	200	126.4(a)	-
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP18659: F74974-1F, F74974-2F, F74974-3F, F74974-4F, F74974-5F, F74974-6F, F74974-7F, F74974-8F, F74974-9F, F74974-10F, F74974-11F, F74974-12F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested
(a) Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

Southeast ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Solids, Total Dissolved	GN40377	100	0.0	mg/l				
Solids, Total Dissolved	GN40405	100	0.0	mg/l				

Associated Samples:
Batch GN40377: F74974-1, F74974-10, F74974-2, F74974-3, F74974-4, F74974-5, F74974-6, F74974-7, F74974-8, F74974-9
Batch GN40405: F74974-11, F74974-12
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F74974
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Solids, Total Dissolved	GN40377	F74974-6	mg/l	40300	41900	3.9	0-5%
Solids, Total Dissolved	GN40405	F75013-1	mg/l	51.0	50.0	2.0	0-5%

Associated Samples:
Batch GN40377: F74974-1, F74974-10, F74974-2, F74974-3, F74974-4, F74974-5, F74974-6, F74974-7, F74974-8, F74974-9
Batch GN40405: F74974-11, F74974-12
(*) Outside of QC limits

Southeast ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

07/26/10

Technical Report for

Tetra Tech, Inc

Holloman AFB; Alamogordo, NM

T93002

Accutest Job Number: F74973

Sampling Date: 07/06/10

Report to:

Tetra Tech
800 Oak Ridge Tpk. Suite A600
Oak Ridge, TN 37830
Jeremy.Bennett@tetratech.com

ATTN: Jeremy Bennett

Total number of pages in report: **204**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Sue Bell 407-425-6700

ACCUTEST LABORATORIES 50 YEARS 1956-2006

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK

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6.9: Prep QC MP18653: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na, Tl,V,Zn 197

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Accutest Laboratories

Sample Summary

Tetra Tech, Inc

Job No: F74973

Holloman AFB; Alamogordo, NM
Project No: T93002

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F74973-1	07/06/10	14:35	JBBC	07/09/10	AQ	Ground Water	MW30&33-01-070610
F74973-1D	07/06/10	14:35	JBBC	07/09/10	AQ	Water Dup/MSD	MW30&33-01-070610
F74973-1F	07/06/10	14:35	JBBC	07/09/10	AQ	Groundwater Filtered	MW30&33-01-070610
F74973-1FD	07/06/10	14:35	JBBC	07/09/10	AQ	Water Dup/MSD	MW30&33-01-070610
F74973-1FS	07/06/10	14:35	JBBC	07/09/10	AQ	Water Matrix Spike	MW30&33-01-070610
F74973-1S	07/06/10	14:35	JBBC	07/09/10	AQ	Water Matrix Spike	MW30&33-01-070610
F74973-2	07/06/10	15:56	JBBC	07/09/10	AQ	Ground Water	MW30&33-05R-070610
F74973-2F	07/06/10	15:56	JBBC	07/09/10	AQ	Groundwater Filtered	MW30&33-05R-070610
F74973-3	07/06/10	16:00	JBBC	07/09/10	AQ	Ground Water	MW30&33-03-070610
F74973-3F	07/06/10	16:00	JBBC	07/09/10	AQ	Groundwater Filtered	MW30&33-03-070610
F74973-4	07/06/10	17:45	JBBC	07/09/10	AQ	Ground Water	MW30&33-04-070610
F74973-4F	07/06/10	17:45	JBBC	07/09/10	AQ	Groundwater Filtered	MW30&33-04-070610
F74973-5	07/06/10	17:51	JBBC	07/09/10	AQ	Ground Water	MW30&33-02-070610

Sample Summary
(continued)

Tetra Tech, Inc

Job No: F74973

Holloman AFB; Alamogordo, NM
Project No: T93002

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F74973-5F	07/06/10	17:51	JBBC	07/09/10	AQ	Groundwater Filtered	MW30&33-02-070610
F74973-6	07/06/10	00:00	JBBC	07/09/10	AQ	Ground Water	MW30&33-DUP01-070610
F74973-6F	07/06/10	00:00	JBBC	07/09/10	AQ	Groundwater Filtered	MW30&33-DUP01-070610
F74973-7	07/06/10	00:00	JBBC	07/09/10	AQ	Trip Blank Water	TB01-070610

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Tetra Tech, Inc **Job No:** F74973

Site: Holloman AFB; Alamogordo, NM **Report Date:** 7/23/2010 10:26:24

6 Samples and 1 Trip Blank were collected on 07/06/2010 and were received at Accutest SE on 07/09/2010 properly preserved, at 3.6 Deg. C and intact. These Samples received an Accutest job number of F74973. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS by Method SW846 8260B

Matrix: AQ **Batch ID:** VF1252

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F74973-1MS, F74973-1MSD were used as the QC samples indicated.

Blank Spike Recoverys for 2-Chloroethyl vinyl ether, Acrolein, cis-1,4-Dichloro-2-Butene, Trans-1,4-Dichloro-2-Butene are outside control limits.

Matrix Spike Recoverys for 1,1,2,2-Tetrachloroethane, 2-Hexanone, 4-Methyl-2-pentanone, Acetonitrile, Acrolein, cis-1,4-Dichloro-2-Butene, trans-1,3-Dichloropropene, Trans-1,4-Dichloro-2-Butene are outside control limits. Probable cause due to matrix interference.

Matrix Spike Duplicate Recoverys for 2-Chloroethyl vinyl ether, 2-Hexanone, 4-Methyl-2-pentanone, Acetonitrile, Acrolein are outside control limits. Probable cause due to matrix interference.

RPDs for MSD for 1,1-Dichloropropene, 2-Chloroethyl vinyl ether, p-Isopropyltoluene are outside control limits for sample F74973-1MSD. Probable cause due to sample non-homogeneity.

Metals by Method SW846 6010B

Matrix: AQ **Batch ID:** MP18639

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F74973-1MS, F74973-1MSD, F74973-1PS, F74973-1SDL, F74973-1DUP were used as the QC samples for metals.

Matrix Spike and Matrix Spike Duplicate Recoverys for Selenium, Silver are outside control limits. Spike recovery indicates possible matrix interference.

Matrix Spike Recoverys for Calcium, Magnesium, Sodium are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

RPDs for Duplicate for Aluminum, Antimony, Arsenic, Barium, Copper, Lead, Potassium are outside control limits for sample MP18639-D1. RPD acceptable due to low duplicate and sample concentrations.

RPDs for Serial Dilution for Arsenic, Barium, Lead, Potassium, Selenium, Vanadium are outside control limits for sample MP18639-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

F74973-1, F74973-2, F74973-3, F74973-4, F74973-5, F74973-6 for Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Nickel, Potassium, Selenium, Silver, Thallium, Vanadium, Zinc: Elevated reporting limit(s) due to matrix interference.

MP18639-PS1 for Selenium: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

Metals by Method SW846 6010B

Matrix: AQ **Batch ID:** MP18653

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Metals by Method SW846 6010B

Matrix: AQ **Batch ID:** MP18653

Samples F74973-1FDUP, F74973-1FMS, F74973-1FMSD, F74973-1FSDL, F74973-1FDUP were used as the QC samples for metals.

Matrix Spike Recoverys for Magnesium, Sodium are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

RPDs for Duplicate for Arsenic, Lead are outside control limits for sample MP18653-D1. RPD acceptable due to low duplicate and sample concentrations.

RPDs for Serial Dilution for Barium, Potassium, Selenium, Vanadium are outside control limits for sample MP18653-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

F74973-1F, F74973-2F, F74973-3F, F74973-4F, F74973-5F, F74973-6F for Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Nickel, Potassium, Selenium, Silver, Thallium, Vanadium, Zinc: Elevated reporting limit(s) due to matrix interference.

Metals by Method SW846 7470A

Matrix: AQ **Batch ID:** MP18637

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F74973-1DUP, F74973-1MS, F74973-1MSD, F74973-1SDL were used as the QC samples for metals.

Matrix: AQ **Batch ID:** MP18638

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F74974-6DUP, F74974-6MS, F74974-6MSD, F74974-6SDL were used as the QC samples for metals.

Wet Chemistry by Method SM19 2540C

Matrix: AQ **Batch ID:** GN40377

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample F74973-1DUP was used as the QC sample for Solids, Total Dissolved.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

_____ Date: July 23, 2010

Ellen Pampel, Inorganic QA (signature on file)

Friday, July 23, 2010

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW30&33-01-070610		
Lab Sample ID:	F74973-1	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F043549.D	1	07/14/10	LD	n/a	n/a	VF1252
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	10	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.24	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.24	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.23	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.51	ug/l	
67-66-3	Chloroform	ND	1.0	0.25	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.29	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.23	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.1	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.22	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.29	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.25	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.59	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.33	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.27	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.37	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-01-070610		
Lab Sample ID:	F74973-1	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.32	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.29	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.43	ug/l	
591-78-6	2-Hexanone	ND	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.40	ug/l	
110-54-3	Hexane	ND	2.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.31	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.27	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.29	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.37	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-01-070610		
Lab Sample ID:	F74973-1	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.44	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.24	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.28	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.4	ug/l	
	m,p-Xylene	ND	2.0	0.34	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		87-116%
17060-07-0	1,2-Dichloroethane-D4	102%		76-127%
2037-26-5	Toluene-D8	103%		86-112%
460-00-4	4-Bromofluorobenzene	102%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-01-070610		
Lab Sample ID:	F74973-1	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum [a]	100 U	800	100	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Antimony [a]	8.0 U	24	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Arsenic [a]	12.0 B	40	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Barium [a]	20 U	800	20	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Beryllium [a]	4.0 U	16	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Cadmium [a]	4.0 U	20	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Calcium [a]	707000	4000	400	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Chromium [a]	4.0 U	40	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Cobalt [a]	4.0 U	200	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Copper [a]	8.0 U	100	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Iron [a]	140 U	1200	140	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Lead [a]	9.1 B	20	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Magnesium [a]	1250000	20000	400	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Manganese [a]	4.0 U	60	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/12/10	07/12/10	LM	SW846 7470A [1]	SW846 7470A [4]
Nickel [a]	8.0 U	160	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Potassium [a]	8400 B	40000	2000	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Selenium [a]	25.2 B	40	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Silver [a]	4.0 U	40	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Sodium	5820000	1000000	75000	ug/l	100	07/12/10	07/13/10	RS	SW846 6010B [2]	SW846 3010A [5]
Thallium [a]	6.0 U	40	6.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Vanadium [a]	40.1 B	200	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Zinc [a]	20 U	80	20	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]

(1) Instrument QC Batch: MA8222
(2) Instrument QC Batch: MA8227
(3) Instrument QC Batch: MA8231
(4) Prep QC Batch: MP18637
(5) Prep QC Batch: MP18639

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-01-070610		
Lab Sample ID:	F74973-1	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	27100	10000	1000	mg/l	100	07/12/10 12:30	LE	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-01-070610		
Lab Sample ID:	F74973-1F	**Date Sampled:**	07/06/10
Matrix:	AQ - Groundwater Filtered	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum [a]	100 U	800	100	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Antimony [a]	8.0 U	24	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Arsenic [a]	8.0 U	40	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Barium [a]	20.8 B	800	20	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Beryllium [a]	4.0 U	16	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Cadmium [a]	4.0 U	20	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Calcium [a]	710000	4000	400	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Chromium [a]	4.0 U	40	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Cobalt [a]	4.0 U	200	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Copper [a]	8.0 U	100	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Iron [a]	140 U	1200	140	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Lead [a]	4.0 U	20	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Magnesium [a]	1280000	20000	400	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Manganese [a]	4.0 U	60	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/12/10	07/12/10	LM	SW846 7470A [1]	SW846 7470A [4]
Nickel [a]	8.0 U	160	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Potassium [a]	6740 B	40000	2000	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Selenium [a]	23.4 B	40	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Silver [a]	4.0 U	40	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Sodium	5500000	1000000	75000	ug/l	100	07/14/10	07/14/10	RS	SW846 6010B [2]	SW846 3010A [5]
Thallium [a]	6.0 U	40	6.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Vanadium [a]	40.1 B	200	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Zinc [a]	20 U	80	20	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]

(1) Instrument QC Batch: MA8222
(2) Instrument QC Batch: MA8231
(3) Instrument QC Batch: MA8234
(4) Prep QC Batch: MP18638
(5) Prep QC Batch: MP18653

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-05R-070610		
Lab Sample ID:	F74973-2	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F043550.D	1	07/14/10	LD	n/a	n/a	VF1252
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	10	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.24	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.24	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.23	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.51	ug/l	
67-66-3	Chloroform	0.31	1.0	0.25	ug/l	J
544-10-5	1-Chlorohexane	ND	2.0	0.29	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.23	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.1	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
75-34-3	1,1-Dichloroethane	6.7	1.0	0.22	ug/l	
75-35-4	1,1-Dichloroethylene	0.60	1.0	0.29	ug/l	J
563-58-6	1,1-Dichloropropene	ND	1.0	0.25	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.59	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.33	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.27	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.37	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-05R-070610		
Lab Sample ID:	F74973-2	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene	11.4	1.0	0.32	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.29	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.43	ug/l	
591-78-6	2-Hexanone	ND	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.40	ug/l	
110-54-3	Hexane	ND	2.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.31	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.27	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.29	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.37	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-05R-070610		
Lab Sample ID:	F74973-2	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.44	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	22.2	1.0	0.24	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.28	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.4	ug/l	
	m,p-Xylene	ND	2.0	0.34	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		87-116%
17060-07-0	1,2-Dichloroethane-D4	104%		76-127%
2037-26-5	Toluene-D8	103%		86-112%
460-00-4	4-Bromofluorobenzene	103%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-05R-070610		
Lab Sample ID:	F74973-2	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum [a]	100 U	800	100	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Antimony [a]	8.0 U	24	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Arsenic [a]	8.0 U	40	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Barium [a]	20.1 B	800	20	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Beryllium [a]	4.0 U	16	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Cadmium [a]	4.0 U	20	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Calcium [a]	674000	4000	400	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Chromium [a]	4.0 U	40	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Cobalt [a]	4.0 U	200	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Copper [a]	10.7 B	100	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Iron [a]	140 U	1200	140	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Lead [a]	4.0 U	20	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Magnesium [a]	1070000	20000	400	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Manganese [a]	224	60	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/12/10	07/12/10	LM	SW846 7470A [1]	SW846 7470A [4]
Nickel [a]	8.0 U	160	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Potassium [a]	6910 B	40000	2000	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Selenium [a]	20.9 B	40	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Silver [a]	4.0 U	40	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Sodium	4850000	1000000	75000	ug/l	100	07/12/10	07/13/10	RS	SW846 6010B [2]	SW846 3010A [5]
Thallium [a]	6.0 U	40	6.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Vanadium [a]	46.1 B	200	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Zinc [a]	20 U	80	20	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]

(1) Instrument QC Batch: MA8222
(2) Instrument QC Batch: MA8227
(3) Instrument QC Batch: MA8231
(4) Prep QC Batch: MP18637
(5) Prep QC Batch: MP18639

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-05R-070610		
Lab Sample ID:	F74973-2	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	16900	10000	1000	mg/l	100	07/12/10 12:30	LE	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-05R-070610		
Lab Sample ID:	F74973-2F	**Date Sampled:**	07/06/10
Matrix:	AQ - Groundwater Filtered	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum [a]	100 U	800	100	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Antimony [a]	8.0 U	24	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Arsenic [a]	8.0 U	40	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Barium [a]	21.2 B	800	20	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Beryllium [a]	4.0 U	16	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Cadmium [a]	4.0 U	20	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Calcium [a]	742000	4000	400	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Chromium [a]	4.0 U	40	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Cobalt [a]	4.0 U	200	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Copper [a]	8.0 U	100	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Iron [a]	140 U	1200	140	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Lead [a]	10.0 B	20	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Magnesium [a]	1210000	20000	400	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Manganese [a]	189	60	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/12/10	07/12/10	LM	SW846 7470A [1]	SW846 7470A [4]
Nickel [a]	8.0 U	160	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Potassium [a]	6720 B	40000	2000	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Selenium [a]	14.1 B	40	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Silver [a]	4.0 U	40	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Sodium	5080000	1000000	75000	ug/l	100	07/14/10	07/14/10	RS	SW846 6010B [2]	SW846 3010A [5]
Thallium [a]	6.0 U	40	6.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Vanadium [a]	51.0 B	200	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Zinc [a]	20 U	80	20	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]

(1) Instrument QC Batch: MA8222
(2) Instrument QC Batch: MA8231
(3) Instrument QC Batch: MA8234
(4) Prep QC Batch: MP18638
(5) Prep QC Batch: MP18653

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-03-070610		
Lab Sample ID:	F74973-3	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F043551.D	1	07/14/10	LD	n/a	n/a	VF1252
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	10	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.24	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.24	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.23	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.51	ug/l	
67-66-3	Chloroform	0.82	1.0	0.25	ug/l	J
544-10-5	1-Chlorohexane	ND	2.0	0.29	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.23	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.1	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
75-34-3	1,1-Dichloroethane	2.2	1.0	0.22	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.29	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.25	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.59	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.33	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.27	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.37	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-03-070610		
Lab Sample ID:	F74973-3	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.32	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.29	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.43	ug/l	
591-78-6	2-Hexanone	ND	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.40	ug/l	
110-54-3	Hexane	ND	2.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.31	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.27	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.29	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.37	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-03-070610		
Lab Sample ID:	F74973-3	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.44	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	12.0	1.0	0.24	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.28	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.4	ug/l	
	m,p-Xylene	ND	2.0	0.34	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		87-116%
17060-07-0	1,2-Dichloroethane-D4	108%		76-127%
2037-26-5	Toluene-D8	105%		86-112%
460-00-4	4-Bromofluorobenzene	103%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-03-070610		
Lab Sample ID:	F74973-3	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum [a]	100 U	800	100	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Antimony [a]	8.0 U	24	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Arsenic [a]	8.0 U	40	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Barium [a]	20.8 B	800	20	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Beryllium [a]	4.0 U	16	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Cadmium [a]	4.0 U	20	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Calcium [a]	803000	4000	400	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Chromium [a]	4.0 U	40	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Cobalt [a]	4.0 U	200	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Copper [a]	10.0 B	100	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Iron [a]	140 U	1200	140	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Lead [a]	4.0 U	20	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Magnesium [a]	1610000	20000	400	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Manganese [a]	4.0 U	60	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/12/10	07/12/10	LM	SW846 7470A [1]	SW846 7470A [4]
Nickel [a]	8.0 U	160	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Potassium [a]	7110 B	40000	2000	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Selenium [a]	32.6 B	40	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Silver [a]	4.0 U	40	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Sodium	7220000	2000000	150000	ug/l	200	07/12/10	07/13/10	RS	SW846 6010B [2]	SW846 3010A [5]
Thallium [a]	6.0 U	40	6.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Vanadium [a]	16.8 B	200	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Zinc [a]	20 U	80	20	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]

(1) Instrument QC Batch: MA8222
(2) Instrument QC Batch: MA8227
(3) Instrument QC Batch: MA8231
(4) Prep QC Batch: MP18637
(5) Prep QC Batch: MP18639

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-03-070610		
Lab Sample ID:	F74973-3	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	20900	10000	1000	mg/l	100	07/12/10 12:30	LE	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-03-070610		
Lab Sample ID:	F74973-3F	**Date Sampled:**	07/06/10
Matrix:	AQ - Groundwater Filtered	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum [a]	100 U	800	100	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Antimony [a]	8.0 U	24	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Arsenic [a]	8.0 U	40	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Barium [a]	20 U	800	20	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Beryllium [a]	4.0 U	16	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Cadmium [a]	4.0 U	20	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Calcium [a]	789000	4000	400	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Chromium [a]	4.0 U	40	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Cobalt [a]	4.0 U	200	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Copper [a]	8.0 U	100	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Iron [a]	140 U	1200	140	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Lead [a]	8.3 B	20	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Magnesium [a]	1590000	20000	400	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Manganese [a]	4.0 U	60	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/12/10	07/12/10	LM	SW846 7470A [1]	SW846 7470A [4]
Nickel [a]	8.0 U	160	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Potassium [a]	5510 B	40000	2000	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Selenium [a]	24.3 B	40	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Silver [a]	4.0 U	40	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Sodium	6900000	1000000	75000	ug/l	100	07/14/10	07/14/10	RS	SW846 6010B [2]	SW846 3010A [5]
Thallium [a]	6.0 U	40	6.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Vanadium [a]	16.3 B	200	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Zinc [a]	20 U	80	20	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]

(1) Instrument QC Batch: MA8222
(2) Instrument QC Batch: MA8231
(3) Instrument QC Batch: MA8234
(4) Prep QC Batch: MP18638
(5) Prep QC Batch: MP18653

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-04-070610		
Lab Sample ID:	F74973-4	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F043552.D	1	07/14/10	LD	n/a	n/a	VF1252
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	10	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.24	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.24	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.23	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.51	ug/l	
67-66-3	Chloroform	0.54	1.0	0.25	ug/l	J
544-10-5	1-Chlorohexane	ND	2.0	0.29	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.23	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.1	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
75-34-3	1,1-Dichloroethane	1.4	1.0	0.22	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.29	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.25	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.59	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.33	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.27	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.37	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-04-070610		
Lab Sample ID:	F74973-4	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.32	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.29	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.43	ug/l	
591-78-6	2-Hexanone	ND	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.40	ug/l	
110-54-3	Hexane	ND	2.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.31	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.27	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.29	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.37	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-04-070610		
Lab Sample ID:	F74973-4	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.44	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	6.5	1.0	0.24	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.28	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.4	ug/l	
	m,p-Xylene	ND	2.0	0.34	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		87-116%
17060-07-0	1,2-Dichloroethane-D4	108%		76-127%
2037-26-5	Toluene-D8	106%		86-112%
460-00-4	4-Bromofluorobenzene	105%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-04-070610		
Lab Sample ID:	F74973-4	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum [a]	100 U	800	100	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Antimony [a]	8.0 U	24	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Arsenic [a]	10.3 B	40	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Barium [a]	20 U	800	20	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Beryllium [a]	4.0 U	16	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Cadmium [a]	4.0 U	20	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Calcium [a]	718000	4000	400	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Chromium [a]	4.0 U	40	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Cobalt [a]	4.0 U	200	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Copper [a]	9.7 B	100	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Iron [a]	140 U	1200	140	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Lead [a]	6.1 B	20	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Magnesium [a]	1470000	20000	400	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Manganese [a]	4.0 U	60	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Mercury	0.088 B	1.0	0.071	ug/l	1	07/12/10	07/12/10	LM	SW846 7470A [1]	SW846 7470A [4]
Nickel [a]	8.0 U	160	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Potassium [a]	4490 B	40000	2000	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Selenium [a]	24.1 B	40	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Silver [a]	4.0 U	40	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Sodium	6120000	2000000	150000	ug/l	200	07/12/10	07/13/10	RS	SW846 6010B [2]	SW846 3010A [5]
Thallium [a]	6.0 U	40	6.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Vanadium [a]	30.1 B	200	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Zinc [a]	20 U	80	20	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]

(1) Instrument QC Batch: MA8222
(2) Instrument QC Batch: MA8227
(3) Instrument QC Batch: MA8231
(4) Prep QC Batch: MP18637
(5) Prep QC Batch: MP18639

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-04-070610		
Lab Sample ID:	F74973-4	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	27300	10000	1000	mg/l	100	07/12/10 12:30	LE	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-04-070610		
Lab Sample ID:	F74973-4F	**Date Sampled:**	07/06/10
Matrix:	AQ - Groundwater Filtered	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum [a]	100 U	800	100	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Antimony [a]	8.0 U	24	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Arsenic [a]	8.0 U	40	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Barium [a]	20 U	800	20	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Beryllium [a]	4.0 U	16	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Cadmium [a]	4.0 U	20	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Calcium [a]	656000	4000	400	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Chromium [a]	4.0 U	40	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Cobalt [a]	4.0 U	200	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Copper [a]	8.0 U	100	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Iron [a]	140 U	1200	140	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Lead [a]	8.0 B	20	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Magnesium [a]	1350000	20000	400	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Manganese [a]	4.0 U	60	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Mercury	0.082 B	1.0	0.071	ug/l	1	07/12/10	07/12/10	LM	SW846 7470A [1]	SW846 7470A [4]
Nickel [a]	8.0 U	160	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Potassium [a]	3010 B	40000	2000	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Selenium [a]	14.9 B	40	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Silver [a]	4.0 U	40	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Sodium	6050000	1000000	75000	ug/l	100	07/14/10	07/14/10	RS	SW846 6010B [2]	SW846 3010A [5]
Thallium [a]	6.0 U	40	6.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Vanadium [a]	27.2 B	200	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Zinc [a]	20 U	80	20	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]

(1) Instrument QC Batch: MA8222
(2) Instrument QC Batch: MA8231
(3) Instrument QC Batch: MA8234
(4) Prep QC Batch: MP18638
(5) Prep QC Batch: MP18653

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-02-070610		
Lab Sample ID:	F74973-5	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F043553.D	1	07/14/10	LD	n/a	n/a	VF1252
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	10	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.24	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.24	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.23	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.51	ug/l	
67-66-3	Chloroform	0.70	1.0	0.25	ug/l	J
544-10-5	1-Chlorohexane	ND	2.0	0.29	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.23	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.1	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
75-34-3	1,1-Dichloroethane	2.1	1.0	0.22	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.29	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.25	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.59	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.33	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.27	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.37	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-02-070610		
Lab Sample ID:	F74973-5	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.32	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.29	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.43	ug/l	
591-78-6	2-Hexanone	ND	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.40	ug/l	
110-54-3	Hexane	ND	2.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.31	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.27	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.29	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.37	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-02-070610		
Lab Sample ID:	F74973-5	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.44	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	9.0	1.0	0.24	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.28	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.4	ug/l	
	m,p-Xylene	ND	2.0	0.34	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		87-116%
17060-07-0	1,2-Dichloroethane-D4	111%		76-127%
2037-26-5	Toluene-D8	104%		86-112%
460-00-4	4-Bromofluorobenzene	105%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-02-070610		
Lab Sample ID:	F74973-5	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum [a]	100 U	800	100	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Antimony [a]	8.0 U	24	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Arsenic [a]	8.0 U	40	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Barium [a]	20 U	800	20	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Beryllium [a]	4.0 U	16	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Cadmium [a]	4.0 U	20	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Calcium [a]	805000	4000	400	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Chromium [a]	4.0 U	40	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Cobalt [a]	4.0 U	200	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Copper [a]	10.6 B	100	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Iron [a]	140 U	1200	140	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Lead [a]	4.0 U	20	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Magnesium [a]	1600000	20000	400	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Manganese [a]	4.0 U	60	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/12/10	07/12/10	LM	SW846 7470A [1]	SW846 7470A [4]
Nickel [a]	8.0 U	160	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Potassium [a]	10100 B	40000	2000	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Selenium [a]	34.3 B	40	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Silver [a]	4.0 U	40	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Sodium	7450000	2000000	150000	ug/l	200	07/12/10	07/13/10	RS	SW846 6010B [2]	SW846 3010A [5]
Thallium [a]	6.0 U	40	6.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Vanadium [a]	22.6 B	200	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Zinc [a]	20 U	80	20	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]

(1) Instrument QC Batch: MA8222
(2) Instrument QC Batch: MA8227
(3) Instrument QC Batch: MA8231
(4) Prep QC Batch: MP18637
(5) Prep QC Batch: MP18639

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-02-070610		
Lab Sample ID:	F74973-5	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	28500	10000	1000	mg/l	100	07/12/10 12:30	LE	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-02-070610		
Lab Sample ID:	F74973-5F	**Date Sampled:**	07/06/10
Matrix:	AQ - Groundwater Filtered	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum [a]	100 U	800	100	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Antimony [a]	8.0 U	24	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Arsenic [a]	8.0 U	40	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Barium [a]	20 U	800	20	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Beryllium [a]	4.0 U	16	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Cadmium [a]	4.0 U	20	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Calcium [a]	909000	4000	400	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Chromium [a]	4.0 U	40	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Cobalt [a]	4.0 U	200	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Copper [a]	8.0 U	100	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Iron [a]	140 U	1200	140	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Lead [a]	9.5 B	20	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Magnesium [a]	1850000	20000	400	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Manganese [a]	4.0 U	60	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/12/10	07/12/10	LM	SW846 7470A [1]	SW846 7470A [4]
Nickel [a]	8.0 U	160	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Potassium [a]	10100 B	40000	2000	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Selenium [a]	33.6 B	40	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Silver [a]	4.0 U	40	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Sodium	7330000	1000000	75000	ug/l	100	07/14/10	07/14/10	RS	SW846 6010B [2]	SW846 3010A [5]
Thallium [a]	6.0 U	40	6.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Vanadium [a]	27.8 B	200	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Zinc [a]	20 U	80	20	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]

(1) Instrument QC Batch: MA8222
(2) Instrument QC Batch: MA8231
(3) Instrument QC Batch: MA8234
(4) Prep QC Batch: MP18638
(5) Prep QC Batch: MP18653

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-DUP01-070610		
Lab Sample ID:	F74973-6	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F043554.D	1	07/14/10	LD	n/a	n/a	VF1252
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	10	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.24	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.24	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.23	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.51	ug/l	
67-66-3	Chloroform	0.31	1.0	0.25	ug/l	J
544-10-5	1-Chlorohexane	ND	2.0	0.29	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.23	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.1	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
75-34-3	1,1-Dichloroethane	7.0	1.0	0.22	ug/l	
75-35-4	1,1-Dichloroethylene	0.63	1.0	0.29	ug/l	J
563-58-6	1,1-Dichloropropene	ND	1.0	0.25	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.59	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.33	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.27	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.37	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-DUP01-070610		
Lab Sample ID:	F74973-6	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene	11.3	1.0	0.32	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.29	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.43	ug/l	
591-78-6	2-Hexanone	ND	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.40	ug/l	
110-54-3	Hexane	ND	2.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.31	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.27	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.29	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.37	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-DUP01-070610		
Lab Sample ID:	F74973-6	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.44	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	22.3	1.0	0.24	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.28	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.4	ug/l	
	m,p-Xylene	ND	2.0	0.34	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		87-116%
17060-07-0	1,2-Dichloroethane-D4	112%		76-127%
2037-26-5	Toluene-D8	105%		86-112%
460-00-4	4-Bromofluorobenzene	107%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW30&33-DUP01-070610		
Lab Sample ID:	F74973-6	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum [a]	100 U	800	100	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Antimony [a]	8.0 U	24	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Arsenic [a]	8.0 U	40	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Barium [a]	20.4 B	800	20	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Beryllium [a]	4.0 U	16	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Cadmium [a]	4.0 U	20	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Calcium [a]	686000	4000	400	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Chromium [a]	4.0 U	40	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Cobalt [a]	4.0 U	200	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Copper [a]	10.6 B	100	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Iron [a]	140 U	1200	140	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Lead [a]	4.0 U	20	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Magnesium [a]	1090000	20000	400	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Manganese [a]	240	60	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/12/10	07/12/10	LM	SW846 7470A [1]	SW846 7470A [4]
Nickel [a]	8.0 U	160	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Potassium [a]	6850 B	40000	2000	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Selenium [a]	14.9 B	40	8.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Silver [a]	4.0 U	40	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Sodium	4860000	1000000	75000	ug/l	100	07/12/10	07/13/10	RS	SW846 6010B [2]	SW846 3010A [5]
Thallium [a]	6.0 U	40	6.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Vanadium [a]	47.7 B	200	4.0	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]
Zinc [a]	20 U	80	20	ug/l	4	07/12/10	07/14/10	RS	SW846 6010B [3]	SW846 3010A [5]

(1) Instrument QC Batch: MA8222
(2) Instrument QC Batch: MA8227
(3) Instrument QC Batch: MA8231
(4) Prep QC Batch: MP18637
(5) Prep QC Batch: MP18639

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-DUP01-070610		
Lab Sample ID:	F74973-6	**Date Sampled:**	07/06/10
Matrix:	AQ - Ground Water	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	19800	10000	1000	mg/l	100	07/12/10 12:30	LE	SM19 2540C

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW30&33-DUP01-070610		
Lab Sample ID:	F74973-6F	**Date Sampled:**	07/06/10
Matrix:	AQ - Groundwater Filtered	**Date Received:**	07/09/10
		Percent Solids:	n/a
Project:	Holloman AFB; Alamogordo, NM		

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum [a]	100 U	800	100	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Antimony [a]	8.0 U	24	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Arsenic [a]	8.0 U	40	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Barium [a]	20 U	800	20	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Beryllium [a]	4.0 U	16	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Cadmium [a]	4.0 U	20	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Calcium [a]	685000	4000	400	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Chromium [a]	4.0 U	40	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Cobalt [a]	4.0 U	200	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Copper [a]	8.0 U	100	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Iron [a]	140 U	1200	140	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Lead [a]	8.3 B	20	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Magnesium [a]	1100000	20000	400	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Manganese [a]	196	60	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Mercury	0.071 U	1.0	0.071	ug/l	1	07/12/10	07/12/10	LM	SW846 7470A [1]	SW846 7470A [4]
Nickel [a]	8.0 U	160	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Potassium [a]	6170 B	40000	2000	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Selenium [a]	13.8 B	40	8.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Silver [a]	4.0 U	40	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Sodium	4760000	1000000	75000	ug/l	100	07/14/10	07/14/10	RS	SW846 6010B [2]	SW846 3010A [5]
Thallium [a]	6.0 U	40	6.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Vanadium [a]	47.3 B	200	4.0	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]
Zinc [a]	20 U	80	20	ug/l	4	07/14/10	07/15/10	RS	SW846 6010B [3]	SW846 3010A [5]

(1) Instrument QC Batch: MA8222
(2) Instrument QC Batch: MA8231
(3) Instrument QC Batch: MA8234
(4) Prep QC Batch: MP18638
(5) Prep QC Batch: MP18653

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	TB01-070610		
Lab Sample ID:	F74973-7	**Date Sampled:**	07/06/10
Matrix:	AQ - Trip Blank Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F043555.D	1	07/14/10	LD	n/a	n/a	VF1252
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	10	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.24	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.24	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.23	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.51	ug/l	
67-66-3	Chloroform	ND	1.0	0.25	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.29	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.23	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.1	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.22	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.29	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.25	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.59	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.33	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.27	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.37	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB01-070610		
Lab Sample ID:	F74973-7	**Date Sampled:**	07/06/10
Matrix:	AQ - Trip Blank Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.32	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.29	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.43	ug/l	
591-78-6	2-Hexanone	ND	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.40	ug/l	
110-54-3	Hexane	ND	2.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.31	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.27	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.29	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.37	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB01-070610		
Lab Sample ID:	F74973-7	**Date Sampled:**	07/06/10
Matrix:	AQ - Trip Blank Water	**Date Received:**	07/09/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Holloman AFB; Alamogordo, NM		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.44	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.24	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.28	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.4	ug/l	
	m,p-Xylene	ND	2.0	0.34	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		87-116%
17060-07-0	1,2-Dichloroethane-D4	111%		76-127%
2037-26-5	Toluene-D8	104%		86-112%
460-00-4	4-Bromofluorobenzene	106%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody

Parameter Certification Exceptions

Job Number: F74973
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

The following parameters included in this report are exceptions to NELAC certification.
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Freon 113	76-13-1	**SW846 8260B**	AQ	Certified by SOP MS005

Accutest Laboratories Southeast
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

ACCUTEST.

COC-020

Accutest JOB # 31645

PAGE 1 OF 1

Accutest Quote #

SKIFF#

Client / Reporting Information

Company Name: TETRA TECH
Address: 800 OAK RIDGE TURNPIKE A-600
City: OAK RIDGE State: TN Zip: 37830
Project Contact: MIKE HIGGINSO@TETRATECH.COM E-mail:
Phone#: 865-705-1290
Sampler(s) Name(s) (Printed): J. GAWNETT / B. CLOWERS

Project Information

Project Name: HOLLOMAN AFB
Street:
City: ALAMOGORDO State: NM
Project #: T93002
Fax #:
Client Purchase Order #:

Analytical Information

F74973

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

Accutest Sample #	Field ID / Point of Collection	Collection DATE	Collection TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MEOH	VOCs 8260	TAL METALS	TAL METALS DISS	TDS	LAB USE ONLY
	MW30&33-01-070610	7/6/10	1435	JB	GW	6			X		X					X	X	X	X	
1	MW30&33-01-MS-070610	7/6/10	1435	JB	GW	6			X		X					X	X	X	X	
	MW30&33-01-MSD-070610	7/6/10	1435	JB	GW	6			X		X					X	X	X	X	
2	MW30&33-05R-070610	7/6/10	1550	JB	GW	6			X		X					X	X	X	X	
3	MW30&33-03-070610	7/6/10	1600	JB	GW	6			X		X					X	X	X	X	
4	MW30&33-04-070610	7/6/10	1745	BC	GW	6			X		X					X	X	X	X	
5	MW30&33-02-070610	7/6/10	1751	JB	GW	6			X		X					X	X	X	X	
6	MW30&33-DUP01-070610	7/6/10	—	—	GW	6			X		X					X	X	X	X	
7	TB01-070610	7/6/10	—	—	W	2			X							X				

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [X] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [X] REDT1 (EPA LEVEL 3) ERPIMS
- [ ] FULT1 (EPA LEVEL 4)
- [X] EDD'S

Comments / Remarks

FEDEX 8723 7968 9081
8723 7968 9070
LAB FILTERED METALS

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1	7/6/10 1815	2	3	7/8/10 1300	4 FED EX
Relinquished by: 5 FX	Date Time: 07-9-10	Received By: 6 (Cooler) (Accutest) 09:00	Relinquished by: 7	Date Time:	Received By: 8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: 2 Cooler Temperature (s) Celsius: 3.0 3.6

F74973: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F74973 CLIENT: TETRA TECH PROJECT: HOLLOMAN

DATE/TIME RECEIVED: 07-09-10 09:00 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 2

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 8723 7968 9070

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET
- [ ] WET ICE PRESENT

TRIP BLANK INFORMATION

- [x] TRIP BLANK PROVIDED
- [x] TRIP BLANK NOT PROVIDED
- [x] TRIP BLANK NOT ON COC
- [x] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [x] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? _____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OR LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR +0.4
- [ ] OBSERVED TEMPS: 2.6 3.2
- [ ] CORRECTED TEMPS: 3.0 3.6

SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS: _____

TECHNICIAN SIGNATURE/DATE [signature] 07-09-10 REVIEWER SIGNATURE/DATE _____

NF 10/09 RECEIPT CONFIRMATION 100609 (2).xls

4.2

4

F74973: Chain of Custody

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GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: F74973
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF1252-MB	F043547.D	1	07/14/10	LD	n/a	n/a	VF1252

The QC reported here applies to the following samples: **Method:** SW846 8260B

F74973-1, F74973-2, F74973-3, F74973-4, F74973-5, F74973-6, F74973-7

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
75-05-8	Acetonitrile	ND	20	5.0	ug/l	
107-02-8	Acrolein	ND	20	10	ug/l	
107-13-1	Acrylonitrile	ND	10	3.0	ug/l	
107-05-1	Allyl chloride	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.24	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.24	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.23	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.51	ug/l	
67-66-3	Chloroform	ND	1.0	0.25	ug/l	
544-10-5	1-Chlorohexane	ND	2.0	0.29	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.23	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.1	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.22	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.29	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.25	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.59	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.33	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.27	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.37	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.32	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	

Method Blank Summary

Job Number: F74973
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF1252-MB	F043547.D	1	07/14/10	LD	n/a	n/a	VF1252

The QC reported here applies to the following samples: **Method:** SW846 8260B

F74973-1, F74973-2, F74973-3, F74973-4, F74973-5, F74973-6, F74973-7

CAS No.	Compound	Result	RL	MDL	Units	Q
1476-11-5	cis-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.29	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	0.43	ug/l	
591-78-6	2-Hexanone	ND	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.40	ug/l	
110-54-3	Hexane	ND	2.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
126-98-7	Methacrylonitrile	ND	20	5.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.31	ug/l	
80-62-6	Methyl methacrylate	ND	5.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.27	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
76-01-7	Pentachloroethane	ND	10	2.0	ug/l	
107-12-0	Propionitrile	ND	20	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.29	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.37	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	

Method Blank Summary

Job Number: F74973
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF1252-MB	F043547.D	1	07/14/10	LD	n/a	n/a	VF1252

The QC reported here applies to the following samples: **Method:** SW846 8260B

F74973-1, F74973-2, F74973-3, F74973-4, F74973-5, F74973-6, F74973-7

CAS No.	Compound	Result	RL	MDL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.21	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.44	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.24	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.28	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.4	ug/l	
	m,p-Xylene	ND	2.0	0.34	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	87-116%
17060-07-0	1,2-Dichloroethane-D4	100%	76-127%
2037-26-5	Toluene-D8	105%	86-112%
460-00-4	4-Bromofluorobenzene	106%	84-120%

Blank Spike Summary

Job Number: F74973
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF1252-BS	F043546.D	1	07/14/10	LD	n/a	n/a	VF1252

The QC reported here applies to the following samples: **Method:** SW846 8260B

F74973-1, F74973-2, F74973-3, F74973-4, F74973-5, F74973-6, F74973-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	90.9	73	59-134
75-05-8	Acetonitrile	250	193	77	57-123
107-02-8	Acrolein	125	437	350*	33-157
107-13-1	Acrylonitrile	125	101	81	62-124
107-05-1	Allyl chloride	25	28.6	114	48-136
71-43-2	Benzene	25	24.6	98	83-124
100-44-7	Benzyl Chloride	25	25.2	101	61-118
108-86-1	Bromobenzene	25	26.1	104	83-115
74-97-5	Bromochloromethane	25	23.1	92	78-112
75-27-4	Bromodichloromethane	25	22.8	91	76-116
75-25-2	Bromoform	25	23.9	96	68-128
104-51-8	n-Butylbenzene	25	28.9	116	84-124
135-98-8	sec-Butylbenzene	25	29.1	116	86-127
98-06-6	tert-Butylbenzene	25	28.0	112	83-126
108-90-7	Chlorobenzene	25	26.4	106	87-115
75-00-3	Chloroethane	25	23.4	94	54-166
67-66-3	Chloroform	25	24.0	96	85-123
544-10-5	1-Chlorohexane	25	28.2	113	87-128
95-49-8	o-Chlorotoluene	25	27.9	112	84-121
106-43-4	p-Chlorotoluene	25	27.1	108	84-120
110-75-8	2-Chloroethyl vinyl ether	125	400	320*	63-125
75-15-0	Carbon disulfide	25	27.0	108	67-147
56-23-5	Carbon tetrachloride	25	24.4	98	74-139
75-34-3	1,1-Dichloroethane	25	24.5	98	82-127
75-35-4	1,1-Dichloroethylene	25	25.2	101	75-133
563-58-6	1,1-Dichloropropene	25	26.1	104	87-127
96-12-8	1,2-Dibromo-3-chloropropane	25	21.9	88	61-118
106-93-4	1,2-Dibromoethane	25	24.1	96	80-115
107-06-2	1,2-Dichloroethane	25	22.2	89	76-122
78-87-5	1,2-Dichloropropane	25	23.6	94	81-120
142-28-9	1,3-Dichloropropane	25	24.6	98	81-113
594-20-7	2,2-Dichloropropane	25	25.5	102	77-138
124-48-1	Dibromochloromethane	25	25.4	102	74-116
75-71-8	Dichlorodifluoromethane	25	22.8	91	34-158
156-59-2	cis-1,2-Dichloroethylene	25	24.1	96	81-114
10061-01-5	cis-1,3-Dichloropropene	25	24.5	98	83-119

Blank Spike Summary

Job Number: F74973
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF1252-BS	F043546.D	1	07/14/10	LD	n/a	n/a	VF1252

The QC reported here applies to the following samples: **Method:** SW846 8260B

F74973-1, F74973-2, F74973-3, F74973-4, F74973-5, F74973-6, F74973-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
1476-11-5	cis-1,4-Dichloro-2-Butene	25	104	416*	41-130
541-73-1	m-Dichlorobenzene	25	26.6	106	86-115
95-50-1	o-Dichlorobenzene	25	26.2	105	85-115
106-46-7	p-Dichlorobenzene	25	26.7	107	87-113
156-60-5	trans-1,2-Dichloroethylene	25	24.6	98	82-126
10061-02-6	trans-1,3-Dichloropropene	25	29.7	119	87-123
100-41-4	Ethylbenzene	25	26.7	107	87-118
97-63-2	Ethyl methacrylate	25	22.4	90	68-110
76-13-1	Freon 113	25	29.4	118	74-139
591-78-6	2-Hexanone	125	113	90	58-125
87-68-3	Hexachlorobutadiene	25	29.0	116	71-133
110-54-3	Hexane	25	31.3	125	71-134
98-82-8	Isopropylbenzene	25	31.5	126	87-131
99-87-6	p-Isopropyltoluene	25	28.7	115	83-125
108-10-1	4-Methyl-2-pentanone	125	115	92	62-125
126-98-7	Methacrylonitrile	250	211	84	62-133
74-83-9	Methyl bromide	25	26.4	106	55-151
74-87-3	Methyl chloride	25	21.4	86	55-173
74-88-4	Methyl iodide	25	25.7	103	72-125
80-62-6	Methyl methacrylate	25	18.5	74	63-115
74-95-3	Methylene bromide	25	22.2	89	81-116
75-09-2	Methylene chloride	25	24.6	98	69-125
78-93-3	Methyl ethyl ketone	125	95.4	76	61-127
1634-04-4	Methyl Tert Butyl Ether	25	23.2	93	75-116
91-20-3	Naphthalene	25	22.9	92	59-125
76-01-7	Pentachloroethane	25	27.8	111	82-111
107-12-0	Propionitrile	250	199	80	69-119
103-65-1	n-Propylbenzene	25	29.1	116	86-125
100-42-5	Styrene	25	25.9	104	78-118
630-20-6	1,1,1,2-Tetrachloroethane	25	26.6	106	81-119
71-55-6	1,1,1-Trichloroethane	25	25.4	102	79-133
79-34-5	1,1,2,2-Tetrachloroethane	25	25.2	101	71-120
79-00-5	1,1,2-Trichloroethane	25	24.2	97	80-114
87-61-6	1,2,3-Trichlorobenzene	25	24.4	98	64-126
96-18-4	1,2,3-Trichloropropane	25	22.3	89	77-115
120-82-1	1,2,4-Trichlorobenzene	25	25.8	103	68-123

Blank Spike Summary

Job Number: F74973
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF1252-BS	F043546.D	1	07/14/10	LD	n/a	n/a	VF1252

The QC reported here applies to the following samples: **Method:** SW846 8260B

F74973-1, F74973-2, F74973-3, F74973-4, F74973-5, F74973-6, F74973-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-63-6	1,2,4-Trimethylbenzene	25	27.6	110	82-120
108-67-8	1,3,5-Trimethylbenzene	25	27.7	111	83-123
127-18-4	Tetrachloroethylene	25	28.4	114	80-131
108-88-3	Toluene	25	26.8	107	86-116
79-01-6	Trichloroethylene	25	25.1	100	85-124
75-69-4	Trichlorofluoromethane	25	25.4	102	66-156
110-57-6	Trans-1,4-Dichloro-2-Butene	25	99.1	396*	51-137
75-01-4	Vinyl chloride	25	25.3	101	57-153
108-05-4	Vinyl Acetate	125	134	107	38-159
	m,p-Xylene	50	54.0	108	86-121
95-47-6	o-Xylene	25	26.0	104	83-121

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	87-116%
17060-07-0	1,2-Dichloroethane-D4	100%	76-127%
2037-26-5	Toluene-D8	104%	86-112%
460-00-4	4-Bromofluorobenzene	100%	84-120%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F74973
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F74973-1MS	F043556.D	1	07/14/10	LD	n/a	n/a	VF1252
F74973-1MSD	F043557.D	1	07/14/10	LD	n/a	n/a	VF1252
F74973-1	F043549.D	1	07/14/10	LD	n/a	n/a	VF1252

The QC reported here applies to the following samples: **Method:** SW846 8260B

F74973-1, F74973-2, F74973-3, F74973-4, F74973-5, F74973-6, F74973-7

CAS No.	Compound	F74973-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		125	108	86	98.8	79	9	59-134/14
75-05-8	Acetonitrile	ND		250	507	203*	465	186*	9	57-123/15
107-02-8	Acrolein	ND		125	341	273*	330	264*	3	33-157/21
107-13-1	Acrylonitrile	ND		125	110	88	100	80	10	62-124/13
107-05-1	Allyl chloride	ND		25	29.6	118	26.9	108	10	48-136/13
71-43-2	Benzene	ND		25	25.0	100	23.0	92	8	83-124/11
100-44-7	Benzyl Chloride	ND		25	29.2	117	26.5	106	10	61-118/12
108-86-1	Bromobenzene	ND		25	25.7	103	24.2	97	6	83-115/10
74-97-5	Bromochloromethane	ND		25	23.3	93	21.2	85	9	78-112/10
75-27-4	Bromodichloromethane	ND		25	24.4	98	22.2	89	9	76-116/10
75-25-2	Bromoform	ND		25	25.6	102	24.0	96	6	68-128/11
104-51-8	n-Butylbenzene	ND		25	28.9	116	26.4	106	9	84-124/10
135-98-8	sec-Butylbenzene	ND		25	28.5	114	26.0	104	9	86-127/10
98-06-6	tert-Butylbenzene	ND		25	28.1	112	25.8	103	9	83-126/10
108-90-7	Chlorobenzene	ND		25	26.3	105	24.6	98	7	87-115/9
75-00-3	Chloroethane	ND		25	25.5	102	23.0	92	10	54-166/20
67-66-3	Chloroform	ND		25	25.3	101	22.8	91	10	85-123/10
544-10-5	1-Chlorohexane	ND		25	26.5	106	24.7	99	7	87-128/10
95-49-8	o-Chlorotoluene	ND		25	27.9	112	25.9	104	7	84-121/10
106-43-4	p-Chlorotoluene	ND		25	27.6	110	25.5	102	8	84-120/10
110-75-8	2-Chloroethyl vinyl ether	ND		125	146	117	49.4	40*	99*	63-125/24
75-15-0	Carbon disulfide	ND		25	27.6	110	25.2	101	9	67-147/12
56-23-5	Carbon tetrachloride	ND		25	25.0	100	22.7	91	10	74-139/13
75-34-3	1,1-Dichloroethane	ND		25	25.6	102	23.1	92	10	82-127/10
75-35-4	1,1-Dichloroethylene	ND		25	26.6	106	23.9	96	11	75-133/13
563-58-6	1,1-Dichloropropene	ND		25	26.6	106	23.9	96	11*	87-127/10
96-12-8	1,2-Dibromo-3-chloropropane	ND		25	29.3	117	27.0	108	8	61-118/15
106-93-4	1,2-Dibromoethane	ND		25	25.9	104	24.3	97	6	80-115/10
107-06-2	1,2-Dichloroethane	ND		25	25.3	101	23.3	93	8	76-122/11
78-87-5	1,2-Dichloropropane	ND		25	24.5	98	22.4	90	9	81-120/11
142-28-9	1,3-Dichloropropane	ND		25	26.6	106	24.8	99	7	81-113/11
594-20-7	2,2-Dichloropropane	ND		25	26.7	107	23.7	95	12	77-138/12
124-48-1	Dibromochloromethane	ND		25	25.9	104	24.3	97	6	74-116/11
75-71-8	Dichlorodifluoromethane	ND		25	23.8	95	21.8	87	9	34-158/22
156-59-2	cis-1,2-Dichloroethylene	ND		25	23.9	96	22.4	90	6	81-114/10
10061-01-5	cis-1,3-Dichloropropene	ND		25	25.1	100	23.3	93	7	83-119/10

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F74973
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F74973-1MS	F043556.D	1	07/14/10	LD	n/a	n/a	VF1252
F74973-1MSD	F043557.D	1	07/14/10	LD	n/a	n/a	VF1252
F74973-1	F043549.D	1	07/14/10	LD	n/a	n/a	VF1252

The QC reported here applies to the following samples: **Method:** SW846 8260B

F74973-1, F74973-2, F74973-3, F74973-4, F74973-5, F74973-6, F74973-7

CAS No.	Compound	F74973-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1476-11-5	cis-1,4-Dichloro-2-Butene	ND		25	110	440*	106	424*	4	41-130/33
541-73-1	m-Dichlorobenzene	ND		25	26.3	105	24.3	97	8	86-115/9
95-50-1	o-Dichlorobenzene	ND		25	26.1	104	24.4	98	7	85-115/9
106-46-7	p-Dichlorobenzene	ND		25	26.9	108	25.0	100	7	87-113/10
156-60-5	trans-1,2-Dichloroethylene	ND		25	25.4	102	23.1	92	9	82-126/10
10061-02-6	trans-1,3-Dichloropropene	ND		25	31.0	124*	29.6	118	5	87-123/10
100-41-4	Ethylbenzene	ND		25	27.0	108	24.7	99	9	87-118/10
97-63-2	Ethyl methacrylate	ND		25	27.1	108	25.8	103	5	68-110/11
76-13-1	Freon 113	ND		25	30.4	122	27.6	110	10	74-139/13
591-78-6	2-Hexanone	ND		125	176	141*	164	131*	7	58-125/14
87-68-3	Hexachlorobutadiene	ND		25	26.4	106	24.7	99	7	71-133/12
110-54-3	Hexane	ND		25	32.2	129	29.1	116	10	71-134/11
98-82-8	Isopropylbenzene	ND		25	30.4	122	28.4	114	7	87-131/10
99-87-6	p-Isopropyltoluene	ND		25	27.6	110	25.0	100	10*	83-125/9
108-10-1	4-Methyl-2-pentanone	ND		125	175	140*	162	130*	8	62-125/13
126-98-7	Methacrylonitrile	ND		250	279	112	257	103	8	62-133/17
74-83-9	Methyl bromide	ND		25	28.6	114	25.7	103	11	55-151/21
74-87-3	Methyl chloride	ND		25	24.3	97	22.3	89	9	55-173/22
74-88-4	Methyl iodide	ND		25	27.3	109	24.9	100	9	72-125/11
80-62-6	Methyl methacrylate	ND		25	24.2	97	22.6	90	7	63-115/10
74-95-3	Methylene bromide	ND		25	24.6	98	22.7	91	8	81-116/10
75-09-2	Methylene chloride	ND		25	25.5	102	23.6	94	8	69-125/11
78-93-3	Methyl ethyl ketone	ND		125	129	103	116	93	11	61-127/13
1634-04-4	Methyl Tert Butyl Ether	ND		25	25.1	100	23.4	94	7	75-116/10
91-20-3	Naphthalene	ND		25	26.1	104	24.8	99	5	59-125/15
76-01-7	Pentachloroethane	ND		25	27.5	110	26.0	104	6	82-111/8
107-12-0	Propionitrile	ND		250	260	104	237	95	9	69-119/12
103-65-1	n-Propylbenzene	ND		25	28.9	116	26.4	106	9	86-125/10
100-42-5	Styrene	ND		25	25.4	102	23.4	94	8	78-118/11
630-20-6	1,1,1,2-Tetrachloroethane	ND		25	26.1	104	24.6	98	6	81-119/10
71-55-6	1,1,1-Trichloroethane	ND		25	26.4	106	24.0	96	10	79-133/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		25	30.2	121*	27.8	111	8	71-120/11
79-00-5	1,1,2-Trichloroethane	ND		25	26.7	107	24.8	99	7	80-114/11
87-61-6	1,2,3-Trichlorobenzene	ND		25	24.6	98	23.2	93	6	64-126/16
96-18-4	1,2,3-Trichloropropane	ND		25	26.7	107	24.5	98	9	77-115/12
120-82-1	1,2,4-Trichlorobenzene	ND		25	25.2	101	23.9	96	5	68-123/11

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F74973
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F74973-1MS	F043556.D	1	07/14/10	LD	n/a	n/a	VF1252
F74973-1MSD	F043557.D	1	07/14/10	LD	n/a	n/a	VF1252
F74973-1	F043549.D	1	07/14/10	LD	n/a	n/a	VF1252

The QC reported here applies to the following samples: **Method:** SW846 8260B

F74973-1, F74973-2, F74973-3, F74973-4, F74973-5, F74973-6, F74973-7

CAS No.	Compound	F74973-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-63-6	1,2,4-Trimethylbenzene	ND		25	27.4	110	25.3	101	8	82-120/10
108-67-8	1,3,5-Trimethylbenzene	ND		25	27.0	108	24.9	100	8	83-123/10
127-18-4	Tetrachloroethylene	ND		25	26.1	104	24.4	98	7	80-131/12
108-88-3	Toluene	ND		25	26.1	104	24.5	98	6	86-116/10
79-01-6	Trichloroethylene	ND		25	25.1	100	22.7	91	10	85-124/10
75-69-4	Trichlorofluoromethane	ND		25	27.7	111	24.7	99	11	66-156/15
110-57-6	Trans-1,4-Dichloro-2-Butene	ND		25	107	428*	103	412*	4	51-137/24
75-01-4	Vinyl chloride	ND		25	25.8	103	23.4	94	10	57-153/22
108-05-4	Vinyl Acetate	ND		125	144	115	134	107	7	38-159/11
	m,p-Xylene	ND		50	53.6	107	50.5	101	6	86-121/10
95-47-6	o-Xylene	ND		25	25.7	103	24.2	97	6	83-121/10

CAS No.	Surrogate Recoveries	MS	MSD	F74973-1	Limits
1868-53-7	Dibromofluoromethane	104%	102%	102%	87-116%
17060-07-0	1,2-Dichloroethane-D4	115%	110%	102%	76-127%
2037-26-5	Toluene-D8	101%	103%	103%	86-112%
460-00-4	4-Bromofluorobenzene	103%	101%	102%	84-120%

Instrument Performance Check (BFB)

Job Number: F74973
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1243-BFB
Lab File ID: F043312.D
Instrument ID: GCMSF
Injection Date: 06/30/10
Injection Time: 09:41

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	11373	17.8		Pass
75	30.0 - 60.0% of mass 95	28690	44.9		Pass
95	Base peak, 100% relative abundance	63968	100.0		Pass
96	5.0 - 9.0% of mass 95	4570	7.1		Pass
173	Less than 2.0% of mass 174	107	0.17	(0.18) [a]	Pass
174	50.0 - 100.0% of mass 95	60197	94.1		Pass
175	5.0 - 9.0% of mass 174	4422	6.9	(7.3) [a]	Pass
176	95.0 - 101.0% of mass 174	58224	91.0	(96.7) [a]	Pass
177	5.0 - 9.0% of mass 176	3721	5.8	(6.4) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VF1243-IC1243	F043313.D	06/30/10	10:18	00:37	Initial cal 1
VF1243-IC1243	F043314.D	06/30/10	10:45	01:04	Initial cal 2
VF1243-IC1243	F043315.D	06/30/10	11:10	01:29	Initial cal 3
VF1243-ICC1243	F043316.D	06/30/10	11:35	01:54	Initial cal 4
VF1243-IC1243	F043317.D	06/30/10	12:00	02:19	Initial cal 5
VF1243-IC1243	F043318.D	06/30/10	12:25	02:44	Initial cal 6
VF1243-ICV1243	F043323.D	06/30/10	14:33	04:52	Initial cal verification 4
VF1243-BS	F043324.D	06/30/10	15:08	05:27	Blank Spike
VF1243-MB	F043325.D	06/30/10	15:40	05:59	Method Blank
ZZZZZZ	F043326.D	06/30/10	16:05	06:24	(unrelated sample)
ZZZZZZ	F043327.D	06/30/10	16:30	06:49	(unrelated sample)
ZZZZZZ	F043328.D	06/30/10	16:55	07:14	(unrelated sample)
ZZZZZZ	F043329.D	06/30/10	17:20	07:39	(unrelated sample)
ZZZZZZ	F043330.D	06/30/10	17:45	08:04	(unrelated sample)
ZZZZZZ	F043331.D	06/30/10	18:10	08:29	(unrelated sample)
ZZZZZZ	F043332.D	06/30/10	18:35	08:54	(unrelated sample)
F74646-3	F043333.D	06/30/10	19:00	09:19	(used for QC only; not part of job F74973)
ZZZZZZ	F043334.D	06/30/10	19:25	09:44	(unrelated sample)
ZZZZZZ	F043335.D	06/30/10	19:50	10:09	(unrelated sample)
F74646-3MS	F043336.D	06/30/10	20:15	10:34	Matrix Spike
F74646-3MSD	F043337.D	06/30/10	20:40	10:59	Matrix Spike Duplicate

Instrument Performance Check (BFB)

Job Number: F74973
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1252-BFB
Lab File ID: F043544.D
Instrument ID: GCMSF
Injection Date: 07/14/10
Injection Time: 09:17

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	11850	17.7		Pass
75	30.0 - 60.0% of mass 95	31240	46.7		Pass
95	Base peak, 100% relative abundance	66858	100.0		Pass
96	5.0 - 9.0% of mass 95	4630	6.9		Pass
173	Less than 2.0% of mass 174	0	0.0	(0.0) [a]	Pass
174	50.0 - 100.0% of mass 95	60626	90.7		Pass
175	5.0 - 9.0% of mass 174	4431	6.6	(7.3) [a]	Pass
176	95.0 - 101.0% of mass 174	59714	89.3	(98.5) [a]	Pass
177	5.0 - 9.0% of mass 176	4122	6.2	(6.9) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VF1252-CC1243	F043545.D	07/14/10	09:47	00:30	Continuing cal 4
VF1252-BS	F043546.D	07/14/10	10:28	01:11	Blank Spike
VF1252-MB	F043547.D	07/14/10	11:07	01:50	Method Blank
ZZZZZZ	F043548.D	07/14/10	11:42	02:25	(unrelated sample)
F74973-1	F043549.D	07/14/10	12:07	02:50	MW30&33-01-070610
F74973-2	F043550.D	07/14/10	12:32	03:15	MW30&33-05R-070610
F74973-3	F043551.D	07/14/10	12:57	03:40	MW30&33-03-070610
F74973-4	F043552.D	07/14/10	13:22	04:05	MW30&33-04-070610
F74973-5	F043553.D	07/14/10	13:47	04:30	MW30&33-02-070610
F74973-6	F043554.D	07/14/10	14:12	04:55	MW30&33-DUP01-070610
F74973-7	F043555.D	07/14/10	14:37	05:20	TB01-070610
F74973-1MS	F043556.D	07/14/10	15:02	05:45	Matrix Spike
F74973-1MSD	F043557.D	07/14/10	15:27	06:10	Matrix Spike Duplicate
ZZZZZZ	F043558.D	07/14/10	15:53	06:36	(unrelated sample)
ZZZZZZ	F043559.D	07/14/10	16:18	07:01	(unrelated sample)
ZZZZZZ	F043560.D	07/14/10	16:43	07:26	(unrelated sample)
ZZZZZZ	F043561.D	07/14/10	17:08	07:51	(unrelated sample)
ZZZZZZ	F043562.D	07/14/10	17:32	08:15	(unrelated sample)
ZZZZZZ	F043563.D	07/14/10	17:57	08:40	(unrelated sample)
ZZZZZZ	F043564.D	07/14/10	18:22	09:05	(unrelated sample)
ZZZZZZ	F043565.D	07/14/10	18:47	09:30	(unrelated sample)
ZZZZZZ	F043568.D	07/14/10	20:01	10:44	(unrelated sample)
ZZZZZZ	F043569.D	07/14/10	20:26	11:09	(unrelated sample)

Volatile Internal Standard Area Summary

Job Number: F74973
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Check Std:	VF1252-CC1243	**Injection Date:**	07/14/10
Lab File ID:	F043545.D	**Injection Time:**	09:47
Instrument ID:	GCMSF	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Check Std	839491	10.32	704077	13.71	432480	16.21	67663	7.53
Upper Limit [a]	1678982	10.82	1408154	14.21	864960	16.71	135326	8.03
Lower Limit [b]	419746	9.82	352039	13.21	216240	15.71	33832	7.03

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
VF1252-BS	772856	10.32	641055	13.71	390394	16.21	66868	7.53
VF1252-MB	748940	10.32	610001	13.71	349669	16.21	65073	7.55
ZZZZZZ	645049	10.31	532823	13.71	328623	16.21	62338	7.53
F74973-1	778958	10.32	647148	13.71	385954	16.21	97512	7.54
F74973-2	696515	10.31	583962	13.71	339264	16.21	91902	7.54
F74973-3	726167	10.31	602773	13.71	356358	16.21	102171	7.54
F74973-4	672125	10.31	549315	13.71	319313	16.21	91439	7.54
F74973-5	652727	10.32	543218	13.71	317193	16.21	89918	7.54
F74973-6	624129	10.31	520393	13.71	295965	16.21	81513	7.54
F74973-7	626099	10.31	519936	13.71	297822	16.21	60412	7.54
F74973-1MS	645663	10.31	545027	13.71	330224	16.21	88851	7.54
F74973-1MSD	708298	10.31	589955	13.71	360711	16.21	93602	7.53
ZZZZZZ	657284	10.31	532185	13.71	310984	16.21	64095	7.53
ZZZZZZ	630925	10.32	516982	13.71	297647	16.21	193544*	7.53
ZZZZZZ	670574	10.31	540361	13.71	320011	16.21	183744*	7.54
ZZZZZZ	644515	10.31	530600	13.71	323627	16.21	149884*	7.53
ZZZZZZ	677452	10.31	568917	13.71	333985	16.21	174132*	7.53
ZZZZZZ	692736	10.31	572363	13.71	326093	16.21	175462*	7.53
ZZZZZZ	713787	10.31	594240	13.71	334199	16.21	132388	7.53
ZZZZZZ	667775	10.31	547656	13.71	310745	16.21	75649	7.53
ZZZZZZ	638797	10.31	515712	13.71	289750	16.21	59828	7.54
ZZZZZZ	635225	10.31	522192	13.71	289416	16.21	54885	7.53

IS 1 = Fluorobenzene
IS 2 = Chlorobenzene-D5
IS 3 = 1,4-Dichlorobenzene-d4
IS 4 = Tert Butyl Alcohol-D10

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: F74973
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Method: SW846 8260B **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
F74973-1	F043549.D	102.0	102.0	103.0	102.0
F74973-2	F043550.D	104.0	104.0	103.0	103.0
F74973-3	F043551.D	104.0	108.0	105.0	103.0
F74973-4	F043552.D	104.0	108.0	106.0	105.0
F74973-5	F043553.D	106.0	111.0	104.0	105.0
F74973-6	F043554.D	107.0	112.0	105.0	107.0
F74973-7	F043555.D	105.0	111.0	104.0	106.0
F74973-1MS	F043556.D	104.0	115.0	101.0	103.0
F74973-1MSD	F043557.D	102.0	110.0	103.0	101.0
VF1252-BS	F043546.D	101.0	100.0	104.0	100.0
VF1252-MB	F043547.D	102.0	100.0	105.0	106.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	87-116%
S2 = 1,2-Dichloroethane-D4	76-127%
S3 = Toluene-D8	86-112%
S4 = 4-Bromofluorobenzene	84-120%

Initial Calibration Summary

Job Number: F74973
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1243-ICC1243
Lab FileID: F043316.D

Response Factor Report MSVOA9

Method : C:\MSDCHEM\1\METHODS\8260FW.M (RTE Integrator)
Title : SW-846 Method 5035A/8260B
Last Update : Wed Jun 30 13:01:35 2010
Response via : Initial Calibration

Calibration Files
1 =F043313.D 2 =F043314.D 3 =F043315.D 4 =F043316.D
5 =F043317.D 6 =F043318.D

	Compound	1	2	3	4	5	6	Avg	%RSD
1) I	Fluorobenzene	----------ISTD----------							
2)	Dichlorodifluoromet	0.206	0.198	0.307	0.294	0.284	0.289	0.263	18.29
	---- Linear regr., Force(0,0) ---- Coefficient = 0.9992								
	Response Ratio = 0.00000 + 0.28850 *A								
3) P	Chloromethane	0.663	0.354	0.525	0.506	0.493	0.484	0.504	19.60
	---- Linear regr., Force(0,0) ---- Coefficient = 0.9991								
	Response Ratio = 0.00000 + 0.48940 *A								
4) C	Vinyl Chloride	0.269	0.249	0.353	0.336	0.334	0.351	0.315	14.14
5)	Bromomethane	0.192	0.254	0.270	0.245	0.211	0.196	0.228	14.33
6)	Chloroethane	0.207	0.178	0.213	0.203	0.184	0.180	0.194	7.82
7)	Trichlorofluorometh	0.409	0.359	0.504	0.486	0.461	0.478	0.449	12.19
8)	Ethyl Ether	0.192	0.241	0.245	0.247	0.236	0.237	0.233	8.84
9)	1,2-Dichlorotrifluo	0.429	0.273	0.328	0.322	0.303	0.311	0.328	16.23
	---- Linear regr., Force(0,0) ---- Coefficient = 0.9991								
	Response Ratio = 0.00000 + 0.31028 *A								
10) C	1,1-Dichloroethene	0.401	0.357	0.485	0.482	0.452	0.468	0.441	11.61
11)	Freon 113	0.156	0.223	0.322	0.317	0.286	0.301	0.268	24.35
	---- Linear regr., Force(0,0) ---- Coefficient = 0.9974								
	Response Ratio = 0.00000 + 0.29881 *A								
12)	Carbon Disulfide	1.553	0.871	1.101	1.051	0.999	1.027	1.100	21.34
	---- Linear regr., Force(0,0) ---- Coefficient = 0.9991								
	Response Ratio = 0.00000 + 1.02264 *A								
13)	Iodomethane	0.721	0.652	0.868	0.810	0.825	0.806	0.780	10.13
14)	Allyl chloride	0.528	0.439	0.569	0.547	0.547	0.556	0.531	8.82
15)	Methylene Chloride	0.880	0.589	0.603	0.584	0.557	0.549	0.627	20.05
	---- Linear regr., Force(0,0) ---- Coefficient = 0.9994								
	Response Ratio = 0.00000 + 0.55603 *A								
16)	Acetone	0.135	0.127	0.124	0.122	0.117	0.113	0.123	6.33
17)	Methyl acetate	0.224	0.223	0.235	0.232	0.228	0.222	0.227	2.49
18)	trans-1,2-Dichloroe	0.498	0.456	0.580	0.563	0.540	0.551	0.531	8.67
19)	Hexane	0.249	0.197	0.268	0.256	0.237	0.240	0.241	10.10
20)	Methyl Tert Butyl E	0.845	0.858	0.906	0.872	0.843	0.853	0.863	2.73
21)	Acetonitrile	0.037	0.036	0.034	0.032	0.032	0.033	0.034	6.12
22)	Di-isopropyl ether	1.258	1.210	1.329	1.321	1.277	1.268	1.277	3.43
23)	Chloroprene	0.479	0.432	0.595	0.564	0.556	0.558	0.531	11.63
24) P	1,1-Dichloroethane	0.612	0.571	0.697	0.701	0.670	0.672	0.654	7.88
25)	Acrylonitrile	0.139	0.127	0.129	0.124	0.123	0.122	0.127	4.89
26)	ETBE	0.997	1.017	1.111	1.053	1.002	0.997	1.029	4.38
27)	Vinyl acetate	0.492	0.522	0.539	0.499	0.482	0.465	0.500	5.39
28)	cis-1,2-Dichloroeth	0.427	0.357	0.440	0.434	0.421	0.431	0.418	7.35

Initial Calibration Summary

Job Number: F74973
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1243-ICC1243
Lab FileID: F043316.D

29)		2,2-Dichloropropane	0.492	0.447	0.573	0.556	0.529	0.529	0.521	8.75
30)		Bromochloromethane	0.240	0.246	0.271	0.277	0.270	0.271	0.262	5.95
31)		Cyclohexane	0.517	0.458	0.638	0.619	0.585	0.593	0.568	12.00
32)	C	Chloroform	1.026	0.685	0.754	0.731	0.708	0.704	0.768	16.74

---- Linear regr., Force(0,0) ---- Coefficient = 0.9997
Response Ratio = 0.00000 + 0.70859 *A

33)		Ethyl acetate	0.343	0.356	0.357	0.397	0.391	0.378	0.370	5.79
34)		Tetrahydrofuran	0.168	0.124	0.118	0.111	0.108	0.107	0.123	18.84

---- Linear regr., Force(0,0) ---- Coefficient = 0.9997
Response Ratio = 0.00000 + 0.10775 *A

35)	S	Dibromofluoromethan	0.282	0.278	0.279	0.279	0.277	0.274	0.278	0.96
36)		Carbon Tetrachlorid	0.462	0.489	0.677	0.668	0.649	0.673	0.603	16.54

---- Linear regr., Force(0,0) ---- Coefficient = 0.9993
Response Ratio = 0.00000 + 0.66568 *A

37)		1,1,1-Trichloroetha	0.527	0.502	0.678	0.669	0.641	0.661	0.613	12.68
38)		2-Butanone	0.166	0.185	0.184	0.183	0.176	0.172	0.177	4.38
39)		1,1-Dichloropropene	0.411	0.375	0.511	0.507	0.488	0.500	0.465	12.41
40)		Propionitrile	0.048	0.053	0.053	0.051	0.049	0.047	0.050	5.31
41)		Methacrylonitrile	0.277	0.271	0.269	0.256	0.238	0.225	0.256	8.02
42)		Benzene	1.395	1.282	1.522	1.486	1.404	1.386	1.413	5.99
43)		TAME	0.939	0.966	1.010	0.970	0.903	0.928	0.953	3.93
44)	S	1,2-Dichloroethane-	0.292	0.286	0.294	0.304	0.282	0.280	0.290	2.99
45)		1,2-Dichloroethane	0.515	0.501	0.540	0.539	0.523	0.524	0.524	2.81
46)		Trichloroethene	0.363	0.342	0.428	0.419	0.409	0.421	0.397	8.98
47)		Methylcyclohexane	0.461	0.406	0.594	0.572	0.550	0.577	0.527	14.35
48)		Dibromomethane	0.247	0.240	0.264	0.262	0.256	0.261	0.255	3.76
49)	C	1,2-Dichloropropane	0.355	0.342	0.388	0.382	0.374	0.380	0.370	4.77
50)		Bromodichloromethan	0.466	0.453	0.530	0.531	0.525	0.532	0.506	7.17
51)		Methyl methacrylate	0.435	0.363	0.352	0.348	0.348	0.347	0.365	9.47
52)		2-Chloroethyl vinyl	0.023	0.015	0.022	0.028	0.046	0.076	0.035	65.17

---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9964
Response Ratio = 0.00000 + -0.00678 *A + 0.00818 *A^2

53)		cis-1,3-Dichloropro	0.536	0.514	0.605	0.621	0.605	0.619	0.583	7.93
54)	I	Chlorobenzene-d5	----------ISTD----------							
55)	S	Toluene-d8	1.088	1.105	1.116	1.129	1.152	1.135	1.121	2.05
56)	C	Toluene	1.576	1.500	1.856	1.843	1.791	1.796	1.727	8.72
57)		2-Nitropropane	0.088	0.100	0.113	0.116	0.116	0.114	0.108	10.51
58)		4-Methyl-2-pentanon	0.376	0.414	0.414	0.419	0.400	0.384	0.401	4.45
59)		trans-1,3-Dichlorop	0.456	0.473	0.541	0.559	0.570	0.580	0.530	9.93
60)		Tetrachloroethene	0.420	0.407	0.539	0.545	0.530	0.548	0.498	13.27
61)		Ethyl methacrylate	0.465	0.511	0.550	0.550	0.549	0.546	0.529	6.52
62)		1,1,2-Trichloroetha	0.295	0.297	0.327	0.328	0.326	0.328	0.317	5.08
63)		Dibromochloromethan	0.412	0.441	0.501	0.523	0.524	0.538	0.490	10.48
64)		1,3-Dichloropropane	0.576	0.591	0.632	0.644	0.635	0.639	0.619	4.62
65)		1,2-Dibromoethane	0.382	0.416	0.447	0.459	0.451	0.457	0.435	6.95
66)		2-hexanone	0.282	0.296	0.295	0.299	0.285	0.277	0.289	3.07
67)		1-Chlorohexane	0.484	0.426	0.587	0.586	0.567	0.585	0.539	12.62
68)	C	Ethylbenzene	1.815	1.680	2.082	2.057	2.001	2.016	1.942	8.19
69)	P	Chlorobenzene	1.166	1.130	1.339	1.354	1.320	1.329	1.273	7.72
70)		1,1,1,2-Tetrachloro	0.447	0.440	0.529	0.530	0.534	0.544	0.504	9.36
71)		m,p-Xylene	1.356	1.331	1.621	1.605	1.537	1.507	1.493	8.25
72)		o-Xylene	1.529	1.469	1.739	1.760	1.708	1.727	1.655	7.48
73)		Styrene	1.111	1.133	1.385	1.420	1.429	1.448	1.321	11.78
74)	P	Bromoform	0.252	0.269	0.311	0.335	0.345	0.359	0.312	13.83
75)		Isopropylbenzene	1.519	1.527	1.965	1.949	1.908	1.939	1.801	12.01

Initial Calibration Summary

Job Number: F74973
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1243-ICC1243
Lab FileID: F043316.D

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 76) I   1,4-Dichlorobenzene-d ----------------ISTD---------------------
 77) S   4-Bromofluorobenzen 0.783 0.777 0.766 0.755 0.767 0.761 0.768   1.33
 78)     cis-1,4-Dichloro-2-       0.010 0.007 0.010 0.019 0.028 0.015  57.77
             ---- Quadratic regression ----  Coefficient =  0.9998
               Response Ratio = 0.00156 + -0.00421 *A + 0.01566 *A^2

 79)     n-Propylbenzene     3.283 3.084 3.846 3.752 3.629 3.600 3.532   8.24
 80)     Bromobenzene        0.918 0.935 1.035 1.040 1.025 1.021 0.996   5.43
 81) P   1,1,2,2-Tetrachloro 0.798 0.833 0.818 0.819 0.802 0.785 0.809   2.12
 82)     1,3,5-Trimethylbenz 2.626 2.510 3.049 2.977 2.928 2.911 2.834   7.56
 83)     2-Chlorotoluene     2.260 2.101 2.412 2.370 2.343 2.335 2.304   4.82
 84)     trans-1,4-Dichloro- 0.069 0.065 0.007 0.010 0.020 0.029 0.033  81.85
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9867
               Response Ratio = 0.00000 + 0.00065 *A + 0.01408 *A^2

 85)     1,2,3-Trichloroprop 0.245 0.252 0.260 0.264 0.258 0.257 0.256   2.66
 86)     Cyclohexanone       0.032 0.031 0.027 0.025 0.025 0.025 0.028  11.94
 87)     4-Chlorotoluene     2.243 2.120 2.420 2.430 2.363 2.350 2.321   5.13
 88)     tert-Butylbenzene   1.460 1.290 1.603 1.579 1.556 1.557 1.508   7.77
 89)     1,2,4-Trimethylbenz 2.705 2.641 3.080 3.053 2.943 2.885 2.884   6.23
 90)     Pentachloroethane   0.525 0.511 0.593 0.589 0.595 0.587 0.567   6.75
 91)     sec-Butylbenzene    3.182 2.922 3.742 3.714 3.578 3.552 3.448   9.46
 92)     4-Isopropyltoluene  2.787 2.624 3.367 3.282 3.206 3.175 3.074   9.67
 93)     1,3-Dichlorobenzene 1.741 1.724 1.987 1.986 1.942 1.965 1.891   6.57
 94)     1,4-Dichlorobenzene 1.849 1.805 2.037 2.065 2.007 2.011 1.962   5.49
 95)     n-Butylbenzene      1.298 1.282 1.681 1.659 1.631 1.638 1.531  12.28
 96)     Benzyl Chloride     0.267 0.270 0.330 0.365 0.381 0.390 0.334  16.34
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9992
               Response Ratio = 0.00000 + 0.38342 *A

 97)     1,2-Dichlorobenzene 1.804 1.795 1.980 2.004 1.964 1.975 1.920   4.94
 98)     1,2-Dibromo-3-Chlor 0.160 0.175 0.168 0.171 0.168 0.168 0.168   3.02
 99)     Hexachlorobutadiene 0.394 0.358 0.482 0.464 0.456 0.463 0.436  11.19
100)     1,2,4-Trichlorobenz 1.067 1.145 1.350 1.381 1.377 1.344 1.277  10.61
101)     Naphthalene         2.658 3.022 3.339 3.436 3.411 3.287 3.192   9.43
102)     1,2,3-Trichlorobenz 0.996 1.053 1.232 1.238 1.240 1.203 1.160   9.28

103) I   Tert Butyl Alcohol-d1 ----------------ISTD---------------------
104)     Ethanol             0.541 0.321 0.176 0.137 0.163 0.166 0.251  62.39
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9943
               Response Ratio = 0.00000 + 0.14721 *A + 0.00233 *A^2

105)     Acrolein            1.326 0.250 0.275 0.330 0.576 0.688 0.574  71.06
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9966
               Response Ratio = 0.00000 + 0.17590 *A + 0.26043 *A^2

106)     Tert butyl alcohol  2.010 1.875 1.780 1.857 1.792 1.808 1.854   4.59
107)     Isobutyl alcohol    0.667 0.550 0.487 0.718 0.717 0.684 0.637  15.07
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9950
               Response Ratio = 0.00000 + 0.69159 *A

108)     Tert Amyl Alcohol   1.392 1.440 1.385 1.446 1.414 1.464 1.423   2.23
109)     1,4-Dioxane         0.118 0.168 0.181 0.190 0.188 0.188 0.172  16.20
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9999
               Response Ratio = 0.00000 + 0.18807 *A

 ---------------------------------------------------------------------------
 (#) = Out of Range
```

Initial Calibration Summary

Job Number: F74973
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1243-ICC1243
Lab FileID: F043316.D

8260FW.M Thu Jul 01 11:31:12 2010

Initial Calibration Verification

Job Number: F74973
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1243-ICV1243
Lab FileID: F043323.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\063010\F043323.D          Vial: 11
Acq On    : 30 Jun 2010   2:33 pm                   Operator: logand
Sample    : icv1243-4                               Inst    : MSVOA9
Misc      : ms14505,vf1243,,,,,                     Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\8260FW.M (RTE Integrator)
Title        : SW-846 Method 5035A/8260B
Last Update  : Wed Jun 30 13:01:35 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.001  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	98	0.00	10.32
		Amount	Calc.	%Drift			
2	Dichlorodifluoromethane	40.000	35.665	10.8	86	0.00	4.28
3 P	Chloromethane	40.000	38.291	4.3	91	0.00	4.63
		AvgRF	CCRF	%Dev			
4 C	Vinyl Chloride	0.315	0.312	1.0	91	0.00	4.82
5	Bromomethane	0.228	0.227	0.4	91	0.00	5.39
6	Chloroethane	0.194	0.178	8.2	86	0.00	5.55
7	Trichlorofluoromethane	0.449	0.450	-0.2	91	0.00	5.81
8	Ethyl Ether	0.233	0.240	-3.0	96	0.00	6.16
		Amount	Calc.	%Drift			
9	1,2-Dichlorotrifluoroetha	40.000	43.497	-8.7	103	0.00	6.42
		AvgRF	CCRF	%Dev			
10 C	1,1-Dichloroethene	0.441	0.401	9.1	82	0.00	6.50
		Amount	Calc.	%Drift			
11	Freon 113	40.000	38.744	3.1	90	0.00	6.57
12	Carbon Disulfide	40.000	37.330	6.7	89	0.00	6.61
		AvgRF	CCRF	%Dev			
13	Iodomethane	0.780	0.849	-8.8	103	0.00	6.75
14	Allyl chloride	0.531	0.607	-14.3	109	0.00	7.12
		Amount	Calc.	%Drift			
15	Methylene Chloride	40.000	39.169	2.1	92	0.00	7.27
		AvgRF	CCRF	%Dev			
16	Acetone	0.123	0.109	11.4	88	0.00	7.31
17	Methyl acetate	0.227	0.237	-4.4	100	0.00	7.44
18	trans-1,2-Dichloroethene	0.531	0.503	5.3	88	0.00	7.48
19	Hexane	0.241	0.257	-6.6	99	0.00	7.54
20	Methyl Tert Butyl Ether	0.863	0.867	-0.5	98	0.00	7.58
21	Acetonitrile	0.034	0.032	5.9	98	0.00	7.93
22	Di-isopropyl ether	1.277	1.324	-3.7	98	0.00	8.00
23	Chloroprene	0.531	0.569	-7.2	99	0.00	8.21
24 P	1,1-Dichloroethane	0.654	0.636	2.8	89	0.00	8.24
25	Acrylonitrile	0.127	0.133	-4.7	105	0.00	8.30
26	ETBE	1.029	1.003	2.5	94	0.00	8.45

Initial Calibration Verification

Job Number: F74973
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1243-ICV1243
Lab FileID: F043323.D

27		Vinyl acetate	0.500	0.643	-28.6#	127	0.00	8.46
28		cis-1,2-Dichloroethene	0.418	0.432	-3.3	98	0.00	8.89
29		2,2-Dichloropropane	0.521	0.530	-1.7	94	0.00	9.04
30		Bromochloromethane	0.262	0.261	0.4	92	0.00	9.13
31		Cyclohexane	0.568	0.562	1.1	89	0.00	9.18
		----------	Amount	Calc.	%Drift	----------		
32	C	Chloroform	40.000	39.905	0.2	95	0.00	9.17
		----------	AvgRF	CCRF	%Dev	----------		
33		Ethyl acetate	0.370	0.319	13.8	79	0.00	9.24
		----------	Amount	Calc.	%Drift	----------		
34		Tetrahydrofuran	40.000	43.807	-9.5	105	0.00	9.40
		----------	AvgRF	CCRF	%Dev	----------		
35	S	Dibromofluoromethane	0.278	0.281	-1.1	99	0.00	9.39
		----------	Amount	Calc.	%Drift	----------		
36		Carbon Tetrachloride	40.000	36.960	7.6	90	0.00	9.40
		----------	AvgRF	CCRF	%Dev	----------		
37		1,1,1-Trichloroethane	0.613	0.611	0.3	90	0.00	9.47
38		2-Butanone	0.177	0.169	4.5	91	0.00	9.50
39		1,1-Dichloropropene	0.465	0.466	-0.2	90	0.00	9.59
40		Propionitrile	0.050	0.050	0.0	97	0.00	9.86
41		Methacrylonitrile	0.256	0.254	0.8	98	0.00	9.89
42		Benzene	1.413	1.397	1.1	92	0.00	9.88
43		TAME	0.953	0.945	0.8	96	0.00	9.93
44	S	1,2-Dichloroethane-d4	0.290	0.301	-3.8	97	0.00	10.02
45		1,2-Dichloroethane	0.524	0.521	0.6	95	0.00	10.09
46		Trichloroethene	0.397	0.404	-1.8	95	0.00	10.51
47		Methylcyclohexane	0.527	0.565	-7.2	97	0.00	10.54
48		Dibromomethane	0.255	0.260	-2.0	97	0.00	11.00
49	C	1,2-Dichloropropane	0.370	0.373	-0.8	96	0.00	11.09
50		Bromodichloromethane	0.506	0.506	0.0	94	0.00	11.13
51		Methyl methacrylate	0.365	0.354	3.0	100	0.00	11.21
		----------	Amount	Calc.	%Drift	----------		
52		2-Chloroethyl vinyl ether	200.000	504.582	-152.3#	677	0.00	11.67
		----------	AvgRF	CCRF	%Dev	----------		
53		cis-1,3-Dichloropropene	0.583	0.637	-9.3	101	0.00	11.81
54	I	Chlorobenzene-d5	1.000	1.000	0.0	101	0.00	13.71
55	S	Toluene-d8	1.121	1.110	1.0	99	0.00	12.01
56	C	Toluene	1.727	1.736	-0.5	95	0.00	12.07
57		2-Nitropropane	0.108	0.104	3.7	91	0.00	12.31
58		4-Methyl-2-pentanone	0.401	0.390	2.7	94	0.00	12.41
59		trans-1,3-Dichloropropene	0.530	0.632	-19.2	114	0.00	12.48
60		Tetrachloroethene	0.498	0.520	-4.4	96	0.00	12.52
61		Ethyl methacrylate	0.529	0.532	-0.6	97	0.00	12.56
62		1,1,2-Trichloroethane	0.317	0.321	-1.3	99	0.00	12.67
63		Dibromochloromethane	0.490	0.511	-4.3	98	0.00	12.89
64		1,3-Dichloropropane	0.619	0.623	-0.6	97	0.00	12.99
65		1,2-Dibromoethane	0.435	0.442	-1.6	97	0.00	13.20
66		2-hexanone	0.289	0.286	1.0	96	0.00	13.30
67		1-Chlorohexane	0.539	0.528	2.0	91	0.00	13.63
68	C	Ethylbenzene	1.942	1.961	-1.0	96	0.00	13.71
69	P	Chlorobenzene	1.273	1.320	-3.7	98	0.00	13.73

Initial Calibration Verification

Job Number: F74973
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1243-ICV1243
Lab FileID: F043323.D

70		1,1,1,2-Tetrachloroethane	0.504	0.522	-3.6	99	0.00	13.78
71		m,p-Xylene	1.493	1.515	-1.5	95	0.00	13.85
72		o-Xylene	1.655	1.666	-0.7	95	0.00	14.33
73		Styrene	1.321	1.395	-5.6	99	0.00	14.38
74	P	Bromoform	0.312	0.323	-3.5	97	0.00	14.47
75		Isopropylbenzene	1.801	2.134	-18.5	110	0.00	14.65
76	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	98	0.00	16.21
77	S	4-Bromofluorobenzene	0.768	0.765	0.4	99	0.00	15.00
		----------	Amount	Calc.	%Drift		----------	
78		cis-1,4-Dichloro-2-butene	40.000	117.881	-194.7#	919	0.00	15.02
		----------	AvgRF	CCRF	%Dev		----------	
79		n-Propylbenzene	3.532	3.690	-4.5	96	0.00	15.09
80		Bromobenzene	0.996	1.035	-3.9	97	0.00	15.15
81	P	1,1,2,2-Tetrachloroethane	0.809	0.832	-2.8	99	0.00	15.15
82		1,3,5-Trimethylbenzene	2.834	2.943	-3.8	97	0.00	15.27
83		2-Chlorotoluene	2.304	2.367	-2.7	98	0.00	15.31
		----------	Amount	Calc.	%Drift		----------	
84		trans-1,4-Dichloro-2-Bute	40.000	110.295	-175.7#	849	0.00	15.35
		----------	AvgRF	CCRF	%Dev		----------	
85		1,2,3-Trichloropropane	0.256	0.241	5.9	89	0.00	15.34
86		Cyclohexanone	0.028	0.026	7.1	101	0.00	15.44
87		4-Chlorotoluene	2.321	2.399	-3.4	97	0.00	15.49
88		tert-Butylbenzene	1.508	1.560	-3.4	97	0.00	15.64
89		1,2,4-Trimethylbenzene	2.884	3.015	-4.5	97	0.00	15.71
90		Pentachloroethane	0.567	0.612	-7.9	102	0.00	15.72
91		sec-Butylbenzene	3.448	3.598	-4.4	95	0.00	15.83
92		4-Isopropyltoluene	3.074	3.200	-4.1	95	0.00	15.96
93		1,3-Dichlorobenzene	1.891	1.968	-4.1	97	0.00	16.14
94		1,4-Dichlorobenzene	1.962	2.033	-3.6	96	0.00	16.23
95		n-Butylbenzene	1.531	1.608	-5.0	95	0.00	16.42
		----------	Amount	Calc.	%Drift		----------	
96		Benzyl Chloride	40.000	43.095	-7.7	111	0.00	16.47
		----------	AvgRF	CCRF	%Dev		----------	
97		1,2-Dichlorobenzene	1.920	2.011	-4.7	98	0.00	16.70
98		1,2-Dibromo-3-Chloropropa	0.168	0.166	1.2	95	0.00	17.53
99		Hexachlorobutadiene	0.436	0.464	-6.4	98	0.00	18.18
100		1,2,4-Trichlorobenzene	1.277	1.412	-10.6	100	0.00	18.27
101		Naphthalene	3.192	3.389	-6.2	97	0.00	18.65
102		1,2,3-Trichlorobenzene	1.160	1.244	-7.2	98	0.00	18.87
103	I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	99	0.00	7.53
		----------	Amount	Calc.	%Drift		----------	
104		Ethanol	800.000	682.040	14.7	94	0.00	6.38
105		Acrolein	200.000	603.367	-201.7#	729	0.00	6.95
		----------	AvgRF	CCRF	%Dev		----------	
106		Tert butyl alcohol	1.854	1.776	4.2	95	0.00	7.64
		----------	Amount	Calc.	%Drift		----------	
107		Isobutyl alcohol	800.000	807.107	-0.9	96	0.00	9.93
		----------	AvgRF	CCRF	%Dev		----------	

Initial Calibration Verification

Job Number: F74973
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1243-ICV1243
Lab FileID: F043323.D

```
108     Tert Amyl Alcohol           1.423   1.394      2.0   95   0.00   10.08

            ----------------------- Amount  Calc.    %Drift   -------------
109     1,4-Dioxane                800.000 781.929      2.3   96   0.00   11.33
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range               SPCC's out = 0  CCC's out = 0
     F043316.D  8260FW.M         Thu Jul 01 11:31:30 2010
```

Continuing Calibration Summary

Job Number: F74973
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1252-CC1243
Lab FileID: F043545.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\071410\F043545.D          Vial: 1
Acq On    : 14 Jul 2010   9:47 am                   Operator: logand
Sample    : cc1243-4                                Inst    : MSVOA9
Misc      : ms14937,vf1252,,,,,                     Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\8260FW.M (RTE Integrator)
Title        : SW-846 Method 5035A/8260B
Last Update  : Wed Jun 30 13:01:35 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.001  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	152	0.00	10.32
		Amount	Calc.	%Drift			
2	Dichlorodifluoromethane	40.000	28.234	29.4#	106	0.00	4.29
3 P	Chloromethane	40.000	29.150	27.1#	107	0.00	4.64
		AvgRF	CCRF	%Dev			
4 C	Vinyl Chloride	0.315	0.283	10.2	128	0.00	4.81
5	Bromomethane	0.228	0.209	8.3	130	0.00	5.38
6	Chloroethane	0.194	0.168	13.4	126	0.00	5.55
7	Trichlorofluoromethane	0.449	0.435	3.1	136	0.00	5.81
8	Ethyl Ether	0.233	0.206	11.6	127	0.00	6.16
		Amount	Calc.	%Drift			
9	1,2-Dichlorotrifluoroetha	40.000	36.524	8.7	134	0.00	6.42
		AvgRF	CCRF	%Dev			
10 C	1,1-Dichloroethene	0.441	0.420	4.8	133	0.00	6.51
		Amount	Calc.	%Drift			
11	Freon 113	40.000	37.502	6.2	135	0.00	6.57
12	Carbon Disulfide	40.000	38.550	3.6	143	0.00	6.61
		AvgRF	CCRF	%Dev			
13	Iodomethane	0.780	0.735	5.8	138	0.00	6.75
14	Allyl chloride	0.531	0.518	2.4	144	0.00	7.13
		Amount	Calc.	%Drift			
15	Methylene Chloride	40.000	37.211	7.0	135	0.00	7.27
		AvgRF	CCRF	%Dev			
16	Acetone	0.123	0.094	23.6#	117	0.00	7.31
17	Methyl acetate	0.227	0.185	18.5	121	0.00	7.44
18	trans-1,2-Dichloroethene	0.531	0.486	8.5	131	0.00	7.48
19	Hexane	0.241	0.233	3.3	139	0.00	7.54
20	Methyl Tert Butyl Ether	0.863	0.717	16.9	125	0.00	7.58
21	Acetonitrile	0.034	0.024	29.4#	112	0.00	7.92
22	Di-isopropyl ether	1.277	1.097	14.1	126	0.00	8.01
23	Chloroprene	0.531	0.478	10.0	129	0.00	8.21
24 P	1,1-Dichloroethane	0.654	0.593	9.3	129	0.00	8.25
25	Acrylonitrile	0.127	0.097	23.6#	119	0.00	8.29
26	ETBE	1.029	0.923	10.3	133	0.00	8.45

Continuing Calibration Summary

Job Number: F74973
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1252-CC1243
Lab FileID: F043545.D

27		Vinyl acetate	0.500	0.413	17.4	126	0.00	8.46
28		cis-1,2-Dichloroethene	0.418	0.363	13.2	127	0.00	8.89
29		2,2-Dichloropropane	0.521	0.469	10.0	128	0.00	9.04
30		Bromochloromethane	0.262	0.227	13.4	125	0.00	9.13
31		Cyclohexane	0.568	0.533	6.2	131	0.00	9.18
		----------	Amount	Calc.	%Drift	----------		
32	C	Chloroform	40.000	34.584	13.5	128	0.00	9.17
		----------	AvgRF	CCRF	%Dev	----------		
33		Ethyl acetate	0.370	0.255	31.1#	98	0.00	9.23
		----------	Amount	Calc.	%Drift	----------		
34		Tetrahydrofuran	40.000	29.391	26.5#	109	0.00	9.39
		----------	AvgRF	CCRF	%Dev	----------		
35	S	Dibromofluoromethane	0.278	0.283	-1.8	155	0.00	9.39
		----------	Amount	Calc.	%Drift	----------		
36		Carbon Tetrachloride	40.000	34.315	14.2	130	0.00	9.40
		----------	AvgRF	CCRF	%Dev	----------		
37		1,1,1-Trichloroethane	0.613	0.557	9.1	127	0.00	9.47
38		2-Butanone	0.177	0.135	23.7#	113	0.00	9.50
39		1,1-Dichloropropene	0.465	0.426	8.4	128	0.00	9.59
40		Propionitrile	0.050	0.037	26.0#	112	0.00	9.86
41		Methacrylonitrile	0.256	0.195	23.8#	116	0.00	9.89
42		Benzene	1.413	1.248	11.7	128	0.00	9.88
43		TAME	0.953	0.831	12.8	130	0.00	9.93
44	S	1,2-Dichloroethane-d4	0.290	0.294	-1.4	147	0.00	10.02
45		1,2-Dichloroethane	0.524	0.433	17.4	122	0.00	10.10
46		Trichloroethene	0.397	0.352	11.3	128	0.00	10.51
47		Methylcyclohexane	0.527	0.499	5.3	133	0.00	10.54
48		Dibromomethane	0.255	0.210	17.6	122	0.00	10.99
49	C	1,2-Dichloropropane	0.370	0.321	13.2	128	0.00	11.09
50		Bromodichloromethane	0.506	0.438	13.4	126	0.00	11.13
51		Methyl methacrylate	0.365	0.252	31.0#	110	0.00	11.21
		----------	Amount	Calc.	%Drift	----------		
52		2-Chloroethyl vinyl ether	200.000	484.596	-142.3#	965	0.00	11.67
		----------	AvgRF	CCRF	%Dev	----------		
53		cis-1,3-Dichloropropene	0.583	0.519	11.0	127	0.00	11.80
54	I	Chlorobenzene-d5	1.000	1.000	0.0	140	0.00	13.71
55	S	Toluene-d8	1.121	1.154	-2.9	143	0.00	12.01
56	C	Toluene	1.727	1.636	5.3	124	0.00	12.07
57		2-Nitropropane	0.108	0.081	25.0#	98	0.00	12.31
58		4-Methyl-2-pentanone	0.401	0.339	15.5	113	0.00	12.41
59		trans-1,3-Dichloropropene	0.530	0.531	-0.2	133	0.00	12.49
60		Tetrachloroethene	0.498	0.481	3.4	123	0.00	12.52
61		Ethyl methacrylate	0.529	0.450	14.9	114	0.00	12.57
62		1,1,2-Trichloroethane	0.317	0.287	9.5	122	0.00	12.68
63		Dibromochloromethane	0.490	0.457	6.7	122	0.00	12.90
64		1,3-Dichloropropane	0.619	0.559	9.7	121	0.00	12.99
65		1,2-Dibromoethane	0.435	0.382	12.2	116	0.00	13.20
66		2-hexanone	0.289	0.245	15.2	115	0.00	13.30
67		1-Chlorohexane	0.539	0.526	2.4	125	0.00	13.63
68	C	Ethylbenzene	1.942	1.838	5.4	125	0.00	13.71
69	P	Chlorobenzene	1.273	1.211	4.9	125	0.00	13.73

Continuing Calibration Summary

Job Number: F74973 **Sample:** VF1252-CC1243
Account: TETTNOAK Tetra Tech, Inc **Lab FileID:** F043545.D
Project: Holloman AFB; Alamogordo, NM

70		1,1,1,2-Tetrachloroethane	0.504	0.483	4.2	127	0.00	13.78
71		m,p-Xylene	1.493	1.411	5.5	123	0.00	13.85
72		o-Xylene	1.655	1.546	6.6	123	0.00	14.33
73		Styrene	1.321	1.259	4.7	124	0.00	14.38
74	P	Bromoform	0.312	0.282	9.6	118	0.00	14.47
75		Isopropylbenzene	1.801	1.747	3.0	125	0.00	14.65
76	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	134	0.00	16.21
77	S	4-Bromofluorobenzene	0.768	0.756	1.6	134	0.00	15.00
		----------	Amount	Calc.	%Drift		----------	
78		cis-1,4-Dichloro-2-butene	40.000	130.007	-225.0#	1539	0.00	15.02
		----------	AvgRF	CCRF	%Dev		----------	
79		n-Propylbenzene	3.532	3.439	2.6	122	0.00	15.09
80		Bromobenzene	0.996	0.930	6.6	119	0.00	15.15
81	P	1,1,2,2-Tetrachloroethane	0.809	0.712	12.0	116	0.00	15.15
82		1,3,5-Trimethylbenzene	2.834	2.737	3.4	123	0.00	15.27
83		2-Chlorotoluene	2.304	2.240	2.8	126	0.00	15.31
		----------	Amount	Calc.	%Drift		----------	
84		trans-1,4-Dichloro-2-Bute	40.000	129.411	-223.5#	1590	0.00	15.35
		----------	AvgRF	CCRF	%Dev		----------	
85		1,2,3-Trichloropropane	0.256	0.222	13.3	112	0.00	15.34
86		Cyclohexanone	0.028	0.019	32.1#	102	0.00	15.44
87		4-Chlorotoluene	2.321	2.234	3.7	123	0.00	15.49
88		tert-Butylbenzene	1.508	1.448	4.0	122	0.00	15.64
89		1,2,4-Trimethylbenzene	2.884	2.799	2.9	122	0.00	15.71
90		Pentachloroethane	0.567	0.559	1.4	127	0.00	15.72
91		sec-Butylbenzene	3.448	3.359	2.6	121	0.00	15.83
92		4-Isopropyltoluene	3.074	2.984	2.9	121	0.00	15.96
93		1,3-Dichlorobenzene	1.891	1.796	5.0	121	0.00	16.14
94		1,4-Dichlorobenzene	1.962	1.877	4.3	121	0.00	16.23
95		n-Butylbenzene	1.531	1.536	-0.3	124	0.00	16.42
		----------	Amount	Calc.	%Drift		----------	
96		Benzyl Chloride	40.000	38.172	4.6	134	0.00	16.47
		----------	AvgRF	CCRF	%Dev		----------	
97		1,2-Dichlorobenzene	1.920	1.776	7.5	118	0.00	16.70
98		1,2-Dibromo-3-Chloropropa	0.168	0.132	21.4#	103	0.00	17.53
99		Hexachlorobutadiene	0.436	0.395	9.4	114	0.00	18.19
100		1,2,4-Trichlorobenzene	1.277	1.153	9.7	112	0.00	18.27
101		Naphthalene	3.192	2.602	18.5	101	0.00	18.65
102		1,2,3-Trichlorobenzene	1.160	0.970	16.4	105	0.00	18.88
103	I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	103	0.00	7.53
		----------	Amount	Calc.	%Drift		----------	
104		Ethanol	800.000	709.912	11.3	103	-0.04	6.34
105		Acrolein	200.000	614.241	-207.1#	785	0.00	6.94
		----------	AvgRF	CCRF	%Dev		----------	
106		Tert butyl alcohol	1.854	1.643	11.4	91	0.00	7.62
		----------	Amount	Calc.	%Drift		----------	
107		Isobutyl alcohol	800.000	875.700	-9.5	109	0.00	9.93
		----------	AvgRF	CCRF	%Dev		----------	

Continuing Calibration Summary

Job Number: F74973
Account: TETTNOAK Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Sample: VF1252-CC1243
Lab FileID: F043545.D

```
108     Tert Amyl Alcohol           1.423   1.335      6.2   95   0.00   10.08

            ----------------------- Amount  Calc.    %Drift   -------------
109     1,4-Dioxane                800.000 727.301      9.1   93   0.00   11.32
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range               SPCC's out = 0  CCC's out = 0
     F043316.D  8260FW.M         Thu Jul 15 08:43:09 2010
```

5.7.3

5

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20712W1.PRN Date Analyzed: 07/12/10 Methods: SW846 7470A
Analyst: LM Run ID: MA8222
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:31	MA8222-STD1	1		STD01REP1
10:34	MA8222-STD2	1		STD02REP1
10:36	MA8222-STD3	1		STD03REP1
10:39	MA8222-STD4	1		STD04REP1
10:41	MA8222-STD5	1		STD05REP1
10:43	MA8222-STD6	1		STD06REP1
10:46	MA8222-HSTD1	1		
10:48	MA8222-ICV1	1		
10:50	MA8222-ICB1	1		
10:53	MA8222-CRI1	1		
10:55	MA8222-CCV1	1		
10:58	MA8222-CCB1	1		
11:01	MP18636-MB1	1		
11:03	MP18636-B1	1		
11:05	F74904-1	1		(sample used for QC only; not part of login F74973)
11:08	MP18636-D1	1		
11:10	MP18636-SD1	5		
11:13	MP18636-S1	1		
11:15	MP18636-S2	1		
11:17	MP18636-MB2	1		
11:19	MP18636-B2	1		
11:22	MP18637-MB1	1		
11:24	MA8222-CCV2	1		
11:27	MA8222-CCB2	1		
11:29	MP18637-B1	1		
11:32	F74973-1	1		
11:34	MP18637-D1	1		
11:36	MP18637-SD1	5		
11:39	MP18637-S1	1		
11:41	MP18637-S2	1		
11:44	F74973-2	1		
11:47	F74973-3	1		
11:49	F74973-4	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20712W1.PRN Date Analyzed: 07/12/10 Methods: SW846 7470A
Analyst: LM Run ID: MA8222
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:52	F74973-5	1		
11:54	MA8222-CCV3	1		
11:57	MA8222-CCB3	1		
11:59	F74973-6	1		
12:01	ZZZZZZ	1		
12:03	ZZZZZZ	1		
12:06	ZZZZZZ	1		
12:08	ZZZZZZ	1		
12:10	ZZZZZZ	1		
12:13	ZZZZZZ	1		
12:15	ZZZZZZ	1		
12:19	ZZZZZZ	1		
12:21	ZZZZZZ	1		
12:23	MA8222-CCV4	1		
12:26	MA8222-CCB4	1		
12:29	ZZZZZZ	1		
12:31	ZZZZZZ	1		
12:34	MP18638-MB1	1		
12:37	MP18638-B1	1		
12:41	F74974-6	1		(sample used for QC only; not part of login F74973)
12:44	MP18638-D1	1		
12:47	MP18638-SD1	5		
12:49	MP18638-S1	1		
12:51	MP18638-S2	1		
12:54	ZZZZZZ	1		
12:56	MA8222-CCV5	1		
12:58	MA8222-CCB5	1		
13:01	ZZZZZZ	1		
13:04	ZZZZZZ	1		
13:06	ZZZZZZ	1		
13:08	ZZZZZZ	1		
13:11	ZZZZZZ	1		
13:13	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20712W1.PRN Date Analyzed: 07/12/10 Methods: SW846 7470A
Analyst: LM Run ID: MA8222
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:15	ZZZZZZ	1		
13:17	ZZZZZZ	1		
13:20	ZZZZZZ	1		
13:23	ZZZZZZ	1		
13:26	MA8222-CCV6	1		
13:28	MA8222-CCB6	1		
13:30	F74973-1F	1		
13:33	F74973-2F	1		
13:35	F74973-3F	1		
13:38	F74973-4F	1		
13:40	F74973-5F	1		
13:43	F74973-6F	1		
---------->	Last reportable sample/prep for job F74973			
13:45	MA8222-CRI2	1		
13:47	MA8222-CCV7	1		
13:50	MA8222-CCB7	1		
---------->	Last reportable CCB for job F74973			

Refer to raw data for calibration curve and standards.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20712W1.PRN Date Analyzed: 07/12/10 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA8222 Units: ug/l

Time:			10:50		10:58		11:27		11:57	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	1.0	.071	-0.026	<1.0	-0.045	<1.0	-0.036	<1.0	-0.029	<1.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20712W1.PRN Date Analyzed: 07/12/10 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA8222 Units: ug/l

Time:			12:26		12:58		13:28		13:50	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	1.0	.071	-0.020	<1.0	-0.025	<1.0	-0.040	<1.0	-0.034	<1.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20712W1.PRN Date Analyzed: 07/12/10 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA8222 Units: ug/l

Time:		10:48			10:55			11:24	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	2.9	96.7	3	3.1	103.3	3	3.4	113.3

(*) Outside of QC limits
(anr) Analyte not requested

6.1.2
6

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20712W1.PRN Date Analyzed: 07/12/10 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA8222 Units: ug/l

Time:		11:54			12:23			12:56	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	3.3	110.0	3	3.3	110.0	3	3.2	106.7

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20712W1.PRN Date Analyzed: 07/12/10 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA8222 Units: ug/l

Time:		13:26			13:47	
Sample ID:	CCV	CCV6		CCV	CCV7	
Metal	True	Results	% Rec	True	Results	% Rec
Mercury	3	3.2	106.7	3	3.2	106.7

(*) Outside of QC limits
(anr) Analyte not requested

6.1.2
6

HIGH STANDARD CHECK SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20712W1.PRN Date Analyzed: 07/12/10 Methods: SW846 7470A
QC Limits: 95 to 105 % Recovery Run ID: MA8222 Units: ug/l

Time:		10:46	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Mercury	6.0	6.0	100.0

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: H20712W1.PRN Date Analyzed: 07/12/10 Methods: SW846 7470A
QC Limits: 80 to 120 % Recovery Run ID: MA8222 Units: ug/l

Time:			10:53		13:45	
Sample ID:	CRI	CRIA	CRI1		CRI2	
Metal	True	True	Results	% Rec	Results	% Rec
Mercury	0.20		0.20	100.0	0.26	130.0*(a

(*) Outside of QC limits
(anr) Analyte not requested
(a) Possible instrument baseline drift.

6.1.4

6

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071210M1.ICP Date Analyzed: 07/12/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8226
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:15	MA8226-STD1	1		STDA
09:19	MA8226-STD2	1		STDB
09:22	MA8226-STD3	1		STDC
09:26	MA8226-HSTD1	1		
09:30	MA8226-ICV1	1		
09:38	MA8226-ICB1	1		
09:41	MA8226-CRIA1	1		
10:07	MA8226-CRI1	1		
10:13	MA8226-ICSA1	1		
10:19	MA8226-ICSAB1	1		
10:24	MA8226-CCV1	1		
10:29	MA8226-CCB1	1		
10:56	ZZZZZZ	20		
11:00	ZZZZZZ	20		
11:04	ZZZZZZ	20		
11:08	ZZZZZZ	20		
11:11	MA8226-CCV2	1		
11:15	MA8226-CCB2	1		
11:19	ZZZZZZ	20		
11:23	ZZZZZZ	20		
11:27	ZZZZZZ	20		
11:31	ZZZZZZ	20		
11:35	ZZZZZZ	20		
11:39	ZZZZZZ	20		
11:43	ZZZZZZ	20		
11:47	ZZZZZZ	20		
11:51	ZZZZZZ	20		
11:54	ZZZZZZ	20		
11:58	MA8226-CCV3	1		
12:02	MA8226-CCB3	1		
12:06	ZZZZZZ	20		
12:10	ZZZZZZ	20		
12:14	ZZZZZZ	20		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071210M1.ICP Date Analyzed: 07/12/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8226
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:18	ZZZZZZ	20		
12:22	MP18634-MB1	1		
12:25	MP18634-B1	1		
12:29	F74962-1	1		(sample used for QC only; not part of login F74973)
12:33	MP18634-D1	1		
12:37	MP18634-SD1	5		
12:41	MP18634-PS1	1		
12:45	MA8226-CCV4	1		
12:48	MA8226-CCB4	1		
12:52	MP18634-S1	1		
12:56	MP18634-S2	1		
13:11	ZZZZZZ	1		
13:15	ZZZZZZ	1		
13:19	ZZZZZZ	1		
13:23	ZZZZZZ	1		
13:26	ZZZZZZ	1		
13:30	MA8226-CCV5	1		
13:34	MA8226-CCB5	1		
13:38	ZZZZZZ	1		
13:42	ZZZZZZ	1		
13:45	MP18635-MB1	1		
13:49	MP18635-B1	1		
13:53	F74975-1	1		(sample used for QC only; not part of login F74973)
13:57	MP18635-D1	1		
14:01	MP18635-SD1	5		
14:04	MP18635-PS1	1		
14:08	MP18635-S1	1		
14:12	MP18635-S2	1		
14:15	MA8226-CCV6	1		
14:19	MA8226-CCB6	1		
14:23	ZZZZZZ	1		
14:27	ZZZZZZ	1		
14:31	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071210M1.ICP Date Analyzed: 07/12/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8226
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:34	ZZZZZZ	1		
14:38	ZZZZZZ	1		
14:42	ZZZZZZ	1		
14:46	ZZZZZZ	1		
14:50	ZZZZZZ	1		
14:54	ZZZZZZ	1		
14:58	ZZZZZZ	1		
15:01	MA8226-CCV7	1		
15:05	MA8226-CCB7	1		
15:09	ZZZZZZ	1		
15:13	ZZZZZZ	1		
15:17	ZZZZZZ	1		
15:21	ZZZZZZ	1		
15:24	ZZZZZZ	1		
15:28	ZZZZZZ	1		
15:32	ZZZZZZ	1		
15:36	ZZZZZZ	1		
15:40	ZZZZZZ	1		
15:44	MP18639-MB1	1		
15:48	MA8226-CCV8	1		
15:51	MA8226-CCB8	1		
15:55	MP18639-B1	1		
15:59	F74973-1	1		
16:03	MP18639-D1	1		
16:07	MP18639-SD1	5		
16:11	MP18639-PS1	1		
16:15	MP18639-S1	1		
16:19	MP18639-S2	1		
16:23	F74973-2	1		
16:27	F74973-3	1		
16:31	F74973-4	1		
16:36	MA8226-CCV9	1		
16:39	MA8226-CCB9	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071210M1.ICP Date Analyzed: 07/12/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8226
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	16:43	F74973-5	1		
	16:47	F74973-6	1		
---------->	Last reportable sample/prep for job F74973				
	16:51	ZZZZZZ	1		
	16:55	ZZZZZZ	1		
	16:59	ZZZZZZ	1		
	17:03	ZZZZZZ	1		
	17:07	ZZZZZZ	1		
	17:11	ZZZZZZ	1		
	17:15	ZZZZZZ	1		
	17:19	ZZZZZZ	1		
	17:23	MA8226-CCV10	1		
	17:26	MA8226-CCB10	1		
	17:30	ZZZZZZ	1		
	17:34	ZZZZZZ	1		
	18:08	MA8226-CCV11	1		
	18:12	MA8226-CCB11	1		
	18:23	MP18641-MB1	1		
	18:27	MP18641-B1	1		
	18:31	F74877-1	1		(sample used for QC only; not part of login F74973)
	18:35	MP18641-D1	1		
	18:39	MP18641-SD1	5		
	18:43	MP18641-PS1	1		
	18:47	MP18641-S1	1		
	18:51	MP18641-S2	1		
	18:55	MA8226-CCV12	1		
	18:58	MA8226-CCB12	1		
	19:02	ZZZZZZ	1		
	19:06	ZZZZZZ	1		
	19:10	ZZZZZZ	1		
	19:14	ZZZZZZ	1		
	19:19	ZZZZZZ	1		
	19:22	ZZZZZZ	1		
	19:27	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071210M1.ICP Date Analyzed: 07/12/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8226
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:31	ZZZZZZ	1		
19:35	MP18642-MB1	1		
19:39	MP18642-B1	1		
19:42	MA8226-CCV13	1		
19:46	MA8226-CCB13	1		
19:50	F74877-7	1		(sample used for QC only; not part of login F74973)
19:54	MP18642-D1	1		
19:58	MP18642-SD1	5		
20:02	MP18642-PS1	1		
20:06	MP18642-S1	1		
20:10	MP18642-S2	1		
20:14	ZZZZZZ	1		
20:18	ZZZZZZ	1		
20:22	ZZZZZZ	1		
20:26	ZZZZZZ	1		
20:30	MA8226-CCV14	1		
20:34	MA8226-CCB14	1		
20:38	MA8226-CRIA2	1		
20:42	MA8226-CRI2	1		
20:45	MA8226-ICSA2	1		
20:49	MA8226-ICSAB2	1		
20:53	MA8226-CCV15	1		
20:57	MA8226-CCB15	1		

----------> Last reportable CCB for job F74973
Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071210M1.ICP Date Analyzed: 07/12/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8226
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
09:15	MA8226-STD1	3426	2602	38905	14825	1423
09:19	MA8226-STD2	3271	2640	37809	14841	1287
09:22	MA8226-STD3	3178	2675	36847	14549	1214
09:26	MA8226-HSTD1	3164	2694	36904	14570	1214
09:30	MA8226-ICV1	3278	2641	37762	14760	1291
09:38	MA8226-ICB1	3472 R	2618 R	39104 R	14991 R	1448 R
09:41	MA8226-CRIA1	3450	2611	39207	14992	1421
10:07	MA8226-CRI1	3411				
10:13	MA8226-ICSA1	2948	2760	34629	14359	1090
10:19	MA8226-ICSAB1	2934	2760	34667	14423	1078
10:24	MA8226-CCV1	3278	2619	38058	14884	1286
10:29	MA8226-CCB1	3467	2604	39495	15071	1442
10:56	ZZZZZZ	3203	2426	37568	14833	1246
11:00	ZZZZZZ	3227	2463	37877	14966	1274
11:04	ZZZZZZ	3200	2421	37571	14863	1258
11:08	ZZZZZZ	3166	2405	37171	14757	1231
11:11	MA8226-CCV2	3259	2607	38059	14912	1276
11:15	MA8226-CCB2	3463	2608	39559	15069	1436
11:19	ZZZZZZ	3201	2440	37336	14666	1249
11:23	ZZZZZZ	3228	2450	37472	14747	1266
11:27	ZZZZZZ	3180	2415	36901	14624	1243
11:31	ZZZZZZ	3209	2435	37329	14714	1259
11:35	ZZZZZZ	3225	2450	37365	14655	1271
11:39	ZZZZZZ	3216	2446	37442	14702	1267
11:43	ZZZZZZ	3205	2430	37268	14693	1258
11:47	ZZZZZZ	3218	2444	37353	14706	1266
11:51	ZZZZZZ	3198	2439	37338	14611	1254
11:54	ZZZZZZ	3193	2434	37181	14641	1254
11:58	MA8226-CCV3	3271	2624	38024	14805	1278
12:02	MA8226-CCB3	3452	2633	39469	15107	1434
12:06	ZZZZZZ	3220	2458	37262	14666	1278
12:10	ZZZZZZ	3234	2450	37316	14561	1277
12:14	ZZZZZZ	3350	2541	38446	14884	1361

INTERNAL STANDARD SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071210M1.ICP Date Analyzed: 07/12/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8226
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
12:18	ZZZZZZ	3364	2552	38459	14975	1363
12:22	MP18634-MB1	3291	2481	37895	14623	1361
12:25	MP18634-B1	3187	2482	36738	14405	1268
12:29	F74962-1	2988	2303	35632	14597	1012
12:33	MP18634-D1	2964	2271	35363	14431	1018
12:37	MP18634-SD1	3210	2469	37628	14854	1245
12:41	MP18634-PS1	2967	2289	35408	14597	1012
12:45	MA8226-CCV4	3285	2640	38095	15035	1287
12:48	MA8226-CCB4	3469	2620	39857	15331	1441
12:52	MP18634-S1	2906	2324	35295	14825	971
12:56	MP18634-S2	2898	2301	35001	14720	968
13:11	ZZZZZZ	3944	3039	45854	18153	1316
13:15	ZZZZZZ	3485	2682	40281	15805	1322
13:19	ZZZZZZ	3264	2515	38363	15406	1243
13:23	ZZZZZZ	3407	2600	39479	15535	1315
13:26	ZZZZZZ	3517	2701	40716	16006	1336
13:30	MA8226-CCV5	3333	2693	38623	15043	1298
13:34	MA8226-CCB5	3488	2651	39793	15242	1443
13:38	ZZZZZZ	12023 !	10109 !	140480 !	56612 !	1165
13:42	ZZZZZZ	3655	2897	42292	16318	1313
13:45	MP18635-MB1	3530	2663	40165	15342	1460
13:49	MP18635-B1	3325	2617	38417	15103	1323
13:53	F74975-1	3327	2535	38591	15144	1358
13:57	MP18635-D1	3334	2548	38664	15222	1361
14:01	MP18635-SD1	3451	2624	39532	15259	1429
14:04	MP18635-PS1	3315	2515	38355	15129	1347
14:08	MP18635-S1	3218	2541	37523	15006	1276
14:12	MP18635-S2	3220	2555	37603	15094	1277
14:15	MA8226-CCV6	3273	2653	38349	15080	1284
14:19	MA8226-CCB6	3490	2637	39428	15128	1442
14:23	ZZZZZZ	3306	2524	38343	15008	1350
14:27	ZZZZZZ	3301	2514	38230	15024	1352
14:31	ZZZZZZ	3361	2558	38536	15111	1382

INTERNAL STANDARD SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071210M1.ICP Date Analyzed: 07/12/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8226
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
14:34	ZZZZZZ	3324	2552	38379	15186	1360
14:38	ZZZZZZ	3366	2553	38688	15102	1391
14:42	ZZZZZZ	3354	2555	38464	14982	1388
14:46	ZZZZZZ	3534	2816	40821	16057	1346
14:50	ZZZZZZ	3389	2598	38874	15249	1384
14:54	ZZZZZZ	3355	2570	38832	15119	1381
14:58	ZZZZZZ	3297	2521	38168	15000	1344
15:01	MA8226-CCV7	3269	2650	37952	14913	1286
15:05	MA8226-CCB7	3462	2650	39276	15027	1434
15:09	ZZZZZZ	3295	2513	38033	14975	1346
15:13	ZZZZZZ	3162	2417	36975	14703	1269
15:17	ZZZZZZ	3409	2578	39019	15074	1419
15:21	ZZZZZZ	3374	2574	38839	15177	1390
15:24	ZZZZZZ	3342	2537	38495	15063	1376
15:28	ZZZZZZ	3281	2498	38163	15000	1345
15:32	ZZZZZZ	3290	2532	38180	14939	1340
15:36	ZZZZZZ	3160	2419	37234	14773	1269
15:40	ZZZZZZ	3414	2596	39124	15196	1419
15:44	MP18639-MB1	3420	2605	39355	15215	1421
15:48	MA8226-CCV8	3260	2645	37924	14904	1282
15:51	MA8226-CCB8	3460	2642	39128	14997	1433
15:55	MP18639-B1	3272	2585	37814	14945	1312
15:59	F74973-1	2386	1813	28203	12452	828 !
16:03	MP18639-D1	2347	1783	27942	12466	822 !
16:07	MP18639-SD1	2919	2248	34327	14139	1093
16:11	MP18639-PS1	2384	1822	28380	12614	836 !
16:15	MP18639-S1	2406	1883	28694	12574	824 !
16:19	MP18639-S2	2400	1887	28695	12487	823 !
16:23	F74973-2	2422	1851	28799	12533	857 !
16:27	F74973-3	2269	1726	26847	11965	786 !
16:31	F74973-4	2335	1796	27793	12096	819 !
16:36	MA8226-CCV9	3255	2662	38101	14850	1301
16:39	MA8226-CCB9	3462	2653	39315	14827	1457

INTERNAL STANDARD SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071210M1.ICP Date Analyzed: 07/12/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8226
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
16:43	F74973-5	2244	1704	26519	11687	780 !
16:47	F74973-6	2416	1837	28498	12194	851 !
16:51	ZZZZZZ	3374	2597	39127	14853	1425
16:55	ZZZZZZ	3373	2596	38968	14636	1419
16:59	ZZZZZZ	3406	2602	38914	14555	1434
17:03	ZZZZZZ	3385	2596	39080	14457	1423
17:07	ZZZZZZ	3226	2488	37623	14180	1306
17:11	ZZZZZZ	3236	2487	37520	14106	1314
17:15	ZZZZZZ	3197	2452	37162	14042	1308
17:19	ZZZZZZ	3228	2487	37383	14037	1298
17:23	MA8226-CCV10	3256	2655	37936	14067	1290
17:26	MA8226-CCB10	3452	2653	39327	14327	1447
17:30	ZZZZZZ	3304	2542	38086	14196	1370
17:34	ZZZZZZ	4002	3084	45796	17091	1368
18:08	MA8226-CCV11	3267	2656	37489	13952	1293
18:12	MA8226-CCB11	3468	2656	38850	14133	1449
18:23	MP18641-MB1	3423	2603	39006	14369	1433
18:27	MP18641-B1	3275	2624	37555	14047	1320
18:31	F74877-1	2841	2197	33046	12999	1056
18:35	MP18641-D1	2837	2197	33285	13072	1055
18:39	MP18641-SD1	3195	2463	36754	13808	1254
18:43	MP18641-PS1	2848	2211	33296	12993	1055
18:47	MP18641-S1	2835	2271	33436	13086	1040
18:51	MP18641-S2	2828	2243	33210	12982	1040
18:55	MA8226-CCV12	3262	2645	37549	13918	1287
18:58	MA8226-CCB12	3454	2647	39196	14058	1446
19:02	ZZZZZZ	2979	2294	34772	13393	1137
19:06	ZZZZZZ	2969	2290	34710	13365	1136
19:10	ZZZZZZ	2914	2239	34307	13193	1109
19:14	ZZZZZZ	2915	2264	34363	13232	1110
19:19	ZZZZZZ	3397	2596	39020	14182	1427
19:22	ZZZZZZ	2809	2174	33471	13192	1047
19:27	ZZZZZZ	2827	2191	33736	13179	1053

INTERNAL STANDARD SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071210M1.ICP Date Analyzed: 07/12/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8226
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
19:31	ZZZZZZ	2906	2398	34813	13377	1099
19:35	MP18642-MB1	3397	2605	39259	14117	1427
19:39	MP18642-B1	3303	2626	38349	13997	1332
19:42	MA8226-CCV13	3260	2646	37946	13835	1291
19:46	MA8226-CCB13	3461	2643	39340	14042	1445
19:50	F74877-7	2967	2296	34880	13229	1131
19:54	MP18642-D1	2957	2288	34890	13317	1135
19:58	MP18642-SD1	3261	2513	38080	14029	1309
20:02	MP18642-PS1	2966	2292	35526	13486	1132
20:06	MP18642-S1	2946	2342	35029	13276	1101
20:10	MP18642-S2	2949	2346	34982	13203	1104
20:14	ZZZZZZ	3146	2610	37492	14405	1025
20:18	ZZZZZZ	2916	2303	34726	13140	1109
20:22	ZZZZZZ	2828	2189	34028	13223	1056
20:26	ZZZZZZ	3048	2850	37383	14522	989
20:30	MA8226-CCV14	3250	2646	38537	13998	1290
20:34	MA8226-CCB14	3464	2656	39826	14048	1447
20:38	MA8226-CRIA2	3429	2639	39438	13975	1424
20:42	MA8226-CRI2	3397	2606	39233	13889	1399
20:45	MA8226-ICSA2	2935	2786	35130	13590	1104
20:49	MA8226-ICSAB2	2949	2792	35480	13609	1101
20:53	MA8226-CCV15	3274	2655	38460	13941	1293
20:57	MA8226-CCB15	3474	2643	39893	14063	1457

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	60-125 %
Istd#2	Yttrium (2422)	60-125 %
Istd#3	Yttrium (3242)	60-125 %
Istd#4	Yttrium (3710)	60-125 %
Istd#5	Indium	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071210M1.ICP Date Analyzed: 07/12/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8226 Units: ug/l

Time:			09:38		10:29		11:15		12:02	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	8.6	<200	7.1	<200	5.5	<200	22.3	<200
Antimony	6.0	2	1.0	<12	3.0	<12	1.8	<12	1.7	<12
Arsenic	10	2	0.0	<10	-0.20	<10	-0.60	<10	1.2	<10
Barium	200	5	0.80	<200	0.90	<200	0.80	<200	0.80	<200
Beryllium	4.0	1	0.0	<4.0	0.10	<4.0	0.10	<4.0	0.20	<4.0
Cadmium	5.0	1	-0.10	<5.0	0.10	<5.0	0.10	<5.0	0.10	<5.0
Calcium	1000	100	1.6	<1000	19.6	<1000	26.7	<1000	27.4	<1000
Chromium	10	1	-0.20	<10	0.10	<10	0.0	<10	0.20	<10
Cobalt	50	1	0.0	<50	0.20	<50	0.10	<50	0.10	<50
Copper	25	2	0.20	<25	0.0	<25	0.30	<25	0.10	<25
Iron	300	30	-8.9	<300	-5.6	<300	-7.0	<300	-7.9	<300
Lead	5.0	1	0.30	<5.0	0.50	<5.0	0.10	<5.0	0.60	<5.0
Magnesium	5000	100	1.1	<5000	3.6	<5000	12.6	<5000	4.7	<5000
Manganese	15	1	0.0	<15	0.10	<15	0.20	<15	0.20	<15
Molybdenum	50	1								
Nickel	40	1	0.0	<40	0.10	<40	0.20	<40	0.10	<40
Potassium	10000	500	12.1	<10000	11.7	<10000	22.1	<10000	19.2	<10000
Selenium	10	2	-3.1	<10	-0.20	<10	-0.90	<10	-0.50	<10
Silver	10	1	-0.20	<10	0.20	<10	0.0	<10	0.0	<10
Sodium	10000	750	107	<10000	108	<10000	396	<10000	513	<10000
Strontium	10	1								
Thallium	10	1.5	0.40	<10	-2.6	<10	-0.90	<10	-2.0	<10
Tin	50	1								
Titanium	10	2								
Vanadium	50	1	-0.20	<50	0.10	<50	0.20	<50	-0.10	<50
Zinc	20	5	0.10	<20	0.30	<20	0.30	<20	0.30	<20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071210M1.ICP Date Analyzed: 07/12/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8226 Units: ug/l

Time:			12:48		13:34		14:19		15:05	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	7.1	<200	19.2	<200	23.4	<200	4.0	<200
Antimony	6.0	2	2.2	<12	1.9	<12	2.6	<12	1.7	<12
Arsenic	10	2	-0.10	<10	1.0	<10	-1.1	<10	-0.90	<10
Barium	200	5	1.7	<200	1.1	<200	1.3	<200	1.0	<200
Beryllium	4.0	1	0.20	<4.0	0.30	<4.0	0.30	<4.0	0.10	<4.0
Cadmium	5.0	1	0.20	<5.0	0.20	<5.0	0.30	<5.0	0.10	<5.0
Calcium	1000	100	42.8	<1000	32.5	<1000	33.6	<1000	4.5	<1000
Chromium	10	1	-0.40	<10	0.60	<10	0.20	<10	-0.40	<10
Cobalt	50	1	0.10	<50	0.30	<50	0.30	<50	0.10	<50
Copper	25	2	0.20	<25	0.20	<25	0.60	<25	0.30	<25
Iron	300	30	-23	<300	14.1	<300	-26	<300	0.50	<300
Lead	5.0	1	0.10	<5.0	0.10	<5.0	0.20	<5.0	-0.20	<5.0
Magnesium	5000	100	10.8	<5000	13.9	<5000	15.6	<5000	4.9	<5000
Manganese	15	1	0.20	<15	0.30	<15	0.30	<15	0.20	<15
Molybdenum	50	1								
Nickel	40	1	0.30	<40	0.40	<40	0.40	<40	0.30	<40
Potassium	10000	500	6.3	<10000	-4.5	<10000	21.1	<10000	4.4	<10000
Selenium	10	2	-1.1	<10	-0.50	<10	-0.60	<10	-0.90	<10
Silver	10	1	0.20	<10	-0.20	<10	-0.10	<10	0.10	<10
Sodium	10000	750	14.0	<10000	-300	<10000	369	<10000	-480	<10000
Strontium	10	1								
Thallium	10	1.5	0.0	<10	-0.10	<10	-1.6	<10	-0.80	<10
Tin	50	1								
Titanium	10	2								
Vanadium	50	1	0.50	<50	0.30	<50	0.60	<50	0.30	<50
Zinc	20	5	0.50	<20	0.40	<20	0.30	<20	0.30	<20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071210M1.ICP Date Analyzed: 07/12/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8226 Units: ug/l

Time:			15:51		16:39		17:26		18:12	
Sample ID:			CCB8		CCB9		CCB10		CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	4.0	<200	12.9	<200	12.3	<200	12.5	<200
Antimony	6.0	2	3.5	<12	3.0	<12	3.1	<12	3.4	<12
Arsenic	10	2	0.90	<10	-0.10	<10	0.20	<10	0.60	<10
Barium	200	5	1.0	<200	0.70	<200	1.6	<200	0.90	<200
Beryllium	4.0	1	0.10	<4.0	0.20	<4.0	0.20	<4.0	0.20	<4.0
Cadmium	5.0	1	0.10	<5.0	0.10	<5.0	0.20	<5.0	0.20	<5.0
Calcium	1000	100	6.0	<1000	15.9	<1000	11.2	<1000	10.7	<1000
Chromium	10	1	0.20	<10	-0.30	<10	-0.30	<10	0.0	<10
Cobalt	50	1	0.0	<50	0.0	<50	0.10	<50	0.10	<50
Copper	25	2	0.20	<25	0.30	<25	0.0	<25	0.30	<25
Iron	300	30	-34	<300	-7.6	<300	-26	<300	14.2	<300
Lead	5.0	1	-0.50	<5.0	0.70	<5.0	-0.30	<5.0	0.20	<5.0
Magnesium	5000	100	-4.0	<5000	20.4	<5000	17.2	<5000	6.7	<5000
Manganese	15	1	0.20	<15	0.30	<15	0.30	<15	0.30	<15
Molybdenum	50	1								
Nickel	40	1	0.20	<40	0.30	<40	0.20	<40	0.30	<40
Potassium	10000	500	23.3	<10000	10.7	<10000	31.3	<10000	-1.4	<10000
Selenium	10	2	-1.4	<10	0.0	<10	-0.90	<10	-0.70	<10
Silver	10	1	-0.20	<10	-0.30	<10	0.0	<10	0.30	<10
Sodium	10000	750	185	<10000	-500	<10000	0.50	<10000	310	<10000
Strontium	10	1								
Thallium	10	1.5	-2.7	<10	-2.0	<10	-2.2	<10	0.30	<10
Tin	50	1								
Titanium	10	2								
Vanadium	50	1	0.10	<50	0.30	<50	-0.10	<50	0.30	<50
Zinc	20	5	0.20	<20	0.30	<20	0.30	<20	0.40	<20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071210M1.ICP Date Analyzed: 07/12/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8226 Units: ug/l

Time:			18:58		19:46		20:34		20:57	
Sample ID:			CCB12		CCB13		CCB14		CCB15	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	6.1	<200	7.6	<200	4.7	<200	16.8	<200
Antimony	6.0	2	3.7	<12	3.6	<12	2.8	<12	3.4	<12
Arsenic	10	2	-0.40	<10	-1.6	<10	0.40	<10	1.1	<10
Barium	200	5	1.1	<200	0.40	<200	0.0	<200	0.50	<200
Beryllium	4.0	1	0.0	<4.0	0.10	<4.0	0.10	<4.0	0.10	<4.0
Cadmium	5.0	1	0.0	<5.0	0.10	<5.0	0.10	<5.0	0.10	<5.0
Calcium	1000	100	9.0	<1000	5.4	<1000	14.4	<1000	11.1	<1000
Chromium	10	1	-0.30	<10	-0.40	<10	-0.10	<10	-0.30	<10
Cobalt	50	1	0.0	<50	0.10	<50	0.10	<50	0.10	<50
Copper	25	2	0.0	<25	0.0	<25	0.10	<25	0.30	<25
Iron	300	30	-34	<300	-34	<300	-1.5	<300	-37	<300
Lead	5.0	1	0.0	<5.0	-0.20	<5.0	-1.0	<5.0	-0.30	<5.0
Magnesium	5000	100	4.2	<5000	-0.10	<5000	9.4	<5000	9.4	<5000
Manganese	15	1	0.10	<15	0.10	<15	0.30	<15	0.20	<15
Molybdenum	50	1								
Nickel	40	1	0.0	<40	-0.10	<40	0.0	<40	0.30	<40
Potassium	10000	500	16.4	<10000	9.1	<10000	24.5	<10000	15.4	<10000
Selenium	10	2	1.0	<10	-1.1	<10	-0.30	<10	-2.0	<10
Silver	10	1	0.20	<10	0.0	<10	-0.20	<10	0.20	<10
Sodium	10000	750	226	<10000	76.8	<10000	-110	<10000	-430	<10000
Strontium	10	1								
Thallium	10	1.5	0.0	<10	-0.10	<10	-1.8	<10	-2.9	<10
Tin	50	1								
Titanium	10	2								
Vanadium	50	1	0.0	<50	0.30	<50	0.20	<50	0.30	<50
Zinc	20	5	0.20	<20	0.10	<20	0.20	<20	0.20	<20

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071210M1.ICP Date Analyzed: 07/12/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8226 Units: ug/l

Time:		09:30			10:24			11:11	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	39500	98.8	40000	39100	97.8	40000	39000	97.5
Antimony	2000	2000	100.0	2000	2010	100.5	2000	2010	100.5
Arsenic	2000	1920	96.0	2000	1890	94.5	2000	1890	94.5
Barium	2000	2070	103.5	2000	2020	101.0	2000	2010	100.5
Beryllium	2000	2040	102.0	2000	2020	101.0	2000	2020	101.0
Cadmium	2000	2010	100.5	2000	2020	101.0	2000	2030	101.5
Calcium	40000	40600	101.5	40000	39300	98.3	40000	39200	98.0
Chromium	2000	2070	103.5	2000	2070	103.5	2000	2070	103.5
Cobalt	2000	1990	99.5	2000	1990	99.5	2000	2000	100.0
Copper	2000	2000	100.0	2000	1950	97.5	2000	1940	97.0
Iron	40000	40500	101.3	40000	39400	98.5	40000	39400	98.5
Lead	2000	1990	99.5	2000	1970	98.5	2000	1970	98.5
Magnesium	40000	40300	100.8	40000	39100	97.8	40000	38800	97.0
Manganese	2000	2080	104.0	2000	2060	103.0	2000	2060	103.0
Molybdenum									
Nickel	2000	1980	99.0	2000	1960	98.0	2000	1970	98.5
Potassium	40000	40700	101.8	40000	39500	98.8	40000	39400	98.5
Selenium	2000	2000	100.0	2000	2010	100.5	2000	2020	101.0
Silver	250	250	100.0	250	245	98.0	250	244	97.6
Sodium	40000	40600	101.5	40000	39300	98.3	40000	39300	98.3
Strontium									
Thallium	2000	2080	104.0	2000	2060	103.0	2000	2060	103.0
Tin									
Titanium									
Vanadium	2000	2030	101.5	2000	2010	100.5	2000	2010	100.5
Zinc	2000	2030	101.5	2000	2010	100.5	2000	2010	100.5

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071210M1.ICP Date Analyzed: 07/12/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8226 Units: ug/l

Time:		11:58			12:45			13:30	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	39000	97.5	40000	38900	97.3	40000	38900	97.3
Antimony	2000	2000	100.0	2000	2000	100.0	2000	1990	99.5
Arsenic	2000	1890	94.5	2000	1900	95.0	2000	1890	94.5
Barium	2000	2020	101.0	2000	2030	101.5	2000	2020	101.0
Beryllium	2000	2010	100.5	2000	2010	100.5	2000	2010	100.5
Cadmium	2000	2010	100.5	2000	2010	100.5	2000	2010	100.5
Calcium	40000	39400	98.5	40000	39600	99.0	40000	39600	99.0
Chromium	2000	2060	103.0	2000	2070	103.5	2000	2050	102.5
Cobalt	2000	1990	99.5	2000	1990	99.5	2000	1990	99.5
Copper	2000	1930	96.5	2000	1960	98.0	2000	1930	96.5
Iron	40000	39600	99.0	40000	39500	98.8	40000	39500	98.8
Lead	2000	1980	99.0	2000	1970	98.5	2000	1970	98.5
Magnesium	40000	39100	97.8	40000	39000	97.5	40000	39100	97.8
Manganese	2000	2060	103.0	2000	2060	103.0	2000	2040	102.0
Molybdenum									
Nickel	2000	1970	98.5	2000	1970	98.5	2000	1970	98.5
Potassium	40000	39500	98.8	40000	39500	98.8	40000	39500	98.8
Selenium	2000	2010	100.5	2000	2020	101.0	2000	2010	100.5
Silver	250	246	98.4	250	247	98.8	250	245	98.0
Sodium	40000	38900	97.3	40000	39100	97.8	40000	38600	96.5
Strontium									
Thallium	2000	2070	103.5	2000	2070	103.5	2000	2070	103.5
Tin									
Titanium									
Vanadium	2000	2000	100.0	2000	2010	100.5	2000	1980	99.0
Zinc	2000	2010	100.5	2000	2010	100.5	2000	2020	101.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071210M1.ICP Date Analyzed: 07/12/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8226 Units: ug/l

Time:		14:15			15:01			15:48	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	38500	96.3	40000	38900	97.3	40000	39000	97.5
Antimony	2000	2010	100.5	2000	2030	101.5	2000	2030	101.5
Arsenic	2000	1900	95.0	2000	1910	95.5	2000	1920	96.0
Barium	2000	2020	101.0	2000	2060	103.0	2000	2060	103.0
Beryllium	2000	1990	99.5	2000	2000	100.0	2000	2010	100.5
Cadmium	2000	2020	101.0	2000	2010	100.5	2000	2020	101.0
Calcium	40000	39200	98.0	40000	39700	99.3	40000	39600	99.0
Chromium	2000	2040	102.0	2000	2040	102.0	2000	2050	102.5
Cobalt	2000	1990	99.5	2000	1980	99.0	2000	1990	99.5
Copper	2000	1930	96.5	2000	1960	98.0	2000	1970	98.5
Iron	40000	39200	98.0	40000	39600	99.0	40000	39400	98.5
Lead	2000	1980	99.0	2000	1980	99.0	2000	1980	99.0
Magnesium	40000	38500	96.3	40000	39000	97.5	40000	39100	97.8
Manganese	2000	2060	103.0	2000	2070	103.5	2000	2050	102.5
Molybdenum									
Nickel	2000	1970	98.5	2000	1980	99.0	2000	1980	99.0
Potassium	40000	39400	98.5	40000	40200	100.5	40000	40200	100.5
Selenium	2000	2010	100.5	2000	2000	100.0	2000	2030	101.5
Silver	250	245	98.0	250	248	99.2	250	247	98.8
Sodium	40000	39000	97.5	40000	39500	98.8	40000	39400	98.5
Strontium									
Thallium	2000	2070	103.5	2000	2080	104.0	2000	2080	104.0
Tin									
Titanium									
Vanadium	2000	1990	99.5	2000	2000	100.0	2000	2000	100.0
Zinc	2000	2030	101.5	2000	2030	101.5	2000	2030	101.5

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071210M1.ICP Date Analyzed: 07/12/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8226 Units: ug/l

Time:		16:36			17:23			18:08	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	37600	94.0	40000	37600	94.0	40000	37700	94.3
Antimony	2000	2050	102.5	2000	2030	101.5	2000	2030	101.5
Arsenic	2000	1930	96.5	2000	1910	95.5	2000	1920	96.0
Barium	2000	2140	107.0	2000	2150	107.5	2000	2160	108.0
Beryllium	2000	1930	96.5	2000	1940	97.0	2000	1930	96.5
Cadmium	2000	1970	98.5	2000	1990	99.5	2000	1970	98.5
Calcium	40000	38000	95.0	40000	38600	96.5	40000	39100	97.8
Chromium	2000	2020	101.0	2000	2030	101.5	2000	2010	100.5
Cobalt	2000	1930	96.5	2000	1960	98.0	2000	1950	97.5
Copper	2000	2000	100.0	2000	1970	98.5	2000	1990	99.5
Iron	40000	37000	92.5	40000	37100	92.8	40000	37600	94.0
Lead	2000	1940	97.0	2000	1960	98.0	2000	1960	98.0
Magnesium	40000	36700	91.8	40000	37000	92.5	40000	37400	93.5
Manganese	2000	2040	102.0	2000	2040	102.0	2000	2050	102.5
Molybdenum									
Nickel	2000	1930	96.5	2000	1950	97.5	2000	1950	97.5
Potassium	40000	42600	106.5	40000	43500	108.8	40000	43700	109.3
Selenium	2000	2010	100.5	2000	1990	99.5	2000	1990	99.5
Silver	250	248	99.2	250	245	98.0	250	249	99.6
Sodium	40000	39300	98.3	40000	38900	97.3	40000	39200	98.0
Strontium									
Thallium	2000	2050	102.5	2000	2060	103.0	2000	2060	103.0
Tin									
Titanium									
Vanadium	2000	2010	100.5	2000	1990	99.5	2000	2000	100.0
Zinc	2000	1990	99.5	2000	2010	100.5	2000	2010	100.5

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071210M1.ICP Date Analyzed: 07/12/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8226 Units: ug/l

Time:		18:55			19:42			20:30	
Sample ID:	CCV	CCV12		CCV	CCV13		CCV	CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	37700	94.3	40000	37500	93.8	40000	36900	92.3
Antimony	2000	2040	102.0	2000	2040	102.0	2000	2040	102.0
Arsenic	2000	1930	96.5	2000	1930	96.5	2000	1920	96.0
Barium	2000	2160	108.0	2000	2160	108.0	2000	2140	107.0
Beryllium	2000	1940	97.0	2000	1940	97.0	2000	1910	95.5
Cadmium	2000	1990	99.5	2000	2000	100.0	2000	2000	100.0
Calcium	40000	38700	96.8	40000	38600	96.5	40000	37500	93.8
Chromium	2000	2040	102.0	2000	2040	102.0	2000	2050	102.5
Cobalt	2000	1960	98.0	2000	1970	98.5	2000	1960	98.0
Copper	2000	2000	100.0	2000	1990	99.5	2000	1970	98.5
Iron	40000	37000	92.5	40000	36500	91.3	40000	35400	88.5*(a)
Lead	2000	1970	98.5	2000	1960	98.0	2000	1950	97.5
Magnesium	40000	37100	92.8	40000	36700	91.8	40000	35100	87.8*(b)
Manganese	2000	2050	102.5	2000	2050	102.5	2000	2060	103.0
Molybdenum									
Nickel	2000	1960	98.0	2000	1960	98.0	2000	1950	97.5
Potassium	40000	44000	110.0	40000	44000	110.0	40000	43600	109.0
Selenium	2000	2010	100.5	2000	2010	100.5	2000	2020	101.0
Silver	250	250	100.0	250	248	99.2	250	245	98.0
Sodium	40000	39400	98.5	40000	39700	99.3	40000	37800	94.5
Strontium									
Thallium	2000	2070	103.5	2000	2080	104.0	2000	2060	103.0
Tin									
Titanium									
Vanadium	2000	2010	100.5	2000	2020	101.0	2000	2010	100.5
Zinc	2000	2020	101.0	2000	2020	101.0	2000	2000	100.0

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples for Fe reported in the area bracketed by this QC.
(b) No samples for Mg reported in the area bracketed by this QC.

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071210M1.ICP Date Analyzed: 07/12/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8226 Units: ug/l

Time:		20:53	
Sample ID:	CCV	CCV15	
Metal	True	Results	% Rec
Aluminum	40000	37000	92.5
Antimony	2000	2030	101.5
Arsenic	2000	1910	95.5
Barium	2000	2150	107.5
Beryllium	2000	1910	95.5
Cadmium	2000	2010	100.5
Calcium	40000	37600	94.0
Chromium	2000	2040	102.0
Cobalt	2000	1970	98.5
Copper	2000	1950	97.5
Iron	40000	35200	88.0*(a)
Lead	2000	1960	98.0
Magnesium	40000	35100	87.8*(b)
Manganese	2000	2050	102.5
Molybdenum			
Nickel	2000	1950	97.5
Potassium	40000	43700	109.3
Selenium	2000	2030	101.5
Silver	250	245	98.0
Sodium	40000	38300	95.8
Strontium			
Thallium	2000	2060	103.0
Tin			
Titanium			
Vanadium	2000	2000	100.0
Zinc	2000	2010	100.5

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples for Fe reported in the area bracketed by this QC.
(b) No samples for Mg reported in the area bracketed by this QC.

HIGH STANDARD CHECK SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071210M1.ICP Date Analyzed: 07/12/10 Methods: SW846 6010B
QC Limits: 95 to 105 % Recovery Run ID: MA8226 Units: ug/l

Time:		09:26	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Aluminum	80000	79700	99.6
Antimony	4000	3970	99.3
Arsenic	4000	3980	99.5
Barium	4000	3950	98.8
Beryllium	4000	3920	98.0
Cadmium	4000	3940	98.5
Calcium	80000	79400	99.3
Chromium	4000	3840	96.0
Cobalt	4000	3970	99.3
Copper	4000	3970	99.3
Iron	80000	79600	99.5
Lead	4000	3970	99.3
Magnesium	80000	80100	100.1
Manganese	4000	3830	95.8
Molybdenum			
Nickel	4000	3970	99.3
Potassium	80000	79900	99.9
Selenium	4000	3960	99.0
Silver	500	501	100.2
Sodium	80000	79000	98.8
Strontium			
Thallium	4000	3940	98.5
Tin			
Titanium			
Vanadium	4000	3890	97.3
Zinc	4000	3950	98.8

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071210M1.ICP Date Analyzed: 07/12/10 Methods: SW846 6010B
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA8226 Units: ug/l

Time:			09:41		10:07		20:38		20:42	
Sample ID:	CRI	CRIA	CRIA1		CRI1		CRIA2		CRI2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	400	200	203	101.5			182	91.0		
Antimony	10	5.0			11.6	116.0			10.2	102.0
Arsenic	20	10	8.6	86.0			9.9	99.0		
Barium	400	200	205	102.5			214	107.0		
Beryllium	10	5.0	5.2	104.0			4.9	98.0		
Cadmium	10	5.0	5.1	102.0			5.0	100.0		
Calcium	2000	1000	999	99.9			948	94.8		
Chromium	20	10	11.0	110.0			10.7	107.0		
Cobalt	100	50	48.4	96.8			47.5	95.0		
Copper	50	25	24.6	98.4			24.6	98.4		
Iron	600	300	328	109.3			258	86.0		
Lead	10	5.0	5.6	112.0			4.7	94.0		
Magnesium	10000	5000	4890	97.8			4370	87.4		
Manganese	30	15	16.9	112.7			16.6	110.7		
Molybdenum	100	50								
Nickel	80	40	39.1	97.8			38.8	97.0		
Potassium	20000	10000	10000	100.0			10900	109.0		
Selenium	20	10	8.5	85.0			7.3	73.0		
Silver	20	10	9.9	99.0			9.2	92.0		
Sodium	20000	10000	9970	99.7			9140	91.4		
Strontium	20	10								
Thallium	20	10	8.4	84.0			6.3	63.0*(a)		
Tin	100	50								
Titanium	20	10								
Vanadium	100	50	53.4	106.8			53.4	106.8		
Zinc	40	20	20.8	104.0			20.4	102.0		

(*) Outside of QC limits
(anr) Analyte not requested
(a) Possible instrument baseline drift.

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071210M1.ICP Date Analyzed: 07/12/10 Methods: SW846 6010B
QC Limits: 80 to 120 % Recovery Run ID: MA8226 Units: ug/l

Time:			10:13		10:19		20:45		20:49	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	488000	97.6	479000	95.8	457000	91.4	449000	89.8
Antimony		1000	1.5		1060	106.0	1.0		1050	105.0
Arsenic		1000	-2.5		996	99.6	-0.90		992	99.2
Barium		500	1.9		510	102.0	2.1		536	107.2
Beryllium		500	-0.10		491	98.2	-0.10		459	91.8
Cadmium		1000	1.4		982	98.2	2.9		961	96.1
Calcium	500000	500000	442000	88.4	442000	88.4	417000	83.4	418000	83.6
Chromium		500	-0.40		431	86.2	-0.30		418	83.6
Cobalt		500	-0.10		504	100.8	0.0		488	97.6
Copper		500	-2.1		491	98.2	-2.9		476	95.2
Iron	200000	200000	185000	92.5	179000	89.5	164000	82.0	159000	80.0
Lead		1000	0.0		1020	102.0	-0.60		991	99.1
Magnesium	500000	500000	498000	99.6	497000	99.4	439000	87.8	439000	87.8
Manganese		500	-0.10		432	86.4	-0.20		432	86.4
Molybdenum		1000	-2.2		1010	101.0	-2.4		999	99.9
Nickel		1000	-0.10		1010	101.0	0.20		987	98.7
Potassium			8.3		34.2		9.9		13.9	
Selenium		1000	0.0		1020	102.0	-3.0		1020	102.0
Silver		1000	-0.10		1100	110.0	0.0		1080	108.0
Sodium			-230		459		199		-840	
Strontium		1000	-5.9		-5.7	0.0	-5.2		-5.2	0.0
Thallium		1000	-0.10		984	98.4	-1.7		968	96.8
Tin		1000	0.70		947	94.7	1.3		927	92.7
Titanium		1000	11.0		11.0	1.1	10.9		11.1	1.1
Vanadium		500	-0.20		431	86.2	0.10		427	85.4
Zinc		1000	1.3		954	95.4	1.0		936	93.6

(*) Outside of QC limits
(anr) Analyte not requested

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071310M1.ICP Date Analyzed: 07/13/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8227
Parameters: Na

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:07	MA8227-STD1	1		STDA
11:11	MA8227-STD2	1		STDB
11:14	MA8227-STD3	1		STDC
11:18	MA8227-HSTD1	1		
11:23	MA8227-ICV1	1		
11:31	MA8227-ICB1	1		
11:35	MA8227-CRIA1	1		
11:54	MA8227-CRIA2	1		
11:59	MA8227-CRI1	1		
12:04	MA8227-ICSA1	1		
12:09	MA8227-ICSAB1	1		
12:13	MA8227-CCV1	1		
12:17	MA8227-CCB1	1		
12:57	MA8227-CCV2	1		
13:01	MA8227-CCB2	1		
13:44	MP18647-MB1	1		
13:48	MA8227-CCV3	1		
13:52	MA8227-CCB3	1		
13:56	MP18647-B1	1		
14:18	ZZZZZZ	1		
14:21	ZZZZZZ	1		
14:25	ZZZZZZ	1		
14:29	ZZZZZZ	1		
14:33	MA8227-CCV4	1		
14:36	MA8227-CCB4	1		
14:48	ZZZZZZ	1		
14:52	ZZZZZZ	1		
14:55	ZZZZZZ	1		
14:59	ZZZZZZ	1		
15:03	F74996-1	1		(sample used for QC only; not part of login F74973)
15:07	MP18647-D2	1		
15:11	MP18647-MB2	1		
15:14	MP18647-B2	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071310M1.ICP Date Analyzed: 07/13/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8227
Parameters: Na

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:18	MA8227-CCV5	1		
15:22	MA8227-CCB5	1		
15:25	F74801-1	20		(sample used for QC only; not part of login F74973)
15:29	MP18628-D1	20		
15:33	MP18628-S1	20		
15:37	MP18628-S2	20		
15:41	MP18628-PS1	20		
15:45	MP18628-SD1	100		
15:49	F74962-1	5		(sample used for QC only; not part of login F74973)
15:53	MP18634-D1	5		
15:57	MP18634-S1	5		
16:01	MP18634-S2	5		
16:05	MA8227-CCV6	1		
16:08	MA8227-CCB6	1		
16:22	MA8227-CCV7	1		
16:27	MA8227-CCB7	1		
16:30	MP18634-PS1	5		
16:34	MP18634-SD1	25		
16:42	ZZZZZZ	2		
16:46	ZZZZZZ	2		
16:50	F74973-1	100		
16:54	MP18639-D1	100		
16:58	MP18639-S1	100		
17:01	MP18639-S2	100		
17:05	MP18639-PS1	100		
17:09	MA8227-CCV8	1		
17:13	MA8227-CCB8	1		
17:17	MP18639-SD1	500		
17:20	F74973-2	100		
17:24	F74973-3	200		
17:28	F74973-4	200		
17:32	F74973-5	200		
17:36	F74973-6	100		

----------> Last reportable sample/prep for job F74973

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071310M1.ICP Date Analyzed: 07/13/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8227
Parameters: Na

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:56	MA8227-CCV9	1		
17:59	MA8227-CCB9	1		

----------> Last reportable CCB for job F74973
Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071310M1.ICP Date Analyzed: 07/13/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8227
Parameters: Na

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
11:07	MA8227-STD1	3415	2561	42247	15901	1408
11:11	MA8227-STD2	3290	2581	40728	15646	1290
11:14	MA8227-STD3	3175	2599	39717	15523	1223
11:18	MA8227-HSTD1	3150	2567	39608	15587	1216
11:23	MA8227-ICV1	3269	2546	40616	15649	1287
11:31	MA8227-ICB1	3498 R	2562 R	42199 R	15931 R	1447 R
11:35	MA8227-CRIA1	3306	2548	42104	15991	1358
11:54	MA8227-CRIA2					1420
11:59	MA8227-CRI1	3433				
12:04	MA8227-ICSA1	2955	2633	36672	15070	1096
12:09	MA8227-ICSAB1	2953	2657	36917	15021	1091
12:13	MA8227-CCV1	3290	2522	40022	15449	1291
12:17	MA8227-CCB1	3457	2565	42261	15854	1434
12:57	MA8227-CCV2	3218	2538	40285	15648	1263
13:01	MA8227-CCB2	3476	2534	42011	15612	1438
13:44	MP18647-MB1	3421	2479	41421	15494	1417
13:48	MA8227-CCV3	3281	2538	40012	15294	1288
13:52	MA8227-CCB3	3507	2535	41905	15590	1456
13:56	MP18647-B1	3290	2477	40012	15269	1314
14:18	ZZZZZZ	3253	2339	38888	15007	1289
14:21	ZZZZZZ	3251	2326	39002	14958	1286
14:25	ZZZZZZ	3248	2322	38849	14839	1287
14:29	ZZZZZZ	3256	2326	38990	14863	1289
14:33	MA8227-CCV4	3227	2509	39881	15125	1274
14:36	MA8227-CCB4	3564	2484	41168	15276	1472
14:48	ZZZZZZ	3309	2364	39639	14955	1318
14:52	ZZZZZZ	3305	2330	39369	15193	1326
14:55	ZZZZZZ	3270	2309	38793	14782	1299
14:59	ZZZZZZ	3303	2342	39205	14943	1315
15:03	F74996-1	3282	2309	38927	14835	1305
15:07	MP18647-D2	3292	2315	39154	15024	1310
15:11	MP18647-MB2	3321	2364	39803	15103	1333
15:14	MP18647-B2	3282	2416	39333	15076	1282

INTERNAL STANDARD SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071310M1.ICP Date Analyzed: 07/13/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8227
Parameters: Na

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
15:18	MA8227-CCV5	3331	2490	39899	15042	1317
15:22	MA8227-CCB5	3528	2484	41484	15302	1462
15:25	F74801-1	3130	2354	39556	14859	1230
15:29	MP18628-D1	3147	2339	39336	15057	1238
15:33	MP18628-S1	3185	2241	37469	14011	1260
15:37	MP18628-S2	3112	2370	39776	14700	1216
15:41	MP18628-PS1	3288	2311	38734	14711	1297
15:45	MP18628-SD1	3306	2286	38272	15100	1359
15:49	F74962-1	3188	2235	37658	15030	1231
15:53	MP18634-D1	3252	2295	38805	14694	1268
15:57	MP18634-S1	3256	2304	38645	14747	1252
16:01	MP18634-S2	3228	2289	38424	14657	1238
16:05	MA8227-CCV6	3318	2477	39391	14866	1313
16:08	MA8227-CCB6	3543	2476	41199	15180	1475
16:22	MA8227-CCV7	3283	2471	39589	14898	1299
16:27	MA8227-CCB7	3385	2323	38768	15358	1406
16:30	MP18634-PS1	3255	2307	38778	14727	1261
16:34	MP18634-SD1	3358	2413	40485	14998	1374
16:42	ZZZZZZ	3992	2915	46665	17622	1369
16:46	ZZZZZZ	4100	2981	48384	18234	1363
16:50	F74973-1	3463	2414	40141	14861	1403
16:54	MP18639-D1	3392	2409	40275	14944	1375
16:58	MP18639-S1	3455	2421	40337	14954	1402
17:01	MP18639-S2	3433	2402	40196	14878	1391
17:05	MP18639-PS1	3361	2405	40048	14945	1366
17:09	MA8227-CCV8	3207	2451	39550	14962	1273
17:13	MA8227-CCB8	3394	2348	39030	14418	1411
17:17	MP18639-SD1	3344	2504	41641	15085	1391
17:20	F74973-2	3401	2424	40344	15063	1387
17:24	F74973-3	3446	2417	40386	14971	1408
17:28	F74973-4	3314	2494	41412	14980	1364
17:32	F74973-5	3399	2434	40526	15003	1391
17:36	F74973-6	3452	2405	40182	14915	1405

INTERNAL STANDARD SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071310M1.ICP Date Analyzed: 07/13/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8227
Parameters: Na

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
17:56	MA8227-CCV9	3206	2386	39822	15430	1294
17:59	MA8227-CCB9	3422	2410	41446	15119	1456

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	60-125 %
Istd#2	Yttrium (2422)	60-125 %
Istd#3	Yttrium (3242)	60-125 %
Istd#4	Yttrium (3710)	60-125 %
Istd#5	Indium	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071310M1.ICP Date Analyzed: 07/13/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8227 Units: ug/l

Time:			11:31		12:17		13:01		13:52	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20								
Antimony	20	2								
Arsenic	10	2	anr							
Barium	200	5	anr							
Beryllium	5.0	1								
Cadmium	4.0	1	anr							
Calcium	5000	100								
Chromium	10	1	anr							
Cobalt	50	1								
Copper	25	2	anr							
Iron	300	30								
Lead	20	1	anr							
Magnesium	5000	100								
Manganese	15	1								
Molybdenum	50	1								
Nickel	40	1								
Potassium	10000	500								
Selenium	20	2	anr							
Silver	10	1	anr							
Sodium	10000	750	403	<10000	58.7	<10000	24.8	<10000	101	<10000
Strontium	10	1								
Thallium	10	1.5								
Tin	50	1								
Titanium	10	2								
Vanadium	50	1								
Zinc	20	5								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071310M1.ICP Date Analyzed: 07/13/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8227 Units: ug/l

Time:			14:36		15:22		16:08		16:27	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20								
Antimony	20	2								
Arsenic	10	2	anr							
Barium	200	5	anr							
Beryllium	5.0	1								
Cadmium	4.0	1	anr							
Calcium	5000	100								
Chromium	10	1	anr							
Cobalt	50	1								
Copper	25	2	anr							
Iron	300	30								
Lead	20	1	anr							
Magnesium	5000	100								
Manganese	15	1								
Molybdenum	50	1								
Nickel	40	1								
Potassium	10000	500								
Selenium	20	2	anr							
Silver	10	1	anr							
Sodium	10000	750	-170	<10000	470	<10000	628	<10000	-280	<10000
Strontium	10	1								
Thallium	10	1.5								
Tin	50	1								
Titanium	10	2								
Vanadium	50	1								
Zinc	20	5								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071310M1.ICP Date Analyzed: 07/13/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8227 Units: ug/l

Time:			17:13		17:59	
Sample ID:			CCB8		CCB9	
Metal	RL	IDL	raw	final	raw	final
Aluminum	200	20				
Antimony	20	2				
Arsenic	10	2	anr			
Barium	200	5	anr			
Beryllium	5.0	1				
Cadmium	4.0	1	anr			
Calcium	5000	100				
Chromium	10	1	anr			
Cobalt	50	1				
Copper	25	2	anr			
Iron	300	30				
Lead	20	1	anr			
Magnesium	5000	100				
Manganese	15	1				
Molybdenum	50	1				
Nickel	40	1				
Potassium	10000	500				
Selenium	20	2	anr			
Silver	10	1	anr			
Sodium	10000	750	-190	<10000	-28	<10000
Strontium	10	1				
Thallium	10	1.5				
Tin	50	1				
Titanium	10	2				
Vanadium	50	1				
Zinc	20	5				

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071310M1.ICP Date Analyzed: 07/13/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8227 Units: ug/l

Time:		11:23			12:13			12:57	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic	anr								
Barium	anr								
Beryllium									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron									
Lead	anr								
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium	anr								
Silver	anr								
Sodium	40000	40000	100.0	40000	40200	100.5	40000	40000	100.0
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071310M1.ICP Date Analyzed: 07/13/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8227 Units: ug/l

Time:		13:48			14:33			15:18	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic	anr								
Barium	anr								
Beryllium									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron									
Lead	anr								
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium	anr								
Silver	anr								
Sodium	40000	40300	100.8	40000	41100	102.8	40000	41400	103.5
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071310M1.ICP Date Analyzed: 07/13/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8227 Units: ug/l

Time:		16:05			16:22			17:09	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic	anr								
Barium	anr								
Beryllium									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron									
Lead	anr								
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium	anr								
Silver	anr								
Sodium	40000	41700	104.3	40000	41000	102.5	40000	40100	100.3
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071310M1.ICP Date Analyzed: 07/13/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8227 Units: ug/l

Time:		17:56	
Sample ID:	CCV	CCV9	
Metal	True	Results	% Rec
Aluminum			
Antimony			
Arsenic	anr		
Barium	anr		
Beryllium			
Cadmium	anr		
Calcium			
Chromium	anr		
Cobalt			
Copper	anr		
Iron			
Lead	anr		
Magnesium			
Manganese			
Molybdenum			
Nickel			
Potassium			
Selenium	anr		
Silver	anr		
Sodium	40000	42900	107.3
Strontium			
Thallium			
Tin			
Titanium			
Vanadium			
Zinc			

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071310M1.ICP Date Analyzed: 07/13/10 Methods: SW846 6010B
QC Limits: 95 to 105 % Recovery Run ID: MA8227 Units: ug/l

Time:		11:18	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Aluminum			
Antimony			
Arsenic	anr		
Barium	anr		
Beryllium			
Cadmium	anr		
Calcium			
Chromium	anr		
Cobalt			
Copper	anr		
Iron			
Lead	anr		
Magnesium			
Manganese			
Molybdenum			
Nickel			
Potassium			
Selenium	anr		
Silver	anr		
Sodium	80000	79400	99.3
Strontium			
Thallium			
Tin			
Titanium			
Vanadium			
Zinc			

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071310M1.ICP Date Analyzed: 07/13/10 Methods: SW846 6010B
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA8227 Units: ug/l

Time:			11:35		11:54		11:59	
Sample ID:	CRI	CRIA	CRIA1		CRIA2		CRI1	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	400	200						
Antimony	10	5.0						
Arsenic	20	10	anr					
Barium	400	200	anr					
Beryllium	10	5.0						
Cadmium	10	5.0	anr					
Calcium	2000	1000						
Chromium	20	10	anr					
Cobalt	100	50						
Copper	50	25	anr					
Iron	600	300						
Lead	10	5.0						
Magnesium	10000	5000						
Manganese	30	15						
Molybdenum	100	50						
Nickel	80	40						
Potassium	20000	10000						
Selenium	20	10	anr					
Silver	20	10	anr					
Sodium	20000	10000	9490	94.9				
Strontium	20	10						
Thallium	20	10						
Tin	100	50						
Titanium	20	10						
Vanadium	100	50						
Zinc	40	20						

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071310M1.ICP Date Analyzed: 07/13/10 Methods: SW846 6010B
QC Limits: 80 to 120 % Recovery Run ID: MA8227 Units: ug/l

Time:			12:04		12:09	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	500000	500000	492000	98.4	484000	96.8
Antimony		1000	0.0		1020	102.0
Arsenic		1000	-3.2		977	97.7
Barium		500	1.0		511	102.2
Beryllium		500	-0.50		483	96.6
Cadmium		1000	1.2		949	94.9
Calcium	500000	500000	440000	88.0	441000	88.2
Chromium		500	0.20		428	85.6
Cobalt		500	-0.40		493	98.6
Copper		500	-3.1		493	98.6
Iron	200000	200000	188000	94.0	181000	90.5
Lead		1000	0.10		1000	100.0
Magnesium	500000	500000	494000	98.8	494000	98.8
Manganese		500	-0.50		431	86.2
Molybdenum		1000	-2.1		979	97.9
Nickel		1000	-0.40		996	99.6
Potassium			10.7		-11	
Selenium		1000	-1.2		1000	100.0
Silver		1000	0.10		1080	108.0
Sodium			-540		-670	
Strontium		1000	-6.2		-6.2	0.0
Thallium		1000	2.8		975	97.5
Tin		1000	0.60		928	92.8
Titanium		1000	0.20		0.30	0.0
Vanadium		500	0.10		434	86.8
Zinc		1000	1.3		934	93.4

(*) Outside of QC limits
(anr) Analyte not requested

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8231
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:32	MA8231-STD1	1		STDA
09:36	MA8231-STD2	1		STDB
09:50	MA8231-STD3	1		STDC
09:54	MA8231-HSTD1	1		
09:58	MA8231-ICV1	1		
10:08	MA8231-ICB1	1		
10:12	MA8231-CRIA1	1		
10:34	MA8231-CRI1	1		
10:38	MA8231-ICSA1	1		
10:45	MA8231-ICSAB1	1		
10:54	MA8231-CCV1	1		
11:00	MA8231-CCB1	1		
11:05	F74734-14R	4		(sample used for QC only; not part of login F74973)
11:09	MP18647-D1	4		
11:13	MP18647-S1	4		
11:16	MP18647-S2	4		
11:24	MP18647-SD1	20		
11:28	ZZZZZZ	4		
11:31	ZZZZZZ	20		
11:35	ZZZZZZ	20		
11:39	MP18648-MB1	1		
11:43	MA8231-CCV2	1		
11:47	MA8231-CCB2	1		
11:50	MP18648-B1	1		
11:54	F74982-1	1		(sample used for QC only; not part of login F74973)
11:58	MP18648-D1	1		
12:02	MP18648-SD1	5		
12:05	MP18648-PS1	1		
12:09	MP18648-S1	1		
12:13	MP18648-S2	1		
12:16	ZZZZZZ	1		
12:20	ZZZZZZ	1		
12:28	MA8231-CCV3	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8231
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:31	MA8231-CCB3	1		
12:35	ZZZZZZ	1		
12:39	ZZZZZZ	1		
12:43	ZZZZZZ	1		
12:47	ZZZZZZ	1		
12:50	ZZZZZZ	1		
12:54	ZZZZZZ	1		
12:58	ZZZZZZ	1		
13:02	ZZZZZZ	1		
13:06	ZZZZZZ	1		
13:10	ZZZZZZ	1		
13:13	MA8231-CCV4	1		
13:17	MA8231-CCB4	1		
13:53	MA8231-CCV5	1		
13:58	MA8231-CCB5	1		
14:02	ZZZZZZ	1		
14:06	ZZZZZZ	1		
14:10	ZZZZZZ	1		
14:14	ZZZZZZ	1		
14:17	ZZZZZZ	1		
14:21	ZZZZZZ	1		
14:25	ZZZZZZ	1		
14:29	MP18649-MB1	1		
14:33	MP18649-B1	1		
14:36	F75033-1	1		(sample used for QC only; not part of login F74973)
14:40	MA8231-CCV6	1		
14:44	MA8231-CCB6	1		
14:48	MP18649-D1	1		
14:52	MP18649-SD1	5		
14:55	MP18649-PS1	1		
14:59	MP18649-S1	1		
15:03	MP18649-S2	1		
15:06	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8231
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:10	ZZZZZZ	1		
15:14	ZZZZZZ	1		
15:18	ZZZZZZ	1		
15:22	ZZZZZZ	1		
15:25	MA8231-CCV7	1		
15:29	MA8231-CCB7	1		
15:33	ZZZZZZ	1		
15:37	ZZZZZZ	1		
15:41	MP18652-MB2	1		
15:44	F74877-1	20		(sample used for QC only; not part of login F74973)
15:48	MP18641-D1	20		
15:52	MP18641-S1	20		
15:56	MP18641-S2	20		
16:00	MP18641-PS1	20		
16:04	MP18641-SD1	100		
16:08	ZZZZZZ	10		
16:11	MA8231-CCV8	1		
16:15	MA8231-CCB8	1		
16:19	ZZZZZZ	10		
16:23	ZZZZZZ	10		
16:27	ZZZZZZ	10		
16:30	ZZZZZZ	40		
16:34	ZZZZZZ	20		
16:38	ZZZZZZ	10		
16:42	F74877-7	10		(sample used for QC only; not part of login F74973)
16:46	MP18642-D1	10		
16:50	MP18642-S1	10		
16:53	MP18642-S2	10		
16:57	MA8231-CCV9	1		
17:01	MA8231-CCB9	1		
17:05	MP18642-PS1	10		
17:08	MP18642-SD1	50		
17:12	ZZZZZZ	20		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8231
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:16	ZZZZZZ	10		
17:20	ZZZZZZ	20		
17:24	ZZZZZZ	20		
17:28	ZZZZZZ	2		
17:32	F74877-7	1		(sample used for QC only; not part of login F74973)
17:36	MP18642-D1	1		
17:40	MP18642-S1	1		
17:44	MA8231-CCV10	1		
17:47	MA8231-CCB10	1		
17:51	MP18642-S2	1		
17:55	MP18642-PS1	1		
17:59	MP18642-SD1	5		
18:03	ZZZZZZ	1		
18:07	ZZZZZZ	1		
18:11	ZZZZZZ	1		
18:15	ZZZZZZ	1		
18:19	F74973-1	4		
18:23	MP18639-D1	4		
18:27	MP18639-S1	4		
18:31	MA8231-CCV11	1		
18:35	MA8231-CCB11	1		
18:39	MP18639-S2	4		
18:43	MP18639-PS1	4		
18:47	MP18639-SD1	20		
18:51	F74973-2	4		
18:55	F74973-3	4		
18:59	F74973-4	4		
19:03	F74973-5	4		
19:07	F74973-6	4		
19:11	MP18653-MB1	1		
19:15	MP18653-B1	1		
19:18	MA8231-CCV12	1		
19:22	MA8231-CCB12	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8231
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:26	F74973-1F	100		
19:30	MP18653-D1	100		
19:34	MP18653-SD1	500		
19:37	MP18653-PS1	100		
19:41	MP18653-S1	100		
19:45	MP18653-S2	100		
19:49	F74973-2F	100		
19:53	F74973-3F	100		
19:57	F74973-4F	100		
20:01	F74973-5F	100		
20:04	MA8231-CCV13	1		
20:08	MA8231-CCB13	1		
20:12	F74973-6F	100		
20:16	ZZZZZZ	1		
20:19	ZZZZZZ	1		
20:23	ZZZZZZ	1		
20:27	ZZZZZZ	1		
20:31	ZZZZZZ	1		
20:35	ZZZZZZ	1		
20:39	ZZZZZZ	1		
20:43	ZZZZZZ	1		
20:46	ZZZZZZ	1		
20:51	MA8231-CCV14	1		
20:54	MA8231-CCB14	1		
20:58	ZZZZZZ	1		
21:02	ZZZZZZ	1		
21:06	ZZZZZZ	1		
21:10	ZZZZZZ	1		
21:14	MP18653-MB2A	1		
---------->	Last reportable sample/prep for job F74973			
21:18	MP18652-MB1	1		
21:22	MP18652-B1	1		
21:37	MA8231-CCV15	1		
21:40	MA8231-CCB15	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8231
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:23	MA8231-CCV16	1		
22:26	MA8231-CCB16	1		
22:46	ZZZZZZ	1		
22:49	ZZZZZZ	1		
22:53	MP18654-MB1	1		
22:57	MP18654-B1	1		
23:08	MA8231-CCV17	1		
23:12	MA8231-CCB17	1		
23:39	ZZZZZZ	1		
23:47	ZZZZZZ	1		
23:55	MA8231-CCV18	1		
23:58	MA8231-CCB18	1		
00:10	MA8231-CRIA2	1		
00:14	MA8231-CRI2	1		
00:18	MA8231-ICSA2	1		
00:21	MA8231-ICSAB2	1		
00:41	MA8231-CCV19	1		
00:44	MA8231-CCB19	1		

----------> Last reportable CCB for job F74973
Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8231
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
09:32	MA8231-STD1	3790	2756	47879	10270	1686
09:36	MA8231-STD2	3633	2822	46808	10341	1433
09:50	MA8231-STD3	3491	2844	45580	10108	1329
09:54	MA8231-HSTD1	3513	2886	46226	10247	1338
09:58	MA8231-ICV1	3654	2841	47191	10425	1436
10:08	MA8231-ICB1	3799 R	2800 R	48576 R	10412 R	1683 R
10:12	MA8231-CRIA1	3795	2804	48429	10280	1623
10:34	MA8231-CRI1	3717				
10:38	MA8231-ICSA1	3285	3003	43279	9930	1169
10:45	MA8231-ICSAB1	3268	2981	43389	9906	1158
10:54	MA8231-CCV1	3571	2839	46785	10126	1399
11:00	MA8231-CCB1	3826	2840	49257	10316	1691
11:05	F74734-14R	3680	2763	47680	10211	1558
11:09	MP18647-D1	3700	2755	47637	10283	1563
11:13	MP18647-S1	3709	2792	47708	10279	1522
11:16	MP18647-S2	3712	2787	47653	10322	1522
11:24	MP18647-SD1	3817	2815	48837	10456	1660
11:28	ZZZZZZ	3699	2732	47399	10388	1555
11:31	ZZZZZZ	3805	2816	48665	10485	1659
11:35	ZZZZZZ	4538	3368	57794	12415	1605
11:39	MP18648-MB1	3828	2805	48929	10481	1700
11:43	MA8231-CCV2	3662	2855	47257	10389	1434
11:47	MA8231-CCB2	3855	2821	48935	10515	1714
11:50	MP18648-B1	3669	2773	47023	10365	1482
11:54	F74982-1	3788	2780	48461	10498	1637
11:58	MP18648-D1	3781	2782	48330	10501	1635
12:02	MP18648-SD1	3762	2749	47852	10302	1657
12:05	MP18648-PS1	3789	2786	48503	10535	1618
12:09	MP18648-S1	3606	2744	46289	10264	1447
12:13	MP18648-S2	3664	2774	47053	10467	1470
12:16	ZZZZZZ	3744	2759	47982	10510	1589
12:20	ZZZZZZ	3645	2728	46527	10430	1388
12:28	MA8231-CCV3	3607	2801	46865	10454	1422

INTERNAL STANDARD SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8231
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
12:31	MA8231-CCB3	3825	2784	48684	10543	1708
12:35	ZZZZZZ	3763	2738	48047	10661	1648
12:39	ZZZZZZ	3657	2713	47228	10476	1523
12:43	ZZZZZZ	3752	2742	48273	10630	1647
12:47	ZZZZZZ	3582	2754	46688	10845	1305
12:50	ZZZZZZ	3485	2713	46814	11373	1256
12:54	ZZZZZZ	3431	2564	46557	11344	1390
12:58	ZZZZZZ	3532	2589	48151	11450	1622
13:02	ZZZZZZ	3528	2574	47789	11436	1604
13:06	ZZZZZZ	3368	2669	46453	11473	1225
13:10	ZZZZZZ	3443	2551	47296	11689	1495
13:13	MA8231-CCV4	3351	2622	46453	11459	1377
13:17	MA8231-CCB4	3546	2595	48192	11625	1650
13:53	MA8231-CCV5	3529	2717	46797	11402	1414
13:58	MA8231-CCB5	3716	2694	49020	11645	1690
14:02	ZZZZZZ	3670	2768	47936	12141	1297
14:06	ZZZZZZ	3460	2540	46738	11546	1497
14:10	ZZZZZZ	3585	2628	48262	11799	1567
14:14	ZZZZZZ	3513	2568	47103	11504	1536
14:17	ZZZZZZ	3600	2637	48349	11708	1599
14:21	ZZZZZZ	3584	2619	48045	11770	1562
14:25	ZZZZZZ	3610	2660	48074	11800	1475
14:29	MP18649-MB1	3634	2654	49126	11836	1668
14:33	MP18649-B1	3507	2639	47052	11599	1459
14:36	F75033-1	3627	2682	48948	11828	1607
14:40	MA8231-CCV6	3481	2672	46815	11535	1410
14:44	MA8231-CCB6	3672	2669	48914	11929	1679
14:48	MP18649-D1	3644	2653	48593	11825	1607
14:52	MP18649-SD1	3689	2673	49031	11773	1669
14:55	MP18649-PS1	3628	2631	48350	11832	1585
14:59	MP18649-S1	3522	2653	46865	11650	1450
15:03	MP18649-S2	3522	2645	47077	11727	1458
15:06	ZZZZZZ	3624	2615	48293	11689	1613

INTERNAL STANDARD SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8231
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
15:10	ZZZZZZ	3608	2632	48197	11708	1613
15:14	ZZZZZZ	3535	2540	46955	11686	1499
15:18	ZZZZZZ	3423	2465	45251	11465	1386
15:22	ZZZZZZ	3579	2585	47825	11749	1564
15:25	MA8231-CCV7	3500	2675	46800	11573	1415
15:29	MA8231-CCB7	3688	2647	48819	11873	1686
15:33	ZZZZZZ	3586	2572	46835	11835	1437
15:37	ZZZZZZ	3383	2436	44574	11398	1384
15:41	MP18652-MB2	3645	2623	48676	11940	1668
15:44	F74877-1	3547	2570	47079	11607	1522
15:48	MP18641-D1	3538	2570	46929	11710	1517
15:52	MP18641-S1	3548	2549	46749	11665	1513
15:56	MP18641-S2	3520	2539	46365	11574	1500
16:00	MP18641-PS1	3535	2538	46618	11685	1517
16:04	MP18641-SD1	3628	2621	48263	11718	1626
16:08	ZZZZZZ	3521	2533	46724	11680	1516
16:11	MA8231-CCV8	3490	2669	46508	11585	1420
16:15	MA8231-CCB8	3689	2640	48684	11803	1696
16:19	ZZZZZZ	3522	2531	46456	11669	1516
16:23	ZZZZZZ	3484	2503	46070	11680	1492
16:27	ZZZZZZ	3478	2500	45935	11616	1488
16:30	ZZZZZZ	3556	2568	47287	11716	1555
16:34	ZZZZZZ	3510	2513	46330	11659	1511
16:38	ZZZZZZ	3448	2476	45826	11531	1477
16:42	F74877-7	3487	2505	46057	11584	1497
16:46	MP18642-D1	3494	2527	46358	11627	1500
16:50	MP18642-S1	3490	2514	46256	11582	1480
16:53	MP18642-S2	3492	2525	46248	11512	1479
16:57	MA8231-CCV9	3471	2643	46293	11527	1407
17:01	MA8231-CCB9	3654	2637	48494	11690	1679
17:05	MP18642-PS1	3500	2518	46182	11630	1500
17:08	MP18642-SD1	3598	2583	47739	11761	1615
17:12	ZZZZZZ	3519	2549	46479	11635	1489

INTERNAL STANDARD SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8231
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
17:16	ZZZZZZ	3452	2494	45768	11540	1483
17:20	ZZZZZZ	3498	2519	46180	11537	1499
17:24	ZZZZZZ	3475	2523	46001	11710	1461
17:28	ZZZZZZ	3182	2549	43315	11635	1151
17:32	F74877-7	3096	2246	41522	11079	1216
17:36	MP18642-D1	3100	2252	41762	11061	1217
17:40	MP18642-S1	3101	2327	41634	11038	1182
17:44	MA8231-CCV10	3476	2648	46599	11595	1407
17:47	MA8231-CCB10	3675	2655	48643	11822	1676
17:51	MP18642-S2	3103	2316	41529	10939	1182
17:55	MP18642-PS1	3123	2261	41652	11017	1208
17:59	MP18642-SD1	3420	2454	45136	11484	1429
18:03	ZZZZZZ	3285	2552	43853	11952	1082
18:07	ZZZZZZ	2997	2228	40261	10898	1174
18:11	ZZZZZZ	2954	2130	39371	10683	1113
18:15	ZZZZZZ	3170	2721	43027	11846	1028
18:19	F74973-1	2905	2086	38183	10578	1106
18:23	MP18639-D1	2870	2078	37933	10495	1093
18:27	MP18639-S1	2928	2124	38594	10535	1090
18:31	MA8231-CCV11	3465	2663	46448	11531	1398
18:35	MA8231-CCB11	3654	2655	48703	11724	1670
18:39	MP18639-S2	2938	2118	38492	10595	1099
18:43	MP18639-PS1	2894	2067	37753	10507	1098
18:47	MP18639-SD1	3294	2368	43338	11225	1336
18:51	F74973-2	2919	2111	38735	10642	1130
18:55	F74973-3	2813	1998	37054	10451	1064
18:59	F74973-4	2855	2051	37671	10482	1083
19:03	F74973-5	2829	2029	37091	10322	1068
19:07	F74973-6	2928	2115	38564	10490	1123
19:11	MP18653-MB1	3619	2621	48526	11688	1660
19:15	MP18653-B1	3489	2629	46718	11616	1450
19:18	MA8231-CCV12	3448	2654	46328	11453	1394
19:22	MA8231-CCB12	3656	2666	48731	11684	1669

INTERNAL STANDARD SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8231
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
19:26	F74973-1F	3479	2552	46860	11482	1491
19:30	MP18653-D1	3524	2561	46701	11469	1510
19:34	MP18653-SD1	3611	2613	47826	11574	1606
19:37	MP18653-PS1	3526	2567	46930	11524	1511
19:41	MP18653-S1	3513	2554	46913	11446	1501
19:45	MP18653-S2	3529	2573	46718	11492	1507
19:49	F74973-2F	3520	2550	46979	11565	1518
19:53	F74973-3F	3495	2542	46835	11580	1492
19:57	F74973-4F	3514	2567	46909	11419	1503
20:01	F74973-5F	3489	2577	46650	11379	1480
20:04	MA8231-CCV13	3462	2665	46400	11347	1396
20:08	MA8231-CCB13	3661	2652	48623	11628	1666
20:12	F74973-6F	3534	2559	46863	11445	1521
20:16	ZZZZZZ	3474	2530	46790	11529	1489
20:19	ZZZZZZ	3457	2523	47013	11668	1491
20:23	ZZZZZZ	3467	2537	47115	11666	1489
20:27	ZZZZZZ	3479	2551	47202	11574	1525
20:31	ZZZZZZ	3516	2578	47552	11581	1550
20:35	ZZZZZZ	3509	2583	47450	11531	1524
20:39	ZZZZZZ	3502	2627	46347	11916	1298
20:43	ZZZZZZ	3570	2624	48596	11837	1598
20:46	ZZZZZZ	3163	2367	43113	11100	1297
20:51	MA8231-CCV14	3434	2651	46215	11351	1388
20:54	MA8231-CCB14	3651	2648	48647	11571	1664
20:58	ZZZZZZ	3312	2429	45073	11459	1396
21:02	ZZZZZZ	3152	2499	43613	11236	1278
21:06	ZZZZZZ	3272	2405	44571	11263	1360
21:10	ZZZZZZ	3434	2524	46037	11405	1454
21:14	MP18653-MB2A	3616	2641	48656	11739	1648
21:18	MP18652-MB1	3619	2626	48725	11825	1658
21:22	MP18652-B1	3471	2625	47117	11695	1449
21:37	MA8231-CCV15	3437	2646	46260	11435	1389
21:40	MA8231-CCB15	3646	2653	49138	11833	1672

INTERNAL STANDARD SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8231
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
22:23	MA8231-CCV16	3445	2655	46905	11540	1402
22:26	MA8231-CCB16	3642	2663	49048	11632	1666
22:46	ZZZZZZ	3437	2517	46838	11529	1469
22:49	ZZZZZZ	3591	2626	48645	11646	1620
22:53	MP18654-MB1	3533	2569	47567	11129	1601
22:57	MP18654-B1	3431	2555	45543	11038	1422
23:08	MA8231-CCV17	3520	2748	47593	11453	1413
23:12	MA8231-CCB17	3672	2698	49375	11524	1668
23:39	ZZZZZZ	4022	3200	54388	13272 !	1333
23:47	ZZZZZZ	4489	3827 !	60844 !	14788 !	1268
23:55	MA8231-CCV18	3510	2744	47715	11544	1418
23:58	MA8231-CCB18	3706	2716	49934	11732	1687
00:10	MA8231-CRIA2	3679	2692	48821	11605	1616
00:14	MA8231-CRI2	3581	2602	47782	11641	1551
00:18	MA8231-ICSA2	3163	2784	42273	10931	1151
00:21	MA8231-ICSAB2	3135	2739	41999	10824	1139
00:41	MA8231-CCV19	3358	2575	45344	11154	1362
00:44	MA8231-CCB19	3598	2611	47872	11297	1633

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	60-125 %
Istd#2	Yttrium (2422)	60-125 %
Istd#3	Yttrium (3242)	60-125 %
Istd#4	Yttrium (3710)	60-125 %
Istd#5	Indium	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8231 Units: ug/l

Time:			10:08		11:00		11:47		12:31	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	27.7	<200	-6.5	<200	13.9	<200	2.6	<200
Antimony	12	2	-1.0	<12	0.10	<12	0.40	<12	0.40	<12
Arsenic	10	2	-0.70	<10	-0.80	<10	-1.2	<10	-0.90	<10
Barium	200	5	-0.20	<200	0.0	<200	0.0	<200	0.10	<200
Beryllium	4.0	1	0.10	<4.0	0.0	<4.0	0.20	<4.0	0.20	<4.0
Cadmium	5.0	1	0.0	<5.0	0.0	<5.0	0.10	<5.0	0.10	<5.0
Calcium	1000	100	3.8	<1000	6.4	<1000	9.7	<1000	8.5	<1000
Chromium	10	1	-0.50	<10	-0.20	<10	0.0	<10	0.0	<10
Cobalt	50	1	0.20	<50	0.0	<50	0.20	<50	0.20	<50
Copper	25	2	-0.10	<25	0.10	<25	-0.20	<25	0.10	<25
Iron	300	30	-21	<300	-22	<300	22.3	<300	-7.9	<300
Lead	5.0	1	0.60	<5.0	0.60	<5.0	1.3	<5.0	0.50	<5.0
Magnesium	5000	100	11.6	<5000	18.6	<5000	20.5	<5000	26.2	<5000
Manganese	15	1	0.0	<15	0.0	<15	0.10	<15	0.10	<15
Molybdenum	50	1								
Nickel	40	1	0.10	<40	0.0	<40	0.20	<40	0.10	<40
Potassium	10000	500	-7.8	<10000	-38	<10000	-18	<10000	4.2	<10000
Selenium	10	2	1.1	<10	1.4	<10	-0.90	<10	1.9	<10
Silver	10	1	0.0	<10	0.10	<10	-0.10	<10	0.10	<10
Sodium	10000	750	106	<10000	-33	<10000	-630	<10000	-32	<10000
Strontium	10	1								
Thallium	10	1.5	-0.10	<10	-0.50	<10	-2.1	<10	-0.70	<10
Tin	50	1								
Titanium	10	2								
Vanadium	50	1	0.10	<50	0.0	<50	0.0	<50	-0.20	<50
Zinc	20	5	-0.10	<20	0.10	<20	0.20	<20	0.10	<20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8231 Units: ug/l

Time:			13:17		13:58		14:44		15:29	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	13.4	<200	-3.8	<200	-7.6	<200	-0.50	<200
Antimony	12	2	3.2	<12	1.3	<12	1.7	<12	0.70	<12
Arsenic	10	2	-1.2	<10	0.50	<10	0.90	<10	0.20	<10
Barium	200	5	-0.50	<200	0.0	<200	0.10	<200	0.20	<200
Beryllium	4.0	1	0.20	<4.0	-0.10	<4.0	0.0	<4.0	0.10	<4.0
Cadmium	5.0	1	0.10	<5.0	0.0	<5.0	0.0	<5.0	-0.10	<5.0
Calcium	1000	100	7.7	<1000	-1.4	<1000	-0.50	<1000	0.40	<1000
Chromium	10	1	0.0	<10	-0.40	<10	-0.10	<10	-0.10	<10
Cobalt	50	1	0.30	<50	0.0	<50	0.0	<50	0.10	<50
Copper	25	2	0.60	<25	0.0	<25	0.0	<25	0.20	<25
Iron	300	30	52.7	<300	-32	<300	-15	<300	-37	<300
Lead	5.0	1	0.60	<5.0	1.2	<5.0	0.60	<5.0	0.10	<5.0
Magnesium	5000	100	23.1	<5000	1.7	<5000	-1.8	<5000	4.2	<5000
Manganese	15	1	0.20	<15	-0.10	<15	0.0	<15	0.0	<15
Molybdenum	50	1								
Nickel	40	1	0.10	<40	0.10	<40	0.0	<40	-0.10	<40
Potassium	10000	500	7.6	<10000	-10	<10000	-12	<10000	13.3	<10000
Selenium	10	2	1.1	<10	-1.1	<10	-0.80	<10	0.80	<10
Silver	10	1	0.10	<10	-0.10	<10	0.10	<10	0.40	<10
Sodium	10000	750	-380	<10000	-220	<10000	-220	<10000	-58	<10000
Strontium	10	1								
Thallium	10	1.5	0.70	<10	0.0	<10	-1.5	<10	-1.5	<10
Tin	50	1								
Titanium	10	2								
Vanadium	50	1	0.20	<50	-0.40	<50	-0.20	<50	-0.20	<50
Zinc	20	5	0.10	<20	-0.10	<20	0.0	<20	0.0	<20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8231 Units: ug/l

Time:			16:15		17:01		17:47		18:35	
Sample ID:			CCB8		CCB9		CCB10		CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	12.4	<200	-5.5	<200	3.2	<200	4.0	<200
Antimony	12	2	1.4	<12	1.0	<12	1.0	<12	2.3	<12
Arsenic	10	2	0.70	<10	0.30	<10	0.70	<10	0.0	<10
Barium	200	5	0.10	<200	0.10	<200	0.10	<200	0.20	<200
Beryllium	4.0	1	0.0	<4.0	0.0	<4.0	0.10	<4.0	-0.10	<4.0
Cadmium	5.0	1	-0.10	<5.0	0.10	<5.0	0.0	<5.0	-0.10	<5.0
Calcium	1000	100	1.4	<1000	-2.4	<1000	1.8	<1000	3.4	<1000
Chromium	10	1	-0.20	<10	0.10	<10	-0.20	<10	-0.40	<10
Cobalt	50	1	0.10	<50	0.10	<50	0.10	<50	0.0	<50
Copper	25	2	0.0	<25	0.0	<25	0.0	<25	-0.50	<25
Iron	300	30	-23	<300	-13	<300	10.3	<300	-10	<300
Lead	5.0	1	0.20	<5.0	-0.20	<5.0	-0.50	<5.0	0.70	<5.0
Magnesium	5000	100	6.3	<5000	-3.1	<5000	3.2	<5000	23.1	<5000
Manganese	15	1	0.0	<15	0.0	<15	0.0	<15	-0.10	<15
Molybdenum	50	1								
Nickel	40	1	-0.10	<40	-0.10	<40	0.10	<40	0.10	<40
Potassium	10000	500	-4.7	<10000	-8.4	<10000	29.2	<10000	33.5	<10000
Selenium	10	2	-1.2	<10	-1.7	<10	-1.2	<10	-1.0	<10
Silver	10	1	0.10	<10	0.10	<10	0.20	<10	0.20	<10
Sodium	10000	750	23.9	<10000	-650	<10000	-22	<10000	101	<10000
Strontium	10	1								
Thallium	10	1.5	-1.8	<10	-1.1	<10	-1.8	<10	-0.60	<10
Tin	50	1								
Titanium	10	2								
Vanadium	50	1	-0.20	<50	-0.10	<50	-0.20	<50	-0.20	<50
Zinc	20	5	0.0	<20	0.0	<20	0.0	<20	-0.10	<20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8231 Units: ug/l

Time:			19:22		20:08		20:54		21:40	
Sample ID:			CCB12		CCB13		CCB14		CCB15	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	14.6	<200	13.0	<200	8.4	<200	10.9	<200
Antimony	12	2	2.3	<12	1.3	<12	1.7	<12	2.0	<12
Arsenic	10	2	-0.10	<10	1.7	<10	1.2	<10	0.0	<10
Barium	200	5	-0.10	<200	0.20	<200	-0.10	<200	0.30	<200
Beryllium	4.0	1	0.0	<4.0	0.0	<4.0	0.10	<4.0	0.10	<4.0
Cadmium	5.0	1	0.0	<5.0	0.0	<5.0	0.0	<5.0	0.0	<5.0
Calcium	1000	100	0.90	<1000	3.2	<1000	5.1	<1000	5.1	<1000
Chromium	10	1	-0.30	<10	-0.20	<10	-0.10	<10	-0.10	<10
Cobalt	50	1	0.10	<50	0.10	<50	0.10	<50	0.10	<50
Copper	25	2	-0.40	<25	-0.50	<25	-0.30	<25	-0.30	<25
Iron	300	30	20.6	<300	4.0	<300	-15	<300	-13	<300
Lead	5.0	1	0.20	<5.0	-0.20	<5.0	0.80	<5.0	0.40	<5.0
Magnesium	5000	100	17.0	<5000	13.1	<5000	14.9	<5000	1.3	<5000
Manganese	15	1	0.0	<15	0.0	<15	0.20	<15	0.10	<15
Molybdenum	50	1								
Nickel	40	1	-0.10	<40	-0.10	<40	-0.10	<40	0.0	<40
Potassium	10000	500	-2.9	<10000	-27	<10000	-18	<10000	-9.9	<10000
Selenium	10	2	-0.20	<10	1.1	<10	-0.20	<10	1.1	<10
Silver	10	1	-0.10	<10	0.0	<10	-0.10	<10	0.20	<10
Sodium	10000	750	-300	<10000	-760	<10000	-390	<10000	186	<10000
Strontium	10	1								
Thallium	10	1.5	-0.60	<10	0.80	<10	-0.50	<10	-2.0	<10
Tin	50	1								
Titanium	10	2								
Vanadium	50	1	-0.20	<50	-0.10	<50	-0.10	<50	-0.20	<50
Zinc	20	5	-0.10	<20	-0.10	<20	0.0	<20	0.10	<20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8231 Units: ug/l

Time:			22:26		23:12		23:58		00:44	
Sample ID:			CCB16		CCB17		CCB18		CCB19	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	1.5	<200	-1.5	<200	5.1	<200	10.6	<200
Antimony	12	2	0.80	<12	1.1	<12	1.2	<12	2.5	<12
Arsenic	10	2	-0.10	<10	0.30	<10	-0.60	<10	0.20	<10
Barium	200	5	0.30	<200	0.20	<200	0.50	<200	0.20	<200
Beryllium	4.0	1	0.0	<4.0	0.10	<4.0	0.10	<4.0	0.10	<4.0
Cadmium	5.0	1	0.0	<5.0	0.0	<5.0	0.10	<5.0	0.10	<5.0
Calcium	1000	100	5.1	<1000	5.6	<1000	5.5	<1000	6.7	<1000
Chromium	10	1	0.0	<10	-0.10	<10	0.0	<10	0.10	<10
Cobalt	50	1	0.10	<50	0.10	<50	0.10	<50	0.20	<50
Copper	25	2	-0.40	<25	-0.50	<25	-0.30	<25	-0.40	<25
Iron	300	30	-42	<300	-29	<300	15.9	<300	-16	<300
Lead	5.0	1	0.30	<5.0	0.80	<5.0	1.1	<5.0	1.0	<5.0
Magnesium	5000	100	3.4	<5000	5.9	<5000	4.6	<5000	18.7	<5000
Manganese	15	1	0.0	<15	0.10	<15	0.20	<15	0.20	<15
Molybdenum	50	1								
Nickel	40	1	0.0	<40	-0.10	<40	0.10	<40	0.10	<40
Potassium	10000	500	-19	<10000	-13	<10000	-21	<10000	23.6	<10000
Selenium	10	2	-1.3	<10	-0.50	<10	-0.30	<10	0.20	<10
Silver	10	1	0.20	<10	0.0	<10	0.0	<10	0.0	<10
Sodium	10000	750	-160	<10000	80.1	<10000	-220	<10000	-150	<10000
Strontium	10	1								
Thallium	10	1.5	0.90	<10	-1.9	<10	0.60	<10	0.0	<10
Tin	50	1								
Titanium	10	2								
Vanadium	50	1	-0.10	<50	-0.20	<50	0.0	<50	-0.10	<50
Zinc	20	5	-0.10	<20	-0.10	<20	-0.20	<20	0.0	<20

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8231 Units: ug/l

Time:		09:58			10:54			11:43	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	39700	99.3	40000	40400	101.0	40000	39000	97.5
Antimony	2000	1990	99.5	2000	2020	101.0	2000	1950	97.5
Arsenic	2000	1910	95.5	2000	1960	98.0	2000	1890	94.5
Barium	2000	2070	103.5	2000	2080	104.0	2000	2040	102.0
Beryllium	2000	2030	101.5	2000	2050	102.5	2000	2010	100.5
Cadmium	2000	2020	101.0	2000	2050	102.5	2000	2000	100.0
Calcium	40000	40600	101.5	40000	40600	101.5	40000	39900	99.8
Chromium	2000	2070	103.5	2000	2090	104.5	2000	2090	104.5
Cobalt	2000	1990	99.5	2000	2010	100.5	2000	1980	99.0
Copper	2000	1970	98.5	2000	1980	99.0	2000	1970	98.5
Iron	40000	40700	101.8	40000	40500	101.3	40000	39600	99.0
Lead	2000	2000	100.0	2000	1990	99.5	2000	1990	99.5
Magnesium	40000	40000	100.0	40000	40400	101.0	40000	39400	98.5
Manganese	2000	2090	104.5	2000	2080	104.0	2000	2060	103.0
Molybdenum									
Nickel	2000	1980	99.0	2000	1990	99.5	2000	1980	99.0
Potassium	40000	40500	101.3	40000	40700	101.8	40000	39900	99.8
Selenium	2000	2010	100.5	2000	2060	103.0	2000	1990	99.5
Silver	250	251	100.4	250	248	99.2	250	249	99.6
Sodium	40000	40100	100.3	40000	40500	101.3	40000	39500	98.8
Strontium									
Thallium	2000	2080	104.0	2000	2090	104.5	2000	2080	104.0
Tin									
Titanium									
Vanadium	2000	2030	101.5	2000	2060	103.0	2000	2040	102.0
Zinc	2000	2040	102.0	2000	2030	101.5	2000	2030	101.5

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8231 Units: ug/l

Time:		12:28			13:13			13:53	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	38800	97.0	40000	38500	96.3	40000	40000	100.0
Antimony	2000	1970	98.5	2000	2090	104.5	2000	2010	100.5
Arsenic	2000	1900	95.0	2000	1970	98.5	2000	1910	95.5
Barium	2000	2060	103.0	2000	2170	108.5	2000	2080	104.0
Beryllium	2000	2000	100.0	2000	1940	97.0	2000	2050	102.5
Cadmium	2000	1990	99.5	2000	1970	98.5	2000	2020	101.0
Calcium	40000	39500	98.8	40000	35600	89.0*(a)	40000	40500	101.3
Chromium	2000	2090	104.5	2000	2130	106.5	2000	2080	104.0
Cobalt	2000	1970	98.5	2000	1910	95.5	2000	2010	100.5
Copper	2000	1990	99.5	2000	2160	108.0	2000	2030	101.5
Iron	40000	39300	98.3	40000	36200	90.5	40000	40500	101.3
Lead	2000	1980	99.0	2000	1910	95.5	2000	2010	100.5
Magnesium	40000	38600	96.5	40000	34700	86.8*(b)	40000	40300	100.8
Manganese	2000	2070	103.5	2000	2120	106.0	2000	2080	104.0
Molybdenum									
Nickel	2000	1970	98.5	2000	1910	95.5	2000	1990	99.5
Potassium	40000	40000	100.0	40000	41000	102.5	40000	40900	102.3
Selenium	2000	2010	100.5	2000	2120	106.0	2000	2000	100.0
Silver	250	250	100.0	250	254	101.6	250	253	101.2
Sodium	40000	39000	97.5	40000	39600	99.0	40000	40600	101.5
Strontium									
Thallium	2000	2080	104.0	2000	2050	102.5	2000	2100	105.0
Tin									
Titanium									
Vanadium	2000	2050	102.5	2000	2150	107.5	2000	2040	102.0
Zinc	2000	2000	100.0	2000	1890	94.5	2000	2040	102.0

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples for Ca reported in the area bracketed by this QC.
(b) No samples for Mg reported in the area bracketed by this QC.

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8231 Units: ug/l

Time:		14:40			15:25			16:11	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	39500	98.8	40000	39100	97.8	40000	38900	97.3
Antimony	2000	2010	100.5	2000	2010	100.5	2000	2020	101.0
Arsenic	2000	1900	95.0	2000	1880	94.0	2000	1880	94.0
Barium	2000	2100	105.0	2000	2080	104.0	2000	2090	104.5
Beryllium	2000	2020	101.0	2000	2020	101.0	2000	2010	100.5
Cadmium	2000	2010	100.5	2000	2000	100.0	2000	1990	99.5
Calcium	40000	39600	99.0	40000	39800	99.5	40000	39700	99.3
Chromium	2000	2060	103.0	2000	2080	104.0	2000	2080	104.0
Cobalt	2000	1980	99.0	2000	1980	99.0	2000	1970	98.5
Copper	2000	2020	101.0	2000	2030	101.5	2000	2030	101.5
Iron	40000	39900	99.8	40000	39800	99.5	40000	39600	99.0
Lead	2000	1990	99.5	2000	1990	99.5	2000	1990	99.5
Magnesium	40000	38900	97.3	40000	39000	97.5	40000	38700	96.8
Manganese	2000	2090	104.5	2000	2100	105.0	2000	2090	104.5
Molybdenum									
Nickel	2000	1980	99.0	2000	1980	99.0	2000	1980	99.0
Potassium	40000	40800	102.0	40000	40600	101.5	40000	40600	101.5
Selenium	2000	2000	100.0	2000	1990	99.5	2000	1980	99.0
Silver	250	252	100.8	250	254	101.6	250	255	102.0
Sodium	40000	39900	99.8	40000	39800	99.5	40000	39700	99.3
Strontium									
Thallium	2000	2090	104.5	2000	2090	104.5	2000	2080	104.0
Tin									
Titanium									
Vanadium	2000	2050	102.5	2000	2050	102.5	2000	2040	102.0
Zinc	2000	2010	100.5	2000	2010	100.5	2000	2010	100.5

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8231 Units: ug/l

Time:		16:57			17:44			18:31	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	39100	97.8	40000	38800	97.0	40000	38600	96.5
Antimony	2000	2030	101.5	2000	2030	101.5	2000	2030	101.5
Arsenic	2000	1900	95.0	2000	1890	94.5	2000	1910	95.5
Barium	2000	2090	104.5	2000	2090	104.5	2000	2100	105.0
Beryllium	2000	2030	101.5	2000	2010	100.5	2000	2010	100.5
Cadmium	2000	2000	100.0	2000	2000	100.0	2000	2010	100.5
Calcium	40000	39600	99.0	40000	39700	99.3	40000	39500	98.8
Chromium	2000	2090	104.5	2000	2080	104.0	2000	2090	104.5
Cobalt	2000	1980	99.0	2000	1980	99.0	2000	1990	99.5
Copper	2000	2040	102.0	2000	2030	101.5	2000	2040	102.0
Iron	40000	39400	98.5	40000	39600	99.0	40000	39000	97.5
Lead	2000	2000	100.0	2000	2000	100.0	2000	2010	100.5
Magnesium	40000	38900	97.3	40000	38700	96.8	40000	38400	96.0
Manganese	2000	2090	104.5	2000	2100	105.0	2000	2100	105.0
Molybdenum									
Nickel	2000	1990	99.5	2000	1990	99.5	2000	2000	100.0
Potassium	40000	40800	102.0	40000	40700	101.8	40000	41200	103.0
Selenium	2000	1990	99.5	2000	2000	100.0	2000	2010	100.5
Silver	250	255	102.0	250	255	102.0	250	255	102.0
Sodium	40000	40200	100.5	40000	39700	99.3	40000	39300	98.3
Strontium									
Thallium	2000	2100	105.0	2000	2100	105.0	2000	2120	106.0
Tin									
Titanium									
Vanadium	2000	2060	103.0	2000	2060	103.0	2000	2060	103.0
Zinc	2000	2030	101.5	2000	2020	101.0	2000	2030	101.5

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8231 Units: ug/l

Time:		19:18			20:04			20:51	
Sample ID:	CCV	CCV12		CCV	CCV13		CCV	CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	38300	95.8	40000	38600	96.5	40000	38400	96.0
Antimony	2000	2040	102.0	2000	2030	101.5	2000	2030	101.5
Arsenic	2000	1910	95.5	2000	1920	96.0	2000	1920	96.0
Barium	2000	2120	106.0	2000	2120	106.0	2000	2120	106.0
Beryllium	2000	2000	100.0	2000	2000	100.0	2000	2000	100.0
Cadmium	2000	2010	100.5	2000	2020	101.0	2000	2020	101.0
Calcium	40000	39100	97.8	40000	39400	98.5	40000	39200	98.0
Chromium	2000	2090	104.5	2000	2090	104.5	2000	2100	105.0
Cobalt	2000	2000	100.0	2000	2000	100.0	2000	2000	100.0
Copper	2000	2060	103.0	2000	2050	102.5	2000	2050	102.5
Iron	40000	38100	95.3	40000	38400	96.0	40000	38000	95.0
Lead	2000	2010	100.5	2000	2010	100.5	2000	2010	100.5
Magnesium	40000	37900	94.8	40000	38000	95.0	40000	37900	94.8
Manganese	2000	2090	104.5	2000	2090	104.5	2000	2080	104.0
Molybdenum									
Nickel	2000	2000	100.0	2000	2000	100.0	2000	2000	100.0
Potassium	40000	41800	104.5	40000	41700	104.3	40000	41800	104.5
Selenium	2000	2020	101.0	2000	2010	100.5	2000	2020	101.0
Silver	250	254	101.6	250	255	102.0	250	255	102.0
Sodium	40000	39700	99.3	40000	40100	100.3	40000	39700	99.3
Strontium									
Thallium	2000	2120	106.0	2000	2110	105.5	2000	2110	105.5
Tin									
Titanium									
Vanadium	2000	2060	103.0	2000	2060	103.0	2000	2060	103.0
Zinc	2000	2040	102.0	2000	2050	102.5	2000	2040	102.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8231 Units: ug/l

Time:		21:37			22:23			23:08	
Sample ID:	CCV	CCV15		CCV	CCV16		CCV	CCV17	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	38100	95.3	40000	38100	95.3	40000	38400	96.0
Antimony	2000	2050	102.5	2000	2040	102.0	2000	2020	101.0
Arsenic	2000	1920	96.0	2000	1920	96.0	2000	1920	96.0
Barium	2000	2130	106.5	2000	2150	107.5	2000	2130	106.5
Beryllium	2000	1990	99.5	2000	1960	98.0	2000	1990	99.5
Cadmium	2000	2010	100.5	2000	2020	101.0	2000	2030	101.5
Calcium	40000	39100	97.8	40000	39000	97.5	40000	39800	99.5
Chromium	2000	2090	104.5	2000	2070	103.5	2000	2080	104.0
Cobalt	2000	2000	100.0	2000	1990	99.5	2000	2010	100.5
Copper	2000	2060	103.0	2000	2000	100.0	2000	2020	101.0
Iron	40000	38000	95.0	40000	38000	95.0	40000	38400	96.0
Lead	2000	2010	100.5	2000	2000	100.0	2000	2030	101.5
Magnesium	40000	37500	93.8	40000	36500	91.3	40000	37900	94.8
Manganese	2000	2090	104.5	2000	2130	106.5	2000	2090	104.5
Molybdenum									
Nickel	2000	2000	100.0	2000	1990	99.5	2000	2010	100.5
Potassium	40000	41800	104.5	40000	41800	104.5	40000	42000	105.0
Selenium	2000	2020	101.0	2000	2020	101.0	2000	2010	100.5
Silver	250	255	102.0	250	254	101.6	250	254	101.6
Sodium	40000	39900	99.8	40000	39500	98.8	40000	39500	98.8
Strontium									
Thallium	2000	2120	106.0	2000	2090	104.5	2000	2120	106.0
Tin									
Titanium									
Vanadium	2000	2060	103.0	2000	2060	103.0	2000	2050	102.5
Zinc	2000	2040	102.0	2000	2030	101.5	2000	2060	103.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8231 Units: ug/l

Time:		23:55			00:41	
Sample ID:	CCV	CCV18		CCV	CCV19	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	38100	95.3	40000	37800	94.5
Antimony	2000	2030	101.5	2000	2050	102.5
Arsenic	2000	1920	96.0	2000	1930	96.5
Barium	2000	2130	106.5	2000	2170	108.5
Beryllium	2000	1980	99.0	2000	1960	98.0
Cadmium	2000	2020	101.0	2000	2010	100.5
Calcium	40000	39500	98.8	40000	37900	94.8
Chromium	2000	2080	104.0	2000	2110	105.5
Cobalt	2000	2000	100.0	2000	1990	99.5
Copper	2000	2020	101.0	2000	2090	104.5
Iron	40000	38000	95.0	40000	36300	90.8
Lead	2000	2010	100.5	2000	2000	100.0
Magnesium	40000	37400	93.5	40000	35800	89.5*(a)
Manganese	2000	2100	105.0	2000	2090	104.5
Molybdenum						
Nickel	2000	2000	100.0	2000	2000	100.0
Potassium	40000	42000	105.0	40000	42800	107.0
Selenium	2000	2010	100.5	2000	2030	101.5
Silver	250	255	102.0	250	256	102.4
Sodium	40000	39600	99.0	40000	39500	98.8
Strontium						
Thallium	2000	2110	105.5	2000	2120	106.0
Tin						
Titanium						
Vanadium	2000	2050	102.5	2000	2080	104.0
Zinc	2000	2050	102.5	2000	2030	101.5

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples for Mg reported in the area bracketed by this QC.

HIGH STANDARD CHECK SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: 95 to 105 % Recovery Run ID: MA8231 Units: ug/l

Time:		09:54	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Aluminum	80000	79300	99.1
Antimony	4000	3990	99.8
Arsenic	4000	4010	100.3
Barium	4000	3970	99.3
Beryllium	4000	3930	98.3
Cadmium	4000	3980	99.5
Calcium	80000	79100	98.9
Chromium	4000	3890	97.3
Cobalt	4000	4020	100.5
Copper	4000	3920	98.0
Iron	80000	79600	99.5
Lead	4000	4000	100.0
Magnesium	80000	78900	98.6
Manganese	4000	3890	97.3
Molybdenum			
Nickel	4000	4010	100.3
Potassium	80000	79200	99.0
Selenium	4000	4000	100.0
Silver	500	498	99.6
Sodium	80000	78500	98.1
Strontium			
Thallium	4000	3960	99.0
Tin			
Titanium			
Vanadium	4000	3890	97.3
Zinc	4000	3980	99.5

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA8231 Units: ug/l

Time:			10:12		10:34		00:10		00:14	
Sample ID:	CRI	CRIA	CRIA1		CRI1		CRIA2		CRI2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	400	200	210	105.0			195	97.5		
Antimony	10	5.0			9.4	94.0			7.8	78.0
Arsenic	20	10	8.8	88.0			8.8	88.0		
Barium	400	200	205	102.5			211	105.5		
Beryllium	10	5.0	5.2	104.0			5.0	100.0		
Cadmium	10	5.0	5.3	106.0			5.3	106.0		
Calcium	2000	1000	1030	103.0			997	99.7		
Chromium	20	10	10.8	108.0			11.5	115.0		
Cobalt	100	50	47.9	95.8			47.8	95.6		
Copper	50	25	24.3	97.2			24.7	98.8		
Iron	600	300	303	101.0			263	87.7		
Lead	10	5.0	5.2	104.0			6.2	124.0		
Magnesium	10000	5000	5000	100.0			4610	92.2		
Manganese	30	15	17.0	113.3			17.6	117.3		
Molybdenum	100	50								
Nickel	80	40	38.6	96.5			39.0	97.5		
Potassium	20000	10000	9990	99.9			10300	103.0		
Selenium	20	10	10.0	100.0			8.2	82.0		
Silver	20	10	10.2	102.0			10.3	103.0		
Sodium	20000	10000	10500	105.0			9210	92.1		
Strontium	20	10								
Thallium	20	10	9.9	99.0			9.0	90.0		
Tin	100	50								
Titanium	20	10								
Vanadium	100	50	55.2	110.4			56.1	112.2		
Zinc	40	20	20.6	103.0			20.8	104.0		

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071410M1.ICP Date Analyzed: 07/14/10 Methods: SW846 6010B
QC Limits: 80 to 120 % Recovery Run ID: MA8231 Units: ug/l

Time:			10:38		10:45		00:18		00:21	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	494000	98.8	488000	97.6	467000	93.4	462000	92.4
Antimony		1000	1.0		1020	102.0	-2.4		1030	103.0
Arsenic		1000	0.0		987	98.7	1.8		973	97.3
Barium		500	1.1		510	102.0	1.5		528	105.6
Beryllium		500	-0.20		491	98.2	-0.30		482	96.4
Cadmium		1000	0.0		948	94.8	1.4		927	92.7
Calcium	500000	500000	446000	89.2	448000	89.6	434000	86.8	435000	87.0
Chromium		500	0.40		427	85.4	0.20		430	86.0
Cobalt		500	0.10		499	99.8	-0.10		496	99.2
Copper		500	-2.7		475	95.0	-2.7		502	100.4
Iron	200000	200000	187000	93.5	181000	90.5	174000	87.0	169000	84.5
Lead		1000	0.0		995	99.5	0.0		1010	101.0
Magnesium	500000	500000	504000	100.8	506000	101.2	471000	94.2	476000	95.2
Manganese		500	0.0		427	85.4	-0.40		432	86.4
Molybdenum		1000	-2.7		962	96.2	-2.5		965	96.5
Nickel		1000	0.0		1000	100.0	0.30		1010	101.0
Potassium			34.4		-42		-24		-37	
Selenium		1000	0.0		994	99.4	-6.9		973	97.3
Silver		1000	0.50		1070	107.0	0.30		1120	112.0
Sodium			-170		-95		-1500		-1400	
Strontium		1000	-6.0		-6.0	0.0	-5.6		-5.6	0.0
Thallium		1000	2.4		963	96.3	-2.6		981	98.1
Tin		1000	1.4		935	93.5	0.30		941	94.1
Titanium		1000	6.9		6.9	0.7	6.4		7.6	0.8
Vanadium		500	-0.40		431	86.2	0.80		434	86.8
Zinc		1000	1.0		922	92.2	0.80		931	93.1

(*) Outside of QC limits
(anr) Analyte not requested

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8234
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:34	MA8234-STD1	1		STDA
09:37	MA8234-STD2	1		STDB
09:40	MA8234-STD3	1		STDC
09:45	MA8234-HSTD1	1		
09:50	MA8234-ICV1	1		
09:57	MA8234-ICB1	1		
10:05	MA8234-CRIA1	1		
10:09	MA8234-ICSA1	1		
10:18	MA8234-ICSAB1	1		
10:24	MA8234-CCV1	1		
10:32	MA8234-CCB1	1		
10:36	ZZZZZZ	10		
10:40	ZZZZZZ	10		
10:44	ZZZZZZ	10		
10:47	ZZZZZZ	4		
10:51	ZZZZZZ	20		
10:55	ZZZZZZ	10		
10:59	ZZZZZZ	2		
11:03	ZZZZZZ	10		
11:07	ZZZZZZ	4		
11:10	ZZZZZZ	10		
11:14	MA8234-CCV2	1		
11:18	MA8234-CCB2	1		
11:22	F74974-6	10		(sample used for QC only; not part of login F74973)
11:26	MP18652-D1	10		
11:29	MP18652-S1	10		
11:33	MP18652-S2	10		
11:37	MP18652-PS1	10		
11:41	MP18652-SD1	50		
11:45	ZZZZZZ	40		
11:49	ZZZZZZ	40		
11:52	ZZZZZZ	40		
11:56	ZZZZZZ	40		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8234
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:00	MA8234-CCV3	1		
12:04	MA8234-CCB3	1		
12:07	ZZZZZZ	20		
12:11	ZZZZZZ	20		
12:15	ZZZZZZ	4		
12:19	ZZZZZZ	40		
12:23	ZZZZZZ	40		
12:27	ZZZZZZ	5		
12:31	ZZZZZZ	2		
12:35	F74888-11	20		(sample used for QC only; not part of login F74973)
12:39	MP18654-D1	20		
12:42	MP18654-S1	20		
12:46	MA8234-CCV4	1		
12:50	MA8234-CCB4	1		
12:54	MP18654-S2	20		
12:57	MP18654-PS1	20		
13:01	MP18654-SD1	100		
13:05	ZZZZZZ	500		
13:09	ZZZZZZ	5		
13:13	ZZZZZZ	4		
13:16	ZZZZZZ	5		
13:22	ZZZZZZ	4		
13:26	ZZZZZZ	4		
13:29	MP18655-MB1	1		
13:33	MA8234-CCV5	1		
13:37	MA8234-CCB5	1		
13:41	MP18655-B1	1		
13:44	F75024-1	1		(sample used for QC only; not part of login F74973)
13:48	MP18655-D1	1		
13:52	MP18655-SD1	5		
13:56	MP18655-PS1	1		
14:00	MP18655-S1	1		
14:04	MP18655-S2	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8234
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:08	ZZZZZZ	1		
14:12	ZZZZZZ	1		
14:16	ZZZZZZ	1		
14:20	MA8234-CCV6	1		
14:23	MA8234-CCB6	1		
14:27	ZZZZZZ	1		
14:31	ZZZZZZ	1		
14:34	ZZZZZZ	1		
14:38	ZZZZZZ	1		
15:05	MA8234-CCV7	1		
15:09	MA8234-CCB7	1		
15:37	MP18661-MB1	1		
15:40	MP18661-B1	1		
15:44	F75062-1	1		(sample used for QC only; not part of login F74973)
15:48	MP18661-D1	1		
15:52	MA8234-CCV8	1		
15:55	MA8234-CCB8	1		
16:10	MA8234-CCV9	1		
16:15	MA8234-CCB9	1		
16:18	MP18661-SD1	5		
16:22	MP18661-PS1	1		
16:26	MP18661-S1	1		
16:29	MP18661-S2	1		
16:33	F74973-1F	4		
16:37	MP18653-D1	4		
16:41	MP18653-S1	4		
16:45	MP18653-S2	4		
16:49	MP18653-PS1	4		
16:53	MP18653-SD1	20		
16:57	MA8234-CCV10	1		
17:00	MA8234-CCB10	1		
17:04	F74973-2F	4		
17:08	F74973-3F	4		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8234
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Tl,V,Zn

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	17:12	F74973-4F	4		
	17:17	F74973-5F	4		
	17:21	F74973-6F	4		
---------->	Last reportable sample/prep for job F74973				
	17:25	MP18660-MB1	1		
	17:29	MP18660-B1	1		
	17:32	F74982-21	1		(sample used for QC only; not part of login F74973)
	17:36	MP18660-D1	1		
	17:40	MP18660-SD1	5		
	17:44	MA8234-CCV11	1		
	17:47	MA8234-CCB11	1		
	17:51	MP18660-PS1	1		
	17:55	MP18660-S1	1		
	17:59	MP18660-S2	1		
	18:02	ZZZZZZ	1		
	18:06	ZZZZZZ	1		
	18:10	ZZZZZZ	1		
	18:14	ZZZZZZ	1		
	18:17	ZZZZZZ	1		
	18:21	ZZZZZZ	1		
	18:25	ZZZZZZ	1		
	18:29	MA8234-CCV12	1		
	18:32	MA8234-CCB12	1		
	18:36	ZZZZZZ	1		
	18:40	ZZZZZZ	1		
	18:44	ZZZZZZ	1		
	18:48	ZZZZZZ	1		
	18:52	ZZZZZZ	1		
	18:55	ZZZZZZ	1		
	18:59	ZZZZZZ	1		
	19:03	ZZZZZZ	1		
	19:07	ZZZZZZ	1		
	19:11	ZZZZZZ	1		
	19:15	MA8234-CCV13	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8234
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:18	MA8234-CCB13	1		
19:22	ZZZZZZ	1		
19:26	ZZZZZZ	1		
19:30	MP18659-MB1	1		
19:34	MP18659-B1	1		
19:37	F74974-6F	10		(sample used for QC only; not part of login F74973)
19:41	MP18659-D1	10		
19:45	MP18659-SD1	50		
19:49	MP18659-PS1	10		
19:53	MP18659-S1	10		
19:57	MP18659-S2	10		
20:01	MA8234-CCV14	1		
20:04	MA8234-CCB14	1		
20:08	ZZZZZZ	40		
20:12	ZZZZZZ	40		
20:16	ZZZZZZ	40		
20:20	ZZZZZZ	40		
20:24	ZZZZZZ	20		
20:28	ZZZZZZ	20		
20:31	ZZZZZZ	4		
20:36	ZZZZZZ	40		
20:39	ZZZZZZ	40		
20:43	ZZZZZZ	5		
20:47	MA8234-CCV15	1		
20:51	MA8234-CCB15	1		
20:55	ZZZZZZ	2		
20:59	ZZZZZZ	1		
21:03	ZZZZZZ	1		
21:34	MA8234-CCV16	1		
21:38	MA8234-CCB16	1		
21:41	MA8234-CRIA2	1		
21:45	MA8234-ICSA2	1		
21:49	MA8234-ICSAB2	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8234
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:53	MA8234-CCV17	1		
21:56	MA8234-CCB17	1		

----------> Last reportable CCB for job F74973
Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8234
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
09:34	MA8234-STD1	3637	2739	46902	10209	1570
09:37	MA8234-STD2	3454	2775	45185	10060	1337
09:40	MA8234-STD3	3319	2816	44013	10046	1255
09:45	MA8234-HSTD1	3325	2814	44066	10070	1256
09:50	MA8234-ICV1	3471	2779	45315	10189	1346
09:57	MA8234-ICB1	3664 R	2755 R	47026 R	10304 R	1593 R
10:05	MA8234-CRIA1	3599	2706	46163	10219	1514
10:09	MA8234-ICSA1	3192	2943	41706	9976	1134
10:18	MA8234-ICSAB1	3165	2927	41618	9868	1121
10:24	MA8234-CCV1	3468	2787	45517	10157	1350
10:32	MA8234-CCB1	3669	2764	47278	10281	1591
10:36	ZZZZZZ	3621	2765	46880	10229	1493
10:40	ZZZZZZ	3585	2760	46583	10168	1458
10:44	ZZZZZZ	3589	2753	46528	10285	1437
10:47	ZZZZZZ	3585	2749	46627	10321	1467
10:51	ZZZZZZ	3589	2735	46536	10335	1475
10:55	ZZZZZZ	3581	2735	46642	10443	1447
10:59	ZZZZZZ	3596	2750	47232	10683	1464
11:03	ZZZZZZ	3548	2732	46699	10520	1443
11:07	ZZZZZZ	3403	2621	45873	10612	1410
11:10	ZZZZZZ	3499	2689	46648	10636	1469
11:14	MA8234-CCV2	3416	2761	45741	10509	1342
11:18	MA8234-CCB2	3631	2752	47741	10634	1591
11:22	F74974-6	2977	2253	38380	9659	1097
11:26	MP18652-D1	2967	2233	38394	9701	1092
11:29	MP18652-S1	2998	2265	38928	9705	1097
11:33	MP18652-S2	2981	2246	38510	9566	1088
11:37	MP18652-PS1	2983	2244	38589	9672	1102
11:41	MP18652-SD1	3300	2511	43178	10115	1295
11:45	ZZZZZZ	3104	2333	39936	9788	1163
11:49	ZZZZZZ	3119	2352	40158	9829	1169
11:52	ZZZZZZ	3122	2345	40264	9810	1173
11:56	ZZZZZZ	3125	2337	40251	9781	1172

INTERNAL STANDARD SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8234
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
12:00	MA8234-CCV3	3420	2752	45372	10299	1341
12:04	MA8234-CCB3	3638	2729	47708	10419	1592
12:07	ZZZZZZ	3019	2259	38502	9555	1100
12:11	ZZZZZZ	3082	2301	39600	9662	1151
12:15	ZZZZZZ	3023	2279	39573	9645	1134
12:19	ZZZZZZ	3158	2376	40720	9802	1202
12:23	ZZZZZZ	3147	2370	40701	9803	1198
12:27	ZZZZZZ	2928	2184	37709	9480	1073
12:31	ZZZZZZ	2964	2223	38941	9606	1106
12:35	F74888-11	3607	2748	47677	10454	1550
12:39	MP18654-D1	3608	2725	47680	10472	1558
12:42	MP18654-S1	3600	2727	47526	10410	1540
12:46	MA8234-CCV4	3406	2751	45573	10250	1340
12:50	MA8234-CCB4	3620	2729	47753	10364	1587
12:54	MP18654-S2	3610	2744	47738	10478	1541
12:57	MP18654-PS1	3621	2739	47814	10486	1559
13:01	MP18654-SD1	3602	2728	47476	10398	1571
13:05	ZZZZZZ	3606	2701	47323	10293	1581
13:09	ZZZZZZ	3544	2857	47293	10942	1298
13:13	ZZZZZZ	3790	3111	50111	11303	1400
13:16	ZZZZZZ	3897	3160	51516	11499	1464
13:22	ZZZZZZ	3916	3221	51977	11635	1442
13:26	ZZZZZZ	3920	3202	51968	11455	1456
13:29	MP18655-MB1	3619	2706	47909	10532	1581
13:33	MA8234-CCV5	3460	2768	45972	10272	1358
13:37	MA8234-CCB5	3649	2736	47668	10485	1596
13:41	MP18655-B1	3465	2678	45605	10319	1393
13:44	F75024-1	3385	2625	45173	10883	1101
13:48	MP18655-D1	3399	2657	45521	10819	1136
13:52	MP18655-SD1	3440	2639	45682	10385	1325
13:56	MP18655-PS1	3376	2635	45219	10870	1100
14:00	MP18655-S1	3314	2668	44807	10790	1062
14:04	MP18655-S2	3356	2700	45163	10779	1107

INTERNAL STANDARD SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8234
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
14:08	ZZZZZZ	3587	2831	48068	10738	1361
14:12	ZZZZZZ	3400	2741	45780	11115	1014
14:16	ZZZZZZ	4062	3420	53881	11974	1400
14:20	MA8234-CCV6	3475	2798	46453	10307	1365
14:23	MA8234-CCB6	3667	2755	48129	10391	1604
14:27	ZZZZZZ	3997	3320	52883	11636	1406
14:31	ZZZZZZ	3665	2785	48644	10627	1493
14:34	ZZZZZZ	6123 !	5999 !	83361 !	18858 !	1247
14:38	ZZZZZZ	5337 !	5209 !	72265 !	16148 !	1324
15:05	MA8234-CCV7	3404	2738	45678	10238	1340
15:09	MA8234-CCB7	3627	2725	47874	10412	1593
15:37	MP18661-MB1	3583	2705	47914	10502	1570
15:40	MP18661-B1	3462	2730	46595	10392	1394
15:44	F75062-1	3542	2713	47614	10448	1521
15:48	MP18661-D1	3538	2698	47495	10362	1524
15:52	MA8234-CCV8	3394	2738	45587	10057	1333
15:55	MA8234-CCB8	3621	2750	48177	10355	1587
16:10	MA8234-CCV9	3404	2741	45369	10110	1338
16:15	MA8234-CCB9	3631	2723	47727	10333	1587
16:18	MP18661-SD1	3588	2698	47069	10257	1564
16:22	MP18661-PS1	3547	2693	47131	10411	1505
16:26	MP18661-S1	3464	2725	46223	10357	1388
16:29	MP18661-S2	3477	2715	46212	10338	1389
16:33	F74973-1F	2925	2194	38037	9426	1079
16:37	MP18653-D1	2920	2180	37936	9507	1080
16:41	MP18653-S1	2949	2226	38540	9516	1067
16:45	MP18653-S2	2960	2228	38724	9587	1079
16:49	MP18653-PS1	2925	2198	38271	9479	1082
16:53	MP18653-SD1	3260	2446	42741	9930	1282
16:57	MA8234-CCV10	3400	2735	45678	10219	1339
17:00	MA8234-CCB10	3606	2713	47650	10397	1587
17:04	F74973-2F	2921	2174	37874	9420	1084
17:08	F74973-3F	2836	2088	36807	9449	1048

INTERNAL STANDARD SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8234
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
17:12	F74973-4F	2882	2136	37666	9606	1069
17:17	F74973-5F	2806	2065	36160	9315	1025
17:21	F74973-6F	2923	2171	38110	9528	1091
17:25	MP18660-MB1	3582	2670	47830	10476	1586
17:29	MP18660-B1	3474	2717	46650	10523	1411
17:32	F74982-21	3568	2708	48170	10542	1542
17:36	MP18660-D1	3577	2699	47914	10509	1536
17:40	MP18660-SD1	3615	2700	47587	10311	1579
17:44	MA8234-CCV11	3413	2716	45574	10130	1347
17:47	MA8234-CCB11	3619	2707	48073	10455	1595
17:51	MP18660-PS1	3560	2699	47881	10545	1521
17:55	MP18660-S1	3450	2715	46483	10405	1393
17:59	MP18660-S2	3460	2728	46359	10257	1389
18:02	ZZZZZZ	3533	2677	47194	10335	1524
18:06	ZZZZZZ	3492	2655	46649	10448	1404
18:10	ZZZZZZ	3521	2667	46706	10456	1421
18:14	ZZZZZZ	3580	2758	47533	10553	1370
18:17	ZZZZZZ	3336	2536	43161	10234	1209
18:21	ZZZZZZ	3737	3150	52045	12079	1230
18:25	ZZZZZZ	3410	2607	48393	11406	1511
18:29	MA8234-CCV12	3292	2666	46514	11077	1331
18:32	MA8234-CCB12	3477	2642	48644	11250	1558
18:36	ZZZZZZ	3292	2604	45902	11467	1225
18:40	ZZZZZZ	3328	2578	47031	11644	1333
18:44	ZZZZZZ	3377	2605	47535	11648	1339
18:48	ZZZZZZ	3352	2579	46858	11537	1332
18:52	ZZZZZZ	3364	2587	47476	11515	1394
18:55	ZZZZZZ	3370	2580	48203	11536	1458
18:59	ZZZZZZ	3277	2535	46106	11346	1301
19:03	ZZZZZZ	3345	2565	47776	11401	1464
19:07	ZZZZZZ	3263	2493	46420	11359	1397
19:11	ZZZZZZ	3118	2376	43496	11118	1234
19:15	MA8234-CCV13	3239	2615	46734	11292	1322

INTERNAL STANDARD SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8234
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
19:18	MA8234-CCB13	3432	2629	48843	11410	1547
19:22	ZZZZZZ	3284	2564	46202	11308	1286
19:26	ZZZZZZ	3284	2541	46691	11544	1312
19:30	MP18659-MB1	3396	2619	49464	11644	1543
19:34	MP18659-B1	3275	2607	47053	11333	1369
19:37	F74974-6F	2825	2123	38541	10234	1076
19:41	MP18659-D1	2779	2083	38235	10228	1067
19:45	MP18659-SD1	3098	2343	43576	11059	1271
19:49	MP18659-PS1	2790	2099	38611	10322	1071
19:53	MP18659-S1	2804	2111	38454	10143	1062
19:57	MP18659-S2	2783	2095	38486	10219	1060
20:01	MA8234-CCV14	3232	2629	46494	11152	1314
20:04	MA8234-CCB14	3424	2616	49051	11349	1549
20:08	ZZZZZZ	2936	2217	40178	10380	1141
20:12	ZZZZZZ	2902	2166	39569	10369	1125
20:16	ZZZZZZ	2919	2176	40459	10561	1155
20:20	ZZZZZZ	2915	2199	40678	10586	1151
20:24	ZZZZZZ	2786	2080	38183	10216	1069
20:28	ZZZZZZ	2911	2193	39884	10356	1133
20:31	ZZZZZZ	2811	2116	39270	10332	1104
20:36	ZZZZZZ	2951	2227	41125	10613	1172
20:39	ZZZZZZ	2950	2230	40928	10505	1168
20:43	ZZZZZZ	2715	2012	36993	9907	1028
20:47	MA8234-CCV15	3203	2580	45853	10985	1308
20:51	MA8234-CCB15	3407	2593	48962	11467	1552
20:55	ZZZZZZ	2768	2085	39181	10314	1081
20:59	ZZZZZZ	3092	2361	44246	10835	1317
21:03	ZZZZZZ	3176	2423	45265	10964	1350
21:34	MA8234-CCV16	3235	2632	46379	10940	1314
21:38	MA8234-CCB16	3409	2609	48669	11202	1548
21:41	MA8234-CRIA2	3347	2568	48091	11276	1481
21:45	MA8234-ICSA2	2949	2730	42354	10645	1096
21:49	MA8234-ICSAB2	2951	2711	42037	10546	1089

INTERNAL STANDARD SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
Analyst: RS Run ID: MA8234
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5
21:53	MA8234-CCV17	3210	2612	46249	11001	1309
21:56	MA8234-CCB17	3413	2606	48891	11339	1554

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	60-125 %
Istd#2	Yttrium (2422)	60-125 %
Istd#3	Yttrium (3242)	60-125 %
Istd#4	Yttrium (3710)	60-125 %
Istd#5	Indium	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8234 Units: ug/l

Time:			09:57		10:32		11:18		12:04	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	2.6	<200	-7.3	<200	7.0	<200	-4.7	<200
Antimony	6.0	2	2.1	<6.0	2.0	<6.0	3.7	<6.0	3.3	<6.0
Arsenic	10	2	-0.70	<10	0.50	<10	0.10	<10	1.0	<10
Barium	200	5	0.10	<200	0.0	<200	0.10	<200	0.10	<200
Beryllium	4.0	1	0.0	<4.0	0.0	<4.0	0.10	<4.0	0.20	<4.0
Cadmium	5.0	1	-0.10	<5.0	-0.10	<5.0	0.10	<5.0	0.0	<5.0
Calcium	1000	100	0.20	<1000	2.8	<1000	5.6	<1000	5.4	<1000
Chromium	10	1	0.0	<10	0.30	<10	0.20	<10	0.30	<10
Cobalt	50	1	0.0	<50	0.0	<50	-0.10	<50	0.10	<50
Copper	25	2	-0.40	<25	-0.10	<25	0.20	<25	0.20	<25
Iron	300	30	-29	<300	-17	<300	-9.7	<300	3.2	<300
Lead	5.0	1	0.10	<5.0	-0.70	<5.0	-0.50	<5.0	0.30	<5.0
Magnesium	5000	100	-16	<5000	-17	<5000	-2.9	<5000	-0.60	<5000
Manganese	15	1	-0.10	<15	0.0	<15	0.10	<15	0.10	<15
Molybdenum	50	1	anr							
Nickel	40	1	-0.20	<40	-0.40	<40	-0.20	<40	-0.20	<40
Potassium	10000	500	15.4	<10000	7.8	<10000	26.7	<10000	8.4	<10000
Selenium	10	2	0.10	<10	2.0	<10	-0.40	<10	0.20	<10
Silver	10	1	-0.10	<10	-0.20	<10	0.0	<10	-0.20	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1.5	-2.1	<10	-2.8	<10	-0.70	<10	0.30	<10
Tin	50	1	anr							
Titanium	10	2								
Vanadium	50	1	-0.50	<50	0.0	<50	0.20	<50	-0.10	<50
Zinc	20	5	-0.30	<20	-0.10	<20	-0.10	<20	0.0	<20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8234 Units: ug/l

Time:			12:50		13:37		14:23		15:09	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	-9.4	<200	-9.8	<200	11.0	<200	-5.1	<200
Antimony	6.0	2	4.2	<6.0	3.0	<6.0	4.6	<6.0	2.5	<6.0
Arsenic	10	2	-0.10	<10	-0.30	<10	1.5	<10	0.20	<10
Barium	200	5	0.20	<200	0.10	<200	0.10	<200	-0.40	<200
Beryllium	4.0	1	0.20	<4.0	0.20	<4.0	0.20	<4.0	-0.10	<4.0
Cadmium	5.0	1	0.20	<5.0	0.10	<5.0	0.10	<5.0	-0.30	<5.0
Calcium	1000	100	5.0	<1000	8.0	<1000	20.3	<1000	2.2	<1000
Chromium	10	1	0.20	<10	0.20	<10	0.50	<10	-0.10	<10
Cobalt	50	1	0.10	<50	0.10	<50	0.20	<50	0.0	<50
Copper	25	2	0.20	<25	0.50	<25	0.10	<25	0.10	<25
Iron	300	30	-7.6	<300	25.3	<300	-16	<300	10.1	<300
Lead	5.0	1	-0.30	<5.0	-0.60	<5.0	-0.30	<5.0	-1.0	<5.0
Magnesium	5000	100	-12	<5000	-6.0	<5000	-21	<5000	-12	<5000
Manganese	15	1	0.20	<15	0.20	<15	0.20	<15	-0.20	<15
Molybdenum	50	1	anr							
Nickel	40	1	0.0	<40	0.10	<40	0.10	<40	-0.20	<40
Potassium	10000	500	-0.30	<10000	-4.7	<10000	8.4	<10000	22.3	<10000
Selenium	10	2	-1.1	<10	1.1	<10	0.30	<10	1.4	<10
Silver	10	1	-0.40	<10	0.10	<10	-0.20	<10	-0.10	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1.5	-0.70	<10	1.1	<10	-0.80	<10	-1.4	<10
Tin	50	1	anr							
Titanium	10	2								
Vanadium	50	1	0.0	<50	0.20	<50	0.10	<50	-0.30	<50
Zinc	20	5	0.0	<20	0.20	<20	0.10	<20	-0.10	<20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8234 Units: ug/l

Time:			15:55		16:15		17:00		17:47	
Sample ID:			CCB8		CCB9		CCB10		CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	-16	<200	4.6	<200	-3.4	<200	1.6	<200
Antimony	6.0	2	2.2	<6.0	5.9	<6.0	2.2	<6.0	1.8	<6.0
Arsenic	10	2	0.40	<10	-0.30	<10	-1.5	<10	0.30	<10
Barium	200	5	-0.20	<200	0.10	<200	-0.30	<200	0.0	<200
Beryllium	4.0	1	-0.10	<4.0	0.10	<4.0	-0.10	<4.0	-0.10	<4.0
Cadmium	5.0	1	-0.10	<5.0	0.20	<5.0	-0.10	<5.0	-0.10	<5.0
Calcium	1000	100	-1.3	<1000	9.8	<1000	-0.40	<1000	-1.7	<1000
Chromium	10	1	-0.30	<10	0.60	<10	-0.20	<10	0.10	<10
Cobalt	50	1	-0.20	<50	0.20	<50	-0.10	<50	-0.10	<50
Copper	25	2	0.40	<25	0.40	<25	0.40	<25	0.40	<25
Iron	300	30	-4.3	<300	-22	<300	-36	<300	-28	<300
Lead	5.0	1	-0.60	<5.0	-0.30	<5.0	0.0	<5.0	0.60	<5.0
Magnesium	5000	100	-0.20	<5000	9.9	<5000	1.2	<5000	2.0	<5000
Manganese	15	1	-0.10	<15	0.10	<15	-0.20	<15	-0.20	<15
Molybdenum	50	1	anr							
Nickel	40	1	-0.30	<40	0.20	<40	0.0	<40	-0.20	<40
Potassium	10000	500	4.3	<10000	39.0	<10000	40.2	<10000	-2.0	<10000
Selenium	10	2	2.0	<10	0.90	<10	1.2	<10	0.0	<10
Silver	10	1	0.0	<10	-0.20	<10	-0.30	<10	-0.10	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1.5	0.40	<10	-0.30	<10	0.60	<10	-2.0	<10
Tin	50	1	anr							
Titanium	10	2								
Vanadium	50	1	-0.10	<50	0.40	<50	0.20	<50	0.0	<50
Zinc	20	5	-0.10	<20	0.50	<20	0.20	<20	0.10	<20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8234 Units: ug/l

Time:			18:32		19:18		20:04		20:51	
Sample ID:			CCB12		CCB13		CCB14		CCB15	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	20	-7.9	<200	-1.0	<200	-1.6	<200	4.9	<200
Antimony	6.0	2	2.6	<6.0	2.6	<6.0	2.2	<6.0	2.7	<6.0
Arsenic	10	2	-0.70	<10	-0.90	<10	-0.10	<10	0.80	<10
Barium	200	5	-0.40	<200	-0.30	<200	-0.20	<200	0.0	<200
Beryllium	4.0	1	0.0	<4.0	0.10	<4.0	0.20	<4.0	0.20	<4.0
Cadmium	5.0	1	-0.10	<5.0	0.10	<5.0	0.20	<5.0	0.20	<5.0
Calcium	1000	100	-3.9	<1000	7.7	<1000	9.1	<1000	7.6	<1000
Chromium	10	1	0.40	<10	0.20	<10	0.40	<10	0.40	<10
Cobalt	50	1	-0.10	<50	0.10	<50	0.20	<50	0.20	<50
Copper	25	2	0.80	<25	0.40	<25	0.60	<25	0.50	<25
Iron	300	30	-20	<300	-0.70	<300	-24	<300	-18	<300
Lead	5.0	1	0.20	<5.0	0.60	<5.0	0.40	<5.0	1.1	<5.0
Magnesium	5000	100	1.5	<5000	12.5	<5000	9.7	<5000	9.4	<5000
Manganese	15	1	-0.10	<15	0.10	<15	0.20	<15	0.30	<15
Molybdenum	50	1	anr							
Nickel	40	1	-0.20	<40	0.10	<40	0.0	<40	0.10	<40
Potassium	10000	500	19.4	<10000	65.7	<10000	39.7	<10000	30.0	<10000
Selenium	10	2	0.80	<10	1.3	<10	1.2	<10	2.4	<10
Silver	10	1	-0.30	<10	-0.10	<10	-0.20	<10	0.0	<10
Sodium	10000	750	anr							
Strontium	10	1								
Thallium	10	1.5	0.80	<10	-1.1	<10	-1.2	<10	0.30	<10
Tin	50	1	anr							
Titanium	10	2								
Vanadium	50	1	0.20	<50	0.30	<50	0.60	<50	0.40	<50
Zinc	20	5	0.10	<20	0.10	<20	0.10	<20	0.20	<20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA8234 Units: ug/l

Time:			21:38		21:56	
Sample ID:			CCB16		CCB17	
Metal	RL	IDL	raw	final	raw	final
Aluminum	200	20	10.1	<200	11.0	<200
Antimony	6.0	2	2.6	<6.0	4.9	<6.0
Arsenic	10	2	-0.10	<10	-1.4	<10
Barium	200	5	-0.20	<200	0.0	<200
Beryllium	4.0	1	0.20	<4.0	0.30	<4.0
Cadmium	5.0	1	0.20	<5.0	0.30	<5.0
Calcium	1000	100	9.5	<1000	14.4	<1000
Chromium	10	1	0.20	<10	0.20	<10
Cobalt	50	1	0.10	<50	0.20	<50
Copper	25	2	0.50	<25	0.60	<25
Iron	300	30	3.3	<300	-1.2	<300
Lead	5.0	1	1.1	<5.0	1.1	<5.0
Magnesium	5000	100	2.0	<5000	17.6	<5000
Manganese	15	1	0.20	<15	0.20	<15
Molybdenum	50	1	anr			
Nickel	40	1	0.10	<40	0.20	<40
Potassium	10000	500	19.1	<10000	17.4	<10000
Selenium	10	2	0.10	<10	3.6	<10
Silver	10	1	-0.10	<10	0.0	<10
Sodium	10000	750	anr			
Strontium	10	1				
Thallium	10	1.5	1.4	<10	-0.30	<10
Tin	50	1	anr			
Titanium	10	2				
Vanadium	50	1	0.40	<50	0.50	<50
Zinc	20	5	0.30	<20	0.30	<20

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8234 Units: ug/l

Time:		09:50			10:24			11:14	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	39400	98.5	40000	39500	98.8	40000	39300	98.3
Antimony	2000	2000	100.0	2000	1990	99.5	2000	2030	101.5
Arsenic	2000	1910	95.5	2000	1900	95.0	2000	1930	96.5
Barium	2000	2070	103.5	2000	2070	103.5	2000	2100	105.0
Beryllium	2000	2020	101.0	2000	2010	100.5	2000	1990	99.5
Cadmium	2000	2000	100.0	2000	2000	100.0	2000	2010	100.5
Calcium	40000	40500	101.3	40000	40200	100.5	40000	39300	98.3
Chromium	2000	2070	103.5	2000	2050	102.5	2000	2070	103.5
Cobalt	2000	1990	99.5	2000	1970	98.5	2000	1970	98.5
Copper	2000	1990	99.5	2000	1970	98.5	2000	2010	100.5
Iron	40000	40500	101.3	40000	40300	100.8	40000	39600	99.0
Lead	2000	1990	99.5	2000	1980	99.0	2000	1970	98.5
Magnesium	40000	40000	100.0	40000	39700	99.3	40000	38400	96.0
Manganese	2000	2100	105.0	2000	2090	104.5	2000	2100	105.0
Molybdenum	anr								
Nickel	2000	1980	99.0	2000	1960	98.0	2000	1960	98.0
Potassium	40000	40500	101.3	40000	40600	101.5	40000	40700	101.8
Selenium	2000	1990	99.5	2000	2000	100.0	2000	2040	102.0
Silver	250	252	100.8	250	251	100.4	250	251	100.4
Sodium	anr								
Strontium									
Thallium	2000	2080	104.0	2000	2070	103.5	2000	2070	103.5
Tin	anr								
Titanium									
Vanadium	2000	2040	102.0	2000	2030	101.5	2000	2060	103.0
Zinc	2000	2020	101.0	2000	2010	100.5	2000	1990	99.5

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8234 Units: ug/l

Time:		12:00			12:46			13:33	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	38800	97.0	40000	38400	96.0	40000	38200	95.5
Antimony	2000	2020	101.0	2000	2030	101.5	2000	2020	101.0
Arsenic	2000	1930	96.5	2000	1940	97.0	2000	1930	96.5
Barium	2000	2120	106.0	2000	2130	106.5	2000	2120	106.0
Beryllium	2000	1980	99.0	2000	1960	98.0	2000	1970	98.5
Cadmium	2000	1990	99.5	2000	2000	100.0	2000	1980	99.0
Calcium	40000	39000	97.5	40000	38500	96.3	40000	38900	97.3
Chromium	2000	2070	103.5	2000	2070	103.5	2000	2080	104.0
Cobalt	2000	1970	98.5	2000	1970	98.5	2000	1960	98.0
Copper	2000	2020	101.0	2000	2020	101.0	2000	2030	101.5
Iron	40000	38700	96.8	40000	37800	94.5	40000	37900	94.8
Lead	2000	1970	98.5	2000	1960	98.0	2000	1970	98.5
Magnesium	40000	37800	94.5	40000	37000	92.5	40000	37300	93.3
Manganese	2000	2090	104.5	2000	2100	105.0	2000	2100	105.0
Molybdenum	anr								
Nickel	2000	1960	98.0	2000	1960	98.0	2000	1960	98.0
Potassium	40000	41500	103.8	40000	41900	104.8	40000	41900	104.8
Selenium	2000	2020	101.0	2000	2040	102.0	2000	2010	100.5
Silver	250	252	100.8	250	253	101.2	250	254	101.6
Sodium	anr								
Strontium									
Thallium	2000	2070	103.5	2000	2070	103.5	2000	2070	103.5
Tin	anr								
Titanium									
Vanadium	2000	2050	102.5	2000	2060	103.0	2000	2060	103.0
Zinc	2000	1980	99.0	2000	1980	99.0	2000	1980	99.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8234 Units: ug/l

Time:		14:20			15:05			15:52	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	38000	95.0	40000	38200	95.5	40000	38500	96.3
Antimony	2000	2020	101.0	2000	2050	102.5	2000	2040	102.0
Arsenic	2000	1930	96.5	2000	1960	98.0	2000	1950	97.5
Barium	2000	2120	106.0	2000	2150	107.5	2000	2160	108.0
Beryllium	2000	1950	97.5	2000	1960	98.0	2000	1960	98.0
Cadmium	2000	1990	99.5	2000	2000	100.0	2000	2010	100.5
Calcium	40000	38900	97.3	40000	38600	96.5	40000	38600	96.5
Chromium	2000	2070	103.5	2000	2090	104.5	2000	2080	104.0
Cobalt	2000	1960	98.0	2000	1970	98.5	2000	1980	99.0
Copper	2000	2000	100.0	2000	2040	102.0	2000	2030	101.5
Iron	40000	37900	94.8	40000	37600	94.0	40000	37500	93.8
Lead	2000	1970	98.5	2000	1980	99.0	2000	1970	98.5
Magnesium	40000	37000	92.5	40000	36800	92.0	40000	36800	92.0
Manganese	2000	2110	105.5	2000	2110	105.5	2000	2110	105.5
Molybdenum	anr								
Nickel	2000	1960	98.0	2000	1970	98.5	2000	1970	98.5
Potassium	40000	41900	104.8	40000	42500	106.3	40000	42800	107.0
Selenium	2000	2020	101.0	2000	2050	102.5	2000	2050	102.5
Silver	250	253	101.2	250	254	101.6	250	253	101.2
Sodium	anr								
Strontium									
Thallium	2000	2070	103.5	2000	2080	104.0	2000	2090	104.5
Tin	anr								
Titanium									
Vanadium	2000	2050	102.5	2000	2070	103.5	2000	2070	103.5
Zinc	2000	1990	99.5	2000	1990	99.5	2000	1980	99.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8234 Units: ug/l

Time:		16:10			16:57			17:44	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	40400	101.0	40000	39400	98.5	40000	39000	97.5
Antimony	2000	2000	100.0	2000	2000	100.0	2000	2000	100.0
Arsenic	2000	1920	96.0	2000	1920	96.0	2000	1930	96.5
Barium	2000	2060	103.0	2000	2070	103.5	2000	2080	104.0
Beryllium	2000	2060	103.0	2000	2020	101.0	2000	2010	100.5
Cadmium	2000	2020	101.0	2000	2000	100.0	2000	1990	99.5
Calcium	40000	41000	102.5	40000	40000	100.0	40000	39700	99.3
Chromium	2000	2080	104.0	2000	2080	104.0	2000	2090	104.5
Cobalt	2000	2010	100.5	2000	1990	99.5	2000	1980	99.0
Copper	2000	2020	101.0	2000	2030	101.5	2000	2050	102.5
Iron	40000	41000	102.5	40000	39800	99.5	40000	38800	97.0
Lead	2000	2000	100.0	2000	1990	99.5	2000	1990	99.5
Magnesium	40000	40800	102.0	40000	39400	98.5	40000	38900	97.3
Manganese	2000	2080	104.0	2000	2080	104.0	2000	2080	104.0
Molybdenum	anr								
Nickel	2000	1990	99.5	2000	1990	99.5	2000	1980	99.0
Potassium	40000	40900	102.3	40000	41100	102.8	40000	41700	104.3
Selenium	2000	2010	100.5	2000	2000	100.0	2000	2000	100.0
Silver	250	253	101.2	250	253	101.2	250	252	100.8
Sodium	anr								
Strontium									
Thallium	2000	2100	105.0	2000	2100	105.0	2000	2090	104.5
Tin	anr								
Titanium									
Vanadium	2000	2050	102.5	2000	2050	102.5	2000	2060	103.0
Zinc	2000	2040	102.0	2000	2020	101.0	2000	2010	100.5

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8234 Units: ug/l

Time:		18:29			19:15			20:01	
Sample ID:	CCV	CCV12		CCV	CCV13		CCV	CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	38600	96.5	40000	38900	97.3	40000	38800	97.0
Antimony	2000	2050	102.5	2000	2070	103.5	2000	2060	103.0
Arsenic	2000	1950	97.5	2000	1950	97.5	2000	1960	98.0
Barium	2000	2150	107.5	2000	2190	109.5	2000	2200	110.0
Beryllium	2000	1950	97.5	2000	1910	95.5	2000	1910	95.5
Cadmium	2000	1970	98.5	2000	1970	98.5	2000	1970	98.5
Calcium	40000	36700	91.8	40000	35800	90.0	40000	35600	89.0*(b)
Chromium	2000	2070	103.5	2000	2070	103.5	2000	2060	103.0
Cobalt	2000	1930	96.5	2000	1920	96.0	2000	1920	96.0
Copper	2000	2100	105.0	2000	2090	104.5	2000	2100	105.0
Iron	40000	36600	91.5	40000	36000	90.0	40000	35500	88.8*(c)
Lead	2000	1910	95.5	2000	1880	94.0	2000	1880	94.0
Magnesium	40000	35400	88.5*(a)	40000	33900	84.8*(a)	40000	33900	84.8*(a)
Manganese	2000	2090	104.5	2000	2140	107.0	2000	2110	105.5
Molybdenum	anr								
Nickel	2000	1920	96.0	2000	1900	95.0	2000	1910	95.5
Potassium	40000	42200	105.5	40000	42500	106.3	40000	42900	107.3
Selenium	2000	2050	102.5	2000	2080	104.0	2000	2080	104.0
Silver	250	251	100.4	250	251	100.4	250	250	100.0
Sodium	anr								
Strontium									
Thallium	2000	2020	101.0	2000	2000	100.0	2000	2010	100.5
Tin	anr								
Titanium									
Vanadium	2000	2090	104.5	2000	2130	106.5	2000	2110	105.5
Zinc	2000	1910	95.5	2000	1870	93.5	2000	1870	93.5

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples for Mg reported in the area bracketed by this QC.
(b) No samples for Ca reported in the area bracketed by this QC.
(c) No samples for Fe reported in the area bracketed by this QC.

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA8234 Units: ug/l

Time:		20:47			21:34			21:53	
Sample ID:	CCV	CCV15		CCV	CCV16		CCV	CCV17	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	38200	95.5	40000	38100	95.3	40000	37700	94.3
Antimony	2000	2080	104.0	2000	2060	103.0	2000	2080	104.0
Arsenic	2000	1970	98.5	2000	1960	98.0	2000	1970	98.5
Barium	2000	2200	110.0	2000	2180	109.0	2000	2190	109.5
Beryllium	2000	1910	95.5	2000	1910	95.5	2000	1890	94.5
Cadmium	2000	1960	98.0	2000	1960	98.0	2000	1960	98.0
Calcium	40000	35100	87.8*(a)	40000	35300	88.3*(a)	40000	34900	87.3*(a)
Chromium	2000	2080	104.0	2000	2080	104.0	2000	2070	103.5
Cobalt	2000	1920	96.0	2000	1920	96.0	2000	1910	95.5
Copper	2000	2140	107.0	2000	2120	106.0	2000	2120	106.0
Iron	40000	34500	86.3*(b)	40000	34300	85.8*(b)	40000	34100	85.3*(b)
Lead	2000	1880	94.0	2000	1880	94.0	2000	1870	93.5
Magnesium	40000	33400	83.5*(c)	40000	33500	83.8*(c)	40000	33000	82.5*(c)
Manganese	2000	2110	105.5	2000	2090	104.5	2000	2100	105.0
Molybdenum	anr								
Nickel	2000	1910	95.5	2000	1900	95.0	2000	1900	95.0
Potassium	40000	43400	108.5	40000	43300	108.3	40000	43100	107.8
Selenium	2000	2080	104.0	2000	2070	103.5	2000	2080	104.0
Silver	250	252	100.8	250	248	99.2	250	250	100.0
Sodium	anr								
Strontium									
Thallium	2000	2010	100.5	2000	2010	100.5	2000	2000	100.0
Tin	anr								
Titanium									
Vanadium	2000	2130	106.5	2000	2120	106.0	2000	2120	106.0
Zinc	2000	1870	93.5	2000	1870	93.5	2000	1870	93.5

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples for Ca reported in the area bracketed by this QC.
(b) No samples for Fe reported in the area bracketed by this QC.
(c) No samples for Mg reported in the area bracketed by this QC.

HIGH STANDARD CHECK SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
QC Limits: 95 to 105 % Recovery Run ID: MA8234 Units: ug/l

Time:		09:45	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Aluminum	80000	78700	98.4
Antimony	4000	4010	100.3
Arsenic	4000	4000	100.0
Barium	4000	3990	99.8
Beryllium	4000	3920	98.0
Cadmium	4000	3950	98.8
Calcium	80000	78900	98.6
Chromium	4000	3910	97.8
Cobalt	4000	4000	100.0
Copper	4000	3980	99.5
Iron	80000	79300	99.1
Lead	4000	3980	99.5
Magnesium	80000	79000	98.8
Manganese	4000	3870	96.8
Molybdenum	anr		
Nickel	4000	4000	100.0
Potassium	80000	79500	99.4
Selenium	4000	3990	99.8
Silver	500	498	99.6
Sodium	anr		
Strontium			
Thallium	4000	3960	99.0
Tin	anr		
Titanium			
Vanadium	4000	3910	97.8
Zinc	4000	3960	99.0

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA8234 Units: ug/l

Time:			10:05		21:41	
Sample ID:	CRI	CRIA	CRIA1		CRIA2	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	400	200	192	96.0	175	87.5
Antimony	10	5.0	6.0	120.0	3.7	74.0
Arsenic	20	10	9.5	95.0	9.7	97.0
Barium	400	200	206	103.0	219	109.5
Beryllium	10	5.0	5.0	100.0	4.6	92.0
Cadmium	10	5.0	5.0	100.0	5.0	100.0
Calcium	2000	1000	1020	102.0	863	86.3
Chromium	20	10	10.9	109.0	11.1	111.0
Cobalt	100	50	47.5	95.0	45.7	91.4
Copper	50	25	24.4	97.6	25.9	103.6
Iron	600	300	299	99.7	239	79.7
Lead	10	5.0	5.4	108.0	5.2	104.0
Magnesium	10000	5000	4880	97.6	3910	78.2
Manganese	30	15	17.1	114.0	17.6	117.3
Molybdenum	100	50	anr			
Nickel	80	40	38.2	95.5	37.0	92.5
Potassium	20000	10000	10100	101.0	10600	106.0
Selenium	20	10	9.1	91.0	10.4	104.0
Silver	20	10	10.0	100.0	9.7	97.0
Sodium	20000	10000	anr			
Strontium	20	10				
Thallium	20	10	9.7	97.0	10.9	109.0
Tin	100	50	anr			
Titanium	20	10				
Vanadium	100	50	55.2	110.4	58.2	116.4
Zinc	40	20	20.1	100.5	18.5	92.5

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

File ID: SA071510M1.ICP Date Analyzed: 07/15/10 Methods: SW846 6010B
QC Limits: 80 to 120 % Recovery Run ID: MA8234 Units: ug/l

Time:			10:09		10:18		21:45		21:49	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	480000	96.0	475000	95.0	463000	92.6	461000	92.2
Antimony		1000	0.0		1000	100.0	3.2		1040	104.0
Arsenic		1000	0.0		959	95.9	-1.2		986	98.6
Barium		500	0.60		506	101.2	0.40		537	107.4
Beryllium		500	-0.20		484	96.8	-0.20		457	91.4
Cadmium		1000	-1.7		925	92.5	2.7		900	90.0
Calcium	500000	500000	437000	87.4	442000	88.4	384000	76.8*(a)	387000	77.4*(a)
Chromium		500	-0.70		415	83.0	-0.20		418	83.6
Cobalt		500	-0.20		488	97.6	-0.10		470	94.0
Copper		500	-3.6		475	95.0	-2.6		515	103.0
Iron	200000	200000	184000	92.0	179000	89.5	157000	78.5*(a)	153000	76.5*(a)
Lead		1000	0.0		989	98.9	6.5		934	93.4
Magnesium	500000	500000	490000	98.0	497000	99.4	410000	82.0	419000	83.8
Manganese		500	-1.5		423	84.6	-1.5		425	85.0
Molybdenum		1000	-0.80		950	95.0	-1.6		961	96.1
Nickel		1000	-0.10		986	98.6	0.50		947	94.7
Potassium			0.50		-3.7		-5.5		17.0	
Selenium		1000	-3.3		974	97.4	-14		1010	101.0
Silver		1000	0.50		1080	108.0	0.20		1090	109.0
Sodium			18.6		203		483		440	
Strontium		1000	-5.8		-6.0	0.0	-4.4		-4.4	0.0
Thallium		1000	-0.10		957	95.7	3.4		928	92.8
Tin		1000	0.10		920	92.0	0.60		866	86.6
Titanium		1000	8.6		9.0	0.9	7.5		7.7	0.8
Vanadium		500	0.40		422	84.4	1.3		440	88.0
Zinc		1000	-4.8		905	90.5	-4.7		838	83.8

(*) Outside of QC limits
(anr) Analyte not requested
(a) Possible instrument baseline drift.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18637
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 07/12/10

Metal	RL	IDL	MDL	MB raw	final
Mercury	1.0	.071	.071	-0.022	<1.0

Associated samples MP18637: F74973-1, F74973-2, F74973-3, F74973-4, F74973-5, F74973-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18637
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 07/12/10 07/12/10

Metal	F74973-1 Original	DUP	RPD	QC Limits	F74973-1 Original	MS	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.0	0.0	NC	0-20	0.0	3.2	3	106.7	80-120

Associated samples MP18637: F74973-1, F74973-2, F74973-3, F74973-4, F74973-5, F74973-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18637
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 07/12/10

Metal	F74973-1 Original	MSD	Spikelot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	3.1	3	103.3	3.2	20

Associated samples MP18637: F74973-1, F74973-2, F74973-3, F74973-4, F74973-5, F74973-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18637
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 07/12/10

Metal	BSP Result	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	3.3	3	110.0	80-120

Associated samples MP18637: F74973-1, F74973-2, F74973-3, F74973-4, F74973-5, F74973-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18637
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 07/12/10

Metal	F74973-1 Original	SDL 1:5	%DIF	QC Limits
Mercury	0.00	0.00	NC	0-10

Associated samples MP18637: F74973-1, F74973-2, F74973-3, F74973-4, F74973-5, F74973-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18638
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 07/12/10

Metal	RL	IDL	MDL	MB raw	final
Mercury	1.0	.071	.071	-0.035	<1.0

Associated samples MP18638: F74973-1F, F74973-2F, F74973-3F, F74973-4F, F74973-5F, F74973-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18638
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 07/12/10 07/12/10

Metal	F74974-6 Original	DUP	RPD	QC Limits	F74974-6 Original	MS	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.0	0.0	NC	0-20	0.0	3.3	3	110.0	80-120

Associated samples MP18638: F74973-1F, F74973-2F, F74973-3F, F74973-4F, F74973-5F, F74973-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18638
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 07/12/10

Metal	F74974-6 Original	MSD	Spikelot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	3.3	3	110.0	0.0	20

Associated samples MP18638: F74973-1F, F74973-2F, F74973-3F, F74973-4F, F74973-5F, F74973-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18638
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 07/12/10

Metal	BSP Result	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	3.2	3	106.7	80-120

Associated samples MP18638: F74973-1F, F74973-2F, F74973-3F, F74973-4F, F74973-5F, F74973-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18638
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 07/12/10

Metal	F74974-6 Original	SDL 1:5	%DIF	QC Limits
Mercury	0.00	0.00	NC	0-10

Associated samples MP18638: F74973-1F, F74973-2F, F74973-3F, F74973-4F, F74973-5F, F74973-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18639
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/12/10

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	20	25	8.3	<200
Antimony	12	2	2	1.5	<12
Arsenic	10	2	2	-0.40	<10
Barium	200	5	5	0.50	<200
Beryllium	4.0	1	1	-0.10	<4.0
Cadmium	5.0	1	1	-0.10	<5.0
Calcium	1000	100	100	5.8	<1000
Chromium	10	1	1	-0.50	<10
Cobalt	50	1	1	-0.20	<50
Copper	25	2	2	1.1	<25
Iron	300	30	35	1.1	<300
Lead	5.0	1	1	-0.10	<5.0
Magnesium	5000	100	100	6.1	<5000
Manganese	15	1	1	0.60	<15
Molybdenum	50	1	2		
Nickel	40	1	2	0.10	<40
Potassium	10000	500	500	7.9	<10000
Selenium	10	2	2	-0.50	<10
Silver	10	1	1	0.20	<10
Sodium	10000	750	750	302	<10000
Strontium	10	1	1		
Thallium	10	1.5	1.5	-0.90	<10
Tin	50	1	1		
Titanium	10	2	2		
Vanadium	50	1	1	0.10	<50
Zinc	20	5	5	0.80	<20

Associated samples MP18639: F74973-1, F74973-2, F74973-3, F74973-4, F74973-5, F74973-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18639
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/12/10 07/12/10

Metal	F74973-1 Original	DUP	RPD	QC Limits	F74973-1 Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum	0.00	31.9	200.0(a)	0-20	0.00	28600	27000	105.9	80-120
Antimony	0.0	2.5	200.0(a)	0-20	0.0	591	500	118.2	80-120
Arsenic	14.0	14.1	0.7	0-20	14.0	2310	2000	114.8	80-120
Barium	11.6	12.0	3.4	0-20	11.6	2170	2000	107.9	80-120
Beryllium	0.0	0.0	NC	0-20	0.0	49.9	50	99.8	80-120
Cadmium	0.0	0.0	NC	0-20	0.0	45.2	50	90.4	80-120
Calcium	648000	739000(b	4.4	0-20	648000	716000(b	25000	36.0 (c)	80-120
Chromium	0.0	0.0	NC	0-20	0.0	201	200	100.5	80-120
Cobalt	0.0	0.0 (b)	NC	0-20	0.0	528 (b)	500	105.6	80-120
Copper	4.4	8.5 (b)	200.0(a)	0-20	4.4	296 (b)	250	118.4	80-120
Iron	0.0	0.0	NC	0-20	0.0	23600	26000	90.8	80-120
Lead	6.7	0.0 (b)	200.0(a)	0-20	6.7	519 (b)	500	102.0	80-120
Magnesium	1200000	1320000b	5.4	0-20	1200000	1260000b	25000	40.0 (c)	80-120
Manganese	0.0	0.0	NC	0-20	0.0	521	500	104.2	80-120
Molybdenum									
Nickel	0.0	0.0 (b)	NC	0-20	0.0	535 (b)	500	107.0	80-120
Potassium	9320	7470	22.0 (a)	0-20	9320	35200	25000	103.5	80-120
Selenium	27.1	25.9	4.5	0-20	27.1	2630	2000	130.1N(d	80-120
Silver	0.0	0.0	NC	0-20	0.0	62.5	50	125.0N(d	80-120
Sodium	5840000	5970000	2.5	0-20	5840000	5690000	25000	-520.0(c	80-120
Strontium									
Thallium	0.0	0.0 (b)	NC	0-20	0.0	1950 (b)	2000	97.5	80-120
Tin									
Titanium									
Vanadium	40.0	41.2	3.0	0-20	40.0	566	500	105.2	80-120
Zinc	0.0	0.0	NC	0-20	0.0	467	500	93.4	80-120

Associated samples MP18639: F74973-1, F74973-2, F74973-3, F74973-4, F74973-5, F74973-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) RPD acceptable due to low duplicate and sample concentrations.
(b) Elevated reporting limit(s) due to matrix interference.
(c) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
(d) Spike recovery indicates possible matrix interference.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18639
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/12/10

Metal	F74973-1 Original	MSD	Spikelot MPFLICP1	% Rec	MSD RPD	QC Limit
Aluminum	0.00	28800	27000	106.7	2.1	20
Antimony	0.0	600	500	120.0	5.2	20
Arsenic	14.0	2360	2000	117.3	4.9	20
Barium	11.6	2220	2000	110.4	0.0	20
Beryllium	0.0	50.4	50	100.8	4.1	20
Cadmium	0.0	45.7	50	91.4	7.9	20
Calcium	648000	711000(a	25000	16.0 (b)	0.7	20
Chromium	0.0	205	200	102.5	11.3	20
Cobalt	0.0	527 (a)	500	105.4	0.2	20
Copper	4.4	298 (a)	250	119.2	0.7	20
Iron	0.0	23800	26000	91.5	7.3	20
Lead	6.7	525 (a)	500	103.2	1.1	20
Magnesium	1200000	1230000a	25000	-80.0(b)	2.4	20
Manganese	0.0	528	500	105.6	10.2	20
Molybdenum						
Nickel	0.0	533 (a)	500	106.6	0.4	20
Potassium	9320	35800	25000	105.9	3.4	20
Selenium	27.1	2670	2000	132.1N(c	9.6	20
Silver	0.0	63.6	50	127.2N(c	3.4	20
Sodium	5840000	5830000	25000	40.0 (b)	2.4	20
Strontium						
Thallium	0.0	1950 (a)	2000	97.5	0.0	20
Tin						
Titanium						
Vanadium	40.0	575	500	107.0	7.8	20
Zinc	0.0	474	500	94.8	13.2	20

Associated samples MP18639: F74973-1, F74973-2, F74973-3, F74973-4, F74973-5, F74973-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Elevated reporting limit(s) due to matrix interference.
(b) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
(c) Spike recovery indicates possible matrix interference.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18639
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/12/10

Metal	BSP Result	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum	27000	27000	100.0	80-120
Antimony	518	500	103.6	80-120
Arsenic	1960	2000	98.0	80-120
Barium	2090	2000	104.5	80-120
Beryllium	52.9	50	105.8	80-120
Cadmium	52.0	50	104.0	80-120
Calcium	25000	25000	100.0	80-120
Chromium	218	200	109.0	80-120
Cobalt	499	500	99.8	80-120
Copper	257	250	102.8	80-120
Iron	26300	26000	101.2	80-120
Lead	503	500	100.6	80-120
Magnesium	24500	25000	98.0	80-120
Manganese	552	500	110.4	80-120
Molybdenum				
Nickel	507	500	101.4	80-120
Potassium	25400	25000	101.6	80-120
Selenium	2030	2000	101.5	80-120
Silver	48.6	50	97.2	80-120
Sodium	24500	25000	98.0	80-120
Strontium				
Thallium	2070	2000	103.5	80-120
Tin				
Titanium				
Vanadium	538	500	107.6	80-120
Zinc	524	500	104.8	80-120

Associated samples MP18639: F74973-1, F74973-2, F74973-3, F74973-4, F74973-5, F74973-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18639
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/12/10

Metal	F74973-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum	0.00	0.00	NC	0-10
Antimony	0.00	11.3		0-10
Arsenic	14.0	0.00	100.0(a)	0-10
Barium	11.6	0.00	100.0(a)	0-10
Beryllium	0.00	0.00	NC	0-10
Cadmium	0.00	0.00	NC	0-10
Calcium	648000	721000	2.0	0-10
Chromium	0.00	0.00	NC	0-10
Cobalt	0.00	0.00	NC	0-10
Copper	4.40	0.00		0-10
Iron	0.00	0.00	NC	0-10
Lead	6.70	0.00	100.0(a)	0-10
Magnesium	1200000	1190000	5.1	0-10
Manganese	0.00	0.00	NC	0-10
Molybdenum				
Nickel	0.00	0.00	NC	0-10
Potassium	9320	5230	43.9 (a)	0-10
Selenium	27.1	14.1	48.0 (a)	0-10
Silver	0.00	0.00	NC	0-10
Sodium	5840000	6190000	6.3	0-10
Strontium				
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Vanadium	40.0	37.1	7.3	0-10
Zinc	0.00	0.00	NC	0-10

Associated samples MP18639: F74973-1, F74973-2, F74973-3, F74973-4, F74973-5, F74973-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18639
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/12/10

Metal	Sample ml	Final ml	F74973-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Molybdenum										
Nickel										
Potassium										
Selenium	9.8	10	27.1	26.558	296.1	0.2	10	200	134.8(a)	-
Silver	9.8	10	0	0	57.5	0.2	2.5	50	115.0	-
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP18639: F74973-1, F74973-2, F74973-3, F74973-4, F74973-5, F74973-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested
(a) Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18653
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:					07/14/10		07/14/10
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Aluminum	200	20	25	-0.90	<200	4.3	<200
Antimony	12	2	2	-1.5	<12	-3.5	<12
Arsenic	10	2	2	-0.20	<10	0.40	<10
Barium	200	5	5	-0.30	<200	-0.20	<200
Beryllium	4.0	1	1	-0.30	<4.0	-0.20	<4.0
Cadmium	5.0	1	1	-0.20	<5.0	-0.30	<5.0
Calcium	1000	100	100	2.6	<1000	45.7	<1000
Chromium	10	1	1	-0.30	<10	-0.10	<10
Cobalt	50	1	1	-0.10	<50	0.0	<50
Copper	25	2	2	-0.20	<25	-1.0	<25
Iron	300	30	35	-23	<300	-33	<300
Lead	5.0	1	1	0.40	<5.0	0.70	<5.0
Magnesium	5000	100	100	5.2	<5000	44.2	<5000
Manganese	15	1	1	-0.20	<15	-0.10	<15
Molybdenum	50	1	2				
Nickel	40	1	2	-0.20	<40	0.10	<40
Potassium	10000	500	500	32.2	<10000	-5.7	<10000
Selenium	10	2	2	-0.90	<10	0.90	<10
Silver	10	1	1	-0.20	<10	-0.10	<10
Sodium	10000	750	750	-680	<10000	181	<10000
Strontium	10	1	1				
Thallium	10	1.5	1.5	-1.1	<10	-1.4	<10
Tin	50	1	1				
Titanium	10	2	2				
Vanadium	50	1	1	-0.40	<50	-0.10	<50
Zinc	20	5	5	0.30	<20	8.6	<20

Associated samples MP18653: F74973-1F, F74973-2F, F74973-3F, F74973-4F, F74973-5F, F74973-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18653
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/14/10 07/14/10

Metal	F74973-1F Original	DUP	RPD	QC Limits	F74973-1F Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum	0.00	0.0 (a)	NC	0-20	0.00	28300(a)	27000	104.8	80-120
Antimony	0.0	0.0 (a)	NC	0-20	0.0	543 (a)	500	108.6	80-120
Arsenic	0.0	8.6 (a)	200.0(b)	0-20	0.0	2180 (a)	2000	109.0	80-120
Barium	0.00	20.2 (a)	2.9	0-20	0.00	2110 (a)	2000	104.5	80-120
Beryllium	0.0	0.0 (a)	NC	0-20	0.0	51.6 (a)	50	103.2	80-120
Cadmium	0.0	0.0 (a)	NC	0-20	0.0	48.5 (a)	50	97.0	80-120
Calcium	698000	706000(a	0.6	0-20	698000	730000(a	25000	80.0	80-120
Chromium	0.0	0.0 (a)	NC	0-20	0.0	219 (a)	200	109.5	80-120
Cobalt	0.0	0.0 (a)	NC	0-20	0.0	523 (a)	500	104.6	80-120
Copper	0.00	0.0 (a)	NC	0-20	0.00	278 (a)	250	111.2	80-120
Iron	0.0	0.0 (a)	NC	0-20	0.0	26100(a)	26000	100.4	80-120
Lead	119	8.3 (a)	200.0(b)	0-20	119	513 (a)	500	102.6	80-120
Magnesium	1080000	1270000a	0.8	0-20	1080000	1290000a	25000	40.0 (c)	80-120
Manganese	0.0	0.0 (a)	NC	0-20	0.0	560 (a)	500	112.0	80-120
Molybdenum									
Nickel	0.0	0.0 (a)	NC	0-20	0.0	526 (a)	500	105.2	80-120
Potassium	0.00	7230 (a)	7.0	0-20	0.00	34900(a)	25000	112.6	80-120
Selenium	0.0	21.4 (a)	8.9	0-20	0.0	2320 (a)	2000	114.8	80-120
Silver	0.0	0.0 (a)	NC	0-20	0.0	58.1 (a)	50	116.2	80-120
Sodium	5500000	5560000	1.1	0-20	5500000	5700000	25000	800.0(c)	80-120
Strontium									
Thallium	0.0	0.0 (a)	NC	0-20	0.0	1910 (a)	2000	95.5	80-120
Tin									
Titanium									
Vanadium	0.0	38.5 (a)	4.1	0-20	0.0	600 (a)	500	112.0	80-120
Zinc	0.00	0.0 (a)	NC	0-20	0.00	512 (a)	500	102.4	80-120

Associated samples MP18653: F74973-1F, F74973-2F, F74973-3F, F74973-4F, F74973-5F, F74973-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Elevated reporting limit(s) due to matrix interference.
(b) RPD acceptable due to low duplicate and sample concentrations.
(c) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18653
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/14/10

Metal	F74973-1F Original	MSD	Spikelot MPFLICP1	% Rec	MSD RPD	QC Limit
Aluminum	0.00	27100(a)	27000	100.4	4.3	20
Antimony	0.0	510 (a)	500	102.0	6.3	20
Arsenic	0.0	2080 (a)	2000	104.0	4.7	20
Barium	0.00	2020 (a)	2000	100.0	4.4	20
Beryllium	0.0	49.3 (a)	50	98.6	4.6	20
Cadmium	0.0	46.3 (a)	50	92.6	4.6	20
Calcium	698000	669000(a	25000	-164.0(b	8.7	20
Chromium	0.0	213 (a)	200	106.5	2.8	20
Cobalt	0.0	500 (a)	500	100.0	4.5	20
Copper	0.00	269 (a)	250	107.6	3.3	20
Iron	0.0	24800(a)	26000	95.4	5.1	20
Lead	119	494 (a)	500	98.8	3.8	20
Magnesium	1080000	1180000a	25000	-400.0(b	8.9	20
Manganese	0.0	543 (a)	500	108.6	3.1	20
Molybdenum						
Nickel	0.0	501 (a)	500	100.2	4.9	20
Potassium	0.00	33000(a)	25000	105.0	5.6	20
Selenium	0.0	2210 (a)	2000	109.3	4.9	20
Silver	0.0	55.9 (a)	50	111.8	3.9	20
Sodium	5500000	5550000	25000	200.0(b)	2.7	20
Strontium						
Thallium	0.0	1830 (a)	2000	91.5	4.3	20
Tin						
Titanium						
Vanadium	0.0	579 (a)	500	107.8	3.6	20
Zinc	0.00	492 (a)	500	98.4	4.0	20

Associated samples MP18653: F74973-1F, F74973-2F, F74973-3F, F74973-4F, F74973-5F, F74973-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Elevated reporting limit(s) due to matrix interference.
(b) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18653
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/14/10

Metal	BSP Result	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum	26200	27000	97.0	80-120
Antimony	512	500	102.4	80-120
Arsenic	1930	2000	96.5	80-120
Barium	2140	2000	107.0	80-120
Beryllium	51.7	50	103.4	80-120
Cadmium	51.3	50	102.6	80-120
Calcium	24400	25000	97.6	80-120
Chromium	220	200	110.0	80-120
Cobalt	494	500	98.8	80-120
Copper	264	250	105.6	80-120
Iron	24900	26000	95.8	80-120
Lead	505	500	101.0	80-120
Magnesium	23200	25000	92.8	80-120
Manganese	557	500	111.4	80-120
Molybdenum				
Nickel	505	500	101.0	80-120
Potassium	25900	25000	103.6	80-120
Selenium	2010	2000	100.5	80-120
Silver	49.8	50	99.6	80-120
Sodium	24900	25000	99.6	80-120
Strontium				
Thallium	2080	2000	104.0	80-120
Tin				
Titanium				
Vanadium	547	500	109.4	80-120
Zinc	520	500	104.0	80-120

Associated samples MP18653: F74973-1F, F74973-2F, F74973-3F, F74973-4F, F74973-5F, F74973-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

QC Batch ID: MP18653
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/14/10

Metal	F74973-1F Original	SDL 4:20	%DIF	QC Limits
Aluminum	0.00	0.00	NC	0-10
Antimony	0.00	0.00	NC	0-10
Arsenic	0.00	0.00	NC	0-10
Barium	0.00	0.00	NC (a)	0-10
Beryllium	0.00	0.00	NC	0-10
Cadmium	0.00	0.00	NC	0-10
Calcium	698000	701000	1.3	0-10
Chromium	0.00	0.00	NC	0-10
Cobalt	0.00	0.00	NC	0-10
Copper	0.00	0.00	NC	0-10
Iron	0.00	0.00	NC	0-10
Lead	119	0.00		0-10
Magnesium	1080000	1170000	9.0	0-10
Manganese	0.00	0.00	NC	0-10
Molybdenum				
Nickel	0.00	0.00	NC	0-10
Potassium	0.00	0.00	NC (a)	0-10
Selenium	0.00	0.00	NC (a)	0-10
Silver	0.00	0.00	NC	0-10
Sodium	5500000	5860000	6.5	0-10
Strontium				
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Vanadium	0.00	34.5	14.0 (a)	0-10
Zinc	0.00	0.00	NC	0-10

Associated samples MP18653: F74973-1F, F74973-2F, F74973-3F, F74973-4F, F74973-5F, F74973-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Solids, Total Dissolved	GN40377	100	0.0	mg/l				

Associated Samples:
Batch GN40377: F74973-1, F74973-2, F74973-3, F74973-4, F74973-5, F74973-6
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F74973
Account: TETTNOAK - Tetra Tech, Inc
Project: Holloman AFB; Alamogordo, NM

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Solids, Total Dissolved	GN40377	F74973-1	mg/l	27100	27000	0.4	0-5%

Associated Samples:
Batch GN40377: F74973-1, F74973-2, F74973-3, F74973-4, F74973-5, F74973-6
(*) Outside of QC limits

TETRA TECH, INC.

Holloman AFB SD27

STANDARD LEVEL IV
REPORT OF ANALYSIS

WORK ORDER #10-11053-OR

January 4, 2011

EBERLINE SERVICES/OAK RIDGE LABORATORY
OAK RIDGE, TN

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Eberline Services – Oak Ridge Laboratory

LABORATORY DATA SUPPORT CHECKLIST

MP-001-3

Eberline Services Work Order # 10 11053

The checklist items listed below are to be initialed by appropriate staff upon completion/verification.

Date for Partial	Initials	Date	Initials	Checklist Items
		11/16/10	CD	Sample Log-In
		12-14-10	KW	Data Compilation
		12-16-10	MLT	First Technical Data Review
		12/23/10	NW	Second Technical Data Review
		12/28/10		Data Entry/Electronic Deliverable
		12/28/10		Case Narrative
		12/29/10	KBS	Electronic Deliverable Proof
		12/29/10		Samples Analyzed within Holding Time Yes? [✓] No? [ ]
		12/29/10		QA/QC Review
				Client in Possession of Data Electronic or Hard Copy
				Invoiced by Laboratory

Technical/Clerical Corrections, Signatures Needed, Problems, Etc	Date/Initials

Date package approved by: 12/29/10

Laboratory Manager Date

SECTION I

CHAIN OF CUSTODY
& pH CHECK

10 11053

Tetra Tech, Inc.
800 Oak Ridge Turnpike, Ste A-500
Oak Ridge, TN 37830
865/283-9900

CHAIN-OF-CUSTODY

Laboratory Name: **Eberline Services** Address: **601 Scarboro Rd. Oak Ridge, TN 37830** Contact: **Kathy Shaulis 865/481-0683**

Project Name Holloman AFB, SD27 Project Location HAFB, NM

Project No. Holloman AFB SD27 | Project Contact **Maureen McMyler** | Site Telephone No. 865-621-8754

Report to: Maureen McMyler 800 Oak Ridge Turnpike 865/535-2030

Bill to: Sheila Hall, 800 Oak Ridge Turnpike 865/283-9900

Project Manager/Supervisor **Mike Higgins**

Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	Lead (210 Pb) by E905.0 Modified, Radium (226 Ra) by E903.0 Radium (228 Ra) by E904.0 Istopic Thorium (C228Th, 230Th, 232 Th) by E907.0 Isotopic Uranium by E907.0	Gross Alpha/Beta by EPA 900.0	Notes
1	SD27-DPT-13A	11/5/2010	1310		X	SO	SD27-DPT-09 Depth:7.5	1	x		
2	SD27-DPT-13B	11/5/2010	1320		X	SO	SD27-DPT-09 Depth:12.5	1	x		
3	SD27-DPT-13C	11/5/2010	1340		X	SO	SD27-DPT-09 Depth:17.5	1	x		
4	SD27-TTMW-04 -04	11/10/2010	1040		X	GW	SD27-TTMW-04	1		x	
5	SD27-TTMW-03 -05	11/10/2010	1120		X	GW	SD27-TTMW-03	1		x	
6	SD27-TTMW-02 -06	11/10/2010	1200		X	GW	SD27-TTMW-02	1		x	
7	SD27-TTMW-02FD -07	11/10/2010	1200		X	GW	SD27-TTMW-02FD	1		x	Field Duplicate
8	SD27-TTMW-05 -08	11/11/2010	850		X	GW	SD27-TTMW-05	1		x	
9	SD27-TTMW-01 -09	11/11/2010	1005		X	GW	SD27-TTMW-01	2		x	
10	SD27-TTMW-MS-01 -10	11/11/2010	1005		X	GW	SD27-TTMW-MS-01 *	1		x	Matrix Spike
11	SD27-TTMW-MSD-01 -11	11/11/2010	1005		X		SD27-TTMW-MSD-01	1		x	Matrix Spike Duplicate

RECEIVED
NOV 16 2010
BY: CD

Transfers Relinquished By (Signature)	Date/Time	Accepted By (Signature)	Date/Time
[signature]	11/12/10 0725	[signature]	11/12/10
		Laboratory	

Special Instructions: * Do Not Analyze, This is Additional Vol for QC. K Shaulis / V. Bogle 11/16/10

FedEx Airbill No.:

Sampler's Signature [signature]

TAT: ____ Standard ____ Rush Due: _____ ? ____ Y ____ N Received Good Condition ____ Y ____ N ____ Cold

5000

EBERLINE SERVICES Oak Ridge Laboratory	Internal Chain of Custody	Work Order #	10-11053
		Lab Deadline	12/6/2010
		Analysis	GaGbT_ThSr - Level 4
		Sample Matrix	Water

Comments	Sample Fraction	HP 210 / 270 Detector Activity	Storage Location
	04	29	R1.5
	05	34	R1.5
	06	41	R1.5
	07	47	R1.5
	08	33	R1.5
	09	29	R1.5

	Location (circle one)					Initials	Date
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room	MW	6 DEC 10
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room	MW	13 DEC 10 1016
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room	AG	12/13/10 1035
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room	AG	12/13/10 1540
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room		

EBERLINE SERVICES

Sample Receiving Report
(Volumes, pH, & CPM)

Internal Work Order
10-11053
Received By
CDAVIS

FR	ClientID	# Btls	Comments	Matrix	Storage	Rec Vol Ttl	CPM Max
01	LCS	0		WA	R1.5		
02	BLANK	0		WA	R1.5		
03	DUP	0		WA	R1.5		
04	SD27-TTMW-04	1		WA	R1.5	1.00	29
			Container Number	pH Orig	pH Final	Volume (L)	CPM
			1	7	<2	1.0000	29
05	SD27-TTMW-03	1		WA	R1.5	1.00	34
			Container Number	pH Orig	pH Final	Volume (L)	CPM
			1	7	<2	1.0000	34
06	SD27-TTMW-02	1		WA	R1.5	1.00	41
			Container Number	pH Orig	pH Final	Volume (L)	CPM
			1	7	<2	1.0000	41
07	SD27-TTMW-02FD	1		WA	R1.5	1.00	47
			Container Number	pH Orig	pH Final	Volume (L)	CPM
			1	7	<2	1.0000	47
08	SD27-TTMW-05	1		WA	R1.5	1.00	33
			Container Number	pH Orig	pH Final	Volume (L)	CPM
			1	7	<2	1.0000	33
09	SD27-TTMW-01	2		WA	R1.5	1.00	29
			Container Number	pH Orig	pH Final	Volume (L)	CPM
			1	7	<2	0.5000	29
			2	7	<2	0.5000	29

IWT 11/16/10

Lot# 502033
Preserved by: Clay Davis to pH <2
11/16/10

Received by: Clay Davis Date: 11/16/10

MP-001, Rev 5
Effective: 11/22/02

SECTION II

SAMPLE ACKNOWLEDGEMENT

Client Name	Contract/PO	Project Type	Date Received	Required Turnaround Days	Eberline Services Work Order
Tetra Tech Divisions	1066787	Environmental	11/16/2010	28	10-11053
Project Name	**Client WO**	**Sample Disp**	**Lab Deadline**	**Internal Deadline**	**Client Deadline**
HOLLOMAN	Holloman AFB SD27	W	12/06/2010	12/13/2010	12/14/2010

Internal ID	Client ID	Sample Date	Matrix	Storage	GaGbT	Ttl
01	LCS	11/16/10	WA	R1.5	X	1
02	BLANK	11/16/10	WA	R1.5	X	1
03	DUP	11/16/10	WA	R1.5	X	1
04	SD27-TTMW-04	11/10/10 10:40	WA	R1.5	X	1
05	SD27-TTMW-03	11/10/10 11:20	WA	R1.5	X	1
06	SD27-TTMW-02	11/10/10 12:00	WA	R1.5	X	1
07	SD27-TTMW-02FD	11/10/10 12:00	WA	R1.5	X	1
08	SD27-TTMW-05	11/11/10 08:50	WA	R1.5	X	1
09	SD27-TTMW-01	11/11/10 10:05	WA	R1.5	X	1
						0
						0
						0
						0
						0
						0
						0
						0
						0
						0
	Totals Per Analysis (non QA samples)				6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	

EBERLINE SERVICES

Sample Log In Report

Oak Ridge Laboratory
601 Scarboro Rd.
Oak Ridge, TN 37830

Voice: (865) 481-0683
Fax: (865) 483-4621

Invoice		Report Data	
	Sheila Hall		Valerie Bogle
	Tetra Tech Divisions		Tetra Tech, Inc.
	800 OR Turnpike #A-600		800 Oak Ridge TP #A-500
	Oak Ridge, TN 37830		Oak Ridge, TN 37830
Voice	865-220-4732	*Voice*	865-535-2030
Fax	865-482-6052	*Fax*	865-482-6052
Contact	Valerie Bogle		
Voice	865-535-2030		
Fax	865-482-6052		

Printed: 11/16/2010 2:17 PM

0005

Eberline Services – Oak Ridge Laboratory

SAMPLE RECEIPT CHECKLIST
MP-001-2

WORK ORDER # 10 11053

SAMPLE MATRIX/MATRICES: (CIRCLE ONE OR BOTH)

AQUEOUS NON-AQUEOUS

(CIRCLE EITHER YES, NO, OR N/A)

WERE SAMPLES:

Received in good condition?	Y	N	
If aqueous, properly preserved	Y	N	N/A

WERE CHAIN OF CUSTODY SEALS:

Present on outside of package?	Y	N
Unbroken on outside of package?	Y	N
Present on samples?	Y	N
Unbroken on samples?	Y	N
Was chain of custody present upon sample receipt?	Y	N

IF THE RESPONSE TO ANY OF THE ABOVE IS **NO**, A DISCREPANT SAMPLE RECEIPT REPORT (DSR) HAS BEEN ISSUED.

REMARKS: (9) Tot Containers, (2) 500ml HDPE N/M NAT. filled w/non-pres H_2O, (7) 1L HDPE W/M NAT filled w/non-pres H_2O.

SIGNATURE: Clay Oaur DATE: 11/16/10

SECTION III

CASE NARRATIVE

EBERLINE SERVICES

EBERLINE ANALYTICAL CORPORATION
601 SCARBORO ROAD
OAK RIDGE, TENNESSEE 37830
PHONE (865) 481-0683
FAX (865) 483-4621

EBS-OR-31474

January 4, 2011

Maureen McMyler
Tetra Tech, Inc.
800 Oak Ridge Turnpike, Suite A-500
Oak Ridge, TN 37830

Contract Number: 1066787
Site Name: Holloman AFB SD27
Project Manager: Mike Higgins

CASE NARRATIVE
Work Order # 10-11053-OR

SAMPLE RECEIPT

This work order contains six water samples received 11/16/2010. These samples were analyzed for Gross Alpha/Beta.

CLIENT ID	LAB ID	CLIENT ID	LAB ID
SD27-TTMW-04	10-11053-04	SD27-TTMW-02FD	10-11053-07
SD27-TTMW-03	10-11053-05	SD27-TTMW-05	10-11053-08
SD27-TTMW-02	10-11053-06	SD27-TTMW-01	10-11053-09

ANALYTICAL METHODS

Gross Alpha/Beta was performed using EPA Method 900.0 Modified.

Laboratory qualifiers are as follows:

J - Indicates a situation where the result minus the error is less than the detection limit but greater than zero.

U - Indicates a situation where the result minus the error is less than or equal to zero.

ANALYTICAL RESULTS

GROSS ALPHA & BETA

Samples were prepared by evaporation of a representative volumetric aliquot acidified with HNO_3. Reduced sample was then transferred to a steel planchet for final evaporation to dryness and flaming. Samples were then counted on a gas proportional counter. Results were corrected as required for inherent self-absorption based on residual mass present.

ANALYTICAL RESULTS CONTINUED

GROSS ALPHA & BETA CONTINUED

Samples demonstrated acceptable results for Gross Alpha and Beta activity. Due to a high total solids content within theses samples, method detection limits are slightly high. In this case as a result of the high total solids content, these samples are not amenable to this procedure. Results for the Gross Alpha and Beta method blank demonstrated acceptable activity. Results for the Gross Alpha duplicate demonstrated an acceptable relative percent difference and normalized difference. Results for the Gross Beta duplicate demonstrated a high relative percent difference; however, normalized difference is within acceptable limits for the analytical technique. Results for the Gross Alpha and Beta laboratory control sample demonstrated an acceptable percent recovery.

CERTIFICATION OF ACCURACY

I certify that this data report is in compliance with the terms and conditions of the Purchase Order, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the cognizant project manager or his/her designee to be accurate as verified by the following signature.

M.R. McDougall
Laboratory Manager

Date: 1/4/2011

SECTION IV

ANALYTICAL RESULTS SUMMARY

Maureen McMyler
Tetra Tech, Inc.
800 Oak Ridge Turnpike, Suite A-500
Oak Ridge, TN 37830

Project: Holloman AFB SD27
SDG: 1011053
Date Received: 11/16/2010

Client Sample ID	Lab Sample ID	Sample Type	Data Analyzed	Analyte	Method	Result	Error	MDA	Qualifier	Units
LCS	10-11053-01	LCS	12/13/2010	Gross Alpha	EPA 900.0 Modified	318.812	4.021	0.252		pCi/l
LCS	10-11053-01	LCS	12/13/2010	Gross Beta	EPA 900.0 Modified	255.736	3.047	0.611		pCi/l
BLANK	10-11053-02	MBL	12/13/2010	Gross Alpha	EPA 900.0 Modified	0.013	0.078	0.192	U	pCi/l
BLANK	10-11053-02	MBL	12/13/2010	Gross Beta	EPA 900.0 Modified	0.117	0.269	0.564	U	pCi/l
SD27-TTMW-04	10-11053-03	DUP	12/13/2010	Gross Alpha	EPA 900.0 Modified	55.577	89.827	188.500	U	pCi/l
SD27-TTMW-04	10-11053-03	DUP	12/13/2010	Gross Beta	EPA 900.0 Modified	83.807	88.821	180.568	U	pCi/l
SD27-TTMW-04	10-11053-04	DO	12/13/2010	Gross Alpha	EPA 900.0 Modified	54.732	64.365	121.054	U	pCi/l
SD27-TTMW-04	10-11053-04	DO	12/13/2010	Gross Beta	EPA 900.0 Modified	-21.548	92.793	200.132	U	pCi/l
SD27-TTMW-03	10-11053-05	TRG	12/13/2010	Gross Alpha	EPA 900.0 Modified	-10.175	77.236	194.514	U	pCi/l
SD27-TTMW-03	10-11053-05	TRG	12/13/2010	Gross Beta	EPA 900.0 Modified	50.100	89.335	185.452	U	pCi/l
SD27-TTMW-02	10-11053-06	TRG	12/13/2010	Gross Alpha	EPA 900.0 Modified	0.000	37.512	93.694	U	pCi/l
SD27-TTMW-02	10-11053-06	TRG	12/13/2010	Gross Beta	EPA 900.0 Modified	35.148	49.113	101.140	U	pCi/l
SD27-TTMW-02FD	10-11053-07	TRG	12/13/2010	Gross Alpha	EPA 900.0 Modified	17.718	30.627	65.315	U	pCi/l
SD27-TTMW-02FD	10-11053-07	TRG	12/13/2010	Gross Beta	EPA 900.0 Modified	24.581	51.102	106.706	U	pCi/l
SD27-TTMW-05	10-11053-08	TRG	12/13/2010	Gross Alpha	EPA 900.0 Modified	24.592	48.200	104.260	U	pCi/l
SD27-TTMW-05	10-11053-08	TRG	12/13/2010	Gross Beta	EPA 900.0 Modified	119.203	55.157	103.375	J	pCi/l
SD27-TTMW-01	10-11053-09	TRG	12/13/2010	Gross Alpha	EPA 900.0 Modified	129.464	73.738	95.448	J	pCi/l
SD27-TTMW-01	10-11053-09	TRG	12/13/2010	Gross Beta	EPA 900.0 Modified	117.552	68.926	133.846	J	pCi/l

SECTION V

ANALYTICAL STANDARD

ANALYTICS

QA/QC REVIEWED
Date 4/30/96 Initials MT

Am-4

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 · U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

52094-416

Am-241 10 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master liquid radionuclide solution source. The master source was calibrated by liquid scintillation counting.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Am-241
ACTIVITY (dps):	1.975 E+05
HALF-LIFE:	432.2 years
CALIBRATION DATE:	March 19, 1996 12:00 EST
TOTAL ERROR:	3.0%
SYSTEMATIC ERROR:	2.37%
RANDOM ERROR:	0.63%

10.01177 grams of solution 1M HCl.

P O NUMBER OR3830, Item 1

SOURCE PREPARED BY: Kara O'Brie Beverly
K. O. Beverly, Radiochemist

Q A APPROVED: D.M. [illegible] 4-26-96

EBERLINE SERVICES

QUALITY CONTROL PROGRAM
MP-009

Rev.8; 1/10/03
Title: **Radioactive Reference Standards Solutions & Records**

EBERLINE SERVICES - OAK RIDGE LABORATORY
RADIOACTIVE REFERENCE STANDARD SOLUTIONS
SECONDARY DILUTION (RE-CERTIFICATION)

Date 10/14/2010 0:00
Solution Reference # Analytics 52094-416 **Solution #** A/B-7 (alpha)

Principal Radionuclide	Half Life, Years	Half Life, Days
^{241}Americium	4.322E+02	1.579E+05

Radionuclide of Interest ^{241}Am
Parent Solution Conc. 1.19E+04 dpm/ml
Reference Date 3/19/1996 0:00

Chemical Composition of Standard Solution
$^{241}AmCl_3$ in 1M HCL

Dilution Instructions:
Dilution Solvent Used 1 M HNO_3

SECONDARY VOLUMETRIC DILUTION

Vol. Parent Solution: 60.0000 ml
Total Activity: 7.1100E+05 dpm
Final Volume: 1000.00 ml

Final Activity Concentration: 7.1100E+02 dpm/ml

NOTES:

This activity concentration is based on the original reference date listed above. All activities are corrected to the date and time of analysis by the laboratory data processing software.

Expiration Date: October 14, 2011

Recertified By: _____ Date: 10/14/10
Verified & Approved By: _____ Date: 10/26/10
QC Approval: _____ Date: 10/26/10

National Institute of Standards & Technology

Certificate

Standard Reference Material 4234A
Strontium-90 Radioactivity Standard

This Standard Reference Material (SRM) consists of radioactive strontium-90 chloride, non-radioactive strontium chloride, non-radioactive yttrium chloride, and hydrochloric acid dissolved in 5 mL of distilled water. The solution is contained in a flame-sealed NIST borosilicate-glass ampoule. The SRM is intended for the calibration of beta-particle counting instruments and for the monitoring of radiochemical procedures.

Radiological Hazard

The SRM ampoule contains strontium-90 with a total activity of approximately 13 MBq. Strontium-90 decays by beta-particle emission to yttrium-90, which also decays by beta-particle emission. None of the beta particles escape from the SRM ampoule. The beta particles emitted from strontium-90 and yttrium-90 produce bremsstrahlung photons with energies up to 2 MeV. Most of these photons escape from the SRM ampoule and can represent a radiation hazard. Approximate unshielded dose rates at several distances (as of the reference time) are given in note [a]*. Appropriate shielding and/or distance should be used to minimize personnel exposure. The SRM should be used only by persons qualified to handle radioactive material.

Chemical Hazard

The SRM ampoule contains hydrochloric acid (HCl) with a concentration of 1 mole per liter of water. The solution is corrosive and represents a health hazard if it comes in contact with eyes or skin. If the ampoule is to be opened to transfer the solution, the recommended procedure is given on page 2. The ampoule should be opened only by persons qualified to handle both radioactive material and strong acid solution.

Storage and Handling

The SRM should be stored and used at a temperature between 5 and 65 °C. The solution in an unopened ampoule should remain stable and homogeneous until at least March 2005.

The ampoule (or any subsequent container) should always be clearly marked as containing radioactive material. If the ampoule is transported it should be packed, marked, labeled, and shipped in accordance with the applicable national, international, and carrier regulations. The solution in the ampoule is a dangerous good (hazardous material) both because of the radioactivity and because of the strong acid.

Preparation

This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, J.M.R. Hutchinson, Group Leader. The overall technical direction and physical measurements leading to certification were provided by L.L. Lucas of the Radioactivity Group and D.B. Golas, Nuclear Energy Institute Research Associate.

The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program by N.M. Trahey.

Gaithersburg, Maryland 20899
May 1995 (Text only revised November 1997)

Thomas E. Gills, Chief
Standard Reference Materials Program

*Notes and references are on pages 5 and 6.

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EBERLINE SERVICES

QUALITY CONTROL PROGRAM

QCP-009

Rev.7; 9/29/99
Title: **Radioactive Reference Standards Solutions & Records**

EBERLINE SERVICES - OAK RIDGE LABORATORY
RADIOACTIVE REFERENCE STANDARD SOLUTIONS

SECONDARY DILUTION (RE-CERTIFICATION)

QCP-009-1-A

Solution Reference # NIST 4234A

Date 10/14/2010 0:00

Solution # A/B-7 (beta)

Principal Radionuclide	Half Life, Years	Half Life, Days
^{90}Strontium	2.878E+01	1.051E+04

Radionuclide of Interest ^{90}Sr

Parent Solution Conc. 1.52E+06 dpm/ml

Reference Date 3/13/1995 0:00

The beta activity of solution reflects the original ^{90}Strontium concentration and an equal concentration of ^{90}Yttrium.

Chemical Composition of Standard Solution

$^{90}SrCl_2$ in 1 M HCl

Dilution Instructions:

Dilution Solvent Used 1 M HNO_3

SECONDARY VOLUMETRIC DILUTION

Vol. Parent Solution: 0.5000 ml
Total Activity: 7.5764E+05 dpm
Final Volume: 1000.00 ml

Final Activity Concentration: 7.5764E+02 dpm/ml

NOTES:

This activity concentration is based on the original reference date listed above. All activities are corrected to the date and time of analysis by the laboratory data processing software.

Expiration Date: October 14, 2011

Recertified By: _____ Date: 10/14/10

Verified & Approved By _____ Date: 10/26/10

QC Approval _____ Date: 10/26/10

SECTION VI

QUALITY CONTROL SAMPLE RESULTS SUMMARY

Eberline Services
Analysis Control Chart

WO	Analysis	Run	Activity Units	Aliquot Units	Client Name
10-11053	GaGbT_ThSr	1	pCi	I	Tetra Tech Divisions

Laboratory Control Sample

Analyte	Normalized Difference	LCS Measured	CSU Measured	LCS Expected	Uncert. Expected	Known	Known Error	Result	CSU	Standard ID	Standard ACT (dpm)	Standard Error	Standard Added (g)
GROSS ALPHA_TH	0.31	101.80%	10.99%	100.00%	4.30%	3.13E+02	1.35E+01	3.19E+02	3.50E+01	A/B-07	6.94E+02	4.30E+00	1.00E+00
GROSS BETA_SR	1.23	109.64%	13.87%	100.00%	3.00%	2.33E+02	7.00E+00	2.56E+02	3.55E+01	A/B-07	5.17E+02	3.00E+00	1.00E+00

Matrix Spike

Analyte	Normalized Difference	MS Actual % Rec	Expected MS Result	Expected MS Uncert	Actual MS Result	Actual MS CSU	Sample Result	Sample CSU	Sample Aliquot	Standard ID	Standard ACT (dpm)	Standard Error %	Standard Added (g)

Replicate Sample

Analyte	Normalized Difference	RPD	Original Result	Original CSU	Replicate Result	Replicate CSU
GROSS ALPHA_TH	0.01	1.53	5.47E+01	6.46E+01	5.56E+01	9.00E+01
GROSS BETA_SR	1.60	338.44	-2.15E+01	9.28E+01	8.38E+01	8.96E+01

QC Summary

LCS Relative Bias	LCS % R	LCS ND	MS % R	MS ND	Rep RPD	Rep ND
1.02	OK	OK			NA	OK
1.10	OK	OK			NA	OK

Version

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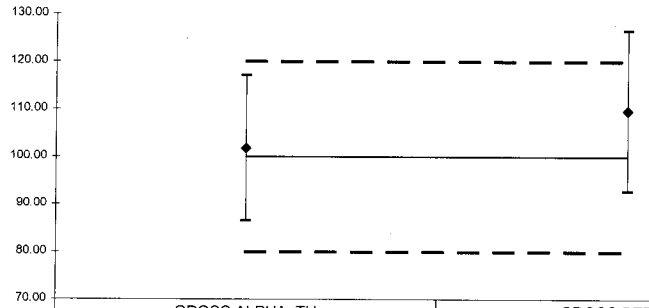
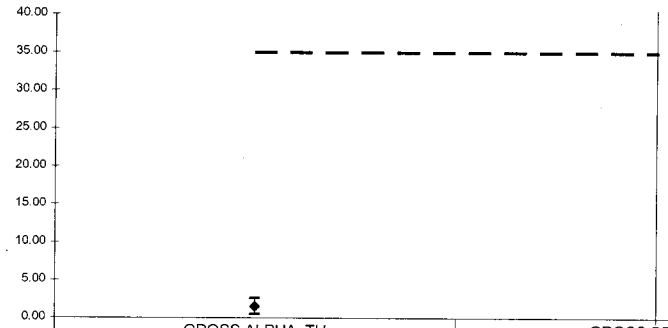
WO	Analysis	Run	Activity Units	Aliquot Units	Client Name
10-11053	GaGbT_ThSr	1	pCi	I	Tetra Tech Divisions

LCS % Recovery



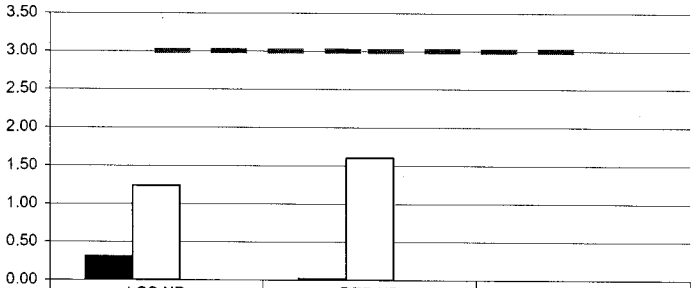
	GROSS ALPHA_TH	GROSS BETA_SR
Lower Error	86.51	92.77
Upper Error	117.09	126.51
%R	101.80	109.64
LCL	80	80
Mean	100	100
UCL	120	120

Replicate Sample RPD



	GROSS ALPHA_TH	GROSS BETA_SR
Lower Error	2.61	834.25
Upper Error	0.46	-157.36
RPD	1.53	338.44
CL	35	35

Normalized Difference



	LCS ND	REP ND	MS ND
GROSS ALPHA_TH	0.31	0.01	0.00
GROSS BETA_SR	1.23	1.60	0.00
	0.00	0.00	0.00
UCL	3	3	3

No Matrix Spike

Version

0023

SECTION VII

LABORATORY TECHNICIAN'S NOTES

EBERLINE SERVICES

Work Order Analysis Notes

Oak Ridge Laboratory
601 Scarboro Rd.
Oak Ridge, TN 37830
Voice: 865.481.0683
www.eberlineservices.com

Internal Work Order	10-11053
Analysis Code	GaGbT_ThSr
Run Number	1

#	Date	Dept	User	Notes
1	12/06/10 14:24	PREP	MHIGHTOWER	Ran TDS/TSS to determine aliquot. Aliquoted samples, reduced volume on hot plate, transferred to tared planchets, dried, flamed, re-weighed, and submitted to count room

MLF 6 DEC 10

EBERLINE SERVICES

Reagents Used in an Analysis

Internal Work Order	
10-11053	
Analysis Code	Run
GaGbT_ThSr	1

Reagent ID	Reagent Name	Reagent Concentration	Analyst ID	Date Recorded
010342D03	Nitric Acid	3N	MHIGHTOWER	12/6/2010

Date	Sample #	Client	Load Time	Ct Time	Analysis	Tech
12/7/10	1011077Ra1 (1)	Com	1014	30 min	Ra8	EH
12/7/10	1012005SR(1-4,6,8)	BJC	1233	2hrs	TOTSr	KB
12/7/10	1012015SR(2-4,6)	BJC	1236	2hrs	TOTSr	KB
12/7/10	1012015SR1(1)	BJC	1236	30mins	TOTSr	KB
12/7/10	1012005RA(2-4,6)	BJC	1717	2hrs	Ra8Ei	KB
12/7/10	1012005RA1(1)	BJC	1718	30mins	Ra8Ei	KB
12/7/10	1011045RA(2-4)	BJC	1719	2hrs	Ra8Ei	KB
12/7/10	1011045RA1(1)	BJC	1720	30mins	Ra8Ei	KB
12/8/10	Daily Bkgd/QC	Lab	0552/0515	1hr/30min	αβ	EH
12/8/10	1011085Np(14-18)	BJC	0831	10 min	Np	EH
12/8/10	1012022AB(1-4)	BJC	0835	1hr	αβ	EH
12/8/10	1011092RA(1-6)	Tetra Tech	1108	2hr	Ra8	EH
12/8/10	1012001SR(1-5,7)	BJC	1122	2hr	SR Tot	EH
12/9/10	1011052Pb(1-6)	TetraTech	1505	2hrs	Pb210	KB
12/9/10	Daily Bkgd/QC	Lab	0545/0510	1hr/30min	αβ	EH
12/9/10	1012018AB(1-4)	CERAC	0954	1hr	αβ	EH
12/9/10	Ra8Test (4-6)	Lab	1039	30 min	Ra8	EH
12/9/10	1011085SY(14-20)	BJC	1155	2hr	Sr90/Y	EH
12/9/10	RA-10 Recert (1-5)	Lab	1259	15 min	αβ	EH
12/9/10	1011096AB(1-5)	BJC	1607	30mins	αβ	KB
12/10/10	Daily Bkgd/QC	Lab	0552/0517	1hr/30min	αβ	EH
12/10/10	1011118AB(1-5)	BJC	0715	1hr	αβ	EH
12/10/10	1011073Ra(1-4)	State of NV	0924	2hr	Ra8	EH
12/10/10	1011061Ra(2-7)	MPA	0928	2hr	Ra8	EH
12/10/10	1012023RA(1-4)	BJC	1606	2hrs	Ra8Ei	KB
12/11/10	Weekly Bkgd	Lab	0743	12hrs	αβ	KB
12/13/10	QC/Daily Bkgd	LAB	0808/0843	30min/1hr	αβ	AG
12/13/10	1011052RB(1-6)	TETRA TECH	1113	2 HR	RA-228	AG
12/13/10	1011053AB(2-7)	TETRA TECH	1116	2 HR	αβ	AG
12/13/10	1011053AB1(1,8,9)	TETRA TECH	1323	2 HR	αβ	AG

SECTION VIII

ANALYTICAL DATA (GROSS ALPHA/BETA)

10-11053
GaGbT_ThSr
Run 1

Work Order	10-11053
Analysis Code	GaGbT_ThSr
Run	1
Date Received	11/16/2010
Lab Deadline	12/6/2010
Client	Tetra Tech Divisions
Project	HOLLOMAN
Report Level	4
Activity Units	pCi
Aliquot Units	l
Matrix	WA
Method	EPA 900.0 Modified
Instrument Type	Alpha/Beta GPC
Radiometric Tracer	
Radiometric Sol#	
Tracer Act (dpm/g)	
Carrier	
Carrier Conc (mg/ml)	

Internal Fraction	Sample Desc	Client ID	Login CPM	Sample Date	Sample Aliquot
01	LCS	LCS		11/16/10 00:00	1.0000E+00
02	MBL	BLANK		11/16/10 00:00	1.0000E+00
03	DUP	SD27-TTMW-04	29	11/10/10 10:40	4.0000E-03
04	DO	SD27-TTMW-04	29	11/10/10 10:40	4.0000E-03
05	TRG	SD27-TTMW-03	34	11/10/10 11:20	4.0000E-03
06	TRG	SD27-TTMW-02	41	11/10/10 12:00	6.0000E-03
07	TRG	SD27-TTMW-02FD	47	11/10/10 12:00	6.0000E-03
08	TRG	SD27-TTMW-05	33	11/11/10 08:50	6.0000E-03
09	TRG	SD27-TTMW-01	29	11/11/10 10:05	5.0000E-03

* SAF1 is used for Gross Alpha and all other radionuclides. SAF2 is used for Gross Beta only. ** Actual mass exceeded the calibration curve range. Results should be qualified as appropriate.

10-11053
GaGbT_ThSr
Run 1

Internal Fraction	Sample Desc	Tracer Aliquot (g)	Tracer Total ACT (dpm)	Radiometric Tracer (pCi)	Radiometric % Rec	Grav Carrier Added (ml)	Grav Filter Tare (g)	Grav Filter Final (g)	Grav Filter Net (g)	Grav % Rec	Mean % Rec	SAF 1*	SAF 2*
01	LCS				0.00		7.5783	7.5798	0.0015			1.00	1.00
02	MBL				0.00		7.5640	7.5641	0.0001			1.00	1.00
03	DUP				0.00		7.5481	7.6539	0.1058			1.00	1.00
04	DO				0.00		7.6004	7.7060	0.1056			1.00	1.00
05	TRG				0.00		7.5620	7.6584	0.0964			1.00	1.00
06	TRG				0.00		7.5342	7.6083	0.0741			1.00	1.00
07	TRG				0.00		7.5526	7.6344	0.0818			1.00	1.00
08	TRG				0.00		7.5948	7.6802	0.0854			1.00	1.00
09	TRG				0.00		7.5946	7.6999	0.1053			1.00	1.00

* SAF1 is used for Gross Alpha and all other radionuclides. SAF2 is used for Gross Beta only. ** Actual mass exceeded the calibration curve range. Results should be qualified as appropriate.

10-11053
GaGbT_ThSr
Run 1

Internal Fraction	Sample Desc	Rough Prep Date	Rough Prep By	Prep Date	Prep By	Sep t0 Date/Time	Sep t0 By	Sep t1 Date/Time	Sep t1 By
01	LCS			12/13/10 08:49	MHIGHTOWER				
02	MBL			12/13/10 08:49	MHIGHTOWER				
03	DUP			12/13/10 08:49	MHIGHTOWER				
04	DO			12/13/10 08:49	MHIGHTOWER				
05	TRG			12/13/10 08:49	MHIGHTOWER				
06	TRG			12/13/10 08:49	MHIGHTOWER				
07	TRG			12/13/10 08:49	MHIGHTOWER				
08	TRG			12/13/10 08:49	MHIGHTOWER				
09	TRG			12/13/10 08:49	MHIGHTOWER				

* SAF1 is used for Gross Alpha and all other radionuclides. SAF2 is used for Gross Beta only. ** Actual mass exceeded the calibration curve range. Results should be qualified as appropriate.

Eberline Services
Oak Ridge Laboratory

Preliminary Data Report & Analytical Calculations

Work Order: 10-11053-GaGbT-1

Client	Eberline Services Work Order	Analysis Code	Run
Tetra Tech Divisions	10-11053	GaGbT	1

Lab Fraction	Nuclide	Sample Desc	Client Identification	Activity Units	Results	Error Estimate	MDA	LCS Known	LCS %R	LCS Flag	RPD Flag	MDA Flag	Blank Flag
01	GROSS ALPHA	LCS	LCS	pCi/l	3.19E+02	4.02E+00	2.52E-01	3.13E+02	101.80	OK		OK	
02	GROSS ALPHA	MBL	BLANK	pCi/l	1.33E-02	7.82E-02	1.92E-01					OK	OK
03	GROSS ALPHA	DUP	SD27-TTMW-04	pCi/l	5.56E+01	8.98E+01	1.88E+02				NA	INV	
04	GROSS ALPHA	DO	SD27-TTMW-04	pCi/l	5.47E+01	6.44E+01	1.21E+02					INV	
05	GROSS ALPHA	TRG	SD27-TTMW-03	pCi/l	-1.02E+01	7.72E+01	1.95E+02					INV	
06	GROSS ALPHA	TRG	SD27-TTMW-02	pCi/l	0.00E+00	3.75E+01	9.37E+01					INV	
07	GROSS ALPHA	TRG	SD27-TTMW-02FD	pCi/l	1.77E+01	3.06E+01	6.53E+01					INV	
08	GROSS ALPHA	TRG	SD27-TTMW-05	pCi/l	2.46E+01	4.82E+01	1.04E+02					INV	
09	GROSS ALPHA	TRG	SD27-TTMW-01	pCi/l	1.29E+02	7.37E+01	9.54E+01					INV	

0032

Preliminary Data Report & Analytical Calculations
Work Order: 10-11053-GaGbT-1

Client: Tetra Tech Divisions
Eberline Services Work Order: 10-11053
Analysis Code: GaGbT
Run: 1

Lab Fraction	Nuclide	Sample Desc	Sample Date	Sample Aliquot	Radiometric % Rec	Grav % Rec	Mean % Rec	SAF	Sep t0 Date/Time	Sep t1 Date/Time
01	GROSS ALPHA	LCS	11/16/10 00:00	1.00E+00	0.00	0.00	0.00	1.00		
02	GROSS ALPHA	MBL	11/16/10 00:00	1.00E+00	0.00	0.00	0.00	1.00		
03	GROSS ALPHA	DUP	11/10/10 10:40	4.00E-03	0.00	0.00	0.00	3.32		
04	GROSS ALPHA	DO	11/10/10 10:40	4.00E-03	0.00	0.00	0.00	3.32		
05	GROSS ALPHA	TRG	11/10/10 11:20	4.00E-03	0.00	0.00	0.00	3.08		
06	GROSS ALPHA	TRG	11/10/10 12:00	6.00E-03	0.00	0.00	0.00	2.52		
07	GROSS ALPHA	TRG	11/10/10 12:00	6.00E-03	0.00	0.00	0.00	2.72		
08	GROSS ALPHA	TRG	11/11/10 08:50	6.00E-03	0.00	0.00	0.00	2.81		
09	GROSS ALPHA	TRG	11/11/10 10:05	5.00E-03	0.00	0.00	0.00	3.31		

Preliminary Data Report & Analytical Calculations
Work Order: 10-11053-GaGbT-1

Client	Eberline Services Work Order	Analysis Code	Run
Tetra Tech Divisions	10-11053	GaGbT	1

Lab Fraction	Nuclide	Sample Desc	Counting Date/Time	Halflife (days)	Detect	Carrier	Count Time	Counts	Bkg CPM	Eff
01	GROSS ALPHA	LCS	12/13/10 13:11		LB4110A	C1	120	24171	0.066666667	0.2845
02	GROSS ALPHA	MBL	12/13/10 11:04		LB4110A	B1	120	5	0.033333333	0.2821
03	GROSS ALPHA	DUP	12/13/10 11:04		LB4110A	B3	120	11	0.05	0.2804
04	GROSS ALPHA	DO	12/13/10 11:04		LB4110A	B4	120	7	0.016666667	0.2843
05	GROSS ALPHA	TRG	12/13/10 11:04		LB4110A	C1	120	7	0.066666667	0.2845
06	GROSS ALPHA	TRG	12/13/10 11:04		LB4110A	C2	120	6	0.05	0.2857
07	GROSS ALPHA	TRG	12/13/10 11:04		LB4110A	C3	120	5	0.016666667	0.2878
08	GROSS ALPHA	TRG	12/13/10 13:11		LB4110A	C2	120	10	0.05	0.2857
09	GROSS ALPHA	TRG	12/13/10 13:11		LB4110A	C3	120	17	0.016666667	0.2878

Eberline Services
Oak Ridge Laboratory

Preliminary Data Report & Analytical Calculations

Work Order: 10-11053-GaGbT-1

Client	Eberline Services Work Order	Analysis Code	Run
Tetra Tech Divisions	10-11053	GaGbT	1

Lab Fraction	Nuclide	Sample Desc	Client Identification	Activity Units	Results	Error Estimate	MDA	LCS Known	LCS %R	LCS Flag	RPD Flag	MDA Flag	Blank Flag
01	GROSS BETA	LCS	LCS	pCi/l	2.56E+02	3.05E+00	6.11E-01	2.33E+02	109.64	OK		OK	
02	GROSS BETA	MBL	BLANK	pCi/l	1.17E-01	2.69E-01	5.64E-01					OK	OK
03	GROSS BETA	DUP	SD27-TTMW-04	pCi/l	8.38E+01	8.88E+01	1.81E+02				NA	INV	
04	GROSS BETA	DO	SD27-TTMW-04	pCi/l	-2.15E+01	9.28E+01	2.00E+02					INV	
05	GROSS BETA	TRG	SD27-TTMW-03	pCi/l	5.01E+01	8.93E+01	1.85E+02					INV	
06	GROSS BETA	TRG	SD27-TTMW-02	pCi/l	3.51E+01	4.91E+01	1.01E+02					INV	
07	GROSS BETA	TRG	SD27-TTMW-02FD	pCi/l	2.46E+01	5.11E+01	1.07E+02					INV	
08	GROSS BETA	TRG	SD27-TTMW-05	pCi/l	1.19E+02	5.52E+01	1.03E+02					INV	
09	GROSS BETA	TRG	SD27-TTMW-01	pCi/l	1.18E+02	6.89E+01	1.34E+02					INV	

0035

Preliminary Data Report & Analytical Calculations
Work Order: 10-11053-GaGbT-1

Run: 1
Analysis Code: GaGbT
Eberline Services Work Order: 10-11053
Client: Tetra Tech Divisions

Lab Fraction	Nuclide	Sample Desc	Sample Date	Sample Aliquot	Radiometric % Rec	Grav % Rec	Mean % Rec	SAF	Sep t0 Date/Time	Sep t1 Date/Time
01	GROSS BETA	LCS	11/16/10 00:00	1.00E+00	0.00	0.00	0.00	1.00		
02	GROSS BETA	MBL	11/16/10 00:00	1.00E+00	0.00	0.00	0.00	1.00		
03	GROSS BETA	DUP	11/10/10 10:40	4.00E-03	0.00	0.00	0.00	1.24		
04	GROSS BETA	DO	11/10/10 10:40	4.00E-03	0.00	0.00	0.00	1.23		
05	GROSS BETA	TRG	11/10/10 11:20	4.00E-03	0.00	0.00	0.00	1.21		
06	GROSS BETA	TRG	11/10/10 12:00	6.00E-03	0.00	0.00	0.00	1.16		
07	GROSS BETA	TRG	11/10/10 12:00	6.00E-03	0.00	0.00	0.00	1.18		
08	GROSS BETA	TRG	11/11/10 08:50	6.00E-03	0.00	0.00	0.00	1.19		
09	GROSS BETA	TRG	11/11/10 10:05	5.00E-03	0.00	0.00	0.00	1.23		

Preliminary Data Report & Analytical Calculations
Work Order: 10-11053-GaGbT-1

Client: Tetra Tech Divisions
Eberline Services Work Order: 10-11053
Analysis Code: GaGbT
Run: 1

Lab Fraction	Nuclide	Sample Desc	Counting Date/Time	Halflife (days)	Detect	Carrier	Count Time	Counts	Bkg CPM	Eff	A to B, Cor
01	GROSS BETA	LCS	12/13/10 13:11		LB4110A	C1	120	38932	1.433333333	0.4775	272.5261108
02	GROSS BETA	MBL	12/13/10 11:04		LB4110A	B1	120	163	1.233333333	0.4817	1.358333333
03	GROSS BETA	DUP	12/13/10 11:04		LB4110A	B3	120	186	1.266666667	0.4703	1.55
04	GROSS BETA	DO	12/13/10 11:04		LB4110A	B4	120	191	1.666666667	0.484	1.591666667
05	GROSS BETA	TRG	12/13/10 11:04		LB4110A	C1	120	193	1.433333333	0.4775	1.608333333
06	GROSS BETA	TRG	12/13/10 11:04		LB4110A	C2	120	134	0.933333333	0.4555	1.116666667
07	GROSS BETA	TRG	12/13/10 11:04		LB4110A	C3	120	152	1.133333333	0.4808	1.266666667
08	GROSS BETA	TRG	12/13/10 13:11		LB4110A	C2	120	185	0.933333333	0.4555	1.541666667
09	GROSS BETA	TRG	12/13/10 13:11		LB4110A	C3	120	197	1.133333333	0.4808	1.641666667

Count Room Report
Client: Tetra Tech Divisions

10-11053-GaGbT_ThSr-1 (pCi/l) in WA
Tracer ID:

Internal Fraction	Sample Desc	Client ID	Sample Date	Sample Aliquot	Tracer Aliquot (g)	Tracer ACT (dpm)	Radiometric Tracer (pCi)	Radiometric % Rec	SAF 1*	SAF 2*
01	LCS	LCS	11/16/10 00:00	1.0000				0.00	1.00	1.00
02	MBL	BLANK	11/16/10 00:00	1.0000				0.00	1.00	1.00
03	DUP	SD27-TTMW-04	11/10/10 10:40	0.0040				0.00	1.00	1.00
04	DO	SD27-TTMW-04	11/10/10 10:40	0.0040				0.00	1.00	1.00
05	TRG	SD27-TTMW-03	11/10/10 11:20	0.0040				0.00	1.00	1.00
06	TRG	SD27-TTMW-02	11/10/10 12:00	0.0060				0.00	1.00	1.00
07	TRG	SD27-TTMW-02FD	11/10/10 12:00	0.0060				0.00	1.00	1.00
08	TRG	SD27-TTMW-05	11/11/10 08:50	0.0060				0.00	1.00	1.00
09	TRG	SD27-TTMW-01	11/11/10 10:05	0.0050				0.00	1.00	1.00

Eberline Services
Oak Ridge Laboratory

Spike and Tracer Worksheet

Printed: 12/13/2010 8:49 AM

Internal Work Order	Run	Analysis Code	Date	Technician	Technician Initials	Witness Initials
10-11053	1	GaGbT_ThSr	12/13/2010 8:47	MHIGHTOWER	MH	

LCS & Matrix Spikes					LCS	MS	LCSD	MSD	LCS		MS		LCSD		MSD	
Isotope	*Sol #*	*Activity dpm/g*	*Solution Date*	*Approx Addition*	*Volume Used (g)*	*Volume Used (g)*	*Volume Used (g)*	*Volume Used (g)*	*Known pCi*	*Error Estimate*	*Added pCi*	*Error Estimate*	*Known pCi*	*Error Estimate*	*Added pCi*	*Error Estimate*
Am-241	A/B-07	694.409	12/13/2010	**0.680**	**1.0012**				313.17	13.466	0.00	0.000	0.00	0.000	0.00	0.000
SrY-90	A/B-07	517.185	12/13/2010	**1.060**	**1.0012**				233.25	6.997	0.00	0.000	0.00	0.000	0.00	0.000

Tracers						
fraction	*Isotope*	*Sol #*	*Activity dpm/g*	*Solution Date*	*Volume Used (g)*	*Approx Addition*

Balance Printer Tapes	
Tracer	LCS
	Matrix Spike

0039

Eberline Analytical
Oak Ridge Laboratory

Aliquot Worksheet

Work Order	Run	Analysis Code	Rpt Units	Lab Deadline	Technician
10-11053	1	GaGbT_ThSr	liters	12/6/2010	MHIGHTOWER

Lab Fraction	Tetra Tech Divisions Client ID	Sample Type	Muffle Data Ratio Post/Pre	Dilution Data No of Dils	Dil Factor	Ratio	Aliquot Data Aliquot	Net Equiv	MS Aliquot Data Aliquot	Net Equiv	H-3 Solids Only Water Added (ml)	H3 Dist Aliq
01	LCS	LCS					1.0000E+00	1.0000E+00				
02	BLANK	MBL					1.0000E+00	1.0000E+00				
03	SD27-TTMW-04	DUP					4.0000E-03	4.0000E-03				
04	SD27-TTMW-04	DO					4.0000E-03	4.0000E-03				
05	SD27-TTMW-03	TRG					4.0000E-03	4.0000E-03				
06	SD27-TTMW-02	TRG					6.0000E-03	6.0000E-03				
07	SD27-TTMW-02FD	TRG					6.0000E-03	6.0000E-03				
08	SD27-TTMW-05	TRG					6.0000E-03	6.0000E-03				
09	SD27-TTMW-01	TRG					5.0000E-03	5.0000E-03				

Comments	

Technician: MH Date: 12 / 6 / 10

0040

Eberline Services - Oak Ridge
Version 1.0 9/1999

Gravimetric Worksheet

Printed: 12/13/2010 10:15 AM

Work Order	Run	Analysis Code	Gravimetric Carrier	Carrier Conc (mg/ml)	Technician
10-11053	1	GaGbT_ThSr			MHIGHTOWER

TRetec Fraction	Tetra Tech Divisions Client ID	Sample Type	Carrier Data Carrier Added (ml)	Filter Data Filter Tare (g)	0.1079	Filter Net (g)	Gravimetric % Recovery
01	LCS	LCS		7.5783	7.5798	0.0015	
02	BLANK	MBL		7.5640	7.5641	0.0001	
03	DUP	DUP		7.5481	7.6539	0.1058	
04	SD27-TTMW-04	DO		7.6004	7.7060	0.1056	
05	SD27-TTMW-03	TRG		7.5620	7.6584	0.0964	
06	SD27-TTMW-02	TRG		7.5342	7.6083	0.0741	
07	SD27-TTMW-02FD	TRG		7.5526	7.6344	0.0818	
08	SD27-TTMW-05	TRG		7.5948	7.6802	0.0854	
09	SD27-TTMW-01	TRG		7.5946	7.6999	0.1053	

Technician: MH Date: 12 / 13 / 10

0041

TDS / TSS Worksheet

Work Order	Run	Analysis Code	Technician
10-11053	1	GaGbT_ThSr	MHIGHTOWER

TRetec	Tetra Tech Divisions		Filter Data			TDS/TSS	Maximum Aliq
Fraction	Client ID	Aliquot ml	Filter Tare (g)	Filter Final (g)	Filter Net (g)	(mg/L)	(mL)
04	SD27-TTMW-04	5.0000	7.5624	7.6878	0.1254	25080.0000	3.99
05	SD27-TTMW-03	5.0000	7.5738	7.6975	0.1237	24740.0000	4.04
06	SD27-TTMW-02	5.0000	7.5971	7.6695	0.0724	14480.0000	6.91
07	SD27-TTMW-02FD	5.0000	7.5641	7.6370	0.0729	14580.0000	6.86
08	SD27-TTMW-05	5.0000	7.5623	7.6419	0.0796	15920.0000	6.28
09	SD27-TTMW-01	5.0000	7.5904	7.6899	0.0995	19900.0000	5.03

Technician: MH Date: 12 / 6 / 10

0042

AG
12/13/10
(A)

Detector ID	Sample ID	Alpha	Beta	Count Time	Voltage	TOD
C1	1011053-01	24171	38932	120	1400	12/13/10 15:11
C2	1011053-08	10	185	120	1400	12/13/10 15:11
C3	1011053-09	17	197	120	1400	12/13/10 15:11

AG
12/13/10
A

Detector ID	Sample ID	Alpha	Beta	Count Time	Voltage	TOD
C1	1011053-05	7	193	120	1400	12/13/10 13:04
C2	1011053-06	6	134	120	1400	12/13/10 13:04
B1	1011053-02	5	163	120	1400	12/13/10 13:04
C3	1011053-07	5	152	120	1400	12/13/10 13:04
B3	1011053-03	11	186	120	1400	12/13/10 13:04
B4	1011053-04	7	191	120	1400	12/13/10 13:04

0044

GPC Detector Report
(ALL Backgrounds)

AG
12/13/10

Detector	Alpha/Beta	Calibration Date	Count Date	Bkg CPM	PFW	LCL	Mean	UCL
LB4110A - A1	Alpha	11/18/2007	12/13/2010	5.00E-02	P	-6.24E-02	7.04E-02	2.03E-01
LB4110A - A2	Alpha	11/18/2007	12/13/2010	6.67E-02	P	-5.63E-02	9.93E-02	2.55E-01
LB4110A - A3	Alpha	11/18/2007	12/13/2010	3.33E-02	P	-5.24E-02	5.31E-02	1.59E-01
LB4110A - A4	Alpha	11/18/2007	12/13/2010	5.00E-02	P	-6.61E-02	6.38E-02	1.94E-01
LB4110A - B1	Alpha	11/18/2007	12/13/2010	3.33E-02	P	-1.24E-01	8.20E-02	2.89E-01
LB4110A - B2	Alpha	11/18/2007	12/13/2010	0.00E+00	P	-6.66E-02	7.59E-02	2.18E-01
LB4110A - B3	Alpha	11/18/2007	12/13/2010	5.00E-02	P	-6.09E-02	4.74E-02	1.56E-01
LB4110A - B4	Alpha	11/18/2007	12/13/2010	1.67E-02	P	-5.28E-02	5.71E-02	1.67E-01
LB4110A - C1	Alpha	11/18/2007	12/13/2010	6.67E-02	P	-6.13E-02	8.21E-02	2.25E-01
LB4110A - C2	Alpha	11/18/2007	12/13/2010	5.00E-02	P	-1.94E-01	1.13E-01	4.20E-01
LB4110A - C3	Alpha	11/18/2007	12/13/2010	1.67E-02	P	-2.31E-01	1.15E-01	4.61E-01
LB4110A - C4	Alpha	11/18/2007	12/13/2010	3.33E-02	P	-7.16E-02	7.77E-02	2.27E-01
LB4110A - D1	Alpha	11/18/2007	12/13/2010	1.67E-02	P	-5.56E-02	8.69E-02	2.29E-01
LB4110A - D2	Alpha	11/18/2007	12/13/2010	3.33E-02	P	-7.11E-02	6.71E-02	2.05E-01
LB4110A - D3	Alpha	11/18/2007	12/13/2010	0.00E+00	P	-4.97E-02	6.72E-02	1.84E-01
LB4110A - D4	Alpha	11/18/2007	12/13/2010	0.00E+00	P	-5.74E-02	7.68E-02	2.11E-01
LB4110R - A1	Alpha	11/24/2006	12/13/2010	1.67E-02	P	-1.05E-01	8.17E-02	2.69E-01
LB4110R - A2	Alpha	11/24/2006	12/13/2010	6.67E-02	P	-9.62E-02	9.28E-02	2.82E-01
LB4110R - A3	Alpha	11/24/2006	12/13/2010	8.33E-02	P	-8.62E-02	7.64E-02	2.39E-01
LB4110R - A4	Alpha	11/24/2006	12/13/2010	3.33E-02	P	-5.13E-02	8.19E-02	2.15E-01
LB4110R - B1	Alpha	11/24/2006	12/13/2010	1.00E-01	P	-1.13E-01	6.80E-02	2.49E-01
LB4110R - B2	Alpha	11/24/2006	12/13/2010	1.67E-02	P	-7.72E-02	7.37E-02	2.25E-01
LB4110R - B3	Alpha	11/24/2006	12/13/2010	0.00E+00	P	-7.21E-02	7.06E-02	2.13E-01
LB4110R - B4	Alpha	11/24/2006	12/13/2010	0.00E+00	P	-6.59E-02	8.13E-02	2.28E-01
LB4110R - C1	Alpha	11/24/2006	12/13/2010	0.00E+00	P	-8.44E-02	8.61E-02	2.57E-01
LB4110R - C2	Alpha	11/24/2006	12/13/2010	0.00E+00	P	-8.13E-02	8.35E-02	2.48E-01
LB4110R - C3	Alpha	11/24/2006	12/13/2010	8.33E-02	P	-1.00E-01	9.22E-02	2.85E-01
LB4110R - C4	Alpha	11/24/2006	12/13/2010	3.33E-02	P	-6.97E-02	9.15E-02	2.53E-01
LB4110R - D1	Alpha	11/24/2006	12/13/2010	3.33E-02	P	-8.66E-02	8.63E-02	2.59E-01
LB4110R - D2	Alpha	11/24/2006	12/13/2010	1.67E-02	P	-5.92E-02	8.80E-02	2.35E-01
LB4110R - D3	Alpha	11/24/2006	12/13/2010	1.00E-01	P	-5.75E-02	7.68E-02	2.11E-01
LB4110R - D4	Alpha	11/24/2006	12/13/2010	8.33E-02	P	-5.67E-02	9.29E-02	2.43E-01
LB5100 - 1	Alpha	7/10/2006	10/26/2007	5.00E-02	P	-1.56E-02	9.58E-02	2.07E-01

Eberline Analytical
Oak Ridge Laboratory

GPC Detector Report
(ALL Backgrounds)

AG
12/13/10

Detector	Alpha/Beta	Calibration Date	Count Date	Bkg CPM	PFW	LCL	Mean	UCL
LB4110A - A1	Beta	11/18/2007	12/13/2010	1.25E+00	P	-7.09E+00	2.50E+00	1.21E+01
LB4110A - A2	Beta	11/18/2007	12/13/2010	1.22E+00	P	8.56E-04	1.53E+00	3.06E+00
LB4110A - A3	Beta	11/18/2007	12/13/2010	1.05E+00	P	4.37E-01	1.29E+00	2.13E+00
LB4110A - A4	Beta	11/18/2007	12/13/2010	1.50E+00	P	5.21E-01	1.68E+00	2.84E+00
LB4110A - B1	Beta	11/18/2007	12/13/2010	1.23E+00	P	-8.13E+00	3.52E+00	1.52E+01
LB4110A - B2	Beta	11/18/2007	12/13/2010	1.18E+00	P	1.20E-01	1.45E+00	2.78E+00
LB4110A - B3	Beta	11/18/2007	12/13/2010	1.27E+00	P	1.78E-01	1.46E+00	2.74E+00
LB4110A - B4	Beta	11/18/2007	12/13/2010	1.67E+00	P	2.87E-02	1.40E+00	2.77E+00
LB4110A - C1	Beta	11/18/2007	12/13/2010	1.43E+00	P	-7.07E+00	2.81E+00	1.27E+01
LB4110A - C2	Beta	11/18/2007	12/13/2010	9.33E-01	P	3.33E-01	1.38E+00	2.43E+00
LB4110A - C3	Beta	11/18/2007	12/13/2010	1.13E+00	P	5.09E-01	1.48E+00	2.45E+00
LB4110A - C4	Beta	11/18/2007	12/13/2010	3.78E+00	P	-1.11E+00	2.09E+00	5.30E+00
LB4110A - D1	Beta	11/18/2007	12/13/2010	1.77E+00	P	-3.55E+00	2.89E+00	9.33E+00
LB4110A - D2	Beta	11/18/2007	12/13/2010	1.42E+00	P	-1.15E+00	1.70E+00	4.56E+00
LB4110A - D3	Beta	11/18/2007	12/13/2010	5.25E+00	P	1.39E-01	4.25E+00	8.36E+00
LB4110A - D4	Beta	11/18/2007	12/13/2010	1.10E+00	P	-7.93E-01	1.51E+00	3.81E+00
LB4110R - A1	Beta	11/24/2006	12/13/2010	1.43E+00	P	-5.74E+01	2.61E+00	6.26E+01
LB4110R - A2	Beta	11/24/2006	12/13/2010	1.32E+00	P	-5.77E+01	2.33E+00	6.24E+01
LB4110R - A3	Beta	11/24/2006	12/13/2010	1.12E+00	P	-5.73E+01	3.76E+00	6.48E+01
LB4110R - A4	Beta	11/24/2006	12/13/2010	1.18E+00	P	-5.76E+01	2.47E+00	6.25E+01
LB4110R - B1	Beta	11/24/2006	12/13/2010	8.00E-01	P	-6.05E+01	2.54E+00	6.56E+01
LB4110R - B2	Beta	11/24/2006	12/13/2010	1.15E+00	P	-6.04E+01	2.61E+00	6.56E+01
LB4110R - B3	Beta	11/24/2006	12/13/2010	1.20E+00	P	-5.99E+01	3.55E+00	6.70E+01
LB4110R - B4	Beta	11/24/2006	12/13/2010	1.07E+00	P	-6.06E+01	2.40E+00	6.54E+01
LB4110R - C1	Beta	11/24/2006	12/13/2010	9.83E-01	P	-5.99E+01	4.15E+00	6.82E+01
LB4110R - C2	Beta	11/24/2006	12/13/2010	2.17E+00	P	-6.04E+01	3.34E+00	6.71E+01
LB4110R - C3	Beta	11/24/2006	12/13/2010	1.25E+00	P	-6.08E+01	3.28E+00	6.74E+01
LB4110R - C4	Beta	11/24/2006	12/13/2010	1.32E+00	P	-6.86E+01	3.84E+00	7.63E+01
LB4110R - D1	Beta	11/24/2006	12/13/2010	7.93E+00	P	-5.72E+01	6.73E+00	7.07E+01
LB4110R - D2	Beta	11/24/2006	12/13/2010	1.12E+00	P	-6.15E+01	2.47E+00	6.64E+01
LB4110R - D3	Beta	11/24/2006	12/13/2010	3.12E+00	P	-6.51E+01	7.03E+00	7.91E+01
LB4110R - D4	Beta	11/24/2006	12/13/2010	1.08E+00	P	-6.11E+01	2.85E+00	6.68E+01
LB5100 - 1	Beta	7/10/2006	10/26/2007	4.52E+00	F	-3.19E-01	1.58E+00	3.48E+00

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Eberline Analytical
Oak Ridge Laboratory

GPC Detector Report
(ALL Efficiencies)

AG
12/13/10

Detector	Alpha/Beta	Calibration Date	Count Date	Eff	PFW	LCL	Mean	UCL
LB4110A - A1	Alpha	11/18/2007	12/13/2010	0.2463	P	0.2360	0.2496	0.2632
LB4110A - A2	Alpha	11/18/2007	12/13/2010	0.2175	P	0.1963	0.2198	0.2434
LB4110A - A3	Alpha	11/18/2007	12/13/2010	0.2127	P	0.2043	0.2171	0.2300
LB4110A - A4	Alpha	11/18/2007	12/13/2010	0.2244	P	0.2144	0.2282	0.2420
LB4110A - B1	Alpha	11/18/2007	12/13/2010	0.2172	P	0.2127	0.2298	0.2470
LB4110A - B2	Alpha	11/18/2007	12/13/2010	0.2121	F	0.2121	0.2267	0.2413
LB4110A - B3	Alpha	11/18/2007	12/13/2010	0.2395	P	0.2263	0.2417	0.2571
LB4110A - B4	Alpha	11/18/2007	12/13/2010	0.2315	P	0.2258	0.2398	0.2538
LB4110A - C1	Alpha	11/18/2007	12/13/2010	0.2146	P	0.2104	0.2219	0.2334
LB4110A - C2	Alpha	11/18/2007	12/13/2010	0.2256	P	0.2029	0.2263	0.2497
LB4110A - C3	Alpha	11/18/2007	12/13/2010	0.2515	P	0.2363	0.2492	0.2621
LB4110A - C4	Alpha	11/18/2007	12/13/2010	0.2186	P	0.2100	0.2296	0.2493
LB4110A - D1	Alpha	11/18/2007	12/13/2010	0.2301	P	0.2227	0.2384	0.2542
LB4110A - D2	Alpha	11/18/2007	12/13/2010	0.2579	P	0.2472	0.2624	0.2776
LB4110A - D3	Alpha	11/18/2007	12/13/2010	0.2661	P	0.2500	0.2680	0.2860
LB4110A - D4	Alpha	11/18/2007	12/13/2010	0.1974	P	0.1856	0.2079	0.2302
LB4110R - A1	Alpha	11/24/2006	12/13/2010	0.2291	P	0.2036	0.2404	0.2772
LB4110R - A2	Alpha	11/24/2006	12/13/2010	0.2199	P	0.1933	0.2235	0.2537
LB4110R - A3	Alpha	11/24/2006	12/13/2010	0.2208	P	0.1991	0.2275	0.2559
LB4110R - A4	Alpha	11/24/2006	12/13/2010	0.2395	P	0.2156	0.2465	0.2774
LB4110R - B1	Alpha	11/24/2006	12/13/2010	0.2245	P	0.1893	0.2292	0.2691
LB4110R - B2	Alpha	11/24/2006	12/13/2010	0.2178	P	0.1823	0.2203	0.2583
LB4110R - B3	Alpha	11/24/2006	12/13/2010	0.2393	P	0.2058	0.2463	0.2869
LB4110R - B4	Alpha	11/24/2006	12/13/2010	0.2346	P	0.1964	0.2362	0.2760
LB4110R - C1	Alpha	11/24/2006	12/13/2010	0.2164	P	0.1851	0.2168	0.2485
LB4110R - C2	Alpha	11/24/2006	12/13/2010	0.2279	P	0.1964	0.2264	0.2564
LB4110R - C3	Alpha	11/24/2006	12/13/2010	0.2360	P	0.2058	0.2420	0.2782
LB4110R - C4	Alpha	11/24/2006	12/13/2010	0.2158	P	0.1966	0.2295	0.2624
LB4110R - D1	Alpha	11/24/2006	12/13/2010	0.2285	P	0.1958	0.2290	0.2623
LB4110R - D2	Alpha	11/24/2006	12/13/2010	0.2592	P	0.2268	0.2592	0.2916
LB4110R - D3	Alpha	11/24/2006	12/13/2010	0.2460	P	0.2235	0.2542	0.2849
LB4110R - D4	Alpha	11/24/2006	12/13/2010	0.1958	P	0.1780	0.2096	0.2412
LB5100 - 1	Alpha	7/10/2006	10/26/2007	0.3368	P	0.3332	0.3455	0.3578

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Eberline Analytical
Oak Ridge Laboratory

GPC Detector Report
(ALL Efficiencies)

AG
12/13/10

Detector	Alpha/Beta	Calibration Date	Count Date	Eff	PFW	LCL	Mean	UCL
LB4110A - A1	Beta	11/18/2007	12/13/2010	0.5813	P	0.5536	0.5875	0.6214
LB4110A - A2	Beta	11/18/2007	12/13/2010	0.5089	P	0.4663	0.5205	0.5748
LB4110A - A3	Beta	11/18/2007	12/13/2010	0.5118	P	0.4928	0.5252	0.5575
LB4110A - A4	Beta	11/18/2007	12/13/2010	0.5379	P	0.5175	0.5477	0.5779
LB4110A - B1	Beta	11/18/2007	12/13/2010	0.5160	P	0.5024	0.5386	0.5749
LB4110A - B2	Beta	11/18/2007	12/13/2010	0.4947	F	0.5037	0.5367	0.5696
LB4110A - B3	Beta	11/18/2007	12/13/2010	0.5566	P	0.5034	0.5512	0.5990
LB4110A - B4	Beta	11/18/2007	12/13/2010	0.5343	W	0.5288	0.5576	0.5863
LB4110A - C1	Beta	11/18/2007	12/13/2010	0.4886	P	0.4812	0.5046	0.5279
LB4110A - C2	Beta	11/18/2007	12/13/2010	0.5029	P	0.4359	0.5058	0.5757
LB4110A - C3	Beta	11/18/2007	12/13/2010	0.5871	P	0.5630	0.5870	0.6110
LB4110A - C4	Beta	11/18/2007	12/13/2010	0.5157	P	0.4877	0.5345	0.5813
LB4110A - D1	Beta	11/18/2007	12/13/2010	0.5512	P	0.5246	0.5681	0.6116
LB4110A - D2	Beta	11/18/2007	12/13/2010	0.5743	P	0.5381	0.6093	0.6806
LB4110A - D3	Beta	11/18/2007	12/13/2010	0.6128	P	0.5720	0.6242	0.6763
LB4110A - D4	Beta	11/18/2007	12/13/2010	0.4576	P	0.4390	0.4946	0.5502
LB4110R - A1	Beta	11/24/2006	12/13/2010	0.5460	P	0.4788	0.5729	0.6671
LB4110R - A2	Beta	11/24/2006	12/13/2010	0.4786	P	0.4105	0.5097	0.6089
LB4110R - A3	Beta	11/24/2006	12/13/2010	0.5410	P	0.4598	0.5471	0.6344
LB4110R - A4	Beta	11/24/2006	12/13/2010	0.5926	P	0.5004	0.5904	0.6804
LB4110R - B1	Beta	11/24/2006	12/13/2010	0.5346	P	0.4499	0.5494	0.6490
LB4110R - B2	Beta	11/24/2006	12/13/2010	0.5166	P	0.4277	0.5266	0.6254
LB4110R - B3	Beta	11/24/2006	12/13/2010	0.5831	P	0.4943	0.5938	0.6932
LB4110R - B4	Beta	11/24/2006	12/13/2010	0.5440	P	0.4640	0.5581	0.6522
LB4110R - C1	Beta	11/24/2006	12/13/2010	0.5033	P	0.4183	0.5060	0.5936
LB4110R - C2	Beta	11/24/2006	12/13/2010	0.5345	P	0.4430	0.5317	0.6203
LB4110R - C3	Beta	11/24/2006	12/13/2010	0.5713	P	0.4705	0.5738	0.6771
LB4110R - C4	Beta	11/24/2006	12/13/2010	0.5234	P	0.4453	0.5401	0.6348
LB4110R - D1	Beta	11/24/2006	12/13/2010	0.5491	P	0.4552	0.5456	0.6361
LB4110R - D2	Beta	11/24/2006	12/13/2010	0.6090	P	0.5132	0.6100	0.7069
LB4110R - D3	Beta	11/24/2006	12/13/2010	0.5938	P	0.4987	0.5907	0.6826
LB4110R - D4	Beta	11/24/2006	12/13/2010	0.4686	P	0.4057	0.4977	0.5897
LB5100 - 1	Beta	7/10/2006	10/26/2007	0.4428	F	0.4555	0.4731	0.4906

Eberline Analytical
Oak Ridge Laboratory

Aliquot Worksheet

Work Order	Run	Analysis Code	Rpt Units	Lab Deadline	Technician
10-11052	1	ThISO	grams	12/6/2010	DSILER

Lab Fraction	Tetra Tech Divisions Client ID	Sample Type	Muffle Data Ratio Post/Pre	Dilution Data No of Dils	Dil Factor	Ratio	Aliquot Data Aliquot	Net Equiv	MS Aliquot Data Aliquot	Net Equiv	H-3 Solids Only Water Added (ml)	H3 Dist Aliq
01	LCS	LCS					1.0000E+00	1.0000E+00				
02	BLANK	MBL					1.0000E+00	1.0000E+00				
03	SD27-DPT-13A	DUP					1.0059E+00	1.0059E+00				
04	SD27-DPT-13A	DO					1.0125E+00	1.0125E+00				
05	SD27-DPT-13B	TRG					1.0019E+00	1.0019E+00				
06	SD27-DPT-13C	TRG					1.0030E+00	1.0030E+00				

1.0059 g
1.0125 g
1.0019 g
1.0030 g

Comments	

Technician: [signature] Date: 11/17/10

Eberline Services - Oak Ridge
Prep Logbook
Version 2.0 8/1999

Rough Sample Preparation Log Book

Work Order	Lab Deadline	Date Received in Prep	Date Sealed	Date Returned	Technician
10-11052	12/6/2010	11/16/2010	11/17/2010	11/18/2010	KSALLINGS

Eberline	Tetra Tech Divisions	Tare (g)	Gross (g)		Net (g)		Percent		Gamma		Special
Fraction	Client ID	Pan Wt	Wet Wt.	Dry Wt.	Wet Wt.	Dry Wt.	Liquid	Solid	Dry Wt.	LEPS Wt.	Info
04	SD27-DPT-13A	14.5700	401.9600	312.6300	387.3900	298.0600	23.06%	76.94%			
05	SD27-DPT-13B	13.6400	407.4200	313.2400	393.7800	299.6000	23.92%	76.08%			
06	SD27-DPT-13C	13.6000	487.5000	389.0100	473.9000	375.4100	20.78%	79.22%			

Comments	
Special Codes	H: Hot, O: Organic Hazard, P: PCB Hazard, R: Rush, T: Other (see comments)

Technician: Kenny Sellers Date: Analysis: Rough Prep Logbook

Analysis: ThISO Page No. 7309

0152

Eberline Services
Oak Ridge Laboratory

ALPHA SPECTROMETRY REPORT
22-NOV-2010 05:37:04

****
Spectral File: ND_AMS_ARCHIVE_C:C_1011052A-TH$01_TH.CNF
****

BATCH ID:	1011052A-TH	SAMPLE ID:	01
SAMPLE DATE:	21-NOV-2010 00:00	ALIQUOT:	1.000E+00 gram
SAMPLE TITLE:	SPIKE	DETECTOR NUMBER:	038
ACQ DATE:	21-NOV-2010 14:08	AVERAGE EFFICIENCY:	16.63%
ELAPSED LIVE TIME:	10200.	RECOVERY:	113.52%
TRACER ID:	TH-18A	TRACER FWHM (kev):	0.00
LAMBDA VALUE:	464.	ROI TYPE:	STANDARD
TRACER DPM AT SAMPLE DATE:	10.431	CONFIDENCE FACTOR:	4.65
SAMPLE MATRIX:	SOIL	LLD CONSTANT:	2.65
ENERGY CAL DATE:	19-NOV-2010 11:22	EFF CAL DATE:	14-NOV-2010 09:45
BKG FILENAME:	B_038_19NOV10	BKG ELAPSED TIME:	60000.

****

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	NET AREA	BKG	%ABN	ACTIVITY pCi/ gram	TPU/ERROR 2-SIGMA	MDC pCi/ gram
TH-227	5850.0	10.30	1.70	97.5	1.483E-01	1.037E-01	1.254E-01
TH-228	5400.0	339.79	2.21	99.9	4.775E+00	9.239E-01	1.343E-01
TH229	4872.0	333.15	0.85	99.5	4.699E+00	6.765E-01	9.784E-02
TH-230	4672.0	406.49	0.51	99.8	5.716E+00	1.076E+00	8.395E-02
TH-232	3997.0	352.83	0.17	100.0	4.952E+00	9.515E-01	6.410E-02

****

*** Tracer FWHM < 10.0 Kev ***

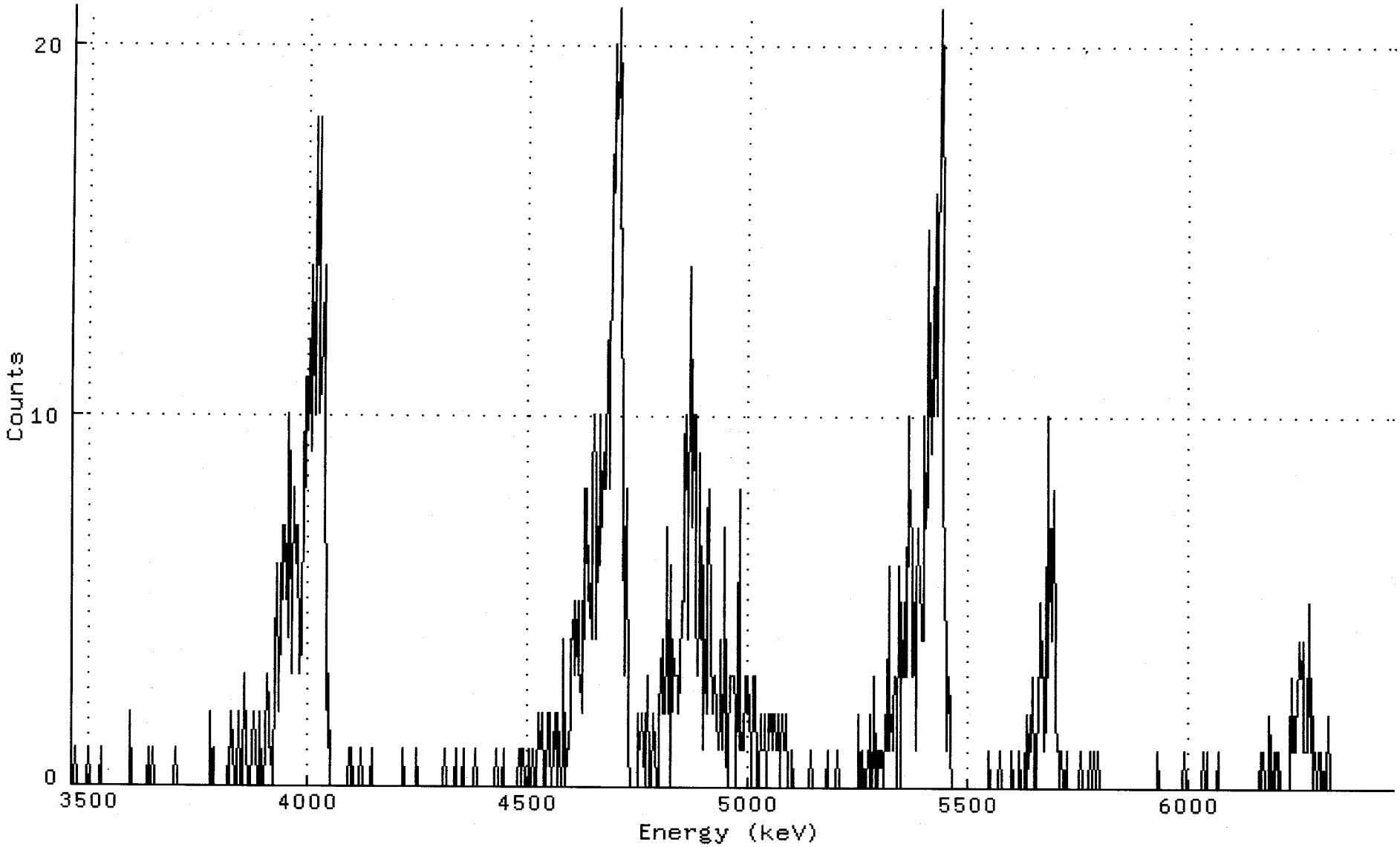
EH
Analyst

11/22/10
Date

Reviewer

11/22/10
Date

Spectrum : DKA100:[ALPHA.ALUSR.ARCHIVE.C]C_1011052A-TH$01_TH.CNF;1
Title : 038
Sample Title: SPIKE
Start Time: 21-NOV-2010 14:08 Sample Time: 21-NOV-2010 00:00 Energy Offset: 3.45300E+03
Real Time : 0 02:50:04.30 Sample ID : 01 Energy Slope : 3.10578E+00
Live Time : 0 02:50:00.00 Sample Type: TH Energy Quad : -1.65883E-04



0154

Channel Contents for ND_AMS_ARCHIVE_C:C_1011052A-TH$01_TH

Channel

1:	0	0	0	0	0	1	0	0	0	0	0	0	0	0
15:	1	1	0	0	0	0	0	0	0	0	1	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	2	0	0	0	0	0	0	0	0	0
57:	0	0	0	1	0	0	1	0	0	0	0	0	0	0
71:	0	0	0	0	0	0	0	0	0	1	0	0	0	0
85:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99:	0	0	0	0	0	0	0	2	0	1	0	0	0	0
113:	0	0	0	0	0	0	1	0	2	1	1	0	0	0
127:	2	0	0	0	3	1	1	0	0	1	1	2	1	1
141:	0	0	2	0	0	1	1	3	2	1	1	0	3	3
155:	6	2	2	5	7	5	7	6	4	10	8	3	5	8
169:	6	6	7	3	4	4	8	11	8	11	10	14	9	13
183:	10	18	14	18	10	11	12	14	10	3	1	3	0	0
197:	0	0	0	0	0	0	0	0	0	0	0	0	1	0
211:	1	0	0	0	0	0	0	1	0	0	0	0	0	0
225:	0	1	0	0	0	0	0	0	0	0	0	0	0	0
239:	0	0	0	0	0	0	0	0	0	0	0	1	0	0
253:	0	0	0	0	0	0	0	1	0	0	0	0	0	0
267:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
281:	1	0	0	0	0	0	0	0	1	0	0	0	0	0
295:	1	0	0	0	0	0	0	0	0	1	0	0	0	0
309:	0	0	0	0	0	0	0	0	0	0	0	1	0	0
323:	0	0	1	0	0	0	0	0	0	0	0	0	0	0
337:	1	0	1	1	0	0	0	0	1	0	1	1	0	0
351:	0	2	1	1	2	0	0	0	2	2	1	0	1	1
365:	2	0	2	1	0	1	4	0	1	1	1	2	4	4
379:	5	3	4	5	3	3	2	8	4	8	5	6	5	4
393:	8	10	8	4	7	6	10	7	9	8	8	12	12	8
407:	17	16	20	18	19	21	18	12	15	8	3	6	8	1
421:	0	0	0	0	0	0	0	2	1	2	2	1	0	1
435:	3	0	0	0	2	1	1	0	0	2	3	4	2	2
449:	4	7	2	6	0	4	3	3	3	3	2	3	5	5
463:	9	10	6	4	14	9	7	10	10	5	3	5	9	4
477:	6	1	4	2	7	8	4	4	2	3	2	2	1	2
491:	4	1	3	7	1	0	1	3	3	3	3	2	0	3
505:	8	1	1	2	1	3	2	3	2	1	0	3	3	0
519:	0	0	2	1	1	1	2	0	2	1	2	2	1	2
533:	1	1	2	0	1	2	1	1	2	0	0	0	0	1
547:	0	0	0	0	0	0	0	0	0	0	0	0	0	1
561:	0	0	0	0	0	0	0	0	0	0	0	0	1	0
575:	0	0	0	0	0	0	1	0	0	0	0	0	0	0
589:	0	0	0	0	0	0	0	0	0	2	0	0	1	0
603:	0	0	1	0	2	0	1	3	0	1	0	1	1	1
617:	0	2	2	1	6	1	2	1	2	3	2	0	6	0
631:	5	3	5	3	3	10	6	8	6	3	5	1	5	7
645:	5	6	4	4	10	7	8	15	10	11	9	11	16	12
659:	10	21	16	20	14	9	5	4	1	3	2	1	0	0
673:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
687:	0	0	0	0	0	0	0	0	0	0	0	0	0	1
701:	0	0	0	0	0	0	0	1	1	0	0	0	0	0
715:	0	0	0	1	0	0	0	0	0	1	0	0	0	0
729:	2	0	1	2	1	2	3	0	1	0	3	3	5	3
743:	3	1	2	10	3	7	4	6	8	3	2	1	1	0
757:	1	0	0	0	1	0	0	0	0	0	0	0	0	0
771:	0	1	0	0	0	0	0	0	0	1	0	0	1	0
785:	0	1	0	0	0	0	0	0	0	0	0	0	0	0
799:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
813:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
827:	0	0	0	0	0	0	0	1	0	0	0	0	0	0
841:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
855:	1	0	0	0	0	0	0	0	0	0	0	0	0	0
869:	0	1	0	0	1	0	0	0	0	0	0	0	0	1
883:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
897:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
911:	0	0	0	0	0	1	0	1	0	0	0	0	2	1
925:	0	0	1	0	1	0	1	0	0	0	0	0	0	0
939:	0	2	1	3	1	1	2	2	4	4	3	4	1	1
953:	1	3	2	5	1	2	0	1	0	0	1	0	1	0
967:	0	0	1	0	2	0	0	0	0	0	0	0	0	0
981:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
995:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1009:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1023:	0	0												

Eberline Services
Oak Ridge Laboratory

Gross Sample Counts Within Peak Regions Generated: 22-NOV-2010 05:36:59.51

Detector ID: 38 Acquisition Start: 21-NOV-2010 14:08:59.01
Live Time: 0 02:50:00.00 Real Time: 0 02:50:04.30
Batch Id: 1011052A-TH Sample Id: 01
Sample Type: TH

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	3987.44	353	0	84.74	173.69	112	100	3.46E-02	5.3	
2	0	4665.41	407	0	37.31	398.87	318	102	3.99E-02	5.0	
3	0	4896.31	334	0	0.00	476.86	419	128	3.27E-02	5.5	
4	0	5394.90	342	0	38.18	647.66	563	105	3.35E-02	5.4	
5	0	5826.72	12	0	0.00	798.33	754	124	1.18E-03	28.9	

Background Counts Within Peak Regions Generated: 22-NOV-2010 05:37:01.88

Acquisition Start: 19-NOV-2010 17:33:59.01
Live Time: 0 16:40:00.00 Real Time: 0 16:40:00.20

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	3950.25	1	0	3.11	161.50	112	100	1.67E-05	100.0	
2	0	4574.95	3	0	195.66	368.50	318	102	5.00E-05	57.7	
3	0	4912.92	5	0	332.32	482.50	419	128	8.33E-05	44.7	
4	0	5300.31	13	0	0.00	615.00	563	105	2.17E-04	27.7	
5	0	5875.44	10	0	5.82	815.50	754	124	1.67E-04	31.6	

Net Sample Counts Within Peak Regions Generated: 22-NOV-2010 05:37:02.15

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	3987.44*	353	0	84.74	173.69	112	100	3.46E-02	5.3	
2	0	4665.41*	406	0	37.31	398.87	318	102	3.99E-02	5.0	
3	0	4896.31*	333	0	0.00	476.86	419	128	3.27E-02	5.5	
4	0	5394.90*	340	0	38.18	647.66	563	105	3.33E-02	5.4	
5	0	5826.72*	10	0	0.00	798.33	754	124	1.01E-03	34.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.0 Generated 22-NOV-2010 05:37:03

Configuration	: MCA0:[AMSCOUNT]0000B4BC$1		
Analyses by	: ROIPEAK V1.2,PEAKEFF V2.2,ENBACK V1.6,NID V3.3		
Sample title	: SPIKE		
Sample date	: 21-NOV-2010 00:00:00	Acquisition date	: 21-NOV-2010 14:08:59
Sample ID	: 01	Sample quantity	: 1.0000 gram
Sample type	: TH	Sample geometry	:
Detector name	: 038	Detector geometry	:
Elapsed live time	: 0 02:50:00.00	Elapsed real time	: 0 02:50:04.30 0.0%
Energy tolerance	: 100.00 keV	Half life ratio	: 8.00
Errors propagated	: Yes	Systematic Error	: 3.00 %
Efficiency type	: Average value	Efficiencies at	: Peak Energy
Abundance limit	: 75.00		

Post-NID Peak Search Report

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity pCi/gram
0	3987.44*	353	84.74	173.69	112	100	10.7		TH-232	5.62
0	4665.41*	406	37.31	398.87	318	102	9.9		TH-230	6.49
0	4896.31*	333	0.00	476.86	419	128	11.0		TH229	5.33
0	5394.90*	340	38.18	647.66	563	105	10.9		TH-228	5.42
0	5826.72*	10	0.00	798.33	754	124	68.1		TH-227	0.168

Eberline Services
Oak Ridge Laboratory

ALPHA SPECTROMETRY REPORT
22-NOV-2010 05:37:20

****
Spectral File: ND_AMS_ARCHIVE_R:R_1011052A-TH$02_TH.CNF
****

BATCH ID:	1011052A-TH	SAMPLE ID:	02
SAMPLE DATE:	21-NOV-2010 00:00	ALIQUOT:	1.000E+00 gram
SAMPLE TITLE:	BLANK	DETECTOR NUMBER:	039
ACQ DATE:	21-NOV-2010 14:09	AVERAGE EFFICIENCY:	19.24%
ELAPSED LIVE TIME:	10200.	RECOVERY:	73.43%
TRACER ID:	TH-18A	TRACER FWHM (kev):	56.80
LAMBDA VALUE:	233.	ROI TYPE:	STANDARD
TRACER DPM AT SAMPLE DATE:	5.231	CONFIDENCE FACTOR:	4.65
SAMPLE MATRIX:	SOIL	LLD CONSTANT:	2.65
ENERGY CAL DATE:	19-NOV-2010 11:22	EFF CAL DATE:	14-NOV-2010 09:45
BKG FILENAME:	B_039_19NOV10	BKG ELAPSED TIME:	60000.

****

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	NET AREA	BKG	%ABN	ACTIVITY pCi/ gram	TPU/ERROR 2-SIGMA	MDC pCi/ gram
TH-227	5850.0	1.66	0.34	97.5	3.194E-02	5.562E-02	1.032E-01
TH-228	5400.0	2.83	0.17	99.9	5.316E-02	6.636E-02	8.573E-02
TH229	4872.0	125.00	0.00	99.5	2.356E+00	4.751E-01	4.995E-02
TH-230	4672.0	1.66	0.34	99.8	3.120E-02	5.433E-02	1.008E-01
TH-232	3997.0	-0.17	0.17	100.0	-3.189E-03	6.415E-03	8.568E-02

****

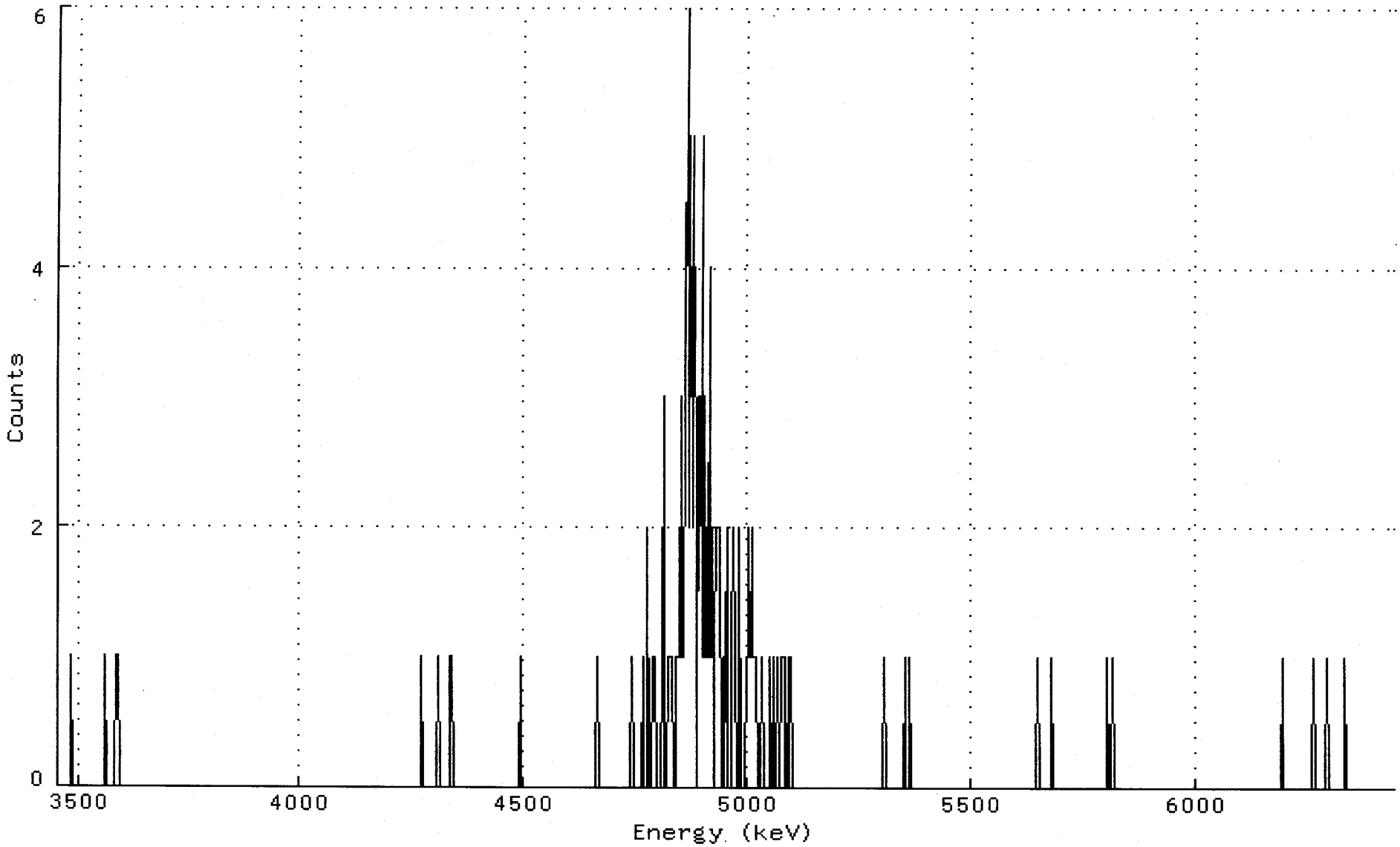
EH
Analyst

11/22/10
Date

Reviewer

11/22/10
Date

Spectrum : DKA100:[ALPHA.ALUSR.ARCHIVE.R]R_1011052A-TH$02_TH.CNF;1
Title : 039
Sample Title: BLANK
Start Time: 21-NOV-2010 14:09 Sample Time: 21-NOV-2010 00:00 Energy Offset: 3.44574E+03
Real Time : 0 02:50:04.20 Sample ID : 02 Energy Slope : 3.09923E+00
Live Time : 0 02:50:00.00 Sample Type: TH Energy Quad : -1.69679E-04



0159

Channel Contents for ND_AMS_ARCHIVE_R:R_1011052A-TH$02_TH

Channel

1:	0	0	0	0	0	0	0	0	0	0	0	0	1	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	1	0	0	0	0
43:	0	0	0	1	1	0	0	0	0	0	0	0	0	0
57:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
127:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
155:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
169:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
183:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
197:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
211:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
225:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
239:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
267:	0	0	0	0	1	0	0	0	0	0	0	0	0	0
281:	0	0	1	0	0	0	0	0	0	0	0	1	1	0
295:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
309:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
323:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
337:	0	0	0	0	0	0	0	1	0	0	0	0	0	0
351:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
365:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
379:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
393:	0	0	0	0	0	0	0	0	0	1	0	0	0	0
407:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
421:	0	0	0	0	0	0	0	1	0	0	0	0	0	0
435:	0	1	0	0	0	2	0	0	0	1	1	1	0	0
449:	0	0	1	3	0	0	1	1	1	1	1	0	0	1
463:	1	1	3	1	1	3	3	6	2	5	3	5	2	4
477:	2	0	3	3	1	5	1	1	2	1	4	1	2	0
491:	1	2	2	2	2	0	1	0	1	2	0	0	0	1
505:	2	1	1	0	0	2	0	0	0	0	1	1	2	1
519:	2	1	1	1	1	0	0	0	1	0	0	0	0	0
533:	1	0	1	0	0	1	1	0	1	1	1	1	0	0
547:	1	0	1	0	0	0	0	0	0	0	0	0	0	0
561:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
575:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
589:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
603:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
617:	0	0	0	0	1	0	0	0	0	0	0	0	0	0
631:	0	0	0	0	0	0	1	0	0	0	1	0	0	0
645:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
659:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
673:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
687:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
701:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
715:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
729:	0	0	0	0	0	0	0	0	0	0	0	1	0	0
743:	0	0	0	0	0	0	0	0	1	0	0	0	0	0
757:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
771:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
785:	0	0	0	0	0	0	0	0	0	0	1	0	0	0
799:	1	0	0	0	0	0	0	0	0	0	0	0	0	0
813:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
827:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
841:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
855:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
869:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
883:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
897:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
911:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925:	0	0	0	0	0	0	0	0	0	1	0	0	0	0
939:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
953:	0	0	0	0	0	0	1	0	0	0	0	0	0	0
967:	0	0	0	1	0	0	0	0	0	0	0	0	0	0
981:	0	0	0	1	0	0	0	0	0	0	0	0	0	0
995:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1009:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1023:	0	0												

Eberline Services
Oak Ridge Laboratory

Gross Sample Counts Within Peak Regions Generated: 22-NOV-2010 05:37:10.70

Detector ID: 39 Acquisition Start: 21-NOV-2010 14:09:19.01
Live Time: 0 02:50:00.00 Real Time: 0 02:50:04.20
Batch Id: 1011052A-TH Sample Id: 02
Sample Type: TH

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	3950.98	0	0	0.00	164.50	115	100	0.00E+00	0.0	
2	0	4578.15	2	0	182.85	373.00	322	102	1.96E-04	70.7	
3	0	4909.54	125	0	56.80	485.20	423	128	1.23E-02	8.9	
4	0	5339.57	3	0	65.08	633.00	568	104	2.94E-04	57.7	
5	0	5808.05	2	0	15.50	797.00	759	125	1.96E-04	70.7	

Background Counts Within Peak Regions Generated: 22-NOV-2010 05:37:18.08

Acquisition Start: 19-NOV-2010 17:34:02.01
Live Time: 0 16:40:00.00 Real Time: 0 16:40:00.10

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	3950.98	1	0	3.10	164.50	115	100	1.67E-05	100.0	
2	0	4576.66	2	0	71.28	372.50	322	102	3.33E-05	70.7	
3	0	4913.36	0	0	0.00	486.50	423	128	0.00E+00	0.0	
4	0	5300.60	1	0	3.10	619.50	568	104	1.67E-05	100.0	
5	0	5875.84	2	0	21.69	821.00	759	125	3.33E-05	70.7	

Net Sample Counts Within Peak Regions Generated: 22-NOV-2010 05:37:18.47

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	3950.98*	0	0	0.00	164.50	115	100	-1.67E-05	100.0	
2	0	4578.15*	2	0	182.85	373.00	322	102	1.63E-04	86.4	
3	0	4909.54*	125	0	56.80	485.20	423	128	1.23E-02	8.9	
4	0	5339.57*	3	0	65.08	633.00	568	104	2.77E-04	61.5	
5	0	5808.05*	2	0	15.50	797.00	759	125	1.63E-04	86.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.0 Generated 22-NOV-2010 05:37:19

Configuration	: MCA0:[AMSCOUNT]0000B4BC$1		
Analyses by	: ROIPEAK V1.2,PEAKEFF V2.2,ENBACK V1.6,NID V3.3		
Sample title	: BLANK		
Sample date	: 21-NOV-2010 00:00:00	Acquisition date	: 21-NOV-2010 14:09:19
Sample ID	: 02	Sample quantity	: 1.0000 gram
Sample type	: TH	Sample geometry	:
Detector name	: 039	Detector geometry	:
Elapsed live time	: 0 02:50:00.00	Elapsed real time	: 0 02:50:04.20 0.0%
Energy tolerance	: 100.00 keV	Half life ratio	: 8.00
Errors propagated	: Yes	Systematic Error	: 3.00 %
Efficiency type	: Average value	Efficiencies at	: Peak Energy
Abundance limit	: 75.00		

Post-NID Peak Search Report

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity pCi/gram
0	3950.98*	0	0.00	164.50	115	100	200.0		TH-232	-2.342E-03
0	4578.15*	2	182.85	373.00	322	102	172.8		TH-230	2.291E-02
0	4909.54*	125	56.80	485.20	423	128	17.9		TH229	1.73
0	5339.57*	3	65.08	633.00	568	104	123.0		TH-228	3.903E-02
0	5808.05*	2	15.50	797.00	759	125	172.8		TH-227	2.345E-02

Eberline Services
Oak Ridge Laboratory

ALPHA SPECTROMETRY REPORT
22-NOV-2010 05:37:35

****
Spectral File: ND_AMS_ARCHIVE_S:S_1011052A-TH$03_TH.CNF
****

BATCH ID:	1011052A-TH	SAMPLE ID:	03
SAMPLE DATE:	5-NOV-2010 00:00	ALIQUOT:	1.006E+00 gram
SAMPLE TITLE:	SD27-DPT-13A	DETECTOR NUMBER:	040
ACQ DATE:	21-NOV-2010 14:09	AVERAGE EFFICIENCY:	19.83%
ELAPSED LIVE TIME:	10200.	RECOVERY:	73.59%
TRACER ID:	TH-18A	TRACER FWHM (kev):	68.08
LAMBDA VALUE:	232.	ROI TYPE:	STANDARD
TRACER DPM AT SAMPLE DATE:	5.224	CONFIDENCE FACTOR:	4.65
SAMPLE MATRIX:	SOIL	LLD CONSTANT:	2.65
ENERGY CAL DATE:	19-NOV-2010 11:22	EFF CAL DATE:	14-NOV-2010 09:46
BKG FILENAME:	B_040_19NOV10	BKG ELAPSED TIME:	60000.

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NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	NET AREA	BKG	%ABN	ACTIVITY pCi/ gram	TPU/ERROR 2-SIGMA	MDC pCi/ gram
TH-227	5850.0	4.00	0.00	97.5	7.415E-02	7.578E-02	4.906E-02
TH-228	5400.0	17.00	0.00	99.9	3.121E-01	1.651E-01	4.786E-02
TH229	4872.0	129.00	0.00	99.5	2.340E+00	4.658E-01	4.806E-02
TH-230	4672.0	7.00	0.00	99.8	1.266E-01	9.933E-02	4.792E-02
TH-232	3997.0	26.83	0.17	100.0	4.842E-01	2.136E-01	8.243E-02

****

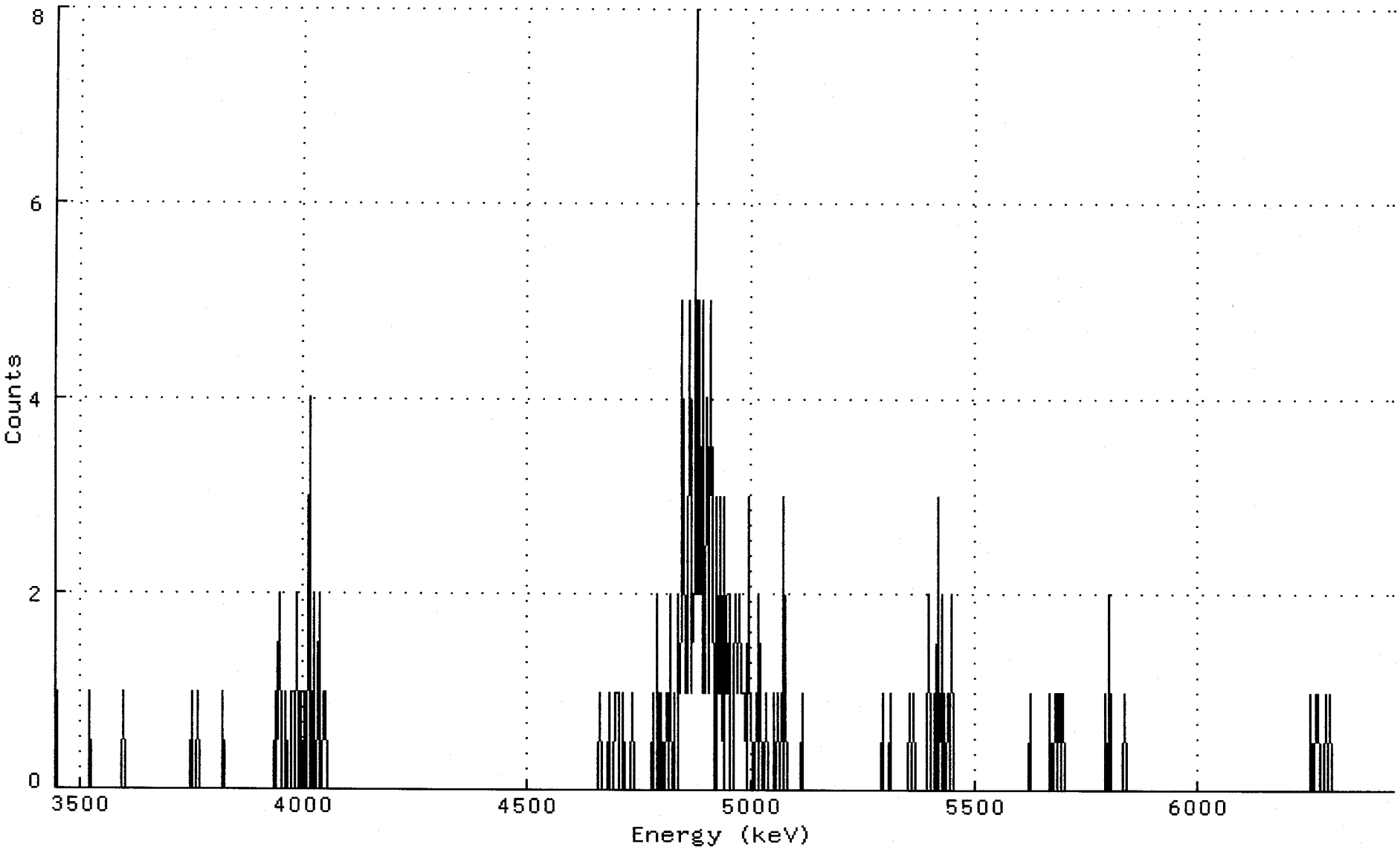
EH
Analyst

11/22/10
Date

Dan Gregsby
Reviewer

11/22/10
Date

Spectrum : DKA100:[ALPHA.ALUSR.ARCHIVE.S]S_1011052A-TH$03_TH.CNF;1
Title : 040
Sample Title: SD27-DPT-13A
Start Time: 21-NOV-2010 14:09 Sample Time: 5-NOV-2010 00:00: Energy Offset: 3.43508E+03
Real Time : 0 02:50:04.20 Sample ID : 03 Energy Slope : 3.14218E+00
Live Time : 0 02:50:00.00 Sample Type: TH Energy Quad : -2.12187E-04



Channel Contents for ND_AMS_ARCHIVE_S:S_1011052A-TH$03_TH

Channel

1:	0	0	0	1	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	1
29:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	1	0	0	0	0
57:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99:	0	0	1	0	0	0	0	1	0	0	0	0	0	0
113:	0	0	0	0	0	0	0	0	0	0	0	1	0	0
127:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
155:	0	0	0	0	0	0	0	1	0	1	2	0	0	0
169:	0	1	0	0	0	1	1	1	0	2	0	0	1	0
183:	1	0	0	2	4	0	0	2	0	0	1	2	0	0
197:	1	1	1	0	0	0	0	0	0	0	0	0	0	0
211:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
225:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
239:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
267:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
281:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
295:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
309:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
323:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
337:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
351:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
365:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
379:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
393:	0	0	0	0	0	0	0	0	1	1	0	0	0	0
407:	0	1	0	0	0	0	1	1	1	0	0	0	1	0
421:	0	0	0	0	0	1	0	0	0	0	0	0	0	0
435:	0	0	0	0	0	0	1	0	0	0	2	0	0	1
449:	0	0	0	1	0	2	1	0	1	0	0	0	2	1
463:	2	5	3	1	1	1	5	3	1	2	2	8	2	2
477:	5	2	5	1	1	4	3	1	5	2	3	0	0	3
491:	1	1	3	1	0	3	1	1	2	0	0	0	1	2
505:	1	1	2	1	1	1	1	1	0	3	1	1	0	0
519:	0	1	0	2	1	0	0	0	1	1	0	0	0	0
533:	0	1	0	1	0	0	1	0	3	1	0	0	0	0
547:	0	0	0	0	0	0	0	0	1	0	0	0	0	0
561:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
575:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
589:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
603:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
617:	1	0	0	0	0	0	1	0	0	0	0	0	0	0
631:	0	0	0	0	0	0	0	1	0	0	1	0	0	0
645:	0	0	0	0	0	0	0	0	2	0	0	0	0	1
659:	0	3	0	1	0	2	0	0	0	1	1	0	2	0
673:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
687:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
701:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
715:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
729:	0	0	0	1	0	0	0	0	0	0	0	0	0	0
743:	0	0	0	0	0	1	0	0	0	1	1	0	1	1
757:	0	1	0	0	0	0	0	0	0	0	0	0	0	0
771:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
785:	0	0	0	0	0	0	0	1	0	0	2	0	0	0
799:	0	0	0	0	0	0	0	0	1	0	0	0	0	0
813:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
827:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
841:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
855:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
869:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
883:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
897:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
911:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
939:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
953:	0	0	0	0	1	0	0	0	1	1	1	0	0	0
967:	0	0	1	0	0	1	0	0	0	0	0	0	0	0
981:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
995:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1009:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1023:	0	0												

Eberline Services
Oak Ridge Laboratory

Gross Sample Counts Within Peak Regions Generated: 22-NOV-2010 05:37:26.00

Detector ID: 40 Acquisition Start: 21-NOV-2010 14:09:41.01
Live Time: 0 02:50:00.00 Real Time: 0 02:50:04.20
Batch Id: 1011052A-TH Sample Id: 03
Sample Type: TH

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	3994.93	27	0	4.62	180.37	117	99	2.65E-03	19.2	
2	0	4688.55	7	0	59.31	410.29	322	102	6.86E-04	37.8	
3	0	4910.17	129	0	68.08	485.36	423	128	1.26E-02	8.8	
4	0	5401.66	17	0	58.13	654.82	568	105	1.67E-03	24.3	
5	0	5805.31	4	0	3.14	797.25	760	126	3.92E-04	50.0	

Background Counts Within Peak Regions Generated: 22-NOV-2010 05:37:32.96

Acquisition Start: 19-NOV-2010 17:34:06.01
Live Time: 0 16:40:00.00 Real Time: 0 16:40:00.10

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	3950.83	1	0	3.14	166.00	117	99	1.67E-05	100.0	
2	0	4576.10	0	0	0.00	372.50	322	102	0.00E+00	0.0	
3	0	4913.52	0	0	0.00	486.50	423	128	0.00E+00	0.0	
4	0	5301.66	0	0	0.00	620.00	568	105	0.00E+00	0.0	
5	0	5875.97	0	0	0.00	822.50	760	126	0.00E+00	0.0	

Net Sample Counts Within Peak Regions Generated: 22-NOV-2010 05:37:33.26

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	3994.93*	27	0	4.62	180.37	117	99	2.63E-03	19.4	
2	0	4688.55*	7	0	59.31	410.29	322	102	6.86E-04	37.8	
3	0	4910.17*	129	0	68.08	485.36	423	128	1.26E-02	8.8	
4	0	5401.66*	17	0	58.13	654.82	568	105	1.67E-03	24.3	
5	0	5805.31*	4	0	3.14	797.25	760	126	3.92E-04	50.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.0 Generated 22-NOV-2010 05:37:34

Configuration	: MCA0:[AMSCOUNT]0000B4BC$1		
Analyses by	: ROIPEAK V1.2,PEAKEFF V2.2,ENBACK V1.6,NID V3.3		
Sample title	: SD27-DPT-13A		
Sample date	: 5-NOV-2010 00:00:00	Acquisition date	: 21-NOV-2010 14:09:41
Sample ID	: 03	Sample quantity	: 1.0059 gram
Sample type	: TH	Sample geometry	:
Detector name	: 040	Detector geometry	:
Elapsed live time	: 0 02:50:00.00	Elapsed real time	: 0 02:50:04.20 0.0%
Energy tolerance	: 100.00 keV	Half life ratio	: 8.00
Errors propagated	: Yes	Systematic Error	: 3.00 %
Efficiency type	: Average value	Efficiencies at	: Peak Energy
Abundance limit	: 75.00		

Post-NID Peak Search Report

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity pCi/gram
0	3994.93*	27	4.62	180.37	117	99	38.8		TH-232	0.356
0	4688.55*	7	59.31	410.29	322	102	75.6		TH-230	9.314E-02
0	4910.17*	129	68.08	485.36	423	128	17.6		TH229	1.72
0	5401.66*	17	58.13	654.82	568	105	48.5		TH-228	0.230
0	5805.31*	4	3.14	797.25	760	126	100.0		TH-227	5.457E-02

Eberline Services
Oak Ridge Laboratory

ALPHA SPECTROMETRY REPORT
22-NOV-2010 05:37:49

****
Spectral File: ND_AMS_ARCHIVE_S:S_1011052A-TH$04_TH.CNF
****

BATCH ID:	1011052A-TH	SAMPLE ID:	04
SAMPLE DATE:	5-NOV-2010 00:00	ALIQUOT:	1.013E+00 gram
SAMPLE TITLE:	SD27-DPT-13A	DETECTOR NUMBER:	041
ACQ DATE:	21-NOV-2010 14:10	AVERAGE EFFICIENCY:	19.81%
ELAPSED LIVE TIME:	10200.	RECOVERY:	73.65%
TRACER ID:	TH-18A	TRACER FWHM (kev):	32.74
LAMBDA VALUE:	232.	ROI TYPE:	STANDARD
TRACER DPM AT SAMPLE DATE:	5.213	CONFIDENCE FACTOR:	4.65
SAMPLE MATRIX:	SOIL	LLD CONSTANT:	2.65
ENERGY CAL DATE:	19-NOV-2010 11:22	EFF CAL DATE:	14-NOV-2010 09:46
BKG FILENAME:	B_041_19NOV10	BKG ELAPSED TIME:	60000.

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NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	NET AREA	BKG	%ABN	ACTIVITY pCi/ gram	TPU/ERROR 2-SIGMA	MDC pCi/ gram
TH-227	5850.0	2.00	0.00	97.5	3.685E-02	5.270E-02	4.876E-02
TH-228	5400.0	10.49	0.51	99.9	1.914E-01	1.281E-01	1.072E-01
TH229	4872.0	128.66	0.34	99.5	2.319E+00	4.628E-01	9.665E-02
TH-230	4672.0	20.66	0.34	99.8	3.713E-01	1.826E-01	9.635E-02
TH-232	3997.0	13.83	0.17	100.0	2.481E-01	1.442E-01	8.193E-02

****

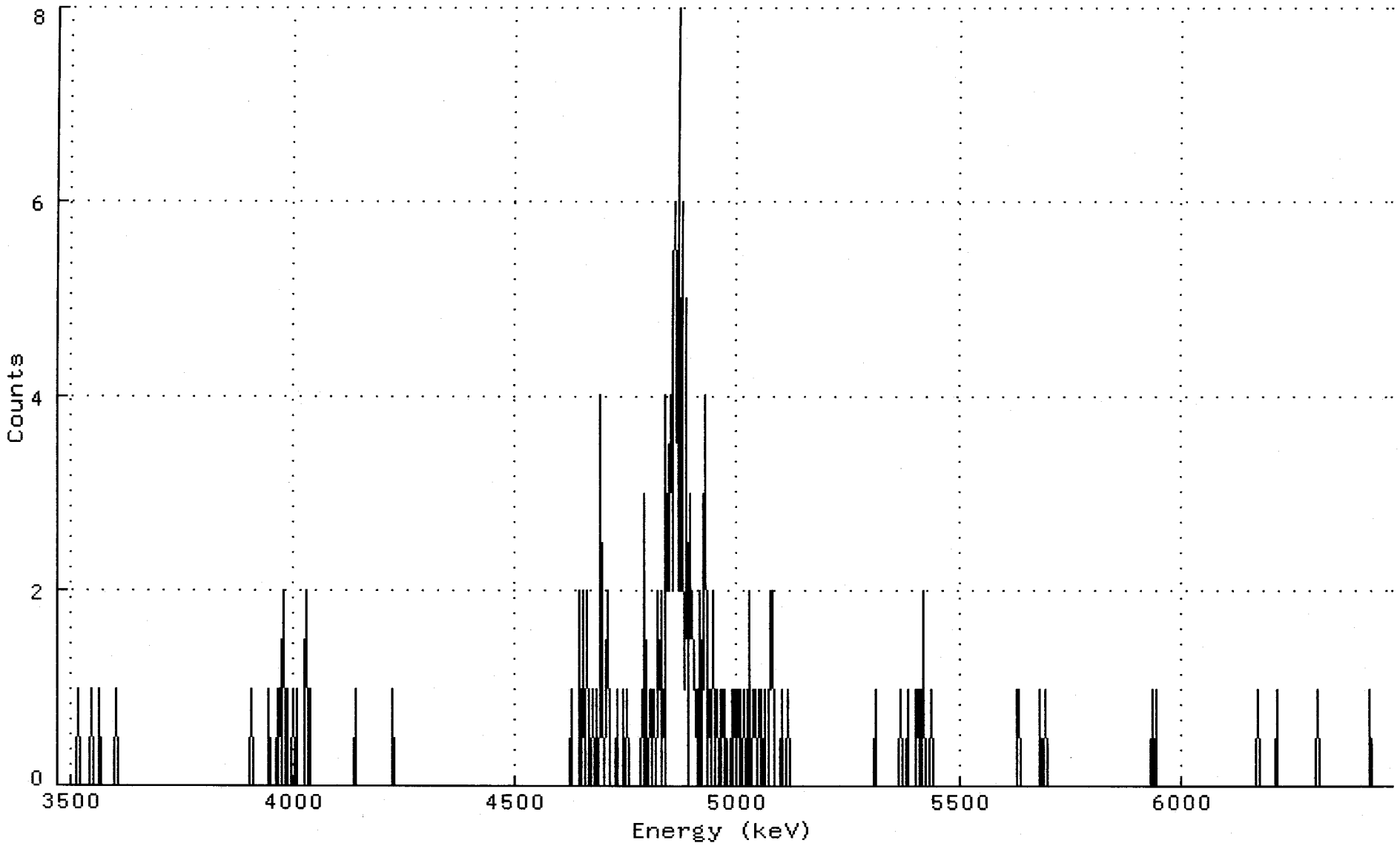
EH
Analyst

11/22/10
Date

Alan Gregory
Reviewer

11/22/10
Date

Spectrum : DKA100:[ALPHA.ALUSR.ARCHIVE.S]S_1011052A-TH$04_TH.CNF;1
Title : 041
Sample Title: SD27-DPT-13A
Start Time: 21-NOV-2010 14:10 Sample Time: 5-NOV-2010 00:00: Energy Offset: 3.45915E+03
Real Time : 0 02:50:04.20 Sample ID : 04 Energy Slope : 3.10792E+00
Live Time : 0 02:50:00.00 Sample Type: TH Energy Quad : -1.65101E-04



0159

Channel Contents for ND_AMS_ARCHIVE_S:S_1011052A-TH$04_TH

Channel

1:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	1	0	0	0	0	0	0	0	0	0	1
29:	0	0	0	0	0	1	0	0	0	0	0	0	0	0
43:	0	0	0	1	0	0	0	0	0	0	0	0	0	0
57:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
127:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141:	0	0	0	0	1	0	0	0	0	0	0	0	0	0
155:	0	0	0	1	0	0	0	0	0	1	0	1	0	1
169:	2	0	1	0	0	0	0	1	0	1	0	0	0	0
183:	0	0	1	2	0	1	0	0	0	0	0	0	0	0
197:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
211:	0	0	0	0	0	0	0	0	0	0	0	1	0	0
225:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
239:	0	0	0	0	0	0	0	0	0	0	0	1	0	0
253:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
267:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
281:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
295:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
309:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
323:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
337:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
351:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
365:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
379:	0	0	0	0	1	0	0	0	0	0	0	2	0	2
393:	1	0	2	0	0	0	1	1	0	1	0	0	1	4
407:	1	0	1	1	2	0	0	0	0	0	0	1	0	0
421:	0	0	1	0	1	1	0	0	0	0	0	0	0	0
435:	0	0	1	0	3	0	0	0	1	0	1	1	0	1
449:	2	1	2	0	1	0	4	2	2	3	4	2	5	6
463:	5	2	8	2	6	3	1	2	5	0	3	2	2	1
477:	1	1	0	2	0	0	3	1	4	0	0	1	1	0
491:	2	0	1	1	0	0	1	1	0	1	0	0	0	0
505:	1	0	1	1	0	1	1	0	0	1	0	0	0	2
519:	0	0	1	1	1	0	0	1	1	0	0	1	0	0
533:	0	2	1	2	0	0	0	0	0	0	1	0	0	0
547:	0	1	0	0	0	0	0	0	0	0	0	0	0	0
561:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
575:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
589:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
603:	0	0	0	0	0	0	0	0	0	0	0	0	1	0
617:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
631:	0	0	0	0	1	0	0	0	0	1	0	0	0	0
645:	0	0	1	1	0	1	0	2	1	0	0	0	0	1
659:	1	0	0	0	0	0	0	0	0	0	0	0	0	0
673:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
687:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
701:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
715:	0	0	0	0	0	0	0	0	0	0	0	1	1	0
729:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
743:	0	1	0	0	0	1	0	0	0	0	0	0	0	0
757:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
771:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
785:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
799:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
813:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
827:	0	0	0	0	0	1	0	0	1	0	0	0	0	0
841:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
855:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
869:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
883:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
897:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
911:	0	0	0	0	0	1	0	0	0	0	0	0	0	0
925:	0	0	0	0	0	0	1	0	0	0	0	0	0	0
939:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
953:	0	0	0	0	0	0	0	0	0	0	0	1	0	0
967:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
981:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
995:	0	0	0	0	0	0	0	0	0	0	0	1	0	0
1009:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1023:	0	0												

Eberline Services
Oak Ridge Laboratory

Gross Sample Counts Within Peak Regions Generated: 22-NOV-2010 05:37:39.55

Detector ID: 41 Acquisition Start: 21-NOV-2010 14:10:03.01
Live Time: 0 02:50:00.00 Real Time: 0 02:50:04.20
Batch Id: 1011052A-TH Sample Id: 04
Sample Type: TH

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	3989.05	14	0	57.40	172.07	110	100	1.37E-03	26.7	
2	0	4677.04	21	0	4.14	400.38	316	102	2.06E-03	21.8	
3	0	4894.82	129	0	32.74	473.87	417	128	1.26E-02	8.8	
4	0	5398.76	11	0	4.56	646.27	561	104	1.08E-03	30.2	
5	0	5934.91	2	0	12.43	833.50	751	124	1.96E-04	70.7	

Background Counts Within Peak Regions Generated: 22-NOV-2010 05:37:47.31

Acquisition Start: 19-NOV-2010 17:34:08.01
Live Time: 0 16:40:00.00 Real Time: 0 16:40:00.20

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	3950.67	1	0	3.11	159.50	110	100	1.67E-05	100.0	
2	0	4576.03	2	0	24.86	366.50	316	102	3.33E-05	70.7	
3	0	4914.39	2	0	15.54	480.50	417	128	3.33E-05	70.7	
4	0	5300.82	3	0	167.83	612.50	561	104	5.00E-05	57.7	
5	0	5875.35	0	0	0.00	812.50	751	124	0.00E+00	0.0	

Net Sample Counts Within Peak Regions Generated: 22-NOV-2010 05:37:47.61

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	3989.05*	14	0	57.40	172.07	110	100	1.36E-03	27.1	
2	0	4677.04*	21	0	4.14	400.38	316	102	2.03E-03	22.2	
3	0	4894.82*	129	0	32.74	473.87	417	128	1.26E-02	8.8	
4	0	5398.76*	10	0	4.56	646.27	561	104	1.03E-03	31.7	
5	0	5934.91*	2	0	12.43	833.50	751	124	1.96E-04	70.7	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.0 Generated 22-NOV-2010 05:37:48

Configuration	: MCA0:[AMSCOUNT]0000B4BC$1		
Analyses by	: ROIPEAK V1.2,PEAKEFF V2.2,ENBACK V1.6,NID V3.3		
Sample title	: SD27-DPT-13A		
Sample date	: 5-NOV-2010 00:00:00	Acquisition date	: 21-NOV-2010 14:10:03
Sample ID	: 04	Sample quantity	: 1.0125 gram
Sample type	: TH	Sample geometry	:
Detector name	: 041	Detector geometry	:
Elapsed live time	: 0 02:50:00.00	Elapsed real time	: 0 02:50:04.20 0.0%
Energy tolerance	: 100.00 keV	Half life ratio	: 8.00
Errors propagated	: Yes	Systematic Error	: 3.00 %
Efficiency type	: Average value	Efficiencies at	: Peak Energy
Abundance limit	: 75.00		

Post-NID Peak Search Report

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity pCi/gram
0	3989.05*	14	57.40	172.07	110	100	54.2		TH-232	0.183
0	4677.04*	21	4.14	400.38	316	102	44.4		TH-230	0.273
0	4894.82*	129	32.74	473.87	417	128	17.7		TH229	1.71
0	5398.76*	10	4.56	646.27	561	104	63.5		TH-228	0.141
0	5934.91*	2	12.43	833.50	751	124	141.4		TH-227	2.714E-02

Eberline Services
Oak Ridge Laboratory

ALPHA SPECTROMETRY REPORT
22-NOV-2010 05:38:02

****
Spectral File: ND_AMS_ARCHIVE_S:S_1011052A-TH$05_TH.CNF
****

BATCH ID:	1011052A-TH	SAMPLE ID:	05
SAMPLE DATE:	5-NOV-2010 00:00	ALIQUOT:	1.002E+00 gram
SAMPLE TITLE:	SD27-DPT-13B	DETECTOR NUMBER:	042
ACQ DATE:	21-NOV-2010 14:10	AVERAGE EFFICIENCY:	18.81%
ELAPSED LIVE TIME:	10200.	RECOVERY:	63.98%
TRACER ID:	TH-18A	TRACER FWHM (kev):	260.72
LAMBDA VALUE:	232.	ROI TYPE:	STANDARD
TRACER DPM AT SAMPLE DATE:	5.206	CONFIDENCE FACTOR:	4.65
SAMPLE MATRIX:	SOIL	LLD CONSTANT:	2.65
ENERGY CAL DATE:	19-NOV-2010 11:22	EFF CAL DATE:	14-NOV-2010 09:46
BKG FILENAME:	B_042_19NOV10	BKG ELAPSED TIME:	60000.

****

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	NET AREA	BKG	%ABN	ACTIVITY pCi/ gram	TPU/ERROR 2-SIGMA	MDC pCi/ gram
TH-227	5850.0	4.83	0.17	97.5	1.090E-01	1.042E-01	1.029E-01
TH-228	5400.0	15.49	0.51	99.9	3.463E-01	1.957E-01	1.313E-01
TH229	4872.0	106.00	0.00	99.5	2.341E+00	5.041E-01	5.852E-02
TH-230	4672.0	30.00	0.00	99.8	6.605E-01	2.837E-01	5.834E-02
TH-232	3997.0	16.83	0.17	100.0	3.699E-01	1.998E-01	1.004E-01

****

*** Tracer FWHM > 80.0 Kev ***

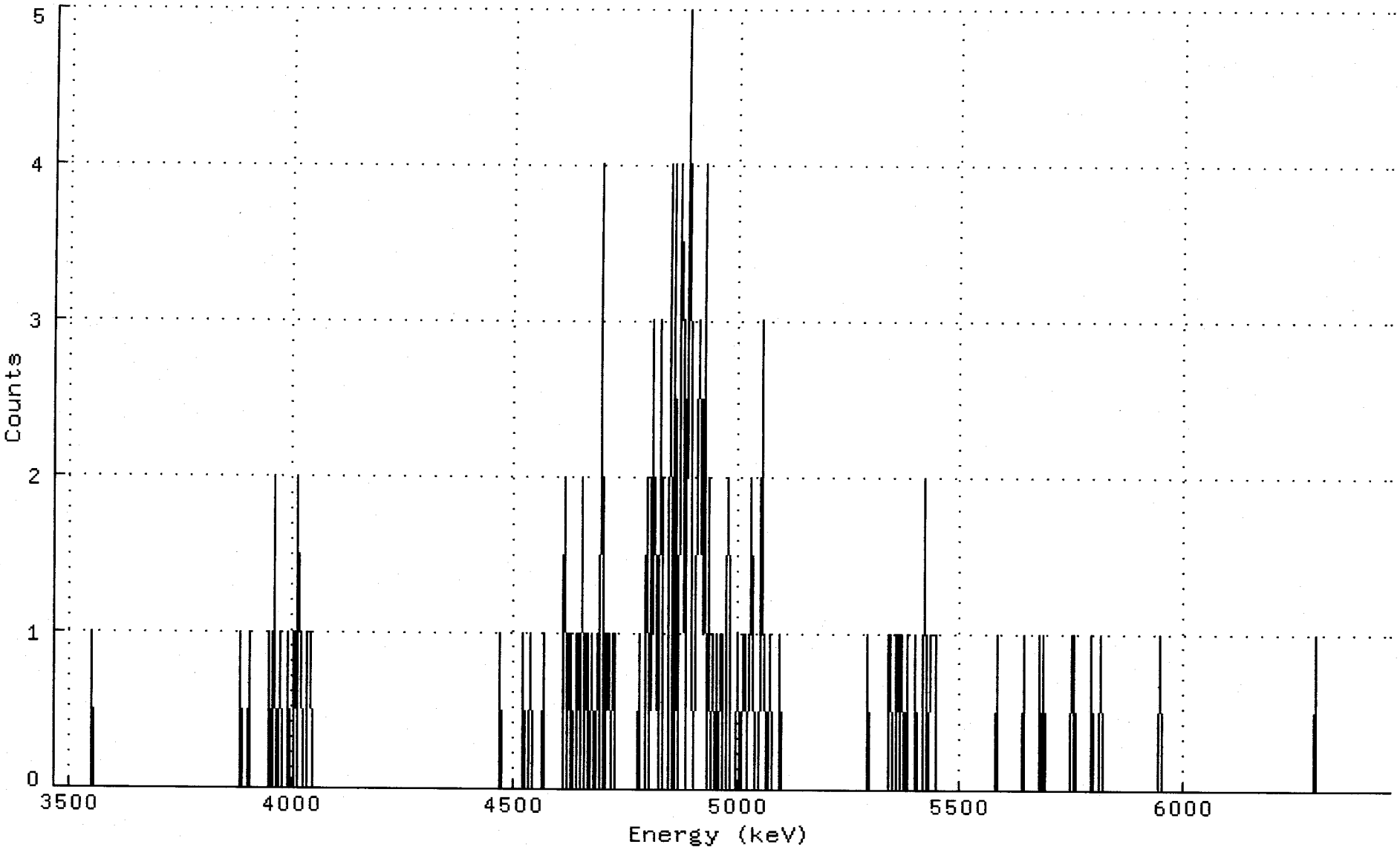
EH
Analyst

11/22/10
Date

Dan Gregory
Reviewer

11/22/10
Date

Spectrum : DKA100:[ALPHA.ALUSR.ARCHIVE.S]S_1011052A-TH$05_TH.CNF;1
Title : 042
Sample Title: SD27-DPT-13B
Start Time: 21-NOV-2010 14:10 Sample Time: 5-NOV-2010 00:00: Energy Offset: 3.45577E+03
Real Time : 0 02:50:04.20 Sample ID : 05 Energy Slope : 3.12357E+00
Live Time : 0 02:50:00.00 Sample Type: TH Energy Quad : -1.85973E-04



Channel Contents for ND_AMS_ARCHIVE_S:S_1011052A-TH$05_TH

Channel

1:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29:	0	0	1	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
127:	0	0	0	0	0	0	0	0	0	0	0	0	1	0
141:	0	0	0	0	1	0	0	0	0	0	0	0	0	0
155:	0	0	0	0	0	1	0	0	2	1	0	0	0	1
169:	0	0	0	0	0	1	0	0	0	1	1	0	2	1
183:	1	0	0	0	0	1	1	1	0	0	0	0	0	0
197:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
211:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
225:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
239:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
267:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
281:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
295:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
309:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
323:	0	0	0	0	0	0	0	0	1	0	0	0	0	0
337:	0	0	0	0	0	0	0	0	0	0	0	1	0	0
351:	0	0	1	0	0	0	0	0	0	0	0	0	1	0
365:	0	0	0	0	0	0	0	0	0	0	0	0	0	1
379:	2	0	0	1	0	1	0	0	0	1	1	0	0	2
393:	0	0	1	0	1	0	1	0	0	0	1	1	0	3
407:	4	0	1	0	1	1	0	0	1	1	0	0	0	0
421:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
435:	1	0	0	0	0	1	2	0	0	1	3	1	2	1
449:	1	0	3	1	0	0	0	0	0	4	4	0	0	4
463:	1	0	3	4	3	3	2	0	5	2	4	2	1	0
477:	1	1	2	3	2	2	1	4	2	0	2	1	0	1
491:	1	0	1	0	0	1	1	0	0	0	1	2	1	0
505:	0	0	0	0	1	1	0	0	0	1	1	0	0	1
519:	1	2	1	0	0	0	0	0	1	3	1	1	0	0
533:	0	1	0	0	0	0	0	0	0	1	0	0	0	0
547:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
561:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
575:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
589:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
603:	0	0	0	0	0	0	0	1	0	0	0	0	0	0
617:	0	0	0	0	0	0	0	0	0	1	1	0	0	0
631:	0	1	1	0	1	1	0	0	0	1	0	0	0	0
645:	0	0	1	0	0	0	0	0	0	2	0	0	0	1
659:	1	1	1	1	0	0	0	0	0	0	0	0	0	0
673:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
687:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
701:	0	0	0	0	0	0	0	0	0	1	0	0	0	0
715:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
729:	0	0	1	0	0	0	0	0	0	0	0	0	0	0
743:	0	1	0	0	1	0	0	0	0	0	0	0	0	0
757:	0	0	0	0	0	0	0	0	0	0	0	0	1	0
771:	1	0	0	0	0	0	0	0	0	0	0	0	0	0
785:	1	0	0	0	0	0	0	1	0	0	0	0	0	0
799:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
813:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
827:	0	0	0	0	0	0	0	0	0	0	0	0	1	0
841:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
855:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
869:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
883:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
897:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
911:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
939:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
953:	0	0	0	0	0	0	0	0	0	0	1	0	0	0
967:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
981:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
995:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1009:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1023:	0	0												

Eberline Services
Oak Ridge Laboratory

Gross Sample Counts Within Peak Regions Generated: 22-NOV-2010 05:37:53.62

Detector ID: 42 Acquisition Start: 21-NOV-2010 14:10:27.01
Live Time: 0 02:50:00.00 Real Time: 0 02:50:04.20
Batch Id: 1011052A-TH Sample Id: 05
Sample Type: TH

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	3988.06	17	0	60.81	172.18	111	99	1.67E-03	24.3	
2	0	4652.13	30	0	5.52	392.17	316	102	2.94E-03	18.3	
3	0	4906.40	106	0	260.72	478.02	417	128	1.04E-02	9.7	
4	0	5388.42	16	0	3.12	643.37	561	105	1.57E-03	25.0	
5	0	5810.72	5	0	221.77	791.20	752	125	4.90E-04	44.7	

Background Counts Within Peak Regions Generated: 22-NOV-2010 05:38:00.36

Acquisition Start: 19-NOV-2010 17:34:11.01
Live Time: 0 16:40:00.00 Real Time: 0 16:40:00.10

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	3950.78	1	0	3.12	160.00	111	99	1.67E-05	100.0	
2	0	4575.58	0	0	0.00	366.50	316	102	0.00E+00	0.0	
3	0	4913.71	0	0	0.00	480.50	417	128	0.00E+00	0.0	
4	0	5300.64	3	0	96.83	613.00	561	105	5.00E-05	57.7	
5	0	5875.13	1	0	3.12	814.00	752	125	1.67E-05	100.0	

Net Sample Counts Within Peak Regions Generated: 22-NOV-2010 05:38:00.66

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	3988.06*	17	0	60.81	172.18	111	99	1.65E-03	24.5	
2	0	4652.13*	30	0	5.52	392.17	316	102	2.94E-03	18.3	
3	0	4906.40*	106	0	260.72	478.02	417	128	1.04E-02	9.7	
4	0	5388.42*	15	0	3.12	643.37	561	105	1.52E-03	25.9	
5	0	5810.72*	5	0	221.77	791.20	752	125	4.74E-04	46.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.0 Generated 22-NOV-2010 05:38:01

Configuration	: MCA0:[AMSCOUNT]0000B4BC$1		
Analyses by	: ROIPEAK V1.2,PEAKEFF V2.2,ENBACK V1.6,NID V3.3		
Sample title	: SD27-DPT-13B		
Sample date	: 5-NOV-2010 00:00:00	Acquisition date	: 21-NOV-2010 14:10:27
Sample ID	: 05	Sample quantity	: 1.0019 gram
Sample type	: TH	Sample geometry	:
Detector name	: 042	Detector geometry	:
Elapsed live time	: 0 02:50:00.00	Elapsed real time	: 0 02:50:04.20 0.0%
Energy tolerance	: 100.00 keV	Half life ratio	: 8.00
Errors propagated	: Yes	Systematic Error	: 3.00 %
Efficiency type	: Average value	Efficiencies at	: Peak Energy
Abundance limit	: 75.00		

Post-NID Peak Search Report

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity pCi/gram
0	3988.06*	17	60.81	172.18	111	99	49.0		TH-232	0.237
0	4652.13*	30	5.52	392.17	316	102	36.5		TH-230	0.423
0	4906.40*	106	260.72	478.02	417	128	19.4		TH229	1.50
0	5388.42*	15	3.12	643.37	561	105	51.8		TH-228	0.222
0	5810.72*	5	221.77	791.20	752	125	92.9		TH-227	6.976E-02

Eberline Services
Oak Ridge Laboratory

ALPHA SPECTROMETRY REPORT
22-NOV-2010 05:38:17

****
Spectral File: ND_AMS_ARCHIVE_S:S_1011052A-TH$06_TH.CNF
****

BATCH ID:	1011052A-TH	SAMPLE ID:	06
SAMPLE DATE:	5-NOV-2010 00:00	ALIQUOT:	1.003E+00 gram
SAMPLE TITLE:	SD27-DPT-13C	DETECTOR NUMBER:	043
ACQ DATE:	21-NOV-2010 14:10	AVERAGE EFFICIENCY:	19.62%
ELAPSED LIVE TIME:	10200.	RECOVERY:	59.61%
TRACER ID:	TH-18A	TRACER FWHM (kev):	130.29
LAMBDA VALUE:	231.	ROI TYPE:	STANDARD
TRACER DPM AT SAMPLE DATE:	5.188	CONFIDENCE FACTOR:	4.65
SAMPLE MATRIX:	SOIL	LLD CONSTANT:	2.65
ENERGY CAL DATE:	19-NOV-2010 11:22	EFF CAL DATE:	14-NOV-2010 09:46
BKG FILENAME:	B_043_19NOV10	BKG ELAPSED TIME:	60000.

****

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	NET AREA	BKG	%ABN	ACTIVITY pCi/ gram	TPU/ERROR 2-SIGMA	MDC pCi/ gram
TH-227	5850.0	0.49	0.51	97.5	1.137E-02	4.844E-02	1.383E-01
TH-228	5400.0	18.15	0.85	99.9	4.171E-01	2.227E-01	1.568E-01
TH229	4872.0	102.66	0.34	99.5	2.330E+00	5.092E-01	1.217E-01
TH-230	4672.0	21.66	0.34	99.8	4.901E-01	2.404E-01	1.213E-01
TH-232	3997.0	19.00	0.00	100.0	4.292E-01	2.201E-01	5.986E-02

****

*** Tracer FWHM > 80.0 Kev ***

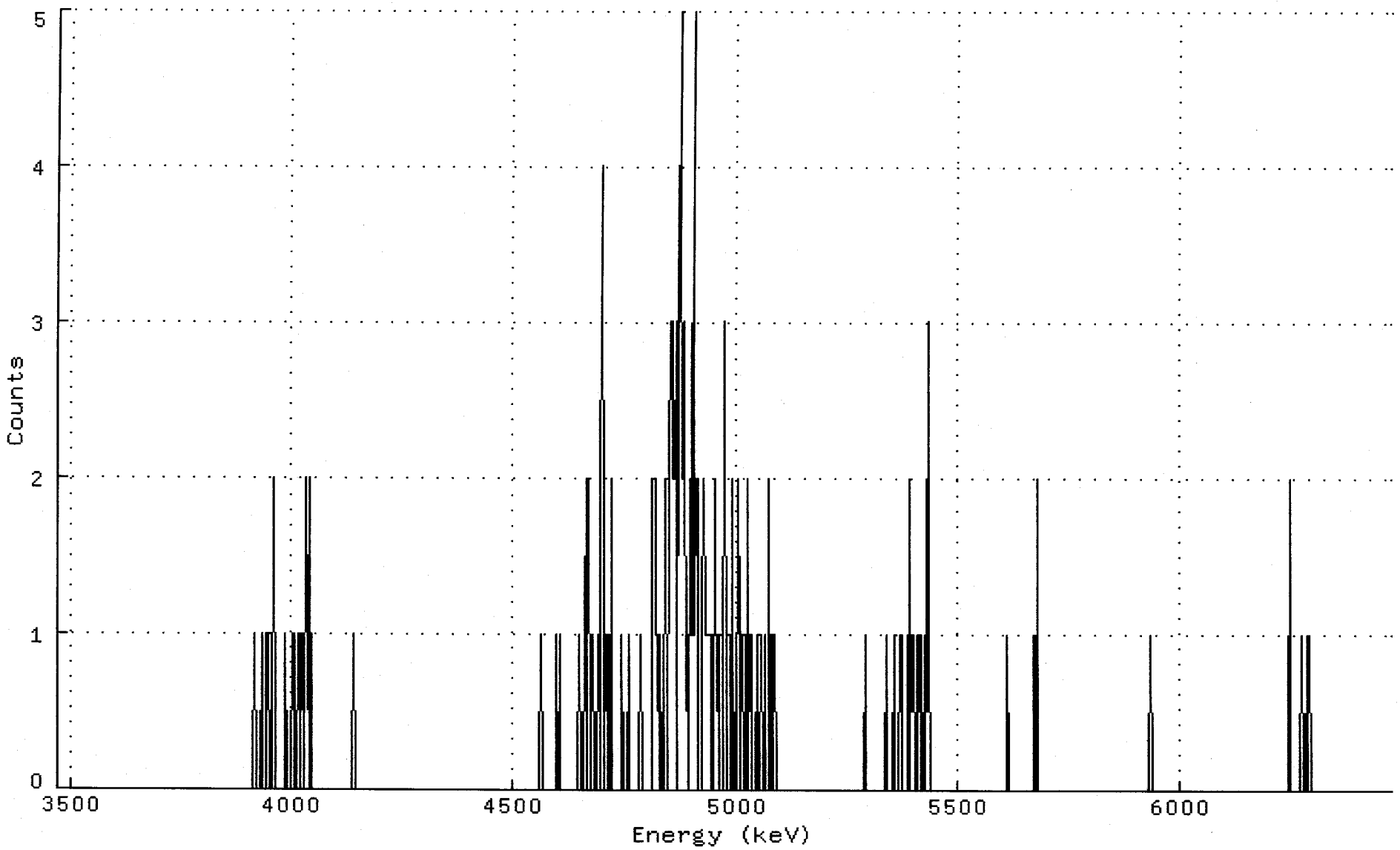
EH
Analyst

11/22/10
Date

Reviewer

11/22/10
Date

Spectrum : DKA100:[ALPHA.ALUSR.ARCHIVE.S]S_1011052A-TH$06_TH.CNF;1
Title : 043
Sample Title: SD27-DPT-13C
Start Time: 21-NOV-2010 14:10 Sample Time: 5-NOV-2010 00:00: Energy Offset: 3.46137E+03
Real Time : 0 02:50:04.20 Sample ID : 06 Energy Slope : 3.12893E+00
Live Time : 0 02:50:00.00 Sample Type: TH Energy Quad : -1.84988E-04



0179

Channel Contents for ND_AMS_ARCHIVE_S:S_1011052A-TH$06_TH

Channel

1:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
127:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141:	0	0	0	0	0	0	1	0	0	0	0	1	0	0
155:	0	1	1	0	1	0	2	0	0	0	0	0	0	0
169:	0	1	0	0	0	0	1	0	1	0	1	1	0	1
183:	1	0	2	1	0	2	0	0	0	0	0	0	0	0
197:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
211:	0	0	0	0	0	0	0	0	0	1	0	0	0	0
225:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
239:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
267:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
281:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
295:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
309:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
323:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
337:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
351:	0	0	0	0	0	0	0	0	1	0	0	0	0	0
365:	0	0	0	0	0	0	1	0	1	0	0	0	0	0
379:	0	0	0	0	0	0	0	0	0	1	0	0	0	1
393:	2	0	2	0	1	1	0	0	0	1	0	1	4	1
407:	0	1	1	0	0	2	0	0	0	0	0	0	0	1
421:	0	0	0	0	1	0	0	0	0	0	0	0	0	1
435:	0	0	0	0	0	0	0	0	2	2	2	1	1	0
449:	1	0	1	0	2	0	2	2	3	3	2	2	3	0
463:	3	5	4	2	3	2	1	0	2	1	1	5	1	2
477:	2	0	0	0	1	2	1	1	1	1	1	0	0	2
491:	1	1	0	1	1	1	0	3	0	0	0	0	2	0
505:	0	1	0	2	1	0	1	0	0	0	2	0	1	1
519:	0	0	0	1	0	0	1	1	0	1	0	0	0	2
533:	0	0	1	1	0	0	0	0	0	0	0	0	0	0
547:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
561:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
575:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
589:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
603:	0	0	0	1	0	0	0	0	0	0	0	0	0	0
617:	0	0	0	0	0	1	0	0	0	0	0	1	0	0
631:	0	0	1	1	0	0	0	0	0	2	0	1	1	1
645:	0	0	1	1	0	1	0	1	0	1	3	1	0	0
659:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
673:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
687:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
701:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
715:	0	0	1	0	0	0	0	0	0	0	0	0	0	0
729:	0	0	0	0	0	0	0	0	0	1	0	2	0	0
743:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
757:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
771:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
785:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
799:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
813:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
827:	0	0	0	1	0	0	0	0	0	0	0	0	0	0
841:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
855:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
869:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
883:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
897:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
911:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
939:	0	0	2	0	0	0	0	0	0	0	0	0	1	0
953:	0	0	1	0	1	0	0	0	0	0	0	0	0	0
967:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
981:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
995:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1009:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1023:	0	0												

Eberline Services
Oak Ridge Laboratory

Gross Sample Counts Within Peak Regions Generated: 22-NOV-2010 05:38:06.82

Detector ID: 43 Acquisition Start: 21-NOV-2010 14:10:48.01
Live Time: 0 02:50:00.00 Real Time: 0 02:50:04.20
Batch Id: 1011052A-TH Sample Id: 06
Sample Type: TH

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	3994.56	19	0	87.61	172.16	109	99	1.86E-03	22.9	
2	0	4673.45	22	0	4.17	396.68	314	101	2.16E-03	21.3	
3	0	4909.05	103	0	130.29	476.08	414	128	1.01E-02	9.9	
4	0	5394.81	19	0	50.06	642.32	558	104	1.86E-03	22.9	
5	0	5930.94	1	0	3.13	830.00	749	124	9.80E-05	100.0	

Background Counts Within Peak Regions Generated: 22-NOV-2010 05:38:15.59

Acquisition Start: 19-NOV-2010 17:34:14.01
Live Time: 0 16:40:00.00 Real Time: 0 16:40:00.10

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	3951.12	0	0	0.00	158.00	109	99	0.00E+00	0.0	
2	0	4575.79	2	0	43.80	364.00	314	101	3.33E-05	70.7	
3	0	4913.25	2	0	253.44	477.50	414	128	3.33E-05	70.7	
4	0	5299.73	5	0	100.13	609.50	558	104	8.33E-05	44.7	
5	0	5875.84	3	0	3.13	810.50	749	124	5.00E-05	57.7	

Net Sample Counts Within Peak Regions Generated: 22-NOV-2010 05:38:15.90

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	3994.56*	19	0	87.61	172.16	109	99	1.86E-03	22.9	
2	0	4673.45*	22	0	4.17	396.68	314	101	2.12E-03	21.7	
3	0	4909.05*	103	0	130.29	476.08	414	128	1.01E-02	9.9	
4	0	5394.81*	18	0	50.06	642.32	558	104	1.78E-03	24.1	
5	0	5930.94*	0	0	3.13	830.00	749	124	4.80E-05	212.7	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.0 Generated 22-NOV-2010 05:38:16

Configuration	: MCA0:[AMSCOUNT]0000B4BC$1		
Analyses by	: ROIPEAK V1.2,PEAKEFF V2.2,ENBACK V1.6,NID V3.3		
Sample title	: SD27-DPT-13C		
Sample date	: 5-NOV-2010 00:00:00	Acquisition date	: 21-NOV-2010 14:10:48
Sample ID	: 06	Sample quantity	: 1.0030 gram
Sample type	: TH	Sample geometry	:
Detector name	: 043	Detector geometry	:
Elapsed live time	: 0 02:50:00.00	Elapsed real time	: 0 02:50:04.20 0.0%
Energy tolerance	: 100.00 keV	Half life ratio	: 8.00
Errors propagated	: Yes	Systematic Error	: 3.00 %
Efficiency type	: Average value	Efficiencies at	: Peak Energy
Abundance limit	: 75.00		

Post-NID Peak Search Report

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity pCi/gram
0	3994.56*	19	87.61	172.16	109	99	45.9		TH-232	0.256
0	4673.45*	22	4.17	396.68	314	101	43.4		TH-230	0.292
0	4909.05*	103	130.29	476.08	414	128	19.8		TH229	1.39
0	5394.81*	18	50.06	642.32	558	104	48.2		TH-228	0.249
0	5930.94*	0	3.13	830.00	749	124	425.5		TH-227	6.777E-03

Review of QA results (Daily Pulser Check) 21-NOV-2010 10:07:04 Page 1

Detector	Parameter	Flag	Filename
1	OFFLINE		
2	OFFLINE		
3	ALL	Passed	D_003_NONE
4	ALL	Passed	D_004_NONE
5	ALL	Passed	D_005_NONE
6	OFFLINE		
7	OFFLINE		
8	OFFLINE		
9	OFFLINE		
10	ALL	Passed	D_010_NONE
11	ALL	Passed	D_011_NONE
12	ALL	Passed	D_012_NONE
13	ALL	Passed	D_013_NONE
14	ALL	Passed	D_014_NONE
15	ALL	Passed	D_015_NONE
16	OFFLINE		
17	OFFLINE		
18	ALL	Passed	D_018_NONE
19	ALL	Passed	D_019_NONE
20	OFFLINE		
21	ALL	Passed	D_021_NONE
22	OFFLINE		
23	ALL	Passed	D_023_NONE
24	OFFLINE		
25	OFFLINE		
26	OFFLINE		
27	OFFLINE		
28	OFFLINE		
29	OFFLINE		
30	OFFLINE		
31	OFFLINE		
32	OFFLINE		
33	ALL	Passed	D_033_NONE
34	ALL	Passed	D_034_NONE
35	ALL	Passed	D_035_NONE
36	PSCENTRD-5000	Above	D_036_NONE
37	ALL	Passed	D_037_NONE
38	ALL	Passed	D_038_NONE
39	ALL	Passed	D_039_NONE
40	ALL	Passed	D_040_NONE
41	ALL	Passed	D_041_NONE
42	ALL	Passed	D_042_NONE
43	ALL	Passed	D_043_NONE
44	ALL	Passed	D_044_NONE
45	ALL	Passed	D_045_NONE
46	ALL	Passed	D_046_NONE
47	ALL	Passed	D_047_NONE
48	ALL	Passed	D_048_NONE

APPROVAL DATE: 11/21/10 APPROVAL TIME: _____

APPROVED BY: AG PROCEDURE # _____

SECTION X

ANALYTICAL DATA (RADIUM-226)

Eberline Services
Oak Ridge Laboratory
Analysis Sheet

10-11052
Ra226
Run 1

Work Order	10-11052
Analysis Code	Ra226
Run	1
Date Received	11/16/2010
Lab Deadline	12/6/2010
Client	Tetra Tech Divisions
Project	HOLLOMAN
Report Level	4
Activity Units	pCi
Aliquot Units	g
Matrix	SO
Method	EPA 903.0 Modified
Instrument Type	Alpha Spectroscopy
Radiometric Tracer	Ba-133
Radiometric Sol#	Ba-6a
Tracer Act (dpm/g)	1185.496
Carrier	
Carrier Conc (mg/ml)	

Internal Fraction	Sample Desc	Client ID	Login CPM	Sample Date	Sample Aliquot
01	LCS	LCS		11/16/10 00:00	1.0000E+00
02	MBL	BLANK		11/16/10 00:00	1.0000E+00
03	DUP	SD27-DPT-13A	30	11/05/10 13:10	1.0105E+00
04	DO	SD27-DPT-13A	30	11/05/10 13:10	1.0203E+00
05	TRG	SD27-DPT-13B	32	11/05/10 13:20	1.0243E+00
06	TRG	SD27-DPT-13C	43	11/05/10 13:40	1.0172E+00

* SAF1 is used for Gross Alpha and all other radionuclides. SAF2 is used for Gross Beta only. ** Actual mass exceeded the calibration curve range. Results should be qualified as appropriate.

9185

10-11052
Ra226
Run 1

Internal Fraction	Sample Desc	Tracer Aliquot (g)	Tracer Total ACT (dpm)	Radiometric Tracer (pCi)	Radiometric % Rec	Grav Carrier Added (ml)	Grav Filter Tare (g)	Grav Filter Final (g)	Grav Filter Net (g)	Grav % Rec	Mean % Rec	SAF 1*	SAF 2*
01	LCS	0.8120	962.6	389.6	89.85		0.0231	0.0304	0.0073		89.85	2.58	1.00
02	MBL	0.7382	875.1	434.3	110.17		0.0234	0.0314	0.0080		110.00	2.77	1.00
03	DUP	0.8203	972.5	424.2	96.84		0.0235	0.0319	0.0084		96.84	2.87	1.00
04	DO	0.8129	963.7	324.1	74.66		0.0236	0.0299	0.0063		74.66	2.27	1.00
05	TRG	0.8099	960.1	219.3	50.71		0.0234	0.0355	0.0121		50.71	4.11	1.00
06	TRG	0.8103	960.6	441.1	101.94		0.0234	0.0351	0.0117		101.94	3.89	1.00

* SAF1 is used for Gross Alpha and all other radionuclides. SAF2 is used for Gross Beta only. ** Actual mass exceeded the calibration curve range. Results should be qualified as appropriate.

10-11052
Ra226
Run 1

Internal Fraction	Sample Desc	Rough Prep Date	Rough Prep By	Prep Date	Prep By	Sep t0 Date/Time	Sep t0 By	Sep t1 Date/Time	Sep t1 By
01	LCS			11/17/10 13:30	JBARNARD	11/30/10 11:27	TSMITH		
02	MBL			11/17/10 13:30	JBARNARD	11/30/10 11:27	TSMITH		
03	DUP			11/17/10 13:30	JBARNARD	11/30/10 11:27	TSMITH		
04	DO	11/17/10 09:34	KSALLINGS	11/17/10 13:30	JBARNARD	11/30/10 11:27	TSMITH		
05	TRG	11/17/10 09:34	KSALLINGS	11/17/10 13:30	JBARNARD	11/30/10 11:27	TSMITH		
06	TRG	11/17/10 09:34	KSALLINGS	11/17/10 13:30	JBARNARD	11/30/10 11:27	TSMITH		

* SAF1 is used for Gross Alpha and all other radionuclides. SAF2 is used for Gross Beta only. ** Actual mass exceeded the calibration curve range. Results should be qualified as appropriate.

Eberline Services
Oak Ridge Laboratory

Preliminary Data Report & Analytical Calculations

Work Order: 10-11052-Ra226-1

Client	Eberline Services Work Order	Analysis Code	Run
Tetra Tech Divisions	10-11052	Ra226	1

Lab Fraction	Nuclide	Sample Desc	Client Identification	Activity Units	Results	Error Estimate	MDA	LCS Known	LCS %R	LCS Flag	RPD Flag	MDA Flag	Blank Flag
01	RA-226	LCS	LCS	pCi/g	1.19E+01	1.65E+00	1.13E-01	1.02E+01	116.91	OK		OK	
02	RA-226	MBL	BLANK	pCi/g	2.13E-01	1.98E-01	2.64E-01					OK	INV
03	RA-226	DUP	SD27-DPT-13A	pCi/g	3.61E-01	2.44E-01	1.85E-01				NA	OK	
04	RA-226	DO	SD27-DPT-13A	pCi/g	3.49E-01	2.40E-01	2.38E-01					OK	
05	RA-226	TRG	SD27-DPT-13B	pCi/g	4.19E-01	4.25E-01	4.84E-01					OK	
06	RA-226	TRG	SD27-DPT-13C	pCi/g	2.16E-01	2.16E-01	1.43E-01					OK	

Preliminary Data Report & Analytical Calculations
Work Order: 10-11052-Ra226-1

Client	Eberline Services Work Order	Analysis Code	Run
Tetra Tech Divisions	10-11052	Ra226	1

Lab Fraction	Nuclide	Sample Desc	Sample Date	Sample Aliquot	Radiometric % Rec	Grav % Rec	Mean % Rec	SAF	Sep t0 Date/Time	Sep t1 Date/Time
01	RA-226	LCS	11/16/10 00:00	1.00E+00	89.85	0.00	89.85		11/30/2010 11:27	
02	RA-226	MBL	11/16/10 00:00	1.00E+00	100.00	0.00	110.00		11/30/2010 11:27	
03	RA-226	DUP	11/05/10 13:10	1.01E+00	96.84	0.00	96.84		11/30/2010 11:27	
04	RA-226	DO	11/05/10 13:10	1.02E+00	74.66	0.00	74.66		11/30/2010 11:27	
05	RA-226	TRG	11/05/10 13:20	1.02E+00	50.71	0.00	50.71		11/30/2010 11:27	
06	RA-226	TRG	11/05/10 13:40	1.02E+00	100.00	0.00	101.94		11/30/2010 11:27	

Preliminary Data Report & Analytical Calculations
Work Order: 10-11052-Ra226-1

Client	Eberline Services Work Order	Analysis Code	Run
Tetra Tech Divisions	10-11052	Ra226	1

Lab Fraction	Nuclide	Sample Desc	Counting Date/Time	Halflife (days)	Detect	Carrier	Count Time	Counts	Bkg CPM	Eff
01	RA-226	LCS	11/30/10 18:46		A_Spec	37	170	7.25 E+02	0.00 E+00	17.9
02	RA-226	MBL	11/30/10 18:46		A_Spec	38	170	1.33 E+01	3.00 E-03	16.6
03	RA-226	DUP	11/30/10 18:46		A_Spec	39	170	2.57 E+01	1.00 E-03	19.2
04	RA-226	DO	11/30/10 18:47		A_Spec	40	170	1.99 E+01	3.00 E-03	19.8
05	RA-226	TRG	11/30/10 18:47		A_Spec	41	170	1.63 E+01	1.00 E-03	19.8
06	RA-226	TRG	11/30/10 18:47		A_Spec	42	170	1.56 E+01	0.00 E+00	18.8

Count Room Report
Client: Tetra Tech Divisions

10-11052-Ra226-1 (pCi/g) in SO
Tracer ID: Ba-6a

37-42

25

Internal Fraction	Sample Desc	Client ID	Sample Date	Sample Aliquot	Tracer Aliquot (g)	Tracer ACT (dpm)	Radiometric Tracer (pCi)	Radiometric % Rec	SAF 1*	SAF 2*
01	LCS	LCS	11/16/10 00:00	1.0000	0.8120	962.6228	389.6000	89.85	2.58	1.00
02	MBL	BLANK	11/16/10 00:00	1.0000	0.7382	875.1331	434.3000	110.17	2.77	1.00
03	DUP	SD27-DPT-13A	11/05/10 13:10	1.0105	0.8203	972.4624	424.2000	96.84	2.87	1.00
04	DO	SD27-DPT-13A	11/05/10 13:10	1.0203	0.8129	963.6897	324.1000	74.66	2.27	1.00
05	TRG	SD27-DPT-13B	11/05/10 13:20	1.0243	0.8099	960.1332	219.3000	50.71	4.11	1.00
06	TRG	SD27-DPT-13C	11/05/10 13:40	1.0172	0.8103	960.6074	441.1000	101.94	3.89	1.00

0191

Eberline Services
Oak Ridge Laboratory

Spike and Tracer Worksheet

Printed: 11/17/2010 1:31 PM

Internal Work Order	Run	Analysis Code	Date	Technician	Technician Initials	Witness Initials
10-11052	1	Ra226	11/17/2010 13:26	JBARNARD	JB	

LCS & Matrix Spikes					LCS	MS	LCSD	MSD	LCS		MS		LCSD		MSD	
Isotope	Sol #	Activity dpm/g	Solution Date	Approx Addition	Volume Used (g)	Volume Used (g)	Volume Used (g)	Volume Used (g)	Known pCi	Error Estimate	Added pCi	Error Estimate	Known pCi	Error Estimate	Added pCi	Error Estimate
Ra-226	Ra-5b	44.118	11/17/2010	0.500	0.5135				10.20	0.469	0.00	0.000	0.00	0.000	0.00	0.000

Tracers

fraction	Isotope	Sol #	Activity dpm/g	Solution Date	Volume Used (g)	Approx Addition
01	Ba-133	Ba-6a	1185.496	11/17/2010	0.8120	0.8500
02	Ba-133	Ba-6a	1185.496	11/17/2010	0.7382	0.8500
03	Ba-133	Ba-6a	1185.496	11/17/2010	0.8203	0.8500
04	Ba-133	Ba-6a	1185.496	11/17/2010	0.8129	0.8500
05	Ba-133	Ba-6a	1185.496	11/17/2010	0.8099	0.8500
06	Ba-133	Ba-6a	1185.496	11/17/2010	0.8103	0.8500

Balance Printer Tapes

Tracer

0.8120 g
0.7382 g
0.8203 g
0.8129 g
0.8099 g
0.8103 g

LCS

0.5135 g
0.5087 g

Matrix Spike

Version 2.0 08/99

8192

Eberline Analytical
Oak Ridge Laboratory

Aliquot Worksheet

Work Order	Run	Analysis Code	Rpt Units	Lab Deadline	Technician
10-11052	1	Ra226	grams	12/6/2010	DSILER

Lab Fraction	Tetra Tech Divisions Client ID	Sample Type	Muffle Data Ratio Post/Pre	Dilution Data No of Dils	Dil Factor	Ratio	Aliquot Data Aliquot	Net Equiv	MS Aliquot Data Aliquot	Net Equiv	H-3 Solids Only Water Added (ml)	H3 Dist Aliq
01	LCS	LCS					1.0000E+00	1.0000E+00				
02	BLANK	MBL					1.0000E+00	1.0000E+00				
03	SD27-DPT-13A	DUP					1.0105E+00	1.0105E+00				
04	SD27-DPT-13A	DO					1.0203E+00	1.0203E+00				
05	SD27-DPT-13B	TRG					1.0243E+00	1.0243E+00				
06	SD27-DPT-13C	TRG					1.0172E+00	1.0172E+00				

1.0105 g
1.0203 g
1.0243 g
1.0172 g

Comments	

Technician: [signature] Date: 11/17/10

6193

Eberline Services - Oak Ridge
Version 1.0 9/1999

Gravimetric Worksheet

Work Order	Run	Analysis Code	Gravimetric Carrier	Carrier Conc (mg/ml)	Technician
10-11052	1	Ra226			TSMITH

TRetec Fraction	Tetra Tech Divisions Client ID	Sample Type	Carrier Data: Carrier Added (ml)	Filter Data: Filter Tare (g)	Filter Data: Filter Final (g)	Filter Data: Filter Net (g)	Gravimetric % Recovery
01	LCS	LCS		0.0231	0.0304	0.0073	
02	BLANK	MBL		0.0234	0.0314	0.0080	
03	DUP	DUP		0.0235	0.0319	0.0084	
04	SD27-DPT-13A	DO		0.0236	0.0299	0.0063	
05	SD27-DPT-13B	TRG		0.0234	0.0355	0.0121	
06	SD27-DPT-13C	TRG		0.0234	0.0351	0.0117	

Technician: [signature] Date: 11/30/10

0194

Eberline Services - Oak Ridge
Prep Logbook
Version 2.0 8/1999

Rough Sample Preparation Log Book

Work Order	Lab Deadline	Date Received in Prep	Date Sealed	Date Returned	Technician
10-11052	12/6/2010	11/16/2010	11/17/2010	11/18/2010	KSALLINGS

Eberline	Tetra Tech Divisions	Tare (g)	Gross (g)		Net (g)		Percent		Gamma		Special
Fraction	Client ID	Pan Wt	Wet Wt.	Dry Wt.	Wet Wt.	Dry Wt.	Liquid	Solid	Dry Wt.	LEPS Wt.	Info
04	SD27-DPT-13A	14.5700	401.9600	312.6300	387.3900	298.0600	23.06%	76.94%			
05	SD27-DPT-13B	13.6400	407.4200	313.2400	393.7800	299.6000	23.92%	76.08%			
06	SD27-DPT-13C	13.6000	487.5000	389.0100	473.9000	375.4100	20.78%	79.22%			

Comments	
Special Codes	**H: Hot, O: Organic Hazard, P: PCB Hazard, R: Rush, T: Other (see comments)**

Technician: Henry Selly

Date: **Analysis: Rough Prep Logbook**

Analysis: Ra226 Page No. 7309

00195

Eberline Services
Oak Ridge Laboratory

ALPHA SPECTROMETRY REPORT
1-DEC-2010 08:48:27

****
Spectral File: ND_AMS_ARCHIVE_C:C_1011052A-RA$01_RA.CNF
****

BATCH ID:	1011052A-RA	SAMPLE ID:	01
SAMPLE DATE:	30-NOV-2010 00:00	ALIQUOT:	1.000E+00 gram
SAMPLE TITLE:	SPIKE	DETECTOR NUMBER:	037
ACQ DATE:	30-NOV-2010 18:46	AVERAGE EFFICIENCY:	17.91%
ELAPSED LIVE TIME:	10200.	RECOVERY:	89.85%
TRACER ID:	NONE	TRACER FWHM (kev):	0.00
LAMBDA VALUE:	0.	ROI TYPE:	MANUAL
TRACER DPM AT SAMPLE DATE:	0.000	CONFIDENCE FACTOR:	4.65
SAMPLE MATRIX:	SOIL	LLD CONSTANT:	2.65
ENERGY CAL DATE:	24-NOV-2010 12:48	EFF CAL DATE:	14-NOV-2010 09:45
BKG FILENAME:	B_037_24NOV10	BKG ELAPSED TIME:	60000.
		SAF:	2.58

****

NUCLIDE ACTIVITY SUMMARY

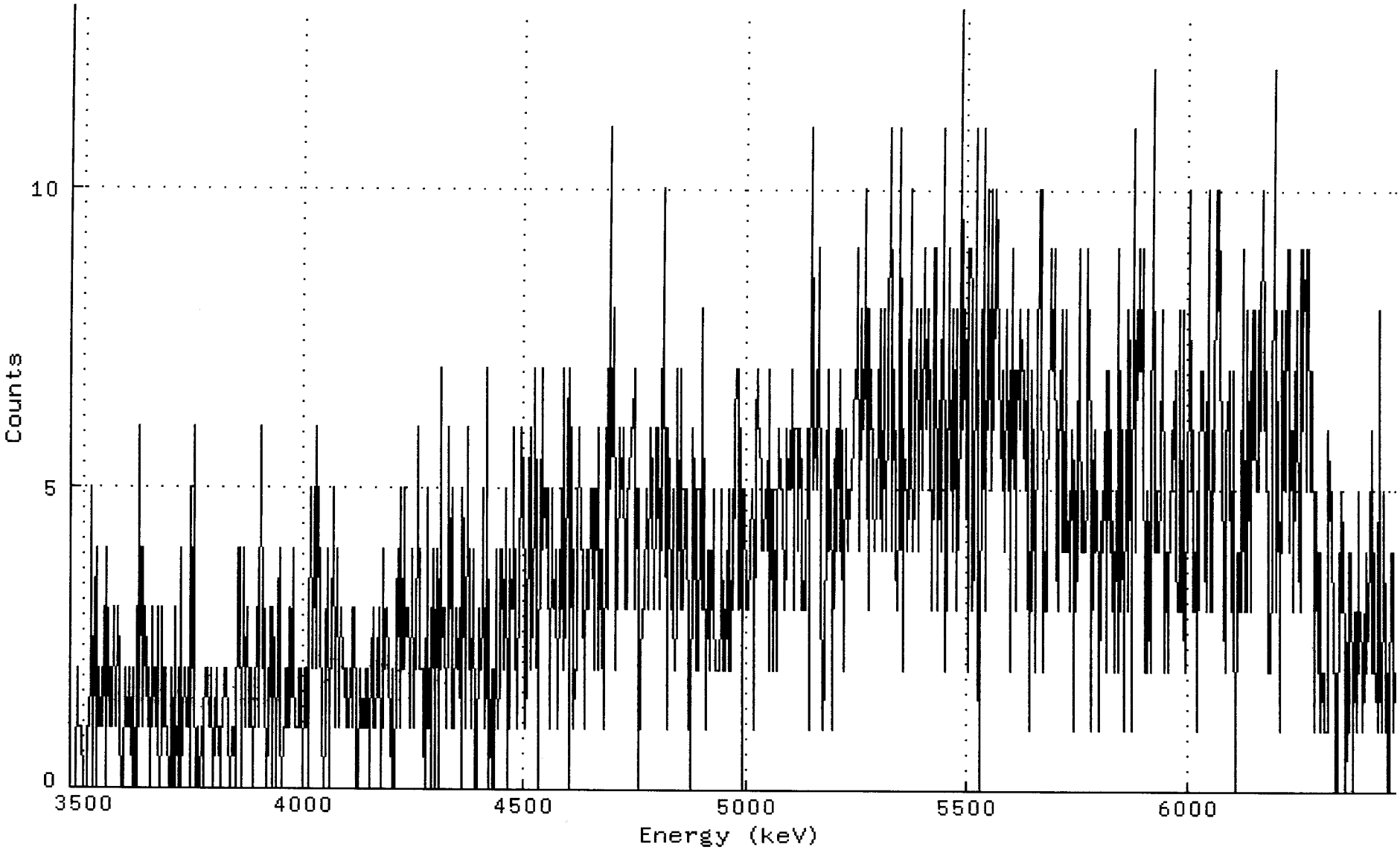
NUCLIDE	ENERGY	NET AREA	BKG	%ABN	ACTIVITY pCi/ gram	TPU/ERROR 2-SIGMA	MDC pCi/ gram
PO-218	6003.0	2197.48	0.68	100.0	3.618E+01	3.531E+00	2.755E-01
RN-222	5490.0	2481.28	0.68	99.9	4.088E+01	3.875E+00	2.756E-01
RA-226	4785.0	724.98	0.00	100.0	1.193E+01	1.648E+00	1.126E-01

****

Analyst — Date 12/1/10

Reviewer — Date 12/1/10

Spectrum : DKA100:[ALPHA.ALUSR.ARCHIVE.C]C_1011052A-RA$01_RA.CNF;2
Title : 037
Sample Title: SPIKE
Start Time: 30-NOV-2010 18:46 Sample Time: 30-NOV-2010 00:00 Energy Offset: 3.46172E+03
Real Time : 0 02:50:00.40 Sample ID : 01 Energy Slope : 3.09048E+00
Live Time : 0 02:50:00.00 Sample Type: RA Energy Quad : -1.56787E-04



0197

Channel Contents for ND_AMS_ARCHIVE_C:C_1011052A-RA$01_RA

Channel

1:	3	0	0	0	0	0	0	2	1	1	1	1	0	0
15:	0	1	1	2	5	0	3	4	0	2	1	1	1	3
29:	0	4	2	1	2	1	3	1	1	3	2	1	0	0
43:	0	2	1	1	2	1	0	2	0	0	6	1	4	4
57:	1	3	2	1	2	0	3	1	2	1	3	1	0	1
71:	3	1	2	1	1	0	0	2	0	3	0	1	0	4
85:	0	1	2	2	1	2	0	5	2	6	2	0	1	0
99:	0	1	0	1	2	2	2	1	2	0	0	1	2	1
113:	1	0	1	1	2	2	2	1	0	0	1	1	0	0
127:	4	2	4	0	4	4	1	3	1	2	2	0	1	1
141:	3	1	2	6	2	4	2	0	0	1	3	0	3	2
155:	1	0	3	4	1	0	1	1	2	1	3	1	2	4
169:	2	1	1	1	2	2	0	0	2	2	0	2	5	2
183:	2	4	6	2	5	3	1	1	0	1	2	4	0	2
197:	2	5	1	1	4	1	2	3	2	2	2	1	2	1
211:	2	1	3	3	1	0	0	2	2	1	1	2	1	2
225:	0	1	2	3	1	1	2	3	3	0	2	4	2	3
239:	3	2	1	0	2	0	2	3	4	1	5	2	5	2
253:	3	3	2	1	4	1	2	2	5	6	2	2	2	1
267:	0	5	1	1	3	0	4	0	2	4	0	7	2	3
281:	3	3	1	3	6	3	5	1	1	3	2	2	3	0
295:	5	4	1	1	6	2	3	1	4	0	1	0	3	2
309:	2	3	5	1	2	7	0	1	2	0	0	4	2	1
323:	2	4	4	2	2	5	0	2	4	3	3	6	2	2
337:	1	4	5	6	5	3	1	2	5	6	2	3	5	7
351:	4	0	2	4	7	4	5	5	3	5	1	5	4	3
365:	3	4	1	4	3	3	7	2	3	6	7	0	6	2
379:	1	2	2	4	6	4	4	4	1	2	4	3	3	5
393:	5	2	5	4	6	2	4	4	3	1	5	6	3	11
407:	5	6	8	3	2	4	5	6	5	6	6	3	3	5
421:	5	6	6	6	7	3	5	5	0	2	3	3	3	5
435:	3	3	6	5	5	3	5	6	6	3	5	4	10	6
449:	6	1	6	5	3	5	3	2	3	7	4	7	3	3
463:	5	5	5	2	2	0	5	6	5	2	5	2	5	3
477:	8	3	3	1	4	2	4	3	5	3	2	2	2	2
491:	3	5	2	3	2	3	5	2	2	5	3	6	7	7
505:	3	6	0	5	5	3	4	3	4	4	5	4	1	6
519:	7	6	6	5	4	4	5	5	4	7	2	5	5	2
533:	4	2	4	6	5	5	5	3	4	6	5	5	5	7
547:	3	6	6	6	4	6	5	3	3	4	3	6	5	1
561:	11	6	5	6	5	5	9	3	4	1	2	2	5	7
575:	4	5	3	1	5	6	4	6	4	7	5	2	3	6
589:	4	5	5	5	6	6	7	7	9	4	7	8	6	7
603:	10	6	3	8	6	6	5	4	5	5	6	8	5	4
617:	8	6	4	7	6	11	7	4	7	5	4	3	5	11
631:	6	2	6	5	5	4	5	10	6	4	5	6	8	5
645:	4	8	6	5	9	6	6	8	5	7	3	6	9	9
659:	3	3	6	7	4	11	2	6	3	9	7	5	8	4
673:	6	8	3	5	6	13	6	7	8	7	2	9	9	8
687:	3	4	8	11	3	0	3	5	11	7	3	10	6	8
701:	5	10	6	9	10	9	7	7	6	5	7	4	8	8
715:	5	7	2	9	7	7	3	7	7	6	8	7	7	6
729:	5	8	5	1	7	3	6	2	4	6	10	10	10	2
743:	5	3	3	5	6	8	9	7	9	9	4	3	6	6
757:	8	4	4	8	4	4	5	3	6	5	1	5	3	4
771:	9	7	4	5	4	4	5	9	7	6	1	5	6	4
785:	5	3	1	4	5	4	5	7	2	7	4	6	3	4
799:	2	5	2	9	5	3	6	1	2	6	3	8	7	2
813:	1	11	4	5	8	7	9	7	9	7	2	5	2	3
827:	6	2	12	4	6	4	4	4	5	5	8	4	2	4
841:	2	4	4	6	5	6	7	4	3	3	8	3	8	3
855:	2	4	4	8	10	5	6	3	3	5	1	5	7	6
869:	7	5	4	3	10	7	3	6	3	7	5	10	8	10
883:	8	5	6	3	2	6	6	7	6	3	7	4	0	4
897:	3	3	4	3	9	5	3	8	3	6	7	3	8	8
911:	6	5	5	8	6	7	10	7	6	7	3	2	2	4
925:	3	12	3	8	5	3	1	8	4	6	8	5	9	9
939:	4	6	6	3	6	8	7	4	3	9	6	9	8	9
953:	5	9	5	7	7	3	1	5	3	2	4	1	2	2
967:	1	1	1	6	5	4	5	2	2	0	1	0	4	3
981:	5	4	2	0	1	4	1	4	1	0	3	2	1	5
995:	2	3	2	1	2	4	2	3	4	5	2	6	2	2
1009:	2	1	8	2	1	4	5	2	0	2	0	1	4	4
1023:	0	0												

Eberline Services
Oak Ridge Laboratory

Gross Sample Counts Within Peak Regions Generated: 1-DEC-2010 08:48:20.82

Detector ID: 37 Acquisition Start: 30-NOV-2010 18:46:17.01
Live Time: 0 02:50:00.00 Real Time: 0 02:50:00.40
Batch Id: 1011052A-RA Sample Id: 01
Sample Type: RA

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4746.13	281	0	169.12	424.76	394	62	2.75E-02	6.0	
2	0	5289.65	962	0	531.76	610.37	518	176	9.43E-02	3.2	
3	0	5806.10	852	0	0.00	790.27	712	163	8.35E-02	3.4	

Background Counts Within Peak Regions Generated: 1-DEC-2010 08:48:25.34

Acquisition Start: 24-NOV-2010 18:23:34.01
Live Time: 0 16:40:00.00 Real Time: 0 16:40:23.40

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4744.51	0	0	0.00	424.50	394	62	0.00E+00	0.0	
2	0	5275.36	4	0	406.55	605.50	518	176	6.67E-05	50.0	
3	0	5815.40	4	0	113.96	793.00	712	163	6.67E-05	50.0	

Net Sample Counts Within Peak Regions Generated: 1-DEC-2010 08:48:25.62

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4746.13*	725	0	169.12	424.76	394	62	7.11E-02	6.0	
2	0	5289.65*	2481	0	531.76	610.37	518	176	2.43E-01	3.2	
3	0	5806.10*	2197	0	0.00	790.27	712	163	2.15E-01	3.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.0 Generated 1-DEC-2010 08:48:26

Configuration	: MCA0:[AMSCOUNT]0000B486$1		
Analyses by	: ROIPEAK V1.2,PEAKEFF V2.2,ENBACK V1.6,NID V3.3		
Sample title	: SPIKE		
Sample date	: 30-NOV-2010 00:00:00	Acquisition date	: 30-NOV-2010 18:46:17
Sample ID	: 01	Sample quantity	: 1.0000 gram
Sample type	: RA	Sample geometry	:
Detector name	: 037	Detector geometry	:
Elapsed live time	: 0 02:50:00.00	Elapsed real time	: 0 02:50:00.40 0.0%
Energy tolerance	: 150.00 keV	Half life ratio	: 8.00
Errors propagated	: Yes	Systematic Error	: 3.00 %
Efficiency type	: Average value	Efficiencies at	: Peak Energy
Abundance limit	: 75.00		

Post-NID Peak Search Report

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity pCi/gram
0	4746.13*	725169.12		424.76	394	62	11.9		RA-226	10.7
0	5289.65*	2481531.76		610.37	518	176	6.5		RN-222	36.7
0	5806.10*	2197	0.00	790.27	712	163	6.9		PO-218	32.5

Eberline Services
Oak Ridge Laboratory

ALPHA SPECTROMETRY REPORT
1-DEC-2010 05:57:01

****
Spectral File: ND_AMS_ARCHIVE_R:R_1011052A-RA$02_RA.CNF
****

BATCH ID:	1011052A-RA	SAMPLE ID:	02
SAMPLE DATE:	30-NOV-2010 00:00	ALIQUOT:	1.000E+00 gram
SAMPLE TITLE:	BLANK	DETECTOR NUMBER:	038
ACQ DATE:	30-NOV-2010 18:46	AVERAGE EFFICIENCY:	16.63%
ELAPSED LIVE TIME:	10200.	RECOVERY:	100.00%
TRACER ID:	NONE	TRACER FWHM (kev):	0.00
LAMBDA VALUE:	0.	ROI TYPE:	STANDARD
TRACER DPM AT SAMPLE DATE:	0.000	CONFIDENCE FACTOR:	4.65
SAMPLE MATRIX:	SOIL	LLD CONSTANT:	2.65
ENERGY CAL DATE:	24-NOV-2010 12:48	EFF CAL DATE:	14-NOV-2010 09:45
BKG FILENAME:	B_038_24NOV10	BKG ELAPSED TIME:	60000.
		SAF:	2.77

****

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	NET AREA	BKG	%ABN	ACTIVITY pCi/ gram	TPU/ERROR 2-SIGMA	MDC pCi/ gram
PO-218	6003.0	10.06	1.02	100.0	1.603E-01	1.774E-01	3.243E-01
RN-222	5490.0	6.27	2.04	99.9	9.998E-02	1.543E-01	4.104E-01
RA-226	4785.0	13.34	0.51	100.0	2.126E-01	1.982E-01	2.635E-01

****

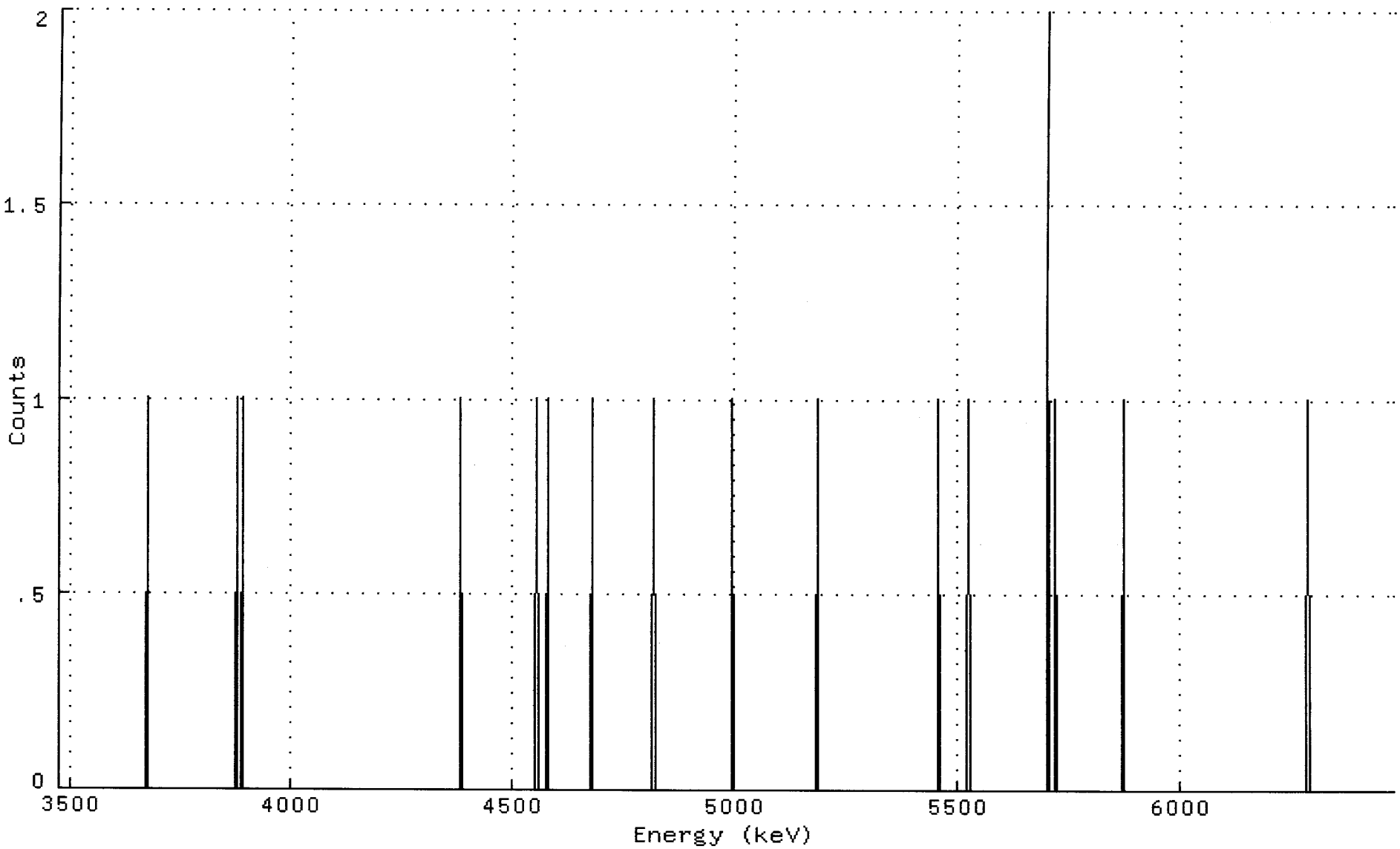
EH
Analyst

12/1/10
Date

Reviewer

12/1/10
Date

Spectrum : DKA100:[ALPHA.ALUSR.ARCHIVE.R]R_1011052A-RA$02_RA.CNF;1
Title : 038
Sample Title: BLANK
Start Time: 30-NOV-2010 18:46 Sample Time: 30-NOV-2010 00:00 Energy Offset: 3.46365E+03
Real Time : 0 02:50:00.40 Sample ID : 02 Energy Slope : 3.09626E+00
Live Time : 0 02:50:00.00 Sample Type: RA Energy Quad : -1.47283E-04



0202

Channel Contents for ND_AMS_ARCHIVE_R:R_1011052A-RA$02_RA

Channel

1:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57:	0	0	0	0	0	0	0	0	0	0	0	1	0	0
71:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
127:	0	0	0	0	0	0	0	1	0	0	0	1	0	0
141:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
155:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
169:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
183:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
197:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
211:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
225:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
239:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
267:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
281:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
295:	0	0	0	0	0	0	1	0	0	0	0	0	0	0
309:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
323:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
337:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
351:	0	0	0	0	0	0	0	1	0	0	0	0	0	0
365:	0	1	0	0	0	0	0	0	0	0	0	0	0	0
379:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
393:	0	0	0	0	0	0	1	0	0	0	0	0	0	0
407:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
421:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
435:	0	0	0	0	0	0	0	0	0	0	0	1	0	0
449:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
463:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
477:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
491:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
505:	0	1	0	0	0	0	0	0	0	0	0	0	0	0
519:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
533:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
547:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
561:	0	0	0	0	0	0	0	0	0	0	1	0	0	0
575:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
589:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
603:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
617:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
631:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
645:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
659:	0	0	0	0	0	0	1	0	0	0	0	0	0	0
673:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
687:	0	1	0	0	0	0	0	0	0	0	0	0	0	0
701:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
715:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
729:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
743:	0	0	0	0	0	0	0	2	0	0	0	0	0	1
757:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
771:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
785:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
799:	0	0	0	0	0	0	0	0	0	0	1	0	0	0
813:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
827:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
841:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
855:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
869:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
883:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
897:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
911:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
939:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
953:	0	0	1	0	0	0	0	0	0	0	0	0	0	0
967:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
981:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
995:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1009:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1023:	0	0												

Eberline Services
Oak Ridge Laboratory

Gross Sample Counts Within Peak Regions Generated: 1-DEC-2010 05:56:51.26

Detector ID: 38 Acquisition Start: 30-NOV-2010 18:46:28.01
Live Time: 0 02:50:00.00 Real Time: 0 02:50:00.40
Batch Id: 1011052A-RA Sample Id: 02
Sample Type: RA

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4601.05	5	0	452.05	374.00	299	155	4.90E-04	44.7	
2	0	5388.81	3	0	365.36	641.33	515	175	2.94E-04	57.7	
3	0	5749.68	4	0	3.10	766.25	709	161	3.92E-04	50.0	

Background Counts Within Peak Regions Generated: 1-DEC-2010 05:56:58.82

Acquisition Start: 24-NOV-2010 18:23:38.01
Live Time: 0 16:40:00.00 Real Time: 0 16:40:23.40

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4597.32	3	0	260.89	376.00	299	155	5.00E-05	57.7	
2	0	5262.56	12	0	515.56	602.00	515	175	2.00E-04	28.9	
3	0	5800.19	6	0	3.11	789.00	709	161	1.00E-04	40.8	

Net Sample Counts Within Peak Regions Generated: 1-DEC-2010 05:56:59.17

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4601.05*	13	0	452.05	374.00	299	155	1.31E-03	46.5	
2	0	5388.81*	6	0	365.36	641.33	515	175	6.15E-04	77.1	
3	0	5749.68*	10	0	3.10	766.25	709	161	9.86E-04	55.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.0 Generated 1-DEC-2010 05:57:00

Configuration	: MCA0:[AMSCOUNT]0000B4BC$1		
Analyses by	: ROIPEAK V1.2,PEAKEFF V2.2,ENBACK V1.6,NID V3.3		
Sample title	: BLANK		
Sample date	: 30-NOV-2010 00:00:00	Acquisition date	: 30-NOV-2010 18:46:28
Sample ID	: 02	Sample quantity	: 1.0000 gram
Sample type	: RA	Sample geometry	:
Detector name	: 038	Detector geometry	:
Elapsed live time	: 0 02:50:00.00	Elapsed real time	: 0 02:50:00.40 0.0%
Energy tolerance	: 100.00 keV	Half life ratio	: 8.00
Errors propagated	: Yes	Systematic Error	: 3.00 %
Efficiency type	: Average value	Efficiencies at	: Peak Energy
Abundance limit	: 75.00		

Post-NID Peak Search Report

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity pCi/gram
0	4601.05*	13452.05	374.00		299	155	93.0		RA-226	0.213
0	5388.81*	6365.36	641.33		515	175	154.2		RN-222	0.100
0	5749.68*	10 3.10	766.25		709	161	110.4		PO-218	0.160

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Oak Ridge Laboratory

ALPHA SPECTROMETRY REPORT
1-DEC-2010 05:57:16

****
Spectral File: ND_AMS_ARCHIVE_S:S_1011052A-RA$03_RA.CNF
****

BATCH ID:	1011052A-RA	SAMPLE ID:	03
SAMPLE DATE:	5-NOV-2010 00:00	ALIQUOT:	1.010E+00 gram
SAMPLE TITLE:	SD27-DPT-13A	DETECTOR NUMBER:	039
ACQ DATE:	30-NOV-2010 18:46	AVERAGE EFFICIENCY:	19.24%
ELAPSED LIVE TIME:	10200.	RECOVERY:	96.84%
TRACER ID:	NONE	TRACER FWHM (kev):	0.00
LAMBDA VALUE:	0.	ROI TYPE:	STANDARD
TRACER DPM AT SAMPLE DATE:	0.000	CONFIDENCE FACTOR:	4.65
SAMPLE MATRIX:	SOIL	LLD CONSTANT:	2.65
ENERGY CAL DATE:	24-NOV-2010 12:48	EFF CAL DATE:	14-NOV-2010 09:45
BKG FILENAME:	B_039_24NOV10	BKG ELAPSED TIME:	60000.
		SAF:	2.87

****

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	NET AREA	BKG	%ABN	ACTIVITY pCi/ gram	TPU/ERROR 2-SIGMA	MDC pCi/ gram
PO-218	6003.0	5.57	0.17	100.0	7.842E-02	1.145E-01	1.846E-01
RN-222	5490.0	11.31	0.17	99.9	1.593E-01	1.622E-01	1.847E-01
RA-226	4785.0	25.66	0.17	100.0	3.612E-01	2.437E-01	1.845E-01

****

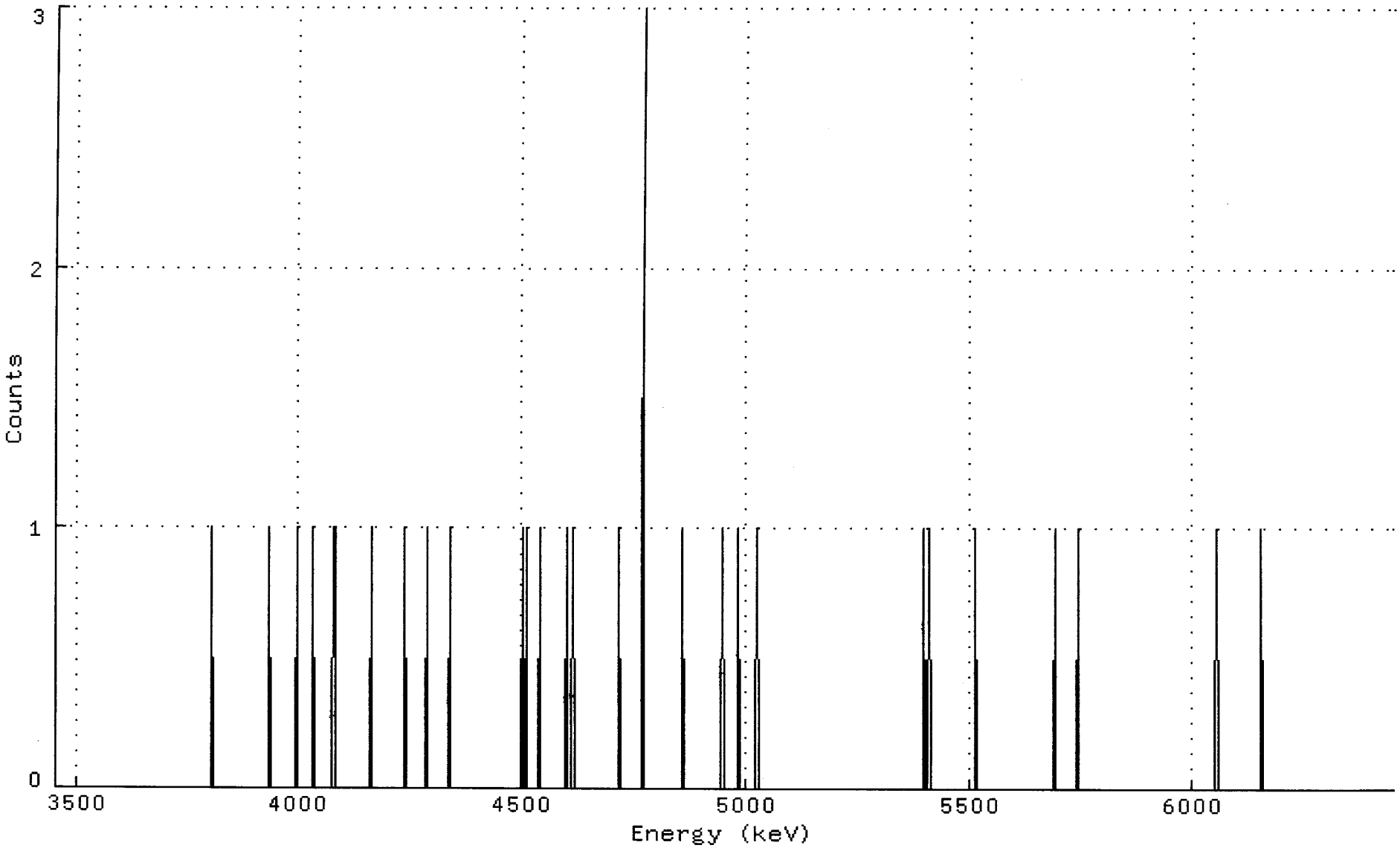
EH
Analyst

12/1/10
Date

Reviewer

12/1/10
Date

Spectrum : DKA100:[ALPHA.ALUSR.ARCHIVE.S]S_1011052A-RA$03_RA.CNF;1
Title : 039
Sample Title: SD27-DPT-13A
Start Time: 30-NOV-2010 18:46 Sample Time: 5-NOV-2010 00:00: Energy Offset: 3.44531E+03
Real Time : 0 02:50:00.50 Sample ID : 03 Energy Slope : 3.11097E+00
Live Time : 0 02:50:00.00 Sample Type: RA Energy Quad : -1.79033E-04



0207

Channel Contents for ND_AMS_ARCHIVE_S:S_1011052A-RA$03_RA

Channel

1:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113:	0	0	0	0	1	0	0	0	0	0	0	0	0	0
127:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
155:	0	0	0	0	1	0	0	0	0	0	0	0	0	0
169:	0	0	0	0	0	0	0	0	0	0	1	0	0	0
183:	0	0	0	0	0	0	0	0	1	0	0	0	0	0
197:	0	0	0	0	0	0	0	0	0	1	1	0	0	0
211:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
225:	0	0	0	0	0	0	0	0	0	1	0	0	0	0
239:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253:	0	0	0	0	0	0	1	0	0	0	0	0	0	0
267:	0	0	0	0	0	0	0	0	1	0	0	0	0	0
281:	0	0	0	0	0	0	0	0	0	0	0	1	0	0
295:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
309:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
323:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
337:	0	0	0	0	0	0	0	0	0	1	0	0	1	0
351:	0	0	0	0	0	0	0	0	1	0	0	0	0	0
365:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
379:	1	0	0	0	0	1	0	0	0	0	0	0	0	0
393:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
407:	0	0	0	0	0	0	0	0	0	0	0	0	1	0
421:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
435:	0	0	3	0	0	0	0	0	0	0	0	0	0	0
449:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
463:	0	0	0	0	1	0	0	0	0	0	0	0	0	0
477:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
491:	0	0	0	0	0	0	1	0	0	0	0	0	0	0
505:	0	0	0	0	1	0	0	0	0	0	0	0	0	0
519:	0	0	0	0	1	0	0	0	0	0	0	0	0	0
533:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
547:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
561:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
575:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
589:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
603:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
617:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
631:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
645:	0	0	0	0	0	0	0	1	0	0	0	1	0	0
659:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
673:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
687:	0	0	0	0	0	1	0	0	0	0	0	0	0	0
701:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
715:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
729:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
743:	0	0	0	0	0	0	0	0	0	0	0	1	0	0
757:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
771:	0	1	0	0	0	0	0	0	0	0	0	0	0	0
785:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
799:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
813:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
827:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
841:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
855:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
869:	0	0	0	0	0	0	0	0	0	0	0	0	0	1
883:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
897:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
911:	0	0	0	0	0	0	0	1	0	0	0	0	0	0
925:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
939:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
953:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
967:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
981:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
995:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1009:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1023:	0	0												

Eberline Services
Oak Ridge Laboratory

Gross Sample Counts Within Peak Regions Generated: 1-DEC-2010 05:57:06.56

Detector ID: 39 Acquisition Start: 30-NOV-2010 18:46:49.01
Live Time: 0 02:50:00.00 Real Time: 0 02:50:00.50
Batch Id: 1011052A-RA Sample Id: 03
Sample Type: RA

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4643.57	9	0	3.11	394.11	304	156	8.82E-04	33.3	
2	0	5336.33	4	0	528.86	630.75	522	176	3.92E-04	50.0	
3	0	5714.75	2	0	59.11	763.00	717	164	1.96E-04	70.7	

Background Counts Within Peak Regions Generated: 1-DEC-2010 05:57:14.29

Acquisition Start: 24-NOV-2010 18:23:41.01
Live Time: 0 16:40:00.00 Real Time: 0 16:40:23.40

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4603.40	1	0	3.10	381.50	304	156	1.67E-05	100.0	
2	0	5271.69	1	0	3.10	609.50	522	176	1.67E-05	100.0	
3	0	5812.29	1	0	3.10	798.50	717	164	1.67E-05	100.0	

Net Sample Counts Within Peak Regions Generated: 1-DEC-2010 05:57:14.60

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4643.57*	26	0	3.11	394.11	304	156	2.52E-03	33.6	
2	0	5336.33*	11	0	528.86	630.75	522	176	1.11E-03	50.8	
3	0	5714.75*	6	0	59.11	763.00	717	164	5.46E-04	72.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.0 Generated 1-DEC-2010 05:57:15

Configuration	: MCA0:[AMSCOUNT]0000B4BC$1		
Analyses by	: ROIPEAK V1.2,PEAKEFF V2.2,ENBACK V1.6,NID V3.3		
Sample title	: SD27-DPT-13A		
Sample date	: 5-NOV-2010 00:00:00	Acquisition date	: 30-NOV-2010 18:46:49
Sample ID	: 03	Sample quantity	: 1.0105 gram
Sample type	: RA	Sample geometry	:
Detector name	: 039	Detector geometry	:
Elapsed live time	: 0 02:50:00.00	Elapsed real time	: 0 02:50:00.50 0.0%
Energy tolerance	: 100.00 keV	Half life ratio	: 8.00
Errors propagated	: Yes	Systematic Error	: 3.00 %
Efficiency type	: Average value	Efficiencies at	: Peak Energy
Abundance limit	: 75.00		

Post-NID Peak Search Report

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity pCi/gram
0	4643.57*	26	3.11	394.11	304	156	67.1		RA-226	0.350
0	5336.33*	11528.86		630.75	522	176	101.5		RN-222	0.154
0	5714.75*	6	59.11	763.00	717	164	145.9		PO-218	7.595E-02

Eberline Services
Oak Ridge Laboratory

ALPHA SPECTROMETRY REPORT
1-DEC-2010 05:57:33

****
Spectral File: ND_AMS_ARCHIVE_S:S_1011052A-RA$04_RA.CNF
****

BATCH ID:	1011052A-RA	SAMPLE ID:	04
SAMPLE DATE:	5-NOV-2010 00:00	ALIQUOT:	1.020E+00 gram
SAMPLE TITLE:	SD27-DPT-13A	DETECTOR NUMBER:	040
ACQ DATE:	30-NOV-2010 18:47	AVERAGE EFFICIENCY:	19.83%
ELAPSED LIVE TIME:	10200.	RECOVERY:	74.66%
TRACER ID:	NONE	TRACER FWHM (kev):	0.00
LAMBDA VALUE:	0.	ROI TYPE:	STANDARD
TRACER DPM AT SAMPLE DATE:	0.000	CONFIDENCE FACTOR:	4.65
SAMPLE MATRIX:	SOIL	LLD CONSTANT:	2.65
ENERGY CAL DATE:	24-NOV-2010 12:48	EFF CAL DATE:	14-NOV-2010 09:46
BKG FILENAME:	B_040_24NOV10	BKG ELAPSED TIME:	60000.
		SAF:	2.27

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NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	NET AREA	BKG	%ABN	ACTIVITY pCi/ gram	TPU/ERROR 2-SIGMA	MDC pCi/ gram
PO-218	6003.0	15.55	0.34	100.0	2.728E-01	2.117E-01	2.135E-01
RN-222	5490.0	13.28	0.34	99.9	2.331E-01	1.960E-01	2.136E-01
RA-226	4785.0	19.92	0.51	100.0	3.494E-01	2.403E-01	2.377E-01

****

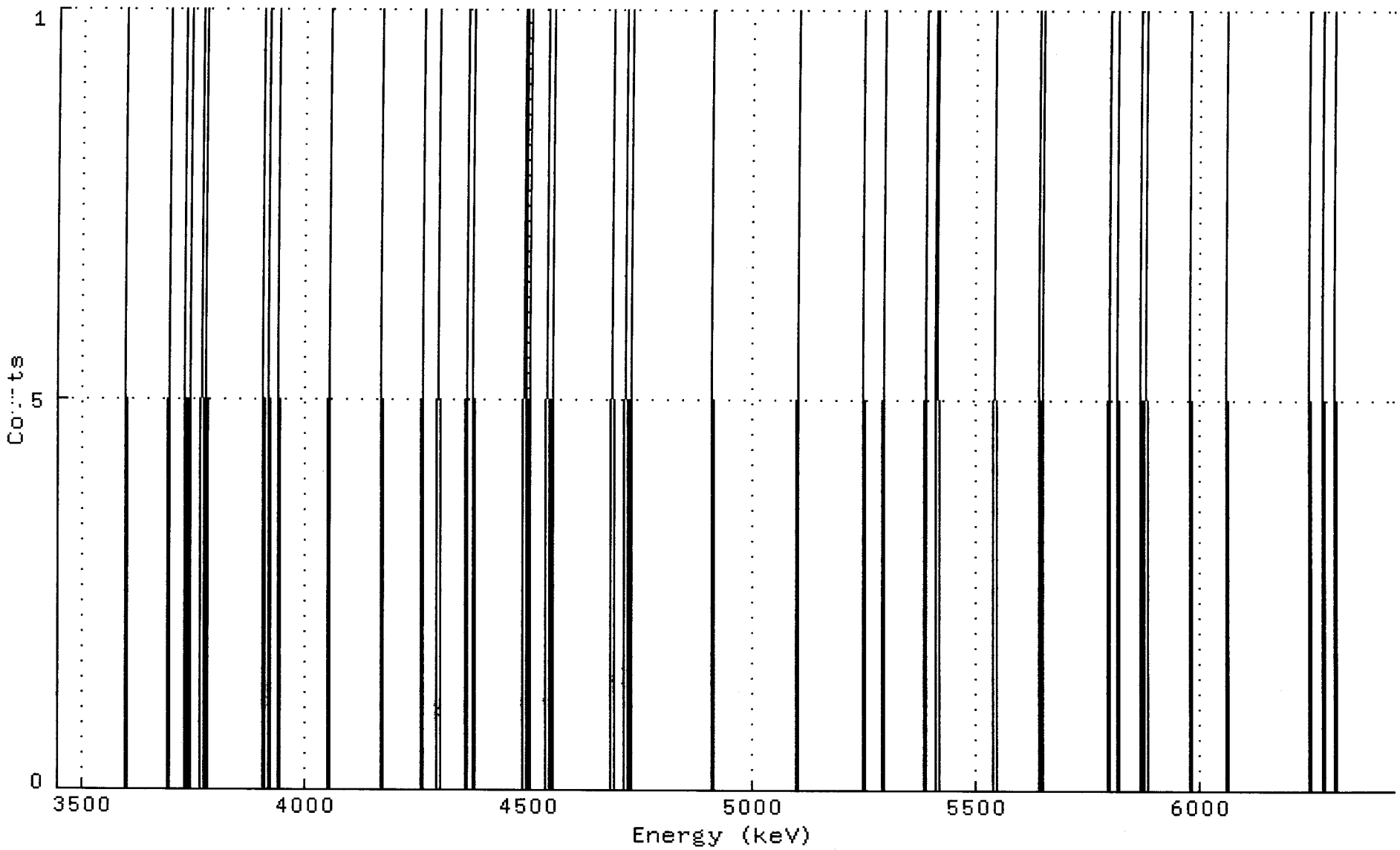
EH
Analyst

12/1/10
Date

Dan Gregby
Reviewer

12/1/10
Date

Spectrum : DKA100:[ALPHA.ALUSR.ARCHIVE.S]S_1011052A-RA$04_RA.CNF;1
Title : 040
Sample Title: SD27-DPT-13A
Start Time: 30-NOV-2010 18:47 Sample Time: 5-NOV-2010 00:00: Energy Offset: 3.43509E+03
Real Time : 0 02:50:00.50 Sample ID : 04 Energy Slope : 3.11378E+00
Live Time : 0 02:50:00.00 Sample Type: RA Energy Quad : -1.85586E-04



Channel Contents for ND_AMS_ARCHIVE_S:S_1011052A-RA$04_RA

Channel

1:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	1	0	0	0
57:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71:	0	0	0	0	0	0	0	0	0	0	0	0	0	1
85:	0	0	0	0	0	0	0	0	0	0	0	1	0	0
99:	1	0	0	0	0	0	0	0	0	1	0	0	1	0
113:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
127:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141:	0	0	0	0	0	0	0	0	0	0	0	0	1	0
155:	0	0	1	0	0	0	0	0	0	1	0	0	0	0
169:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
183:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
197:	0	0	0	0	1	0	0	0	0	0	0	0	0	0
211:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
225:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
239:	0	1	0	0	0	0	0	0	0	0	0	0	0	0
253:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
267:	0	0	0	1	0	0	0	0	0	0	0	0	0	0
281:	0	1	0	0	0	0	0	0	0	0	0	0	0	0
295:	0	0	0	0	0	0	0	0	1	0	0	0	0	1
309:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
323:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
337:	0	0	0	0	0	0	0	0	0	1	0	1	0	1
351:	0	0	0	0	0	0	0	0	0	0	0	0	1	0
365:	0	0	1	0	0	0	0	0	0	0	0	0	0	0
379:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
393:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
407:	0	0	0	0	0	1	0	0	0	0	0	0	0	0
421:	0	1	0	0	0	1	0	0	0	0	0	0	0	0
435:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
449:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
463:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
477:	0	0	0	0	0	0	0	0	0	0	0	1	0	0
491:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
505:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
519:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
533:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
547:	0	0	0	0	0	0	1	0	0	0	0	0	0	0
561:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
575:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
589:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
603:	0	1	0	0	0	0	0	0	0	0	0	0	0	0
617:	0	0	1	0	0	0	0	0	0	0	0	0	0	0
631:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
645:	0	0	0	0	0	0	0	1	0	0	0	0	0	0
659:	0	1	1	0	0	0	0	0	0	0	0	0	0	0
673:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
687:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
701:	0	0	0	0	0	1	0	0	0	0	0	0	0	0
715:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
729:	0	0	0	0	0	0	0	0	0	0	0	0	1	0
743:	1	0	0	0	0	0	0	0	0	0	0	0	0	0
757:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
771:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
785:	0	0	0	0	0	0	0	0	0	0	0	1	0	0
799:	0	0	0	0	1	0	0	0	0	0	0	0	0	0
813:	0	0	0	0	0	0	0	0	1	0	0	0	1	0
827:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
841:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
855:	0	0	0	0	0	0	1	0	0	0	0	0	0	0
869:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
883:	0	0	0	0	0	0	0	1	0	0	0	0	0	0
897:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
911:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
939:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
953:	0	0	0	1	0	0	0	0	0	0	0	0	0	0
967:	1	0	0	0	0	0	0	0	0	1	0	0	0	0
981:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
995:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1009:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1023:	0	0												

Eberline Services
Oak Ridge Laboratory

Gross Sample Counts Within Peak Regions Generated: 1-DEC-2010 05:57:20.99

Detector ID: 40 Acquisition Start: 30-NOV-2010 18:47:07.01
Live Time: 0 02:50:00.00 Real Time: 0 02:50:00.50
Batch Id: 1011052A-RA Sample Id: 04
Sample Type: RA

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4565.75	9	0	370.54	371.33	307	157	8.82E-04	33.3	
2	0	5308.23	6	0	339.40	624.83	525	177	5.88E-04	40.8	
3	0	5803.32	7	0	376.77	798.57	721	164	6.86E-04	37.8	

Background Counts Within Peak Regions Generated: 1-DEC-2010 05:57:30.92

Acquisition Start: 24-NOV-2010 18:23:44.01
Live Time: 0 16:40:00.00 Real Time: 0 16:40:23.50

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4613.36	3	0	78.55	385.00	307	157	5.00E-05	57.7	
2	0	5281.50	2	0	100.55	613.00	525	177	3.33E-05	70.7	
3	0	5820.02	2	0	72.27	802.50	721	164	3.33E-05	70.7	

Net Sample Counts Within Peak Regions Generated: 1-DEC-2010 05:57:31.24

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4565.75*	20	0	370.54	371.33	307	157	1.95E-03	34.2	
2	0	5308.23*	13	0	339.40	624.83	525	177	1.30E-03	41.9	
3	0	5803.32*	16	0	376.77	798.57	721	164	1.52E-03	38.7	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.0 Generated 1-DEC-2010 05:57:32

Configuration	: MCA0:[AMSCOUNT]0000B4BC$1		
Analyses by	: ROIPEAK V1.2,PEAKEFF V2.2,ENBACK V1.6,NID V3.3		
Sample title	: SD27-DPT-13A		
Sample date	: 5-NOV-2010 00:00:00	Acquisition date	: 30-NOV-2010 18:47:07
Sample ID	: 04	Sample quantity	: 1.0203 gram
Sample type	: RA	Sample geometry	:
Detector name	: 040	Detector geometry	:
Elapsed live time	: 0 02:50:00.00	Elapsed real time	: 0 02:50:00.50 0.0%
Energy tolerance	: 100.00 keV	Half life ratio	: 8.00
Errors propagated	: Yes	Systematic Error	: 3.00 %
Efficiency type	: Average value	Efficiencies at	: Peak Energy
Abundance limit	: 75.00		

Post-NID Peak Search Report

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity pCi/gram
0	4565.75*	20370.54	371.33		307	157	68.4		RA-226	0.261
0	5308.23*	13339.40	624.83		525	177	83.8		RN-222	0.174
0	5803.32*	16376.77	798.57		721	164	77.3		PO-218	0.204

Eberline Services
Oak Ridge Laboratory

ALPHA SPECTROMETRY REPORT
1-DEC-2010 05:57:53

****
Spectral File: ND_AMS_ARCHIVE_S:S_1011052A-RA$05_RA.CNF
****

BATCH ID:	1011052A-RA	SAMPLE ID:	05
SAMPLE DATE:	5-NOV-2010 00:00	ALIQUOT:	1.024E+00 gram
SAMPLE TITLE:	SD27-DPT-13B	DETECTOR NUMBER:	041
ACQ DATE:	30-NOV-2010 18:47	AVERAGE EFFICIENCY:	19.81%
ELAPSED LIVE TIME:	10200.	RECOVERY:	50.71%
TRACER ID:	NONE	TRACER FWHM (kev):	0.00
LAMBDA VALUE:	0.	ROI TYPE:	STANDARD
TRACER DPM AT SAMPLE DATE:	0.000	CONFIDENCE FACTOR:	4.65
SAMPLE MATRIX:	SOIL	LLD CONSTANT:	2.65
ENERGY CAL DATE:	24-NOV-2010 12:48	EFF CAL DATE:	14-NOV-2010 09:46
BKG FILENAME:	B_041_24NOV10	BKG ELAPSED TIME:	60000.
		SAF:	4.11

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NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	NET AREA	BKG	%ABN	ACTIVITY pCi/ gram	TPU/ERROR 2-SIGMA	MDC pCi/ gram
PO-218	6003.0	8.05	0.17	100.0	2.074E-01	3.000E-01	4.836E-01
RN-222	5490.0	24.32	0.34	99.9	6.269E-01	5.210E-01	5.680E-01
RA-226	4785.0	16.27	0.17	100.0	4.191E-01	4.245E-01	4.835E-01

****

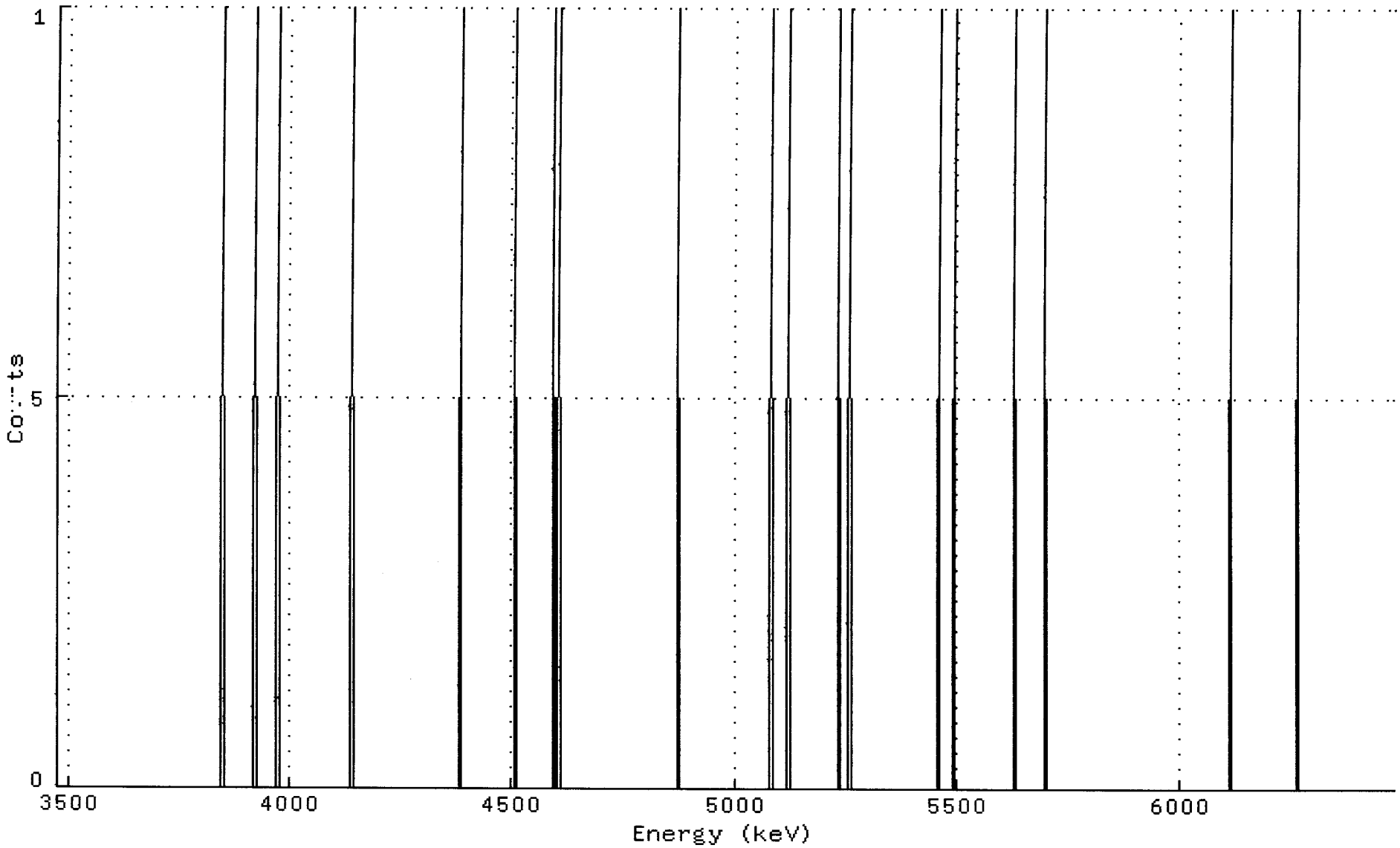
EH
Analyst

12/1/10
Date

Reviewer

12/1/10
Date

Spectrum : DKA100:[ALPHA.ALUSR.ARCHIVE.S]S_1011052A-RA$05_RA.CNF;1
Title : 041
Sample Title: SD27-DPT-13B
Start Time: 30-NOV-2010 18:47 Sample Time: 5-NOV-2010 00:00: Energy Offset: 3.46342E+03
Real Time : 0 02:50:00.40 Sample ID : 05 Energy Slope : 3.08769E+00
Live Time : 0 02:50:00.00 Sample Type: RA Energy Quad : -1.38797E-04



Channel Contents for ND_AMS_ARCHIVE_S:S_1011052A-RA$05_RA

Channel

1:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113:	0	0	0	0	0	0	0	0	0	0	0	0	1	0
127:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141:	0	0	0	0	0	0	0	0	1	0	0	0	0	0
155:	0	0	0	0	0	0	0	0	0	0	0	1	0	0
169:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
183:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
197:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
211:	0	0	0	0	0	0	0	0	0	0	1	0	0	0
225:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
239:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
267:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
281:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
295:	0	0	0	0	0	0	0	1	0	0	0	0	0	0
309:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
323:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
337:	0	0	0	0	0	0	1	0	0	0	0	0	0	0
351:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
365:	0	0	0	0	0	0	0	1	0	0	0	1	0	0
379:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
393:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
407:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
421:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
435:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
449:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
463:	0	0	0	1	0	0	0	0	0	0	0	0	0	0
477:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
491:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
505:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
519:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
533:	0	0	0	0	1	0	0	0	0	0	0	0	0	0
547:	0	0	0	1	0	0	0	0	0	0	0	0	0	0
561:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
575:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
589:	1	0	0	0	0	0	0	0	1	0	0	0	0	0
603:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
617:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
631:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
645:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
659:	0	0	0	0	0	0	0	1	0	0	0	0	0	0
673:	0	0	0	0	0	1	0	0	0	0	0	0	0	0
687:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
701:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
715:	0	0	0	0	0	0	0	0	0	0	1	0	0	0
729:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
743:	0	0	0	0	0	0	1	0	0	0	0	0	0	0
757:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
771:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
785:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
799:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
813:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
827:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
841:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
855:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
869:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
883:	0	0	0	0	0	0	0	0	0	0	0	1	0	0
897:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
911:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
939:	0	0	0	0	0	0	0	0	1	0	0	0	0	0
953:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
967:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
981:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
995:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1009:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1023:	0	0												

Eberline Services
Oak Ridge Laboratory

Gross Sample Counts Within Peak Regions Generated: 1-DEC-2010 05:57:37.03

Detector ID: 41 Acquisition Start: 30-NOV-2010 18:47:25.01
Live Time: 0 02:50:00.00 Real Time: 0 02:50:00.40
Batch Id: 1011052A-RA Sample Id: 05
Sample Type: RA

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4521.88	4	0	231.58	348.25	299	156	3.92E-04	50.0	
2	0	5274.34	6	0	438.45	602.83	516	175	5.88E-04	40.8	
3	0	5663.66	2	0	77.19	737.00	709	161	1.96E-04	70.7	

Background Counts Within Peak Regions Generated: 1-DEC-2010 05:57:51.36

Acquisition Start: 24-NOV-2010 18:23:48.01
Live Time: 0 16:40:00.00 Real Time: 0 16:40:23.40

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4605.88	1	0	3.11	376.50	299	156	1.67E-05	100.0	
2	0	5273.20	2	0	5.83	603.00	516	175	3.33E-05	70.7	
3	0	5808.52	1	0	3.11	789.00	709	161	1.67E-05	100.0	

Net Sample Counts Within Peak Regions Generated: 1-DEC-2010 05:57:51.66

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4521.88*	16	0	231.58	348.25	299	156	1.60E-03	50.5	
2	0	5274.34*	24	0	438.45	602.83	516	175	2.38E-03	41.4	
3	0	5663.66*	8	0	77.19	737.00	709	161	7.89E-04	72.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.0 Generated 1-DEC-2010 05:57:52

Configuration	: MCA0:[AMSCOUNT]0000B4BC$1		
Analyses by	: ROIPEAK V1.2,PEAKEFF V2.2,ENBACK V1.6,NID V3.3		
Sample title	: SD27-DPT-13B		
Sample date	: 5-NOV-2010 00:00:00	Acquisition date	: 30-NOV-2010 18:47:25
Sample ID	: 05	Sample quantity	: 1.0243 gram
Sample type	: RA	Sample geometry	:
Detector name	: 041	Detector geometry	:
Elapsed live time	: 0 02:50:00.00	Elapsed real time	: 0 02:50:00.40 0.0%
Energy tolerance	: 100.00 keV	Half life ratio	: 8.00
Errors propagated	: Yes	Systematic Error	: 3.00 %
Efficiency type	: Average value	Efficiencies at	: Peak Energy
Abundance limit	: 75.00		

Post-NID Peak Search Report

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity pCi/gram
0	4521.88*	16231.58	348.25	299	156	101.1			RA-226	0.213
0	5274.34*	24438.45	602.83	516	175	82.8			RN-222	0.318
0	5663.66*	8 77.19	737.00	709	161	144.5			PO-218	0.105

Eberline Services
Oak Ridge Laboratory

ALPHA SPECTROMETRY REPORT
1-DEC-2010 05:58:13

****
Spectral File: ND_AMS_ARCHIVE_S:S_1011052A-RA$06_RA.CNF
****

BATCH ID:	1011052A-RA	SAMPLE ID:	06
SAMPLE DATE:	5-NOV-2010 00:00	ALIQUOT:	1.017E+00 gram
SAMPLE TITLE:	SD27-DPT-13C	DETECTOR NUMBER:	042
ACQ DATE:	30-NOV-2010 18:47	AVERAGE EFFICIENCY:	18.81%
ELAPSED LIVE TIME:	10200.	RECOVERY:	100.00%
TRACER ID:	NONE	TRACER FWHM (kev):	0.00
LAMBDA VALUE:	0.	ROI TYPE:	STANDARD
TRACER DPM AT SAMPLE DATE:	0.000	CONFIDENCE FACTOR:	4.65
SAMPLE MATRIX:	SOIL	LLD CONSTANT:	2.65
ENERGY CAL DATE:	24-NOV-2010 12:48	EFF CAL DATE:	14-NOV-2010 09:46
BKG FILENAME:	B_042_24NOV10	BKG ELAPSED TIME:	60000.
		SAF:	3.89

****

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	NET AREA	BKG	%ABN	ACTIVITY pCi/ gram	TPU/ERROR 2-SIGMA	MDC pCi/ gram
PO-218	6003.0	11.16	0.51	100.0	1.546E-01	1.872E-01	3.217E-01
RN-222	5490.0	14.88	0.68	99.9	2.063E-01	2.164E-01	3.496E-01
RA-226	4785.0	15.56	0.00	100.0	2.155E-01	2.160E-01	1.428E-01

****

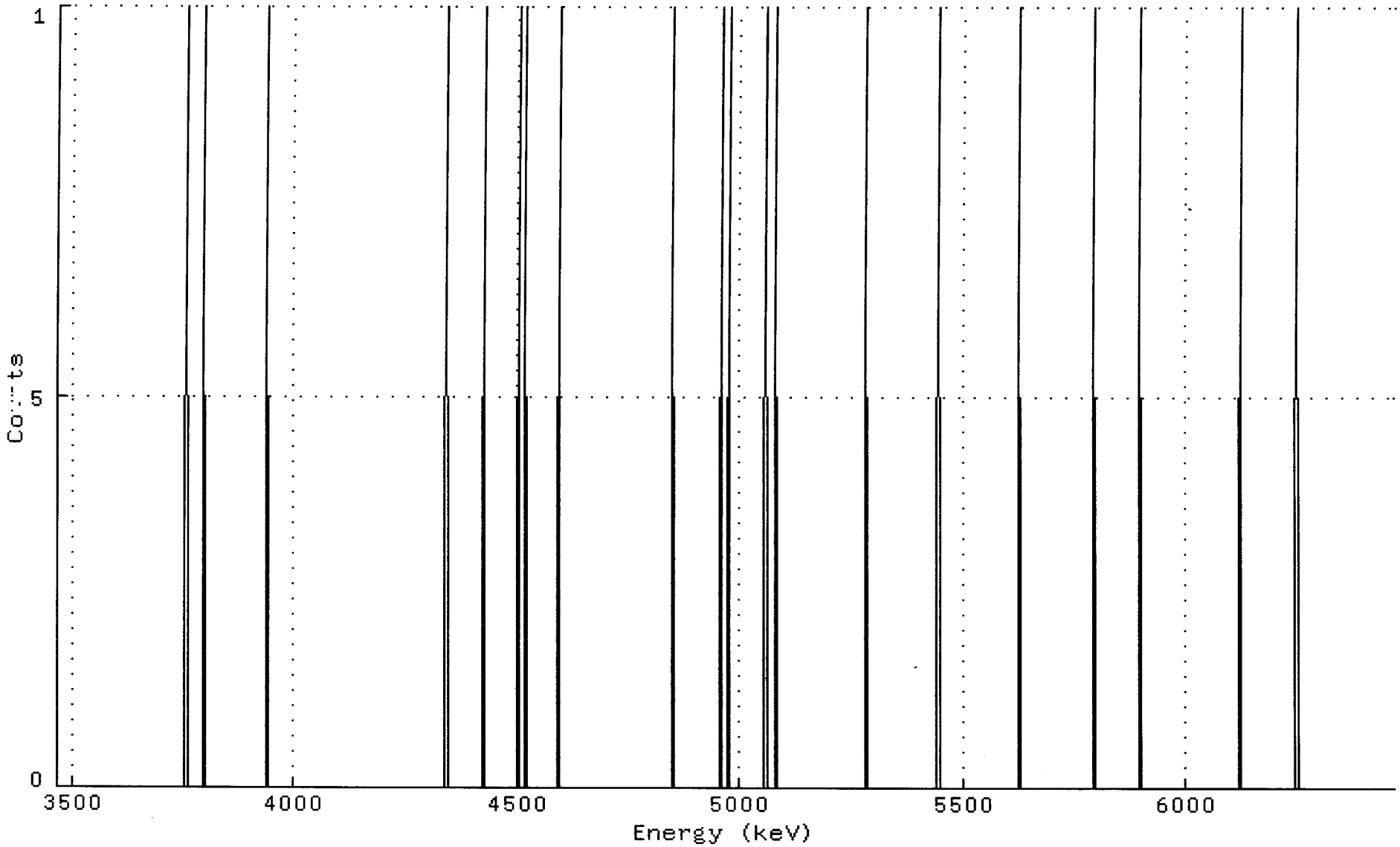
EH
Analyst

12/1/10
Date

Reviewer

12/1/10
Date

Spectrum : DKA100:[ALPHA.ALUSR.ARCHIVE.S]S_1011052A-RA$06_RA.CNF;1
Title : 042
Sample Title: SD27-DPT-13C
Start Time: 30-NOV-2010 18:47 Sample Time: 5-NOV-2010 00:00: Energy Offset: 3.45793E+03
Real Time : 0 02:50:00.50 Sample ID : 06 Energy Slope : 3.11711E+00
Live Time : 0 02:50:00.00 Sample Type: RA Energy Quad : -1.78381E-04



Channel Contents for ND_AMS_ARCHIVE_S:S_1011052A-RA$06_RA

Channel

1:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85:	0	0	0	0	0	0	0	0	0	0	0	0	1	0
99:	0	0	0	0	0	0	0	0	0	0	0	1	0	0
113:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
127:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
155:	0	1	0	0	0	0	0	0	0	0	0	0	0	0
169:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
183:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
197:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
211:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
225:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
239:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
267:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
281:	0	0	0	0	0	0	0	1	0	0	0	0	0	0
295:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
309:	0	0	0	0	0	0	0	1	0	0	0	0	0	0
323:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
337:	0	0	0	0	0	1	0	0	0	0	1	0	0	0
351:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
365:	0	0	0	0	0	0	0	1	0	0	0	0	0	0
379:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
393:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
407:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
421:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
435:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
449:	0	0	0	0	0	0	0	0	0	1	0	0	0	0
463:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
477:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
491:	0	0	0	0	1	0	0	0	0	0	1	0	0	0
505:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
519:	0	0	0	0	0	0	0	0	0	0	1	0	0	0
533:	0	0	0	0	1	0	0	0	0	0	0	0	0	0
547:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
561:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
575:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
589:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
603:	0	0	0	1	0	0	0	0	0	0	0	0	0	0
617:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
631:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
645:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
659:	0	0	0	1	0	0	0	0	0	0	0	0	0	0
673:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
687:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
701:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
715:	0	0	0	0	0	0	0	0	0	0	1	0	0	0
729:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
743:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
757:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
771:	0	0	0	0	0	0	0	0	0	0	0	0	0	1
785:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
799:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
813:	0	0	0	0	0	0	0	1	0	0	0	0	0	0
827:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
841:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
855:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
869:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
883:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
897:	0	0	0	1	0	0	0	0	0	0	0	0	0	0
911:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
939:	0	0	0	0	0	0	1	0	0	0	0	0	0	0
953:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
967:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
981:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
995:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1009:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1023:	0	0												

Eberline Services
Oak Ridge Laboratory

Gross Sample Counts Within Peak Regions Generated: 1-DEC-2010 05:57:57.67

Detector ID: 42 Acquisition Start: 30-NOV-2010 18:47:39.01
Live Time: 0 02:50:00.00 Real Time: 0 02:50:00.50
Batch Id: 1011052A-RA Sample Id: 06
Sample Type: RA

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4509.86	4	0	177.68	344.25	299	156	3.92E-04	50.0	
2	0	5216.03	4	0	417.69	583.50	516	176	3.92E-04	50.0	
3	0	5770.34	3	0	299.24	776.33	711	163	2.94E-04	57.7	

Background Counts Within Peak Regions Generated: 1-DEC-2010 05:58:11.44

Acquisition Start: 24-NOV-2010 18:23:51.01
Live Time: 0 16:40:00.00 Real Time: 0 16:40:23.40

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4605.43	0	0	0.00	376.50	299	156	0.00E+00	0.0	
2	0	5273.11	4	0	402.94	603.50	516	176	6.67E-05	50.0	
3	0	5812.99	3	0	96.83	792.00	711	163	5.00E-05	57.7	

Net Sample Counts Within Peak Regions Generated: 1-DEC-2010 05:58:11.75

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4509.86*	16	0	177.68	344.25	299	156	1.53E-03	50.0	
2	0	5216.03*	15	0	417.69	583.50	516	176	1.46E-03	52.3	
3	0	5770.34*	11	0	299.24	776.33	711	163	1.09E-03	60.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.0 Generated 1-DEC-2010 05:58:12

Configuration	: MCA0:[AMSCOUNT]0000B4BC$1		
Analyses by	: ROIPEAK V1.2,PEAKEFF V2.2,ENBACK V1.6,NID V3.3		
Sample title	: SD27-DPT-13C		
Sample date	: 5-NOV-2010 00:00:00	Acquisition date	: 30-NOV-2010 18:47:39
Sample ID	: 06	Sample quantity	: 1.0172 gram
Sample type	: RA	Sample geometry	:
Detector name	: 042	Detector geometry	:
Elapsed live time	: 0 02:50:00.00	Elapsed real time	: 0 02:50:00.50 0.0%
Energy tolerance	: 100.00 keV	Half life ratio	: 8.00
Errors propagated	: Yes	Systematic Error	: 3.00 %
Efficiency type	: Average value	Efficiencies at	: Peak Energy
Abundance limit	: 75.00		

Post-NID Peak Search Report

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity pCi/gram
0	4509.86*	16177.68	344.25		299	156100.0			RA-226	0.216
0	5216.03*	15417.69	583.50		516	176104.7			RN-222	0.206
0	5770.34*	11299.24	776.33		711	163120.9			PO-218	0.155

Review of QA results (Daily Pulser Check) 30-NOV-2010 05:35:47 Page 1

Detector	Parameter	Flag	Filename
1	OFFLINE		
2	OFFLINE		
3	ALL	Passed	D_003_NONE
4	ALL	Passed	D_004_NONE
5	ALL	Passed	D_005_NONE
6	OFFLINE		
7	OFFLINE		
8	OFFLINE		
9	OFFLINE		
10	ALL	Passed	D_010_NONE
11	ALL	Passed	D_011_NONE
12	ALL	Passed	D_012_NONE
13	ALL	Passed	D_013_NONE
14	ALL	Passed	D_014_NONE
15	ALL	Passed	D_015_NONE
16	OFFLINE		
17	OFFLINE		
18	OFFLINE		
19	OFFLINE		
20	OFFLINE		
21	OFFLINE		
22	OFFLINE		
23	OFFLINE		
24	OFFLINE		
25	OFFLINE		
26	OFFLINE		
27	OFFLINE		
28	OFFLINE		
29	OFFLINE		
30	OFFLINE		
31	OFFLINE		
32	OFFLINE		
33	ALL	Passed	D_033_NONE
34	ALL	Passed	D_034_NONE
35	PSCTSS-5000	Below	D_035_NONE
36	PSCENTRD-5000	Above	D_036_NONE
37	ALL	Passed	D_037_NONE
38	ALL	Passed	D_038_NONE
39	ALL	Passed	D_039_NONE
40	ALL	Passed	D_040_NONE
41	ALL	Passed	D_041_NONE
42	ALL	Passed	D_042_NONE
43	ALL	Passed	D_043_NONE
44	ALL	Passed	D_044_NONE
45	PSCTSS-5000	Action	D_045_NONE
46	OFFLINE		
47	ALL	Passed	D_047_NONE
48	PSCTSS-5000	Action	D_048_NONE

OK AG

APPROVAL DATE: 11/30/10 APPROVAL TIME: _____

APPROVED BY: EH PROCEDURE # _____

SECTION XI

ANALYTICAL DATA (RADIUM-228)

Eberline Services
Oak Ridge Laboratory
Analysis Sheet

10-11052
Ra228
Run 2

Work Order	10-11052
Analysis Code	Ra228
Run	2
Date Received	11/16/2010
Lab Deadline	12/6/2010
Client	Tetra Tech Divisions
Project	HOLLOMAN
Report Level	4
Activity Units	pCi
Aliquot Units	g
Matrix	SO
Method	EPA 904.0 Modified
Instrument Type	Alpha/Beta GPC
Radiometric Tracer	Ba-133
Radiometric Sol#	Ba-6a
Tracer Act (dpm/g)	1180.783
Carrier	Yttirum
Carrier Conc (mg/ml)	29.74

Internal Fraction	Sample Desc	Client ID	Login CPM	Sample Date	Sample Aliquot
01	LCS	LCS		11/16/10 00:00	1.0000E+00
02	MBL	BLANK		11/16/10 00:00	1.0000E+00
03	DUP	SD27-DPT-13A	30	11/05/10 13:10	1.0098E+00
04	DO	SD27-DPT-13A	30	11/05/10 13:10	1.0101E+00
05	TRG	SD27-DPT-13B	32	11/05/10 13:20	1.0024E+00
06	TRG	SD27-DPT-13C	43	11/05/10 13:40	9.8900E-01

0228

* SAF1 is used for Gross Alpha and all other radionuclides. SAF2 is used for Gross Beta only. ** Actual mass exceeded the calibration curve range. Results should be qualified as appropriate.

Eberline Services
Oak Ridge Laboratory
Analysis Sheet

10-11052
Ra228
Run 2

Internal Fraction	Sample Desc	Tracer Aliquot (g)	Tracer Total ACT (dpm)	Radiometric Tracer (pCi)	Radiometric % Rec	Grav Carrier Added (ml)	Grav Filter Tare (g)	Grav Filter Final (g)	Grav Filter Net (g)	Grav % Rec	Mean % Rec	SAF 1*	SAF 2*
01	LCS		0.0		0.00	2.000	0.0962	0.1552	0.0590	99.19	99.19	1.00	1.00
02	MBL		0.0		0.00	2.000	0.0963	0.1555	0.0592	99.53	99.53	1.00	1.00
03	DUP		0.0		0.00	2.000	0.0966	0.1547	0.0581	97.68	97.68	1.00	1.00
04	DO		0.0		0.00	2.000	0.0971	0.1553	0.0582	97.85	97.85	1.00	1.00
05	TRG		0.0		0.00	2.000	0.0952	0.1541	0.0589	99.02	99.02	1.00	1.00
06	TRG		0.0		0.00	2.000	0.0962	0.1551	0.0589	99.02	99.02	1.00	1.00

* SAF1 is used for Gross Alpha and all other radionuclides. SAF2 is used for Gross Beta only. ** Actual mass exceeded the calibration curve range. Results should be qualified as appropriate.

10-11052
Ra228
Run 2

Internal Fraction	Sample Desc	Rough Prep Date	Rough Prep By	Prep Date	Prep By	Sep t0 Date/Time	Sep t0 By	Sep t1 Date/Time	Sep t1 By
01	LCS			12/09/10 05:43	JBARNARD	12/09/10 09:00	TSMITH	12/13/10 07:17	TSMITH
02	MBL			12/09/10 05:43	JBARNARD	12/09/10 09:00	TSMITH	12/13/10 07:17	TSMITH
03	DUP			12/09/10 05:43	JBARNARD	12/09/10 09:00	TSMITH	12/13/10 07:17	TSMITH
04	DO	11/17/10 09:34	KSALLINGS	12/09/10 05:43	JBARNARD	12/09/10 09:00	TSMITH	12/13/10 07:17	TSMITH
05	TRG	11/17/10 09:34	KSALLINGS	12/09/10 05:43	JBARNARD	12/09/10 09:00	TSMITH	12/13/10 07:17	TSMITH
06	TRG	11/17/10 09:34	KSALLINGS	12/09/10 05:43	JBARNARD	12/09/10 09:00	TSMITH	12/13/10 07:17	TSMITH

* SAF1 is used for Gross Alpha and all other radionuclides. SAF2 is used for Gross Beta only. ** Actual mass exceeded the calibration curve range. Results should be qualified as appropriate.

Eberline Services
Oak Ridge Laboratory

Preliminary Data Report & Analytical Calculations

Work Order: 10-11052-Ra228-2

Client: Tetra Tech Divisions
Eberline Services Work Order: 10-11052
Analysis Code: Ra228
Run: 2

Lab Fraction	Nuclide	Sample Desc	Client Identification	Activity Units	Results	Error Estimate	MDA	LCS Known	LCS %R	LCS Flag	RPD Flag	MDA Flag	Blank Flag
01	RA-228	LCS	LCS	pCi/g	1.61E+01	1.02E+00	9.79E-01	1.85E+01	86.86	OK		OK	
02	RA-228	MBL	BLANK	pCi/g	3.27E-01	4.75E-01	9.79E-01					OK	OK
03	RA-228	DUP	SD27-DPT-13A	pCi/g	1.23E+00	4.98E-01	9.22E-01				NA	OK	
04	RA-228	DO	SD27-DPT-13A	pCi/g	5.99E-01	5.60E-01	1.13E+00					OK	
05	RA-228	TRG	SD27-DPT-13B	pCi/g	5.94E-01	5.30E-01	1.07E+00					OK	
06	RA-228	TRG	SD27-DPT-13C	pCi/g	6.91E-01	4.80E-01	9.47E-01					OK	

Preliminary Data Report & Analytical Calculations
Work Order: 10-11052-Ra228-2

Client: Tetra Tech Divisions
Eberline Services Work Order: 10-11052
Analysis Code: Ra228
Run: 2

Lab Fraction	Nuclide	Sample Desc	Sample Date	Sample Aliquot	Radiometric % Rec	Grav % Rec	Mean % Rec	SAF	Sep t0 Date/Time	Sep t1 Date/Time
01	RA-228	LCS	11/16/10 00:00	1.00E+00	0.00	99.19	99.19	1.00	12/9/2010 9:00	12/13/2010 7:17
02	RA-228	MBL	11/16/10 00:00	1.00E+00	0.00	99.53	99.53	1.00	12/9/2010 9:00	12/13/2010 7:17
03	RA-228	DUP	11/05/10 13:10	1.01E+00	0.00	97.68	97.68	1.00	12/9/2010 9:00	12/13/2010 7:17
04	RA-228	DO	11/05/10 13:10	1.01E+00	0.00	97.85	97.85	1.00	12/9/2010 9:00	12/13/2010 7:17
05	RA-228	TRG	11/05/10 13:20	1.00E+00	0.00	99.02	99.02	1.00	12/9/2010 9:00	12/13/2010 7:17
06	RA-228	TRG	11/05/10 13:40	9.89E-01	0.00	99.02	99.02	1.00	12/9/2010 9:00	12/13/2010 7:17

Preliminary Data Report & Analytical Calculations
Work Order: 10-11052-Ra228-2

Client	Eberline Services Work Order	Analysis Code	Run
Tetra Tech Divisions	10-11052	Ra228	2

Lab Fraction	Nuclide	Sample Desc	Counting Date/Time	Halflife (days)	Detect	Carrier	Count Time	Counts	Bkg CPM	Eff
01	RA-228	LCS	12/13/10 11:00		LB4110A	A1	120	1348	1.25	0.4803
02	RA-228	MBL	12/13/10 11:00		LB4110A	A2	120	170	1.216666667	0.4724
03	RA-228	DUP	12/13/10 11:00		LB4110A	A3	120	215	1.05	0.4719
04	RA-228	DO	12/13/10 11:00		LB4110A	A4	120	222	1.5	0.4548
05	RA-228	TRG	12/13/10 11:01		LB4110A	D2	120	213	1.416666667	0.4682
06	RA-228	TRG	12/13/10 11:01		LB4110A	D4	120	182	1.1	0.4741

Count Room Report
Client: Tetra Tech Divisions

10-11052-Ra228-2 (pCi/g) in SO
Tracer ID: Ba-6a

Internal Fraction	Sample Desc	Client ID	Sample Date	Sample Aliquot	Tracer Aliquot (g)	Tracer ACT (dpm)	Radiometric Tracer (pCi)	Radiometric % Rec	SAF 1*	SAF 2*
01	LCS	LCS	11/16/10 00:00	1.0000		0.0000		0.00	1.00	1.00
02	MBL	BLANK	11/16/10 00:00	1.0000		0.0000		0.00	1.00	1.00
03	DUP	SD27-DPT-13A	11/05/10 13:10	1.0098		0.0000		0.00	1.00	1.00
04	DO	SD27-DPT-13A	11/05/10 13:10	1.0101		0.0000		0.00	1.00	1.00
05	TRG	SD27-DPT-13B	11/05/10 13:20	1.0024		0.0000		0.00	1.00	1.00
06	TRG	SD27-DPT-13C	11/05/10 13:40	0.9890		0.0000		0.00	1.00	1.00

Eberline Services
Oak Ridge Laboratory

Spike and Tracer Worksheet

Printed: 12/9/2010 5:43 AM

Internal Work Order	Run	Analysis Code	Date	Technician	Technician Initials	Witness Initials
10-11052	2	Ra228	12/9/2010 5:42	JBARNARD	JB	

LCS & Matrix Spikes					LCS	MS	LCSD	MSD	LCS		MS		LCSD		MSD	
Isotope	Sol #	Activity dpm/g	Solution Date	Approx Addition	Volume Used (g)	Volume Used (g)	Volume Used (g)	Volume Used (g)	Known pCi	Error Estimate	Added pCi	Error Estimate	Known pCi	Error Estimate	Added pCi	Error Estimate
Ra-228	Ra-10	68.345	12/9/2010	0.600	0.6025				18.55	0.946	0.00	0.000	0.00	0.000	0.00	0.000

Tracers

fraction	Isotope	Sol #	Activity dpm/g	Solution Date	Volume Used (g)	Approx Addition
01	Ba-133	Ba-6a	1180.783	12/9/2010	0.0000	0.8600
02	Ba-133	Ba-6a	1180.783	12/9/2010	0.0000	0.8600
03	Ba-133	Ba-6a	1180.783	12/9/2010	0.0000	0.8600
04	Ba-133	Ba-6a	1180.783	12/9/2010	0.0000	0.8600
05	Ba-133	Ba-6a	1180.783	12/9/2010	0.0000	0.8600
06	Ba-133	Ba-6a	1180.783	12/9/2010	0.0000	0.8600

Balance Printer Tapes

Tracer	LCS
	0.6025 g

Version 2.0 08/99

Eberline Analytical
Oak Ridge Laboratory

Aliquot Worksheet

Work Order	Run	Analysis Code	Rpt Units	Lab Deadline	Technician
10-11052	2	Ra228	grams	12/6/2010	JBARNARD

Lab Fraction	Tetra Tech Divisions Client ID	Sample Type	Muffle Data Ratio Post/Pre	Dilution Data No of Dils	Dil Factor	Ratio	Aliquot Data Aliquot	Net Equiv	MS Aliquot Data Aliquot	Net Equiv	H-3 Solids Only Water Added (ml)	H3 Dist Aliq
01	LCS	LCS					1.0000E+00	1.0000E+00				
02	BLANK	MBL					1.0000E+00	1.0000E+00				
03	SD27-DPT-13A	DUP					1.0098E+00	1.0098E+00				
04	SD27-DPT-13A	DO					1.0101E+00	1.0101E+00				
05	SD27-DPT-13B	TRG					1.0024E+00	1.0024E+00				
06	SD27-DPT-13C	TRG					9.8900E-01	9.8900E-01				

1.0098 g
1.0101 g
1.0024 g
0.9890 g

Comments	

0235

Technician: JB Date: 12/9/10

Eberline Services - Oak Ridge
Version 1.0 9/1999

Gravimetric Worksheet

Work Order	Run	Analysis Code	Gravimetric Carrier	Carrier Conc (mg/ml)	Technician
10-11052	2	Ra228	Yttirum	29.7400	TSMITH

TRetec Fraction	Tetra Tech Divisions Client ID	Sample Type	Carrier Data Carrier Added (ml)	Filter Data Filter Tare (g)	0.1079	Filter Net (g)	Gravimetric % Recovery
01	LCS	LCS	2.0000	0.0962	0.1552	0.0590	99.19
02	BLANK	MBL	2.0000	0.0963	0.1555	0.0592	99.53
03	DUP	DUP	2.0000	0.0966	0.1547	0.0581	97.68
04	SD27-DPT-13A	DO	2.0000	0.0971	0.1553	0.0582	97.85
05	SD27-DPT-13B	TRG	2.0000	0.0952	0.1541	0.0589	99.02
06	SD27-DPT-13C	TRG	2.0000	0.0962	0.1551	0.0589	99.02

Technician: [signature] Date: 12/13/10

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AG
12/13/10
A

Detector ID	Sample ID	Alpha	Beta	Count Time	Voltage	TOD
A1	1011052-01	35	1348	120	1400	12/13/10 13:00
A2	1011052-02	10	170	120	1400	12/13/10 13:00
A3	1011052-03	5	215	120	1400	12/13/10 13:00
A4	1011052-04	7	222	120	1400	12/13/10 13:00
D2	1011052-05	8	213	120	1400	12/13/10 13:01
D4	1011052-06	8	182	120	1400	12/13/10 13:01

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Eberline Analytical
Oak Ridge Laboratory

GPC Detector Report
(ALL Backgrounds)

AG
12/13/10

Detector	Alpha/Beta	Calibration Date	Count Date	Bkg CPM	PFW	LCL	Mean	UCL
LB4110A - A1	Alpha	11/18/2007	12/13/2010	5.00E-02	P	-6.24E-02	7.04E-02	2.03E-01
LB4110A - A2	Alpha	11/18/2007	12/13/2010	6.67E-02	P	-5.63E-02	9.93E-02	2.55E-01
LB4110A - A3	Alpha	11/18/2007	12/13/2010	3.33E-02	P	-5.24E-02	5.31E-02	1.59E-01
LB4110A - A4	Alpha	11/18/2007	12/13/2010	5.00E-02	P	-6.61E-02	6.38E-02	1.94E-01
LB4110A - B1	Alpha	11/18/2007	12/13/2010	3.33E-02	P	-1.24E-01	8.20E-02	2.89E-01
LB4110A - B2	Alpha	11/18/2007	12/13/2010	0.00E+00	P	-6.66E-02	7.59E-02	2.18E-01
LB4110A - B3	Alpha	11/18/2007	12/13/2010	5.00E-02	P	-6.09E-02	4.74E-02	1.56E-01
LB4110A - B4	Alpha	11/18/2007	12/13/2010	1.67E-02	P	-5.28E-02	5.71E-02	1.67E-01
LB4110A - C1	Alpha	11/18/2007	12/13/2010	6.67E-02	P	-6.13E-02	8.21E-02	2.25E-01
LB4110A - C2	Alpha	11/18/2007	12/13/2010	5.00E-02	P	-1.94E-01	1.13E-01	4.20E-01
LB4110A - C3	Alpha	11/18/2007	12/13/2010	1.67E-02	P	-2.31E-01	1.15E-01	4.61E-01
LB4110A - C4	Alpha	11/18/2007	12/13/2010	3.33E-02	P	-7.16E-02	7.77E-02	2.27E-01
LB4110A - D1	Alpha	11/18/2007	12/13/2010	1.67E-02	P	-5.56E-02	8.69E-02	2.29E-01
LB4110A - D2	Alpha	11/18/2007	12/13/2010	3.33E-02	P	-7.11E-02	6.71E-02	2.05E-01
LB4110A - D3	Alpha	11/18/2007	12/13/2010	0.00E+00	P	-4.97E-02	6.72E-02	1.84E-01
LB4110A - D4	Alpha	11/18/2007	12/13/2010	0.00E+00	P	-5.74E-02	7.68E-02	2.11E-01
LB4110R - A1	Alpha	11/24/2006	12/13/2010	1.67E-02	P	-1.05E-01	8.17E-02	2.69E-01
LB4110R - A2	Alpha	11/24/2006	12/13/2010	6.67E-02	P	-9.62E-02	9.28E-02	2.82E-01
LB4110R - A3	Alpha	11/24/2006	12/13/2010	8.33E-02	P	-8.62E-02	7.64E-02	2.39E-01
LB4110R - A4	Alpha	11/24/2006	12/13/2010	3.33E-02	P	-5.13E-02	8.19E-02	2.15E-01
LB4110R - B1	Alpha	11/24/2006	12/13/2010	1.00E-01	P	-1.13E-01	6.80E-02	2.49E-01
LB4110R - B2	Alpha	11/24/2006	12/13/2010	1.67E-02	P	-7.72E-02	7.37E-02	2.25E-01
LB4110R - B3	Alpha	11/24/2006	12/13/2010	0.00E+00	P	-7.21E-02	7.06E-02	2.13E-01
LB4110R - B4	Alpha	11/24/2006	12/13/2010	0.00E+00	P	-6.59E-02	8.13E-02	2.28E-01
LB4110R - C1	Alpha	11/24/2006	12/13/2010	0.00E+00	P	-8.44E-02	8.61E-02	2.57E-01
LB4110R - C2	Alpha	11/24/2006	12/13/2010	0.00E+00	P	-8.13E-02	8.35E-02	2.48E-01
LB4110R - C3	Alpha	11/24/2006	12/13/2010	8.33E-02	P	-1.00E-01	9.22E-02	2.85E-01
LB4110R - C4	Alpha	11/24/2006	12/13/2010	3.33E-02	P	-6.97E-02	9.15E-02	2.53E-01
LB4110R - D1	Alpha	11/24/2006	12/13/2010	3.33E-02	P	-8.66E-02	8.63E-02	2.59E-01
LB4110R - D2	Alpha	11/24/2006	12/13/2010	1.67E-02	P	-5.92E-02	8.80E-02	2.35E-01
LB4110R - D3	Alpha	11/24/2006	12/13/2010	1.00E-01	P	-5.75E-02	7.68E-02	2.11E-01
LB4110R - D4	Alpha	11/24/2006	12/13/2010	8.33E-02	P	-5.67E-02	9.29E-02	2.43E-01
LB5100 - 1	Alpha	7/10/2006	10/26/2007	5.00E-02	P	-1.56E-02	9.58E-02	2.07E-01

Eberline Analytical
Oak Ridge Laboratory

GPC Detector Report
(ALL Backgrounds)

AG
12/13/10

Detector	Alpha/Beta	Calibration Date	Count Date	Bkg CPM	PFW	LCL	Mean	UCL
LB4110A - A1	Beta	11/18/2007	12/13/2010	1.25E+00	P	-7.09E+00	2.50E+00	1.21E+01
LB4110A - A2	Beta	11/18/2007	12/13/2010	1.22E+00	P	8.56E-04	1.53E+00	3.06E+00
LB4110A - A3	Beta	11/18/2007	12/13/2010	1.05E+00	P	4.37E-01	1.29E+00	2.13E+00
LB4110A - A4	Beta	11/18/2007	12/13/2010	1.50E+00	P	5.21E-01	1.68E+00	2.84E+00
LB4110A - B1	Beta	11/18/2007	12/13/2010	1.23E+00	P	-8.13E+00	3.52E+00	1.52E+01
LB4110A - B2	Beta	11/18/2007	12/13/2010	1.18E+00	P	1.20E-01	1.45E+00	2.78E+00
LB4110A - B3	Beta	11/18/2007	12/13/2010	1.27E+00	P	1.78E-01	1.46E+00	2.74E+00
LB4110A - B4	Beta	11/18/2007	12/13/2010	1.67E+00	P	2.87E-02	1.40E+00	2.77E+00
LB4110A - C1	Beta	11/18/2007	12/13/2010	1.43E+00	P	-7.07E+00	2.81E+00	1.27E+01
LB4110A - C2	Beta	11/18/2007	12/13/2010	9.33E-01	P	3.33E-01	1.38E+00	2.43E+00
LB4110A - C3	Beta	11/18/2007	12/13/2010	1.13E+00	P	5.09E-01	1.48E+00	2.45E+00
LB4110A - C4	Beta	11/18/2007	12/13/2010	3.78E+00	P	-1.11E+00	2.09E+00	5.30E+00
LB4110A - D1	Beta	11/18/2007	12/13/2010	1.77E+00	P	-3.55E+00	2.89E+00	9.33E+00
LB4110A - D2	Beta	11/18/2007	12/13/2010	1.42E+00	P	-1.15E+00	1.70E+00	4.56E+00
LB4110A - D3	Beta	11/18/2007	12/13/2010	5.25E+00	P	1.39E-01	4.25E+00	8.36E+00
LB4110A - D4	Beta	11/18/2007	12/13/2010	1.10E+00	P	-7.93E-01	1.51E+00	3.81E+00
LB4110R - A1	Beta	11/24/2006	12/13/2010	1.43E+00	P	-5.74E+01	2.61E+00	6.26E+01
LB4110R - A2	Beta	11/24/2006	12/13/2010	1.32E+00	P	-5.77E+01	2.33E+00	6.24E+01
LB4110R - A3	Beta	11/24/2006	12/13/2010	1.12E+00	P	-5.73E+01	3.76E+00	6.48E+01
LB4110R - A4	Beta	11/24/2006	12/13/2010	1.18E+00	P	-5.76E+01	2.47E+00	6.25E+01
LB4110R - B1	Beta	11/24/2006	12/13/2010	8.00E-01	P	-6.05E+01	2.54E+00	6.56E+01
LB4110R - B2	Beta	11/24/2006	12/13/2010	1.15E+00	P	-6.04E+01	2.61E+00	6.56E+01
LB4110R - B3	Beta	11/24/2006	12/13/2010	1.20E+00	P	-5.99E+01	3.55E+00	6.70E+01
LB4110R - B4	Beta	11/24/2006	12/13/2010	1.07E+00	P	-6.06E+01	2.40E+00	6.54E+01
LB4110R - C1	Beta	11/24/2006	12/13/2010	9.83E-01	P	-5.99E+01	4.15E+00	6.82E+01
LB4110R - C2	Beta	11/24/2006	12/13/2010	2.17E+00	P	-6.04E+01	3.34E+00	6.71E+01
LB4110R - C3	Beta	11/24/2006	12/13/2010	1.25E+00	P	-6.08E+01	3.28E+00	6.74E+01
LB4110R - C4	Beta	11/24/2006	12/13/2010	1.32E+00	P	-6.86E+01	3.84E+00	7.63E+01
LB4110R - D1	Beta	11/24/2006	12/13/2010	7.93E+00	P	-5.72E+01	6.73E+00	7.07E+01
LB4110R - D2	Beta	11/24/2006	12/13/2010	1.12E+00	P	-6.15E+01	2.47E+00	6.64E+01
LB4110R - D3	Beta	11/24/2006	12/13/2010	3.12E+00	P	-6.51E+01	7.03E+00	7.91E+01
LB4110R - D4	Beta	11/24/2006	12/13/2010	1.08E+00	P	-6.11E+01	2.85E+00	6.68E+01
LB5100 - 1	Beta	7/10/2006	10/26/2007	4.52E+00	F	-3.19E-01	1.58E+00	3.48E+00

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Eberline Analytical
Oak Ridge Laboratory

GPC Detector Report
(ALL Efficiencies)

AG
12/13/10

Detector	Alpha/Beta	Calibration Date	Count Date	Eff	PFW	LCL	Mean	UCL
LB4110A - A1	Alpha	11/18/2007	12/13/2010	0.2463	P	0.2360	0.2496	0.2632
LB4110A - A2	Alpha	11/18/2007	12/13/2010	0.2175	P	0.1963	0.2198	0.2434
LB4110A - A3	Alpha	11/18/2007	12/13/2010	0.2127	P	0.2043	0.2171	0.2300
LB4110A - A4	Alpha	11/18/2007	12/13/2010	0.2244	P	0.2144	0.2282	0.2420
LB4110A - B1	Alpha	11/18/2007	12/13/2010	0.2172	P	0.2127	0.2298	0.2470
LB4110A - B2	Alpha	11/18/2007	12/13/2010	0.2121	F	0.2121	0.2267	0.2413
LB4110A - B3	Alpha	11/18/2007	12/13/2010	0.2395	P	0.2263	0.2417	0.2571
LB4110A - B4	Alpha	11/18/2007	12/13/2010	0.2315	P	0.2258	0.2398	0.2538
LB4110A - C1	Alpha	11/18/2007	12/13/2010	0.2146	P	0.2104	0.2219	0.2334
LB4110A - C2	Alpha	11/18/2007	12/13/2010	0.2256	P	0.2029	0.2263	0.2497
LB4110A - C3	Alpha	11/18/2007	12/13/2010	0.2515	P	0.2363	0.2492	0.2621
LB4110A - C4	Alpha	11/18/2007	12/13/2010	0.2186	P	0.2100	0.2296	0.2493
LB4110A - D1	Alpha	11/18/2007	12/13/2010	0.2301	P	0.2227	0.2384	0.2542
LB4110A - D2	Alpha	11/18/2007	12/13/2010	0.2579	P	0.2472	0.2624	0.2776
LB4110A - D3	Alpha	11/18/2007	12/13/2010	0.2661	P	0.2500	0.2680	0.2860
LB4110A - D4	Alpha	11/18/2007	12/13/2010	0.1974	P	0.1856	0.2079	0.2302
LB4110R - A1	Alpha	11/24/2006	12/13/2010	0.2291	P	0.2036	0.2404	0.2772
LB4110R - A2	Alpha	11/24/2006	12/13/2010	0.2199	P	0.1933	0.2235	0.2537
LB4110R - A3	Alpha	11/24/2006	12/13/2010	0.2208	P	0.1991	0.2275	0.2559
LB4110R - A4	Alpha	11/24/2006	12/13/2010	0.2395	P	0.2156	0.2465	0.2774
LB4110R - B1	Alpha	11/24/2006	12/13/2010	0.2245	P	0.1893	0.2292	0.2691
LB4110R - B2	Alpha	11/24/2006	12/13/2010	0.2178	P	0.1823	0.2203	0.2583
LB4110R - B3	Alpha	11/24/2006	12/13/2010	0.2393	P	0.2058	0.2463	0.2869
LB4110R - B4	Alpha	11/24/2006	12/13/2010	0.2346	P	0.1964	0.2362	0.2760
LB4110R - C1	Alpha	11/24/2006	12/13/2010	0.2164	P	0.1851	0.2168	0.2485
LB4110R - C2	Alpha	11/24/2006	12/13/2010	0.2279	P	0.1964	0.2264	0.2564
LB4110R - C3	Alpha	11/24/2006	12/13/2010	0.2360	P	0.2058	0.2420	0.2782
LB4110R - C4	Alpha	11/24/2006	12/13/2010	0.2158	P	0.1966	0.2295	0.2624
LB4110R - D1	Alpha	11/24/2006	12/13/2010	0.2285	P	0.1958	0.2290	0.2623
LB4110R - D2	Alpha	11/24/2006	12/13/2010	0.2592	P	0.2268	0.2592	0.2916
LB4110R - D3	Alpha	11/24/2006	12/13/2010	0.2460	P	0.2235	0.2542	0.2849
LB4110R - D4	Alpha	11/24/2006	12/13/2010	0.1958	P	0.1780	0.2096	0.2412
LB5100 - 1	Alpha	7/10/2006	10/26/2007	0.3368	P	0.3332	0.3455	0.3578

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Eberline Analytical
Oak Ridge Laboratory

GPC Detector Report
(ALL Efficiencies)

AG
12/13/10

Detector	Alpha/Beta	Calibration Date	Count Date	Eff	PFW	LCL	Mean	UCL
LB4110A - A1	Beta	11/18/2007	12/13/2010	0.5813	P	0.5536	0.5875	0.6214
LB4110A - A2	Beta	11/18/2007	12/13/2010	0.5089	P	0.4663	0.5205	0.5748
LB4110A - A3	Beta	11/18/2007	12/13/2010	0.5118	P	0.4928	0.5252	0.5575
LB4110A - A4	Beta	11/18/2007	12/13/2010	0.5379	P	0.5175	0.5477	0.5779
LB4110A - B1	Beta	11/18/2007	12/13/2010	0.5160	P	0.5024	0.5386	0.5749
LB4110A - B2	Beta	11/18/2007	12/13/2010	0.4947	F	0.5037	0.5367	0.5696
LB4110A - B3	Beta	11/18/2007	12/13/2010	0.5566	P	0.5034	0.5512	0.5990
LB4110A - B4	Beta	11/18/2007	12/13/2010	0.5343	W	0.5288	0.5576	0.5863
LB4110A - C1	Beta	11/18/2007	12/13/2010	0.4886	P	0.4812	0.5046	0.5279
LB4110A - C2	Beta	11/18/2007	12/13/2010	0.5029	P	0.4359	0.5058	0.5757
LB4110A - C3	Beta	11/18/2007	12/13/2010	0.5871	P	0.5630	0.5870	0.6110
LB4110A - C4	Beta	11/18/2007	12/13/2010	0.5157	P	0.4877	0.5345	0.5813
LB4110A - D1	Beta	11/18/2007	12/13/2010	0.5512	P	0.5246	0.5681	0.6116
LB4110A - D2	Beta	11/18/2007	12/13/2010	0.5743	P	0.5381	0.6093	0.6806
LB4110A - D3	Beta	11/18/2007	12/13/2010	0.6128	P	0.5720	0.6242	0.6763
LB4110A - D4	Beta	11/18/2007	12/13/2010	0.4576	P	0.4390	0.4946	0.5502
LB4110R - A1	Beta	11/24/2006	12/13/2010	0.5460	P	0.4788	0.5729	0.6671
LB4110R - A2	Beta	11/24/2006	12/13/2010	0.4786	P	0.4105	0.5097	0.6089
LB4110R - A3	Beta	11/24/2006	12/13/2010	0.5410	P	0.4598	0.5471	0.6344
LB4110R - A4	Beta	11/24/2006	12/13/2010	0.5926	P	0.5004	0.5904	0.6804
LB4110R - B1	Beta	11/24/2006	12/13/2010	0.5346	P	0.4499	0.5494	0.6490
LB4110R - B2	Beta	11/24/2006	12/13/2010	0.5166	P	0.4277	0.5266	0.6254
LB4110R - B3	Beta	11/24/2006	12/13/2010	0.5831	P	0.4943	0.5938	0.6932
LB4110R - B4	Beta	11/24/2006	12/13/2010	0.5440	P	0.4640	0.5581	0.6522
LB4110R - C1	Beta	11/24/2006	12/13/2010	0.5033	P	0.4183	0.5060	0.5936
LB4110R - C2	Beta	11/24/2006	12/13/2010	0.5345	P	0.4430	0.5317	0.6203
LB4110R - C3	Beta	11/24/2006	12/13/2010	0.5713	P	0.4705	0.5738	0.6771
LB4110R - C4	Beta	11/24/2006	12/13/2010	0.5234	P	0.4453	0.5401	0.6348
LB4110R - D1	Beta	11/24/2006	12/13/2010	0.5491	P	0.4552	0.5456	0.6361
LB4110R - D2	Beta	11/24/2006	12/13/2010	0.6090	P	0.5132	0.6100	0.7069
LB4110R - D3	Beta	11/24/2006	12/13/2010	0.5938	P	0.4987	0.5907	0.6826
LB4110R - D4	Beta	11/24/2006	12/13/2010	0.4686	P	0.4057	0.4977	0.5897
LB5100 - 1	Beta	7/10/2006	10/26/2007	0.4428	F	0.4555	0.4731	0.4906

SECTION XII

BARIUM-133 ANALYTICAL TRACER DATA

ICB
11/30/10

VAX/VMS Peak Search Report Generated 30-NOV-2010 18:03:57.80

Configuration : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_101105201_GE4_BAFIL_157667.CN
Analyses by : PEAK V16.9 PEAKEFF V2.2
Client ID : SPIKE
Deposition Date :
Sample Date : 30-NOV-2010 00:00:00 Acquisition date : 30-NOV-2010 17:48:38
Sample ID : 1011052-01 Sample Quantity : 1.00000E+00 filter
Sample type : FILTER Sample Geometry : 0
Detector name : GE4 Detector Geometry: BAFIL
Elapsed live time: 0 00:15:00.00 Elapsed real time: 0 00:15:00.33 0.0%
Start channel : 25 End channel : 4096
Sensitivity : 3.00000 Gaussian : 10.00000
Critical level : No

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	35.44	266	119	1.96	35.44	34	6	2.96E-01	10.2	
2	0	53.13	43	73	1.98	53.13	49	8	4.82E-02	37.2	
3	4	61.69	97	89	2.76	61.68	58	14	1.08E-01	20.6	1.20E+00
4	4	65.64	34	99	2.52	65.63	58	14	3.82E-02	57.9	
5	0	81.04	553	137	1.94	81.02	75	12	6.14E-01	6.0	
6	0	114.62	68	132	6.50	114.58	106	15	7.56E-02	39.1	
7	4	152.97	22	43	2.90	152.92	150	11	2.40E-02	55.4	9.13E-01
8	4	157.77	14	49	2.90	157.72	150	11	1.57E-02	86.0	
9	0	276.92	41	20	2.17	276.82	272	9	4.55E-02	25.2	
10	0	303.51	97	24	2.44	303.40	299	9	1.08E-01	13.7	
11	1	333.91	30	19	2.31	333.79	328	14	3.34E-02	27.4	6.82E+00
12	1	337.34	11	13	2.31	337.21	328	14	1.23E-02	76.5	
13	0	356.26	312	33	2.03	356.13	350	12	3.47E-01	6.8	
14	1	383.93	47	0	2.34	383.79	380	17	5.18E-02	17.7	1.01E+00
15	1	387.36	45	0	2.34	387.21	380	17	5.04E-02	20.2	
16	1	391.36	17	0	2.34	391.21	380	17	1.85E-02	36.0	
17	0	438.03	16	13	2.24	437.86	433	10	1.79E-02	48.3	

Sample ID : 1011052-01 Acquisition date : 30-NOV-2010 17:48:38

Total number of lines in spectrum	17	
Number of unidentified lines	13	
Number of lines tentatively identified by NID	4	23.53%

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean Uncorrected pCi/filter	Wtd Mean Decay Corr pCi/filter	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
BA-133	10.50Y	1.00	3.896E+02	3.896E+02	0.788E+02	20.23	
		Total Activity :	3.896E+02	3.896E+02			

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean Uncorrected pCi/filter	Wtd Mean Decay Corr pCi/filter	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
TH-234	4.47E+09Y	1.00	5.163E+02	5.163E+02	2.166E+02	41.96	
		Total Activity :	5.163E+02	5.163E+02			

Grand Total Activity : 9.059E+02 9.059E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : 1011052-01
Acquisition date : 30-NOV-2010 17:48:38

Nuclide Type: FISSION

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/filter	Decay Corr pCi/filter	2-Sigma %Error	Status
BA-133	81.00	33.00*	1.292E+01	3.896E+02	3.896E+02	20.23	OK
	302.84	17.80	4.148E+00	3.943E+02	3.943E+02	34.31	OK
	356.01	60.00	3.452E+00	4.524E+02	4.525E+02	19.82	OK

Final Mean for 3 Valid Peaks = 3.896E+02+/- 7.881E+01 (20.23%)

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/filter	Decay Corr pCi/filter	2-Sigma %Error	Status
TH-234	63.29	3.80*	1.487E+01	5.163E+02	5.163E+02	41.96	OK

Final Mean for 1 Valid Peaks = 5.163E+02+/- 2.166E+02 (41.96%)

Flag: "*" = Keyline

---- Identified Nuclides ----

Nuclide	Activity (pCi/filter)	Act error	MDA (pCi/filter)	MDA error	Act/MDA
BA-133	3.896E+02	7.881E+01	2.791E+01	4.402E+00	13.958
TH-234	5.163E+02	2.166E+02	2.305E+02	1.686E+01	2.240

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/filter)	K.L. Ided	Act error	MDA (pCi/filter)	MDA error	Act/MDA
CO-57	1.238E+00		6.727E+00	1.123E+01	1.179E+00	0.110
CD-109	-1.290E+02		1.594E+02	2.303E+02	2.023E+01	-0.560
PA-231	-3.106E-01		6.215E-01	9.391E-01	4.963E-02	-0.331
PA-234	-3.429E-01		7.088E+00	1.248E+01	6.437E-01	-0.027
NP-237	-1.053E+01		4.285E+01	6.695E+01	5.827E+00	-0.157
AM-241	4.401E+01		1.912E+01	3.117E+01	2.209E+00	1.412

ICB
11/30/10

VAX/VMS Peak Search Report Generated 30-NOV-2010 18:19:36.42

Configuration : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_101105202_GE4_BAFIL_157669.CN
Analyses by : PEAK V16.9 PEAKEFF V2.2
Client ID : BLANK
Deposition Date :
Sample Date : 30-NOV-2010 00:00:00 Acquisition date : 30-NOV-2010 18:04:19
Sample ID : 1011052-02 Sample Quantity : 1.00000E+00 filter
Sample type : FILTER Sample Geometry : 0
Detector name : GE4 Detector Geometry: BAFIL
Elapsed live time: 0 00:15:00.00 Elapsed real time: 0 00:15:00.33 0.0%
Start channel : 25 End channel : 4096
Sensitivity : 3.00000 Gaussian : 10.00000
Critical level : No

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	2	30.86	1426	95	2.23	30.86	25	16	1.58E+00	3.0	3.98E+00
2	2	35.15	365	65	2.09	35.15	25	16	4.06E-01	8.3	
3	0	52.58	43	67	1.79	52.57	49	8	4.78E-02	36.1	
4	4	61.89	82	96	2.76	61.87	57	14	9.14E-02	24.3	5.24E-01
5	4	65.67	38	107	2.77	65.66	57	14	4.18E-02	52.8	
6	0	81.07	616	105	2.11	81.05	76	10	6.85E-01	5.1	
7	0	112.45	104	67	1.92	112.42	107	11	1.16E-01	18.2	
8	0	247.55	43	15	5.98	247.46	242	11	4.75E-02	23.8	
9	4	273.52	9	7	2.20	273.42	272	14	1.01E-02	48.7	2.30E+00
10	4	276.53	45	14	2.50	276.43	272	14	5.00E-02	22.1	
11	4	302.87	103	9	2.60	302.76	298	14	1.14E-01	11.6	1.49E+00
12	4	307.15	30	4	3.05	307.03	298	14	3.35E-02	41.9	
13	0	332.92	21	34	1.24	332.80	328	10	2.37E-02	55.9	
14	0	356.26	263	15	2.08	356.13	351	11	2.92E-01	6.9	
15	4	384.42	70	8	2.95	384.28	379	16	7.78E-02	16.2	1.35E+00
16	4	387.71	36	4	3.12	387.56	379	16	3.99E-02	32.3	
17	0	437.81	18	7	2.58	437.65	434	7	2.05E-02	33.1	
18	0	510.75	24	3	4.63	510.56	505	10	2.71E-02	23.7	

Sample ID : 1011052-02
Acquisition date : 30-NOV-2010 18:04:19

Total number of lines in spectrum	18	
Number of unidentified lines	14	
Number of lines tentatively identified by NID	4	22.22%

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean Uncorrected pCi/filter	Wtd Mean Decay Corr pCi/filter	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
BA-133	10.50Y	1.00	4.342E+02	4.343E+02	0.833E+02	19.19	
		Total Activity :	4.342E+02	4.343E+02			

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean Uncorrected pCi/filter	Wtd Mean Decay Corr pCi/filter	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
TH-234	4.47E+09Y	1.00	4.373E+02	4.373E+02	2.154E+02	49.26	
		Total Activity :	4.373E+02	4.373E+02			

Grand Total Activity : 8.716E+02 8.716E+02

Flags: "K" = Keyline not found
"E" = Manually edited
"M" = Manually accepted
"A" = Nuclide specific abn. limit

Nuclide Type: FISSION

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/filter	Decay Corr pCi/filter	2-Sigma %Error	Status
BA-133	81.00	33.00*	1.292E+01	4.342E+02	4.343E+02	19.19	OK
	302.84	17.80	4.148E+00	4.185E+02	4.186E+02	31.07	OK
	356.01	60.00	3.452E+00	3.806E+02	3.807E+02	19.96	OK

Final Mean for 3 Valid Peaks = 4.343E+02+/- 8.334E+01 (19.19%)

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/filter	Decay Corr pCi/filter	2-Sigma %Error	Status
TH-234	63.29	3.80*	1.487E+01	4.373E+02	4.373E+02	49.26	OK

Final Mean for 1 Valid Peaks = 4.373E+02+/- 2.154E+02 (49.26%)

Flag: "*" = Keyline

---- Identified Nuclides ----

Nuclide	Activity (pCi/filter)	Act error	MDA (pCi/filter)	MDA error	Act/MDA
BA-133	4.343E+02	8.334E+01	3.018E+01	4.759E+00	14.391
TH-234	4.373E+02	2.154E+02	2.422E+02	1.771E+01	1.806

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/filter)	K.L. Ided	Act error	MDA (pCi/filter)	MDA error	Act/MDA
CO-57	2.549E+00		7.141E+00	1.209E+01	1.270E+00	0.211
CD-109	-1.084E+02		1.571E+02	2.309E+02	2.028E+01	-0.470
PA-231	3.098E-01		6.565E-01	2.465E+00	1.303E-01	0.126
PA-234	4.375E+00		7.410E+00	1.231E+01	6.347E-01	0.355
NP-237	1.577E+00		4.271E+01	6.913E+01	6.017E+00	0.023
AM-241	2.390E+01		1.729E+01	3.022E+01	2.142E+00	0.791

VAX/VMS Peak Search Report Generated 30-NOV-2010 18:04:15.87

Configuration : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_101105203_GE5_BAFIL_157668.CN
Analyses by : PEAK V16.9 PEAKEFF V2.2
Client ID : SD27-DPT-13A
Deposition Date :
Sample Date : 30-NOV-2010 00:00:00 Acquisition date : 30-NOV-2010 17:48:55
Sample ID : 1011052-03 Sample Quantity : 1.00000E+00 filter
Sample type : FILTER Sample Geometry : 0
Detector name : GE5 Detector Geometry: BAFIL
Elapsed live time: 0 00:15:00.00 Elapsed real time: 0 00:15:01.18 0.1%
Start channel : 25 End channel : 4096
Sensitivity : 3.00000 Gaussian : 10.00000
Critical level : No

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	20.90	98	34	0.30	206.41	193	22	1.09E-01	18.1	
2	0	30.84	2227	119	0.74	301.94	289	29	2.47E+00	2.6	
3	1	34.96	446	15	0.69	341.57	329	36	4.95E-01	5.4	1.29E+00
4	1	35.88	114	5	0.70	350.39	329	36	1.27E-01	19.9	
5	2	51.65	28	17	0.81	502.13	492	31	3.09E-02	37.2	9.56E-01
6	2	53.05	49	8	0.72	515.58	492	31	5.43E-02	19.7	
7	1	61.14	112	11	0.75	593.34	584	32	1.25E-01	16.1	2.53E+00
8	1	61.72	222	11	0.75	598.90	584	32	2.47E-01	8.3	
9	0	65.91	141	16	0.87	639.20	622	33	1.56E-01	11.2	
10	1	69.94	25	5	0.70	678.00	672	26	2.80E-02	24.2	1.55E+00
11	1	70.88	31	11	0.70	687.00	672	26	3.49E-02	28.3	
12	2	79.42	60	16	0.86	769.16	757	36	6.72E-02	32.0	4.15E-01
13	2	80.86	840	10	0.68	783.00	757	36	9.34E-01	3.5	
14	0	83.60	15	13	0.11	809.32	802	13	1.68E-02	49.6	
15	0	102.09	13	11	0.53	987.13	976	17	1.41E-02	59.1	
16	0	109.74	36	15	0.79	1060.70	1048	23	4.02E-02	28.9	
17	0	111.66	207	21	0.54	1079.13	1070	18	2.30E-01	8.2	
18	0	115.79	45	20	0.73	1118.87	1107	20	5.00E-02	25.5	
19	1	275.44	19	9	1.02	2654.11	2643	25	2.08E-02	46.9	7.34E-01
20	1	275.95	43	6	0.92	2659.00	2643	25	4.74E-02	19.1	
21	0	302.15	129	6	0.97	2910.94	2897	27	1.43E-01	9.8	
22	2	332.42	48	6	0.97	3202.00	3194	22	5.35E-02	14.7	1.28E+00
23	2	333.21	22	2	0.78	3209.60	3194	22	2.45E-02	32.2	
24	0	355.21	404	4	0.94	3421.15	3406	31	4.49E-01	5.1	
25	0	383.03	82	11	0.43	3688.75	3674	24	9.14E-02	13.8	
26	4	386.11	184	6	1.21	3718.32	3704	26	2.04E-01	7.4	2.75E+00
27	4	386.70	10	5	1.01	3724.00	3704	26	1.14E-02	102.3	

Sample ID : 1011052-03
Acquisition date : 30-NOV-2010 17:48:55

Total number of lines in spectrum	27	
Number of unidentified lines	21	
Number of lines tentatively identified by NID	6	22.22%

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean Uncorrected pCi/filter	Wtd Mean Decay Corr pCi/filter	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
BA-133	10.50Y	1.00	4.242E+02	4.242E+02	0.714E+02	16.82	
			---	---			
Total Activity :			4.242E+02	4.242E+02			

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean Uncorrected pCi/filter	Wtd Mean Decay Corr pCi/filter	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
TH-234	4.47E+09Y	1.00	2.006E+02	2.006E+02	0.344E+02	17.16	
AM-241	432.20Y	1.00	9.409E+00	9.409E+00	3.052E+00	32.44	
			---	---			
Total Activity :			2.101E+02	2.101E+02			

Grand Total Activity :	6.342E+02	6.343E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Nuclide Type: FISSION

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/filter	Decay Corr pCi/filter	2-Sigma %Error	Status
BA-133	81.00	33.00*	1.802E+01	4.242E+02	4.242E+02	16.82	OK
	302.84	17.80	2.575E+00	8.421E+02	8.422E+02	32.85	OK
	356.01	60.00	4.312E+00	4.690E+02	4.691E+02	17.69	OK

Final Mean for 3 Valid Peaks = 4.242E+02+/- 7.137E+01 (16.82%)

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/filter	Decay Corr pCi/filter	2-Sigma %Error	Status
TH-234	63.29	3.80*	8.750E+01	2.006E+02	2.006E+02	17.16	OK

Final Mean for 1 Valid Peaks = 2.006E+02+/- 3.442E+01 (17.16%)

AM-241	59.54	35.90*	1.000E+02	9.409E+00	9.409E+00	32.44	OK

Final Mean for 1 Valid Peaks = 9.409E+00+/- 3.052E+00 (32.44%)

Flag: "*" = Keyline

---- Identified Nuclides ----

Nuclide	Activity (pCi/filter)	Act error	MDA (pCi/filter)	MDA error	Act/MDA
BA-133	4.242E+02	7.137E+01	1.590E+01	2.341E+00	26.685
TH-234	2.006E+02	3.442E+01	1.566E+01	2.014E-01	12.815
AM-241	9.409E+00	3.052E+00	2.099E+00	2.363E-02	4.483

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/filter)	K.L. Ided	Act error	MDA (pCi/filter)	MDA error	Act/MDA
CO-57	-1.064E+01		1.499E+01	2.398E+01	8.130E+00	-0.444
CD-109	-4.906E+01		9.578E+01	1.616E+02	1.555E+01	-0.304
PA-231	-1.905E-01		9.591E-01	1.725E+00	1.941E-02	-0.110
PA-234	4.519E+00	+	1.649E+00	2.032E+00	2.287E-02	2.224
NP-237	1.067E+01		2.684E+01	5.121E+01	4.517E+00	0.208

ICB
11/30/10

VAX/VMS Peak Search Report Generated 30-NOV-2010 18:19:52.89

Configuration : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_101105204_GE5_BAFIL_157670.CN
Analyses by : PEAK V16.9 PEAKEFF V2.2
Client ID : SD27-DPT-13A
Deposition Date :
Sample Date : 30-NOV-2010 00:00:00 Acquisition date : 30-NOV-2010 18:04:37
Sample ID : 1011052-04 Sample Quantity : 1.00000E+00 filter
Sample type : FILTER Sample Geometry : 0
Detector name : GE5 Detector Geometry: BAFIL
Elapsed live time: 0 00:15:00.00 Elapsed real time: 0 00:15:01.12 0.1%
Start channel : 25 End channel : 4096
Sensitivity : 3.00000 Gaussian : 10.00000
Critical level : No

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	20.91	62	20	1.31	206.50	195	20	6.85E-02	21.9	
2	0	25.05	12	2	0.32	246.26	241	11	1.29E-02	40.0	
3	0	30.85	1717	48	0.68	302.04	288	29	1.91E+00	2.7	
4	1	34.96	367	14	0.69	341.61	330	28	4.08E-01	5.9	2.06E+00
5	1	35.83	81	7	0.63	350.00	330	28	8.96E-02	21.4	
6	0	53.06	50	5	0.50	515.66	507	17	5.50E-02	17.0	
7	0	61.60	191	21	0.82	597.80	585	25	2.12E-01	9.0	
8	1	65.30	47	17	0.75	633.34	627	21	5.25E-02	23.8	1.26E+01
9	1	65.99	64	31	0.69	640.00	627	21	7.15E-02	19.7	
10	5	79.15	18	44	1.15	766.55	757	35	2.05E-02	70.5	3.04E+00
11	5	79.72	14	48	0.71	772.00	757	35	1.50E-02	161.1	
12	5	80.86	642	36	0.63	782.98	757	35	7.13E-01	4.4	
13	0	97.55	6	11	1.05	943.47	929	16	7.04E-03	106.4	
14	0	109.98	14	33	0.33	1062.97	1049	22	1.59E-02	90.3	
15	0	111.61	171	23	0.80	1078.66	1070	20	1.90E-01	9.6	
16	1	115.60	75	5	0.76	1117.00	1107	26	8.30E-02	12.5	5.46E+00
17	1	116.43	24	8	0.76	1125.00	1107	26	2.69E-02	34.1	
18	0	160.34	21	13	0.52	1547.29	1538	17	2.31E-02	41.5	
19	0	275.67	36	7	0.57	2656.27	2646	19	4.04E-02	21.3	
20	1	301.64	31	1	0.94	2906.00	2896	24	3.50E-02	27.1	3.43E+00
21	1	302.57	102	2	0.95	2915.00	2896	24	1.13E-01	8.1	
22	0	306.26	21	0	0.11	2950.43	2938	22	2.33E-02	21.8	
23	6	332.08	15	3	0.51	3198.78	3191	23	1.68E-02	41.0	9.29E-01
24	6	333.03	27	10	1.04	3207.91	3191	23	3.05E-02	25.0	
25	0	355.22	323	4	0.83	3421.28	3406	32	3.59E-01	5.7	
26	1	382.75	61	8	1.00	3686.00	3675	24	6.75E-02	16.6	1.40E+00
27	1	383.48	32	5	1.01	3693.00	3675	24	3.58E-02	21.2	
28	2	386.10	171	13	1.16	3718.22	3702	27	1.90E-01	7.5	4.59E+00
29	2	386.39	10	8	1.01	3721.00	3702	27	1.14E-02	113.8	

Sample ID : 1011052-04
Acquisition date : 30-NOV-2010 18:04:37

Total number of lines in spectrum	29	
Number of unidentified lines	24	
Number of lines tentatively identified by NID	5	17.24%

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean Uncorrected pCi/filter	Wtd Mean Decay Corr pCi/filter	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
BA-133	10.50Y	1.00	3.240E+02	3.241E+02	0.572E+02	17.64	
		Total Activity :	3.240E+02	3.241E+02			

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean Uncorrected pCi/filter	Wtd Mean Decay Corr pCi/filter	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
TH-234	4.47E+09Y	1.00	1.726E+02	1.726E+02	0.321E+02	18.57	
		Total Activity :	1.726E+02	1.726E+02			

Grand Total Activity : 4.967E+02 4.967E+02

Flags: "K" = Keyline not found
"E" = Manually edited
"M" = Manually accepted
"A" = Nuclide specific abn. limit

Nuclide Type: FISSION

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/filter	Decay Corr pCi/filter	2-Sigma %Error	Status
BA-133	81.00	33.00*	1.802E+01	3.240E+02	3.241E+02	17.64	OK
	302.84	17.80	2.575E+00	6.666E+02	6.667E+02	30.97	OK
	356.01	60.00	4.312E+00	3.747E+02	3.748E+02	18.46	OK

Final Mean for 3 Valid Peaks = 3.241E+02+/- 5.716E+01 (17.64%)

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/filter	Decay Corr pCi/filter	2-Sigma %Error	Status
TH-234	63.29	3.80*	8.750E+01	1.726E+02	1.726E+02	18.57	OK

Final Mean for 1 Valid Peaks = 1.726E+02+/- 3.206E+01 (18.57%)

Flag: "*" = Keyline

---- Identified Nuclides ----

Nuclide	Activity (pCi/filter)	Act error	MDA (pCi/filter)	MDA error	Act/MDA
BA-133	3.241E+02	5.716E+01	1.153E+01	1.698E+00	28.099
TH-234	1.726E+02	3.206E+01	2.113E+01	2.719E-01	8.170

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/filter)	K.L. Ided	Act error	MDA (pCi/filter)	MDA error	Act/MDA
CO-57	-8.550E+00		1.325E+01	2.160E+01	7.322E+00	-0.396
CD-109	-2.723E+01		8.510E+01	1.493E+02	1.437E+01	-0.182
PA-231	2.230E-01		8.914E-01	1.718E+00	1.934E-02	0.130
PA-234	2.851E+00	+	1.254E+00	1.667E+00	1.877E-02	1.710
NP-237	-1.242E+00		2.253E+01	4.140E+01	3.652E+00	-0.030
AM-241	3.902E-01		1.488E+00	2.406E+00	2.709E-02	0.162

LCB
11/30/10

VAX/VMS Peak Search Report Generated 30-NOV-2010 18:35:42.28

Configuration : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_101105205_GE4_BAFIL_157672.CN
Analyses by : PEAK V16.9 PEAKEFF V2.2
Client ID : SD27-DPT-13B
Deposition Date :
Sample Date : 30-NOV-2010 00:00:00 Acquisition date : 30-NOV-2010 18:20:20
Sample ID : 1011052-05 Sample Quantity : 1.00000E+00 filter
Sample type : FILTER Sample Geometry : 0
Detector name : GE4 Detector Geometry: BAFIL
Elapsed live time: 0 00:15:00.00 Elapsed real time: 0 00:15:00.27 0.0%
Start channel : 25 End channel : 4096
Sensitivity : 3.00000 Gaussian : 10.00000
Critical level : No

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	35.43	146	81	1.73	35.43	34	6	1.62E-01	13.7	
2	0	54.66	21	62	1.68	54.65	51	7	2.35E-02	65.6	
3	0	61.24	40	85	2.17	61.23	58	7	4.45E-02	41.2	
4	0	80.97	311	64	1.86	80.95	76	10	3.46E-01	7.4	
5	3	111.96	49	38	2.59	111.93	108	12	5.48E-02	25.8	3.30E+00
6	3	116.42	22	21	2.59	116.38	108	12	2.42E-02	56.3	
7	0	187.38	11	34	1.60	187.32	184	8	1.17E-02	101.1	
8	0	276.55	29	11	1.79	276.45	272	9	3.18E-02	28.2	
9	7	303.47	55	7	2.91	303.36	299	15	6.12E-02	16.7	1.14E+00
10	7	310.77	10	3	4.07	310.66	299	15	1.13E-02	44.8	
11	0	334.66	20	18	2.43	334.53	331	10	2.18E-02	46.2	
12	0	356.31	156	15	1.91	356.18	350	12	1.73E-01	9.4	
13	4	384.45	30	6	2.82	384.31	380	16	3.31E-02	27.3	1.74E+00
14	4	386.97	34	3	2.83	386.82	380	16	3.82E-02	24.5	
15	0	415.69	25	3	4.52	415.53	410	14	2.82E-02	25.0	
16	0	427.86	4	3	1.15	427.70	425	5	4.76E-03	74.2	
17	0	437.39	27	0	2.32	437.22	432	11	3.00E-02	19.2	
18	0	490.61	5	4	1.30	490.42	488	6	5.93E-03	68.9	
19	0	512.13	12	11	4.08	511.93	504	11	1.33E-02	61.1	

Sample ID : 1011052-05
Acquisition date : 30-NOV-2010 18:20:20

Total number of lines in spectrum	19	
Number of unidentified lines	15	
Number of lines tentatively identified by NID	4	21.05%

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean Uncorrected pCi/filter	Wtd Mean Decay Corr pCi/filter	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
BA-133	10.50Y	1.00	2.193E+02	2.193E+02	0.484E+02	22.06	
		Total Activity :	2.193E+02	2.193E+02			

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean Uncorrected pCi/filter	Wtd Mean Decay Corr pCi/filter	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
AM-241	432.20Y	1.00	2.181E+01	2.181E+01	1.807E+01	82.85	
		Total Activity :	2.181E+01	2.181E+01			

Grand Total Activity : 2.411E+02 2.412E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Nuclide Type: FISSION

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/filter	Decay Corr pCi/filter	2-Sigma %Error	Status
BA-133	81.00	33.00*	1.292E+01	2.193E+02	2.193E+02	22.06	OK
	302.84	17.80	4.148E+00	2.239E+02	2.239E+02	39.20	OK
	356.01	60.00	3.452E+00	2.263E+02	2.263E+02	23.77	OK

Final Mean for 3 Valid Peaks = 2.193E+02+/- 4.838E+01 (22.06%)

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/filter	Decay Corr pCi/filter	2-Sigma %Error	Status
AM-241	59.54	35.90*	1.534E+01	2.181E+01	2.181E+01	82.85	OK

Final Mean for 1 Valid Peaks = 2.181E+01+/- 1.807E+01 (82.85%)

Flag: "*" = Keyline

---- Identified Nuclides ----

Nuclide	Activity (pCi/filter)	Act error	MDA (pCi/filter)	MDA error	Act/MDA
BA-133	2.193E+02	4.838E+01	2.543E+01	4.010E+00	8.625
AM-241	2.181E+01	1.807E+01	1.852E+01	1.312E+00	1.178

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/filter)	K.L. Ided	Act error	MDA (pCi/filter)	MDA error	Act/MDA
CO-57	1.505E+00		5.695E+00	9.816E+00	1.031E+00	0.153
CD-109	-7.196E+01		1.258E+02	1.880E+02	1.651E+01	-0.383
PA-231	0.000E+00		0.000E+00	9.391E-01	4.963E-02	0.000
PA-234	5.941E+00		6.069E+00	1.142E+01	5.888E-01	0.520
TH-234	2.047E+02		1.657E+02	2.874E+02	2.102E+01	0.712
NP-237	-3.382E+01		3.682E+01	5.162E+01	4.493E+00	-0.655

ICB 11/30/10

VAX/VMS Peak Search Report Generated 30-NOV-2010 18:36:00.58

Configuration : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_101105206_GE5_BAFIL_157673.CN
Analyses by : PEAK V16.9 PEAKEFF V2.2
Client ID : SD27-DPT-13C
Deposition Date :
Sample Date : 30-NOV-2010 00:00:00 Acquisition date : 30-NOV-2010 18:20:45
Sample ID : 1011052-06 Sample Quantity : 1.00000E+00 filter
Sample type : FILTER Sample Geometry : 0
Detector name : GE5 Detector Geometry: BAFIL
Elapsed live time: 0 00:15:00.00 Elapsed real time: 0 00:15:01.20 0.1%
Start channel : 25 End channel : 4096
Sensitivity : 3.00000 Gaussian : 10.00000
Critical level : No

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	5	19.88	15	10	0.52	196.59	193	23	1.67E-02	39.0	3.85E+00
2	5	20.55	31	19	0.59	203.00	193	23	3.47E-02	42.5	
3	5	20.96	36	15	0.59	207.00	193	23	3.95E-02	36.7	
4	0	23.83	12	7	0.58	234.61	227	14	1.31E-02	55.9	
5	0	24.83	17	10	0.54	244.19	240	9	1.86E-02	41.0	
6	0	30.84	2154	85	0.70	301.97	288	32	2.39E+00	2.5	
7	1	34.96	530	28	0.69	341.61	328	32	5.88E-01	4.8	1.78E+00
8	1	35.83	91	15	0.63	350.00	328	32	1.01E-01	24.2	
9	0	53.11	51	16	0.43	516.09	508	19	5.65E-02	21.3	
10	0	61.57	264	37	0.85	597.50	585	25	2.93E-01	8.1	
11	1	65.85	93	19	0.76	638.66	623	28	1.03E-01	15.7	1.62E+00
12	1	66.68	26	8	0.62	646.67	623	28	2.86E-02	23.6	
13	2	79.37	42	33	0.86	768.63	755	39	4.71E-02	45.2	6.81E-01
14	2	80.84	874	22	0.66	782.80	755	39	9.71E-01	3.6	
15	0	83.93	11	7	0.42	812.53	806	12	1.19E-02	54.5	
16	0	111.51	234	43	0.81	1077.73	1062	28	2.60E-01	9.3	
17	0	115.86	71	18	0.75	1119.57	1105	27	7.89E-02	18.4	
18	0	132.86	23	4	1.34	1283.06	1272	22	2.59E-02	27.3	
19	0	160.48	32	10	1.09	1548.59	1537	19	3.57E-02	26.4	
20	0	223.18	11	10	0.30	2151.59	2135	20	1.22E-02	61.7	
21	0	275.78	45	8	0.22	2657.35	2643	22	5.04E-02	19.2	
22	0	302.16	103	12	0.68	2911.01	2898	23	1.14E-01	11.8	
23	0	306.39	28	8	0.76	2951.71	2939	21	3.16E-02	26.5	
24	0	332.88	73	0	0.68	3206.49	3193	23	8.11E-02	11.7	
25	9	355.13	342	10	0.92	3420.39	3407	27	3.80E-01	6.2	1.01E+00
26	9	355.65	109	9	0.84	3425.39	3407	27	1.21E-01	18.4	
27	1	382.75	52	18	1.00	3686.00	3674	25	5.81E-02	22.3	7.15E-01
28	1	383.27	20	13	0.90	3690.97	3674	25	2.25E-02	47.9	
29	1	385.66	160	19	1.11	3713.97	3702	29	1.77E-01	9.4	3.58E+00
30	1	386.39	87	14	1.01	3721.00	3702	29	9.66E-02	16.6	
31	0	390.04	42	5	1.05	3756.10	3740	26	4.68E-02	19.6	

Sample ID : 1011052-06
Acquisition date : 30-NOV-2010 18:20:45

Total number of lines in spectrum	31	
Number of unidentified lines	25	
Number of lines tentatively identified by NID	6	19.35%

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean Uncorrected pCi/filter	Wtd Mean Decay Corr pCi/filter	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
BA-133	10.50Y	1.00	4.411E+02	4.411E+02	0.743E+02	16.84	
		Total Activity :	4.411E+02	4.411E+02			

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean Uncorrected pCi/filter	Wtd Mean Decay Corr pCi/filter	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
TH-234	4.47E+09Y	1.00	2.381E+02	2.381E+02	0.399E+02	16.76	
		Total Activity :	2.381E+02	2.381E+02			

Grand Total Activity : 6.791E+02 6.792E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Nuclide Type: FISSION

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/filter	Decay Corr pCi/filter	2-Sigma %Error	Status
BA-133	81.00	33.00*	1.802E+01	4.411E+02	4.411E+02	16.84	OK
	302.84	17.80	2.575E+00	6.715E+02	6.715E+02	35.45	OK
	356.01	60.00	4.312E+00	1.266E+02	1.266E+02	39.47	OK

Final Mean for 3 Valid Peaks = 4.411E+02+/- 7.428E+01 (16.84%)

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/filter	Decay Corr pCi/filter	2-Sigma %Error	Status
TH-234	63.29	3.80*	8.750E+01	2.381E+02	2.381E+02	16.76	OK

Final Mean for 1 Valid Peaks = 2.381E+02+/- 3.990E+01 (16.76%)

Flag: "*" = Keyline

Sample ID : 1011052-06
Acquisition date : 30-NOV-2010 18:20:45

---- Identified Nuclides ----

Nuclide	Activity (pCi/filter)	Act error	MDA (pCi/filter)	MDA error	Act/MDA
BA-133	4.411E+02	7.428E+01	1.423E+01	2.095E+00	31.008
TH-234	2.381E+02	3.990E+01	2.113E+01	2.719E-01	11.266

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/filter)	K.L. Ided	Act error	MDA (pCi/filter)	MDA error	Act/MDA
CO-57	1.182E+00		1.493E+01	2.790E+01	9.457E+00	0.042
CD-109	2.233E+01		8.583E+01	1.645E+02	1.583E+01	0.136
PA-231	-1.187E+00		1.079E+00	1.688E+00	1.900E-02	-0.703
PA-234	1.646E+00	+	1.209E+00	1.738E+00	1.956E-02	0.947
NP-237	-6.746E-01		2.282E+01	4.154E+01	3.664E+00	-0.016
AM-241	1.380E+00		1.362E+00	2.505E+00	2.820E-02	0.551

SECTION XIII

ANALYTICAL DATA (LEAD-210)

Eberline Services
Oak Ridge Laboratory
Analysis Sheet

10-11052
Pb210
Run 1

Work Order	10-11052
Analysis Code	Pb210
Run	1
Date Received	11/16/2010
Lab Deadline	12/6/2010
Client	Tetra Tech Divisions
Project	HOLLOMAN
Report Level	4
Activity Units	pCi
Aliquot Units	g
Matrix	SO
Method	EML Pb-01 Modified
Instrument Type	Alpha/Beta GPC
Radiometric Tracer	
Radiometric Sol#	
Tracer Act (dpm/g)	
Carrier	Lead
Carrier Conc (mg/ml)	1.4952

Internal Fraction	Sample Desc	Client ID	Login CPM	Sample Date	Sample Aliquot
01	LCS	LCS		11/16/10 00:00	1.0000E+00
02	MBL	BLANK		11/16/10 00:00	1.0000E+00
03	DUP	SD27-DPT-13A	30	11/05/10 13:10	1.0028E+00
04	DO	SD27-DPT-13A	30	11/05/10 13:10	1.0022E+00
05	TRG	SD27-DPT-13B	32	11/05/10 13:20	1.0583E+00
06	TRG	SD27-DPT-13C	43	11/05/10 13:40	1.0340E+00

* SAF1 is used for Gross Alpha and all other radionuclides. SAF2 is used for Gross Beta only. ** Actual mass exceeded the calibration curve range. Results should be qualified as appropriate.

0259

Eberline Services
Oak Ridge Laboratory
Analysis Sheet

10-11052
Pb210
Run 1

Internal Fraction	Sample Desc	Tracer Aliquot (g)	Tracer Total ACT (dpm)	Radiometric Tracer (pCi)	Radiometric % Rec	Grav Carrier Added (ml)	Grav Filter Tare (g)	Grav Filter Final (g)	Grav Filter Net (g)	Grav % Rec	Mean % Rec	SAF 1*	SAF 2*
01	LCS				0.00	6.000	0.1004	0.1082	0.0078	86.94	86.94	1.00	1.00
02	MBL				0.00	6.000	0.1006	0.1079	0.0073	81.37	81.37	1.00	1.00
03	DUP				0.00	6.000	0.1006	0.1085	0.0079	88.06	88.06	1.00	1.00
04	DO				0.00	6.000	0.1012	0.1078	0.0066	73.57	73.57	1.00	1.00
05	TRG				0.00	6.000	0.1008	0.1083	0.0075	83.60	83.60	1.00	1.00
06	TRG				0.00	6.000	0.1007	0.1083	0.0076	84.72	84.72	1.00	1.00

* SAF1 is used for Gross Alpha and all other radionuclides. SAF2 is used for Gross Beta only. ** Actual mass exceeded the calibration curve range. Results should be qualified as appropriate.

0270

Eberline Services
Oak Ridge Laboratory
Analysis Sheet

10-11052
Pb210
Run 1

Internal Fraction	Sample Desc	Rough Prep Date	Rough Prep By	Prep Date	Prep By	Sep t0 Date/Time	Sep t0 By	Sep t1 Date/Time	Sep t1 By
01	LCS			12/07/10 09:14	TSMITH	12/07/10 17:42	TSMITH		
02	MBL			12/07/10 09:14	TSMITH	12/07/10 17:42	TSMITH		
03	DUP			12/07/10 09:14	TSMITH	12/07/10 17:42	TSMITH		
04	DO	11/17/10 09:34	KSALLINGS	12/07/10 09:14	TSMITH	12/07/10 17:42	TSMITH		
05	TRG	11/17/10 09:34	KSALLINGS	12/07/10 09:14	TSMITH	12/07/10 17:42	TSMITH		
06	TRG	11/17/10 09:34	KSALLINGS	12/07/10 09:14	TSMITH	12/07/10 17:42	TSMITH		

* SAF1 is used for Gross Alpha and all other radionuclides. SAF2 is used for Gross Beta only. ** Actual mass exceeded the calibration curve range. Results should be qualified as appropriate.

Eberline Services
Oak Ridge Laboratory

Preliminary Data Report & Analytical Calculations

Work Order: 10-11052-Pb210-1

Client	Eberline Services Work Order	Analysis Code	Run
Tetra Tech Divisions	10-11052	Pb210	1

Lab Fraction	Nuclide	Sample Desc	Client Identification	Activity Units	Results	Error Estimate	MDA	LCS Known	LCS %R	LCS Flag	RPD Flag	MDA Flag	Blank Flag
01	PB-210	LCS	LCS	pCi/g	1.89E+01	9.64E-01	8.56E-01	2.05E+01	92.19	OK		OK	
02	PB-210	MBL	BLANK	pCi/g	-2.57E-01	3.90E-01	8.64E-01					OK	OK
03	PB-210	DUP	SD27-DPT-13A	pCi/g	7.32E-01	4.22E-01	8.22E-01				NA	OK	
04	PB-210	DO	SD27-DPT-13A	pCi/g	1.01E+00	4.34E-01	8.06E-01					OK	
05	PB-210	TRG	SD27-DPT-13B	pCi/g	6.59E-01	3.87E-01	7.54E-01					OK	
06	PB-210	TRG	SD27-DPT-13C	pCi/g	5.86E-01	3.65E-01	7.14E-01					OK	

0272

Preliminary Data Report & Analytical Calculations
Work Order: 10-11052-Pb210-1

Client: Tetra Tech Divisions
Eberline Services Work Order: 10-11052
Analysis Code: Pb210
Run: 1

Lab Fraction	Nuclide	Sample Desc	Sample Date	Sample Aliquot	Radiometric % Rec	Grav % Rec	Mean % Rec	SAF	Sep t0 Date/Time	Sep t1 Date/Time
01	PB-210	LCS	11/16/10 00:00	1.00E+00	0.00	86.94	86.94	1.00	12/7/2010 17:42	
02	PB-210	MBL	11/16/10 00:00	1.00E+00	0.00	81.37	81.37	1.00	12/7/2010 17:42	
03	PB-210	DUP	11/05/10 13:10	1.00E+00	0.00	88.06	88.06	1.00	12/7/2010 17:42	
04	PB-210	DO	11/05/10 13:10	1.00E+00	0.00	73.57	73.57	1.00	12/7/2010 17:42	
05	PB-210	TRG	11/05/10 13:20	1.06E+00	0.00	83.60	83.60	1.00	12/7/2010 17:42	
06	PB-210	TRG	11/05/10 13:40	1.03E+00	0.00	84.72	84.72	1.00	12/7/2010 17:42	

0273

Preliminary Data Report & Analytical Calculations
Work Order: 10-11052-Pb210-1

Client	Eberline Services Work Order	Analysis Code	Run
Tetra Tech Divisions	10-11052	Pb210	1

Lab Fraction	Nuclide	Sample Desc	Counting Date/Time	Halflife (days)	Detect	Carrier	Count Time	Counts	Bkg CPM	Eff
01	PB-210	LCS	12/08/10 14:55		LB4110A	B1	120	1964	1.55	0.4626
02	PB-210	MBL	12/08/10 14:55		LB4110A	B2	120	147	1.416666667	0.4691
03	PB-210	DUP	12/08/10 14:55		LB4110A	B3	120	234	1.383333333	0.449
04	PB-210	DO	12/08/10 14:55		LB4110A	B4	120	197	0.966666667	0.4619
05	PB-210	TRG	12/08/10 14:55		LB4110A	D2	120	216	1.266666667	0.4682
06	PB-210	TRG	12/08/10 14:55		LB4110A	D4	120	193	1.133333333	0.4741

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Count Room Report
Client: Tetra Tech Divisions

10-11052-Pb210-1 (pCi/g) in SO
Tracer ID:

Internal Fraction	Sample Desc	Client ID	Sample Date	Sample Aliquot	Tracer Aliquot (g)	Tracer ACT (dpm)	Radiometric Tracer (pCi)	Radiometric % Rec	SAF 1*	SAF 2*
01	LCS	LCS	11/16/10 00:00	1.0000				0.00	1.00	1.00
02	MBL	BLANK	11/16/10 00:00	1.0000				0.00	1.00	1.00
03	DUP	SD27-DPT-13A	11/05/10 13:10	1.0028				0.00	1.00	1.00
04	DO	SD27-DPT-13A	11/05/10 13:10	1.0022				0.00	1.00	1.00
05	TRG	SD27-DPT-13B	11/05/10 13:20	1.0583				0.00	1.00	1.00
06	TRG	SD27-DPT-13C	11/05/10 13:40	1.0340				0.00	1.00	1.00

Eberline Services
Oak Ridge Laboratory

Spike and Tracer Worksheet

Printed: 12/7/2010 9:14 AM

Internal Work Order	Run	Analysis Code	Date	Technician	Technician Initials	Witness Initials
10-11052	1	Pb210	12/7/2010 9:13	TSMITH	[illegible]	

LCS & Matrix Spikes					LCS	MS	LCSD	MSD	LCS		MS		LCSD		MSD	
Isotope	Sol #	Activity dpm/g	Solution Date	Approx Addition	Volume Used (g)	Volume Used (g)	Volume Used (g)	Volume Used (g)	Known pCi	Error Estimate	Added pCi	Error Estimate	Known pCi	Error Estimate	Added pCi	Error Estimate
Pb-210	Pb-3a	162.142	12/7/2010	0.270	0.2801				20.46	0.757	0.00	0.000	0.00	0.000	0.00	0.000

Tracers

fraction	Isotope	Sol #	Activity dpm/g	Solution Date	Volume Used (g)	Approx Addition

Balance Printer Tapes

Tracer	LCS

Matrix Spike

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Eberline Analytical
Oak Ridge Laboratory

Aliquot Worksheet

Work Order	Run	Analysis Code	Rpt Units	Lab Deadline	Technician
10-11052	1	Pb210	grams	12/6/2010	TSMITH

Lab Fraction	Tetra Tech Divisions	Sample	Muffle Data	Dilution Data			Aliquot Data		MS Aliquot Data		H-3 Solids Only	
	Client ID	Type	Ratio Post/Pre	No of Dils	Dil Factor	Ratio	Aliquot	Net Equiv	Aliquot	Net Equiv	Water Added (ml)	H3 Dist Aliq
01	LCS	LCS					1.0000E+00	1.0000E+00				
02	BLANK	MBL					1.0000E+00	1.0000E+00				
03	SD27-DPT-13A	DUP					1.0028E+00	1.0028E+00				
04	SD27-DPT-13A	DO					1.0022E+00	1.0022E+00				
05	SD27-DPT-13B	TRG					1.0583E+00	1.0583E+00				
06	SD27-DPT-13C	TRG					1.0340E+00	1.0340E+00				

Comments	

Technician: _____ Date: ____/____/____

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Eberline Services - Oak Ridge
Version 1.0 9/1999

Gravimetric Worksheet

Work Order	Run	Analysis Code	Gravimetric Carrier	Carrier Conc (mg/ml)	Technician
10-11052	1	Pb210	Lead	1.4952	TSMITH

TRetec Fraction	Tetra Tech Divisions Client ID	Sample Type	Carrier Data Carrier Added (ml)	Filter Data Filter Tare (g)	0.1079	Filter Net (g)	Gravimetric % Recovery
01	LCS	LCS	6.0000	0.1004	0.1082	0.0078	86.94
02	BLANK	MBL	6.0000	0.1006	0.1079	0.0073	81.37
03	DUP	DUP	6.0000	0.1006	0.1085	0.0079	88.06
04	SD27-DPT-13A	DO	6.0000	0.1012	0.1078	0.0066	73.57
05	SD27-DPT-13B	TRG	6.0000	0.1008	0.1083	0.0075	83.60
06	SD27-DPT-13C	TRG	6.0000	0.1007	0.1083	0.0076	84.72

Technician: [illegible] Date: 12/8/10

0278

Eberline Services - Oak Ridge
Prep Logbook
Version 2.0 8/1999

Rough Sample Preparation Log Book

Work Order	Lab Deadline	Date Received in Prep	Date Sealed	Date Returned	Technician
10-11052	12/6/2010	11/16/2010	11/17/2010	11/18/2010	KSALLINGS

Eberline	Tetra Tech Divisions	Tare (g)	Gross (g)		Net (g)		Percent		Gamma		Special
Fraction	Client ID	Pan Wt	Wet Wt.	Dry Wt.	Wet Wt.	Dry Wt.	Liquid	Solid	Dry Wt.	LEPS Wt.	Info
04	SD27-DPT-13A	14.5700	401.9600	312.6300	387.3900	298.0600	23.06%	76.94%			
05	SD27-DPT-13B	13.6400	407.4200	313.2400	393.7800	299.6000	23.92%	76.08%			
06	SD27-DPT-13C	13.6000	487.5000	389.0100	473.9000	375.4100	20.78%	79.22%			

Comments	
Special Codes	H: Hot, O: Organic Hazard, P: PCB Hazard, R: Rush, T: Other (see comments)

Technician: Kenny Sallis Date: Analysis: Rough Prep Logbook

Analysis: Pb210 Page No. 7309

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12/8/10
ICB

Detector ID	Sample ID	Alpha	Beta	Count Time	Voltage	TOD
B1	1011052-01	75	1964	120	1400	12/8/10 16:55
B2	1011052-02	15	147	120	1400	12/8/10 16:55
B3	1011052-03	15	234	120	1400	12/8/10 16:55
B4	1011052-04	18	197	120	1400	12/8/10 16:55
D2	1011052-05	13	216	120	1400	12/8/10 16:55
D4	1011052-06	16	193	120	1400	12/8/10 16:55

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Eberline Analytical
Oak Ridge Laboratory

GPC Detector Report
(ALL Efficiencies)

EH 12/8/10

Detector	Alpha/Beta	Calibration Date	Count Date	Eff	PFW	LCL	Mean	UCL
LB4110A - A1	Beta	11/18/2007	12/8/2010	0.5696	P	0.5537	0.5875	0.6214
LB4110A - A2	Beta	11/18/2007	12/8/2010	0.5128	P	0.4662	0.5206	0.5749
LB4110A - A3	Beta	11/18/2007	12/8/2010	0.5211	P	0.4928	0.5252	0.5576
LB4110A - A4	Beta	11/18/2007	12/8/2010	0.5425	P	0.5175	0.5477	0.5780
LB4110A - B1	Beta	11/18/2007	12/8/2010	0.5232	P	0.5025	0.5387	0.5749
LB4110A - B2	Beta	11/18/2007	12/8/2010	0.5222	P	0.5040	0.5368	0.5695
LB4110A - B3	Beta	11/18/2007	12/8/2010	0.5489	P	0.5034	0.5512	0.5991
LB4110A - B4	Beta	11/18/2007	12/8/2010	0.5475	P	0.5289	0.5576	0.5863
LB4110A - C1	Beta	11/18/2007	12/8/2010	0.4979	P	0.4813	0.5046	0.5279
LB4110A - C2	Beta	11/18/2007	12/8/2010	0.4933	P	0.4359	0.5059	0.5758
LB4110A - C3	Beta	11/18/2007	12/8/2010	0.5897	P	0.5629	0.5870	0.6111
LB4110A - C4	Beta	11/18/2007	12/8/2010	0.5104	P	0.4879	0.5346	0.5813
LB4110A - D1	Beta	11/18/2007	12/8/2010	0.5421	P	0.5247	0.5682	0.6117
LB4110A - D2	Beta	11/18/2007	12/8/2010	0.5677	P	0.5382	0.6095	0.6807
LB4110A - D3	Beta	11/18/2007	12/8/2010	0.6071	P	0.5719	0.6242	0.6764
LB4110A - D4	Beta	11/18/2007	12/8/2010	0.4645	P	0.4393	0.4947	0.5501
LB4110R - A1	Beta	11/24/2006	12/8/2010	0.5487	P	0.4788	0.5730	0.6672
LB4110R - A2	Beta	11/24/2006	12/8/2010	0.4933	P	0.4105	0.5097	0.6090
LB4110R - A3	Beta	11/24/2006	12/8/2010	0.5416	P	0.4597	0.5471	0.6345
LB4110R - A4	Beta	11/24/2006	12/8/2010	0.5909	P	0.5002	0.5904	0.6805
LB4110R - B1	Beta	11/24/2006	12/8/2010	0.5324	P	0.4498	0.5495	0.6491
LB4110R - B2	Beta	11/24/2006	12/8/2010	0.5115	P	0.4277	0.5266	0.6256
LB4110R - B3	Beta	11/24/2006	12/8/2010	0.5719	P	0.4942	0.5938	0.6934
LB4110R - B4	Beta	11/24/2006	12/8/2010	0.5408	P	0.4639	0.5581	0.6523
LB4110R - C1	Beta	11/24/2006	12/8/2010	0.4954	P	0.4182	0.5060	0.5938
LB4110R - C2	Beta	11/24/2006	12/8/2010	0.5257	P	0.4429	0.5317	0.6205
LB4110R - C3	Beta	11/24/2006	12/8/2010	0.5627	P	0.4703	0.5738	0.6773
LB4110R - C4	Beta	11/24/2006	12/8/2010	0.5141	P	0.4453	0.5401	0.6349
LB4110R - D1	Beta	11/24/2006	12/8/2010	0.5307	P	0.4551	0.5456	0.6362
LB4110R - D2	Beta	11/24/2006	12/8/2010	0.6100	P	0.5130	0.6100	0.7070
LB4110R - D3	Beta	11/24/2006	12/8/2010	0.5891	P	0.4986	0.5906	0.6827
LB4110R - D4	Beta	11/24/2006	12/8/2010	0.4669	P	0.4057	0.4978	0.5898
LB5100 - 1	Beta	7/10/2006	10/26/2007	0.4428	F	0.4555	0.4731	0.4906

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Eberline Analytical
Oak Ridge Laboratory

GPC Detector Report
(ALL Efficiencies)

EH 12/8/10

Detector	Alpha/Beta	Calibration Date	Count Date	Eff	PFW	LCL	Mean	UCL
LB4110A - A1	Alpha	11/18/2007	12/8/2010	0.2442	P	0.2360	0.2496	0.2632
LB4110A - A2	Alpha	11/18/2007	12/8/2010	0.2140	P	0.1962	0.2198	0.2434
LB4110A - A3	Alpha	11/18/2007	12/8/2010	0.2147	P	0.2043	0.2172	0.2300
LB4110A - A4	Alpha	11/18/2007	12/8/2010	0.2269	P	0.2144	0.2282	0.2420
LB4110A - B1	Alpha	11/18/2007	12/8/2010	0.2187	P	0.2127	0.2299	0.2470
LB4110A - B2	Alpha	11/18/2007	12/8/2010	0.2256	P	0.2121	0.2267	0.2413
LB4110A - B3	Alpha	11/18/2007	12/8/2010	0.2388	P	0.2263	0.2417	0.2572
LB4110A - B4	Alpha	11/18/2007	12/8/2010	0.2395	P	0.2259	0.2398	0.2538
LB4110A - C1	Alpha	11/18/2007	12/8/2010	0.2232	P	0.2104	0.2219	0.2334
LB4110A - C2	Alpha	11/18/2007	12/8/2010	0.2254	P	0.2028	0.2263	0.2498
LB4110A - C3	Alpha	11/18/2007	12/8/2010	0.2483	P	0.2363	0.2492	0.2621
LB4110A - C4	Alpha	11/18/2007	12/8/2010	0.2221	P	0.2100	0.2297	0.2493
LB4110A - D1	Alpha	11/18/2007	12/8/2010	0.2263	W	0.2227	0.2385	0.2542
LB4110A - D2	Alpha	11/18/2007	12/8/2010	0.2587	P	0.2472	0.2624	0.2776
LB4110A - D3	Alpha	11/18/2007	12/8/2010	0.2629	P	0.2500	0.2680	0.2860
LB4110A - D4	Alpha	11/18/2007	12/8/2010	0.1954	P	0.1857	0.2079	0.2302
LB4110R - A1	Alpha	11/24/2006	12/8/2010	0.2291	P	0.2036	0.2404	0.2773
LB4110R - A2	Alpha	11/24/2006	12/8/2010	0.2225	P	0.1933	0.2235	0.2537
LB4110R - A3	Alpha	11/24/2006	12/8/2010	0.2186	P	0.1991	0.2275	0.2560
LB4110R - A4	Alpha	11/24/2006	12/8/2010	0.2467	P	0.2156	0.2465	0.2775
LB4110R - B1	Alpha	11/24/2006	12/8/2010	0.2201	P	0.1893	0.2293	0.2692
LB4110R - B2	Alpha	11/24/2006	12/8/2010	0.2166	P	0.1823	0.2203	0.2584
LB4110R - B3	Alpha	11/24/2006	12/8/2010	0.2361	P	0.2057	0.2463	0.2869
LB4110R - B4	Alpha	11/24/2006	12/8/2010	0.2293	P	0.1963	0.2362	0.2761
LB4110R - C1	Alpha	11/24/2006	12/8/2010	0.2139	P	0.1851	0.2168	0.2486
LB4110R - C2	Alpha	11/24/2006	12/8/2010	0.2260	P	0.1964	0.2264	0.2565
LB4110R - C3	Alpha	11/24/2006	12/8/2010	0.2386	P	0.2058	0.2420	0.2782
LB4110R - C4	Alpha	11/24/2006	12/8/2010	0.2119	P	0.1966	0.2295	0.2624
LB4110R - D1	Alpha	11/24/2006	12/8/2010	0.2225	P	0.1957	0.2290	0.2623
LB4110R - D2	Alpha	11/24/2006	12/8/2010	0.2570	P	0.2267	0.2592	0.2917
LB4110R - D3	Alpha	11/24/2006	12/8/2010	0.2482	P	0.2235	0.2542	0.2850
LB4110R - D4	Alpha	11/24/2006	12/8/2010	0.1938	P	0.1780	0.2096	0.2412
LB5100 - 1	Alpha	7/10/2006	10/26/2007	0.3368	P	0.3332	0.3455	0.3578

Eberline Analytical
Oak Ridge Laboratory

GPC Detector Report
(ALL Backgrounds)

EH 12/8/10

Detector	Alpha/Beta	Calibration Date	Count Date	Bkg CPM	PFW	LCL	Mean	UCL
LB4110A - A1	Alpha	11/18/2007	12/8/2010	1.83E-01	W	-6.16E-02	7.02E-02	2.02E-01
LB4110A - A2	Alpha	11/18/2007	12/8/2010	8.33E-02	P	-5.65E-02	9.92E-02	2.55E-01
LB4110A - A3	Alpha	11/18/2007	12/8/2010	1.67E-02	P	-5.25E-02	5.31E-02	1.59E-01
LB4110A - A4	Alpha	11/18/2007	12/8/2010	6.67E-02	P	-6.62E-02	6.38E-02	1.94E-01
LB4110A - B1	Alpha	11/18/2007	12/8/2010	1.33E-01	P	-1.25E-01	8.21E-02	2.89E-01
LB4110A - B2	Alpha	11/18/2007	12/8/2010	8.33E-02	P	-6.65E-02	7.60E-02	2.18E-01
LB4110A - B3	Alpha	11/18/2007	12/8/2010	8.33E-02	P	-6.11E-02	4.73E-02	1.56E-01
LB4110A - B4	Alpha	11/18/2007	12/8/2010	3.33E-02	P	-5.28E-02	5.71E-02	1.67E-01
LB4110A - C1	Alpha	11/18/2007	12/8/2010	2.00E-01	W	-6.13E-02	8.20E-02	2.25E-01
LB4110A - C2	Alpha	11/18/2007	12/8/2010	5.00E-02	P	-1.94E-01	1.13E-01	4.21E-01
LB4110A - C3	Alpha	11/18/2007	12/8/2010	6.67E-02	P	-2.31E-01	1.15E-01	4.61E-01
LB4110A - C4	Alpha	11/18/2007	12/8/2010	5.00E-02	P	-7.16E-02	7.76E-02	2.27E-01
LB4110A - D1	Alpha	11/18/2007	12/8/2010	1.83E-01	P	-5.55E-02	8.70E-02	2.30E-01
LB4110A - D2	Alpha	11/18/2007	12/8/2010	0.00E+00	P	-7.10E-02	6.73E-02	2.06E-01
LB4110A - D3	Alpha	11/18/2007	12/8/2010	5.00E-02	P	-4.85E-02	6.70E-02	1.82E-01
LB4110A - D4	Alpha	11/18/2007	12/8/2010	5.00E-02	P	-5.74E-02	7.68E-02	2.11E-01
LB4110R - A1	Alpha	11/24/2006	12/8/2010	6.67E-02	P	-1.05E-01	8.17E-02	2.69E-01
LB4110R - A2	Alpha	11/24/2006	12/8/2010	1.50E-01	P	-9.63E-02	9.29E-02	2.82E-01
LB4110R - A3	Alpha	11/24/2006	12/8/2010	3.33E-02	P	-8.64E-02	7.63E-02	2.39E-01
LB4110R - A4	Alpha	11/24/2006	12/8/2010	1.67E-02	P	-5.12E-02	8.20E-02	2.15E-01
LB4110R - B1	Alpha	11/24/2006	12/8/2010	1.50E-01	P	-1.13E-01	6.79E-02	2.49E-01
LB4110R - B2	Alpha	11/24/2006	12/8/2010	3.33E-02	P	-7.72E-02	7.37E-02	2.25E-01
LB4110R - B3	Alpha	11/24/2006	12/8/2010	3.33E-02	P	-7.21E-02	7.07E-02	2.13E-01
LB4110R - B4	Alpha	11/24/2006	12/8/2010	1.67E-02	P	-6.57E-02	8.14E-02	2.29E-01
LB4110R - C1	Alpha	11/24/2006	12/8/2010	3.33E-02	P	-8.42E-02	8.62E-02	2.57E-01
LB4110R - C2	Alpha	11/24/2006	12/8/2010	8.33E-02	P	-8.12E-02	8.36E-02	2.48E-01
LB4110R - C3	Alpha	11/24/2006	12/8/2010	5.00E-02	P	-1.00E-01	9.23E-02	2.85E-01
LB4110R - C4	Alpha	11/24/2006	12/8/2010	5.00E-02	P	-6.96E-02	9.16E-02	2.53E-01
LB4110R - D1	Alpha	11/24/2006	12/8/2010	1.17E-01	P	-8.67E-02	8.64E-02	2.59E-01
LB4110R - D2	Alpha	11/24/2006	12/8/2010	5.00E-02	P	-5.92E-02	8.80E-02	2.35E-01
LB4110R - D3	Alpha	11/24/2006	12/8/2010	6.67E-02	P	-5.75E-02	7.68E-02	2.11E-01
LB4110R - D4	Alpha	11/24/2006	12/8/2010	1.67E-02	P	-5.67E-02	9.31E-02	2.43E-01
LB5100 - 1	Alpha	7/10/2006	10/26/2007	5.00E-02	P	-1.56E-02	9.58E-02	2.07E-01

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GPC Detector Report
(ALL Backgrounds)

EH 12/8/10

Detector	Alpha/Beta	Calibration Date	Count Date	Bkg CPM	PFW	LCL	Mean	UCL
LB4110A - A1	Beta	11/18/2007	12/8/2010	1.70E+00	P	-7.10E+00	2.51E+00	1.21E+01
LB4110A - A2	Beta	11/18/2007	12/8/2010	1.60E+00	P	-1.33E-03	1.53E+00	3.06E+00
LB4110A - A3	Beta	11/18/2007	12/8/2010	1.27E+00	P	4.36E-01	1.29E+00	2.13E+00
LB4110A - A4	Beta	11/18/2007	12/8/2010	1.67E+00	P	5.21E-01	1.68E+00	2.84E+00
LB4110A - B1	Beta	11/18/2007	12/8/2010	1.55E+00	P	-8.14E+00	3.53E+00	1.52E+01
LB4110A - B2	Beta	11/18/2007	12/8/2010	1.42E+00	P	1.19E-01	1.45E+00	2.78E+00
LB4110A - B3	Beta	11/18/2007	12/8/2010	1.38E+00	P	1.75E-01	1.46E+00	2.74E+00
LB4110A - B4	Beta	11/18/2007	12/8/2010	9.67E-01	P	2.67E-02	1.40E+00	2.77E+00
LB4110A - C1	Beta	11/18/2007	12/8/2010	1.45E+00	P	-7.08E+00	2.82E+00	1.27E+01
LB4110A - C2	Beta	11/18/2007	12/8/2010	1.18E+00	P	3.34E-01	1.38E+00	2.43E+00
LB4110A - C3	Beta	11/18/2007	12/8/2010	1.52E+00	P	5.08E-01	1.48E+00	2.45E+00
LB4110A - C4	Beta	11/18/2007	12/8/2010	4.23E+00	P	-1.11E+00	2.09E+00	5.28E+00
LB4110A - D1	Beta	11/18/2007	12/8/2010	1.88E+00	P	-3.56E+00	2.89E+00	9.34E+00
LB4110A - D2	Beta	11/18/2007	12/8/2010	1.27E+00	P	-1.15E+00	1.71E+00	4.56E+00
LB4110A - D3	Beta	11/18/2007	12/8/2010	4.70E+00	P	1.32E-01	4.25E+00	8.36E+00
LB4110A - D4	Beta	11/18/2007	12/8/2010	1.13E+00	P	-7.95E-01	1.51E+00	3.81E+00
LB4110R - A1	Beta	11/24/2006	12/8/2010	1.53E+00	P	-5.75E+01	2.61E+00	6.27E+01
LB4110R - A2	Beta	11/24/2006	12/8/2010	1.00E+00	P	-5.78E+01	2.33E+00	6.25E+01
LB4110R - A3	Beta	11/24/2006	12/8/2010	1.05E+00	P	-5.73E+01	3.77E+00	6.49E+01
LB4110R - A4	Beta	11/24/2006	12/8/2010	1.05E+00	P	-5.76E+01	2.48E+00	6.26E+01
LB4110R - B1	Beta	11/24/2006	12/8/2010	1.17E+00	P	-6.06E+01	2.54E+00	6.57E+01
LB4110R - B2	Beta	11/24/2006	12/8/2010	9.33E-01	P	-6.05E+01	2.61E+00	6.57E+01
LB4110R - B3	Beta	11/24/2006	12/8/2010	1.32E+00	P	-6.00E+01	3.56E+00	6.71E+01
LB4110R - B4	Beta	11/24/2006	12/8/2010	9.67E-01	P	-6.07E+01	2.41E+00	6.55E+01
LB4110R - C1	Beta	11/24/2006	12/8/2010	1.53E+00	P	-5.99E+01	4.16E+00	6.83E+01
LB4110R - C2	Beta	11/24/2006	12/8/2010	2.00E+00	P	-6.05E+01	3.35E+00	6.72E+01
LB4110R - C3	Beta	11/24/2006	12/8/2010	1.38E+00	P	-6.09E+01	3.29E+00	6.75E+01
LB4110R - C4	Beta	11/24/2006	12/8/2010	1.28E+00	P	-6.87E+01	3.85E+00	7.64E+01
LB4110R - D1	Beta	11/24/2006	12/8/2010	7.42E+00	P	-5.73E+01	6.73E+00	7.07E+01
LB4110R - D2	Beta	11/24/2006	12/8/2010	7.33E-01	P	-6.15E+01	2.47E+00	6.65E+01
LB4110R - D3	Beta	11/24/2006	12/8/2010	3.48E+00	P	-6.52E+01	7.04E+00	7.93E+01
LB4110R - D4	Beta	11/24/2006	12/8/2010	1.17E+00	P	-6.12E+01	2.86E+00	6.69E+01
LB5100 - 1	Beta	7/10/2006	10/26/2007	4.52E+00	F	-3.19E-01	1.58E+00	3.48E+00

0234

TETRA TECH, INC.

Holloman AFB SD27

STANDARD LEVEL IV
REPORT OF ANALYSIS

WORK ORDER #10-11052-OR

January 4, 2011

EBERLINE SERVICES/OAK RIDGE LABORATORY
OAK RIDGE, TN

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Eberline Services – Oak Ridge Laboratory

LABORATORY DATA SUPPORT CHECKLIST

MP-001-3

Eberline Services Work Order # 10 11052

The checklist items listed below are to be initialed by appropriate staff upon completion/verification.

Date for Partial	Initials	Date	Initials	Checklist Items
		11/16/10	CD	Sample Log-In
		12-14-10	KW	Data Compilation
		12-16-10	MH	First Technical Data Review
		12/21/10	MR	Second Technical Data Review
		1/4/11	[illegible]	Data Entry/Electronic Deliverable
		1/4/11	[illegible]	Case Narrative
		1/4/11	KBS	Electronic Deliverable Proof
		1/4/11	CD	Samples Analyzed within Holding Time Yes? [✓] No? [ ]
		1/4/11	[illegible]	QA/QC Review
				Client in Possession of Data Electronic or Hard Copy
				Invoiced by Laboratory

Technical/Clerical Corrections, Signatures Needed, Problems, Etc	Date/Initials

Date package approved by: [signature] 1/4/11

Laboratory Manager Date

Copy No. _____

SECTION I

CHAIN OF CUSTODY

Tetra Tech, Inc.
800 Oak Ridge Turnpike, Ste A-500
Oak Ridge, TN 37830
865/283-9900

CHAIN-OF-CUSTODY

10 11052

Laboratory Name: **Eberline Services** Address: **601 Scarboro Rd. Oak Ridge, TN 37830** Contact: **Kathy Shaulis 865/481-0683**

Project Name Holloman AFB, SD27 Project Location HAFB, NM

Project No.: Holloman AFB SD27
Project Contact: **Maureen McMyler**
Site Telephone No.: 865-621-8754

Report to: Maureen McMyler 800 Oak Ridge Turnpike 865/535-2030
Bill to: Sheila Hall, 800 Oak Ridge Turnpike 865/283-9900
Project Manager/Supervisor: **Mike Higgins**

Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	Lead (210 Pb) by E905.0 Modified, Radium (226 Ra) by E903.0 Radium (228 Ra) by E904.0 Istopic Thorium (C228Th, 230Th, 232 Th) by E907.0 Isotopic Uranium by E907.0	Gross Alpha/Beta by EPA 900.0	Notes
1	SD27-DPT-13A -04	11/5/2010	1310		X	SO	SD27-DPT-09 Depth:7.5	1	X		
2	SD27-DPT-13B -05	11/5/2010	1320		X	SO	SD27-DPT-09 Depth:12.5	1	X		
3	SD27-DPT-13C -06	11/5/2010	1340		X	SO	SD27-DPT-09 Depth:17.5	1	X		
4	SD27-TTMW-04	11/10/2010	1040		X	GW	SD27-TTMW-04	1		X	
5	SD27-TTMW-03	11/10/2010	1120		X	GW	SD27-TTMW-03	1		X	
6	SD27-TTMW-02	11/10/2010	1200		X	GW	SD27-TTMW-02	1		X	
7	SD27-TTMW-02FD	11/10/2010	1200		X	GW	SD27-TTMW-02FD	1		X	Field Duplicate
8	SD27-TTMW-05	11/11/2010	850		X	GW	SD27-TTMW-05	1		X	
9	SD27-TTMW-01	11/11/2010	1005		X	GW	SD27-TTMW-01	2		X	
10	SD27-TTMW-MS-01	11/11/2010	1005		X	GW	SD27-TTMW-MS-01	1		X	Matrix Spike
11	SD27-TTMW-MSD-01	11/11/2010	1005		X		SD27-TTMW-MSD-01	1		X	Matrix Spike Duplicate

RECEIVED
NOV 1 4 2010
BY: CD

Transfers Relinquished By (Signature)	Date/Time	Accepted By (Signature)	Date/Time
[signature]	11/12/10 0725	[signature]	11/12/10
		Laboratory	

Special Instructions:

FedEx Airbill No.:

Sampler's Signature: [signature]

TAT: ____ Standard ____ Rush Due: _____ ? ____ Y ____ N Received Good Condition ____ Y ____ N ____ Cold

0005

EBERLINE SERVICES Oak Ridge Laboratory	Internal Chain of Custody	Work Order #	10-11052
		Lab Deadline	12/6/2010
		Analysis	UUISO - Level 4
		Sample Matrix	Soil/Solid

Comments	Sample Fraction	HP 210 / 270 Detector Activity	Storage Location
	04	30	F1.4
	05	32	F1.4
	06	43	F1.4

	Location (circle one)					Initials	Date
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room 1730	Kenny Selly	11-16-10
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room 0950	Kenny Selly	11-17-10
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room	Bat	11/17/10 0950
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room	Bat	11/18/10 0720
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room	JPD	11/18/10 0720
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room	JPD	11/23/10 1030
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room	EH	11/23/10 1030
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room	ICB	11/23/10 1704
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room		

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EBERLINE SERVICES Oak Ridge Laboratory	Internal Chain of Custody	Work Order #	10-11052
		Lab Deadline	12/6/2010
		Analysis	ThISO - Level 4
		Sample Matrix	Soil/Solid

Comments	Sample Fraction	HP 210 / 270 Detector Activity	Storage Location
	04	30	F1.4
	05	32	F1.4
	06	43	F1.4

	Location (circle one)					Initials	Date
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room 1230	Kenny Selly	11-16-10
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room 0950	Kenny Selly	11-17-10
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room	JBat	11/17/10 0950
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room	JBat	11/18/10 0720
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room	JPD	11/18/10 0720
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room	JPD	11/20/10 1440
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room	AG	11/20/10 1440
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room	EH	11/22/10 0538
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room		

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EBERLINE SERVICES Oak Ridge Laboratory	Internal Chain of Custody	Work Order #	10-11052
		Lab Deadline	12/6/2010
		Analysis	Ra226 - Level 4
		Sample Matrix	Soil/Solid

Comments	Sample Fraction	HP 210 / 270 Detector Activity	Storage Location
	04	30	F1.4
	05	32	F1.4
	06	43	F1.4

	Location (circle one)					Initials	Date
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room 1230	Kenny Sales	11-16-10
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room 0950	Kenny Sales	11-17-10
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room	Bat	11/17/10 0950
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room	[illegible]	11/18/10 2130
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room	[illegible]	11-18-10 2130
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room	[illegible]	11-30-10 1425
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room	KB	11/30/10 1425
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room	EH	12/1/10 0558
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room		

EBERLINE SERVICES Oak Ridge Laboratory	Internal Chain of Custody	Work Order #	10-11052
		Lab Deadline	See Comments
		Analysis	Ra228 - Level 4
		Sample Matrix	SO

Comments	Sample Fraction	HP 210 / 270 Detector Activity	Storage Location
Re-Analysis: 2□	04	30	F1.4
	05	32	F1.4
	06	43	F1.4
Original Lab Deadline: 12/14/10 Rerun Lab Deadline: 12/14/10□			

	Location (circle one)					Technician Initials	
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room	JB	12/9/10 0530
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room	JB	12/9/10 1300
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room	[illegible]	12-9-10 1300
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room	[illegible]	12-13-10 1101
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room	AG	12/13/10 1105
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room	AG	12/13/10 1330
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room		

EBERLINE SERVICES Oak Ridge Laboratory	Internal Chain of Custody	Work Order #	10-11052
		Lab Deadline	12/6/2010
		Analysis	Pb210 - Level 4
		Sample Matrix	Soil/Solid

Comments	Sample Fraction	HP 210 / 270 Detector Activity	Storage Location
	04	30	F1.4
	05	32	F1.4
	06	43	F1.4

	Location (circle one)					Initials	Date
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room 1230	Kenny Scelig	11-17-10
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room 0950	Kenny Scelig	11-17-10
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room	[illegible]	11-17-10
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room	[illegible]	12-8-10 1500
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room	ICB	12/8/10 1500
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room	ICB	12/8/10 AR
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room		

SECTION II

SAMPLE ACKNOWLEDGEMENT

Client Name	Contract/PO	Project Type	Date Received	Required Turnaround Days	Eberline Services Work Order
Tetra Tech Divisions	1066787	Environmental	11/16/2010	28	10-11052
Project Name	**Client WO**	**Sample Disp**	**Lab Deadline**	**Internal Deadline**	**Client Deadline**
HOLLOMAN	Holloman AFB SD27	H	12/06/2010	12/13/2010	12/14/2010

Internal ID	Client ID	Sample Date	Matrix	Storage	Pb210	Ra226	Ra228	Th230	U,UISO																	Ttl
01	LCS	11/16/10	SO	F1.4	X	X	X	X	X																	5
02	BLANK	11/16/10	SO	F1.4	X	X	X	X	X																	5
03	DUP	11/16/10	SO	F1.4	X	X	X	X	X																	5
04	SD27-DPT-13A	11/05/10 13:10	SO	F1.4	X	X	X	X	X																	5
05	SD27-DPT-13B	11/05/10 13:20	SO	F1.4	X	X	X	X	X																	5
06	SD27-DPT-13C	11/05/10 13:40	SO	F1.4	X	X	X	X	X																	5
																										0
																										0
																										0
																										0
																										0
																										0
																										0
																										0
																										0
																										0
																										0
																										0
																										0
	Totals Per Analysis (non QA samples)				3	3	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

EBERLINE SERVICES

Sample Log In Report

Oak Ridge Laboratory
601 Scarboro Rd.
Oak Ridge, TN 37830

Voice: (865) 481-0683
Fax: (865) 483-4621

Invoice		Report Data	
	Sheila Hall		Valerie Bogle
	Tetra Tech Divisions		Tetra Tech, Inc.
	800 OR Turnpike #A-600		800 Oak Ridge TP #A-500
	Oak Ridge, TN 37830		Oak Ridge, TN 37830
Voice	865-220-4732	*Voice*	865-535-2030
Fax	865-482-6052	*Fax*	865-482-6052
Contact	Valerie Bogle		
Voice	865-535-2030		
Fax	865-482-6052		

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Eberline Services – Oak Ridge Laboratory

SAMPLE RECEIPT CHECKLIST
MP-001-2

WORK ORDER # 10 11052

SAMPLE MATRIX/MATRICES:

(CIRCLE ONE OR BOTH)

AQUEOUS NON-AQUEOUS

(CIRCLE EITHER YES, NO, OR N/A)

WERE SAMPLES:

Received in good condition?	Y	N	
If aqueous, properly preserved	Y	N	N/A

WERE CHAIN OF CUSTODY SEALS:

Present on outside of package?	Y	N
Unbroken on outside of package?	Y	N
Present on samples?	Y	N
Unbroken on samples?	Y	N
Was chain of custody present upon sample receipt?	Y	N

IF THE RESPONSE TO ANY OF THE ABOVE IS **NO**, A DISCREPANT SAMPLE RECEIPT REPORT (DSR) HAS BEEN ISSUED.

REMARKS: (3) 500ml HDPE w/m Gamma jars filled w/ soil.

SIGNATURE: Clay Davis DATE: 11/16/10

SECTION III

CASE NARRATIVE

EBERLINE SERVICES

EBERLINE ANALYTICAL CORPORATION
601 SCARBORO ROAD
OAK RIDGE, TENNESSEE 37830
PHONE (865) 481-0683
FAX (865) 483-4621

EBS-OR-31493

January 4, 2011

Maureen McMyler
Tetra Tech, Inc.
800 Oak Ridge Turnpike, Suite A-500
Oak Ridge, TN 37830

Contract Number: 1066787
Site Name: Holloman AFB SD27
Project Manager: Mike Higgins

CASE NARRATIVE
Work Order # 10-11052-OR

SAMPLE RECEIPT

This work order contains three soil samples received 11/16/2010. These samples were analyzed for Isotopic Uranium, Isotopic Thorium, Radium-226/228 and Lead-210.

CLIENT ID	LAB ID
SD27-DPT-13A	10-11052-04
SD27-DPT-13B	10-11052-05
SD27-DPT-13C	10-11052-06

ANALYTICAL METHODS

Isotopic Uranium was analyzed using Method EML U-02 Modified. Isotopic Thorium was analyzed using Method EML Th-01 Modified. Radium-226 was analyzed using EPA Method 903.0 Modified. Radium-228 was analyzed using EPA Method 904.0 Modified. Lead-210 was analyzed using Method EML Pb-01 Modified.

Laboratory qualifiers are as follows:

J - Indicates a situation where the result minus the error is less than the detection limit but greater than zero.

U - Indicates a situation where the result minus the error is less than or equal to zero.

ANALYTICAL RESULTS

ISOTOPIC URANIUM

Samples were prepared by removing representative aliquots followed by mixed acid digestions as appropriate. Uranium was selectively extracted by ion exchange. Uranium was eluted, micro-precipitated and mounted on micro-porous filter media. Sample activities were then determined by alpha

ANALYTICAL RESULTS CONTINUED

ISOTOPIC URANIUM CONTINUED

spectroscopy using energy specific regions of interest for Uranium-234, Uranium-235 and Uranium-238. Chemical recovery was determined by the use of a Uranium-232 tracer. Activity of the Uranium-232 tracer was determined by alpha spectroscopy using an energy specific region of interest.

Samples demonstrated acceptable results for Uranium-234, Uranium-235 and Uranium-238 activity. Chemical recovery was acceptable for all samples except for the laboratory control sample, which demonstrated a slightly high recovery. Results for the method blank demonstrated acceptable Uranium-234, Uranium-235 and Uranium-238 activity. Results for the Uranium-234 duplicate demonstrated an acceptable relative percent difference and normalized difference. Results for the Uranium-235 and Uranium-238 duplicate demonstrated a high relative percent difference; however, normalized difference is within acceptable limits for the analytical technique. Results for the Uranium-234 and Uranium-238 laboratory control sample demonstrated an acceptable percent recovery.

ISOTOPIC THORIUM

Samples were prepared by removing representative aliquots followed by mixed acid digestions as appropriate. Thorium was selectively extracted by ion exchange. Thorium was eluted, micro-precipitated and mounted on micro-porous filter media. Sample activities were then determined by alpha spectroscopy using energy specific regions of interest for Thorium-228, Thorium-230 and Thorium-232. Chemical recovery was determined by the use of a Thorium-229 tracer. Activity of the Thorium-229 tracer was determined by alpha spectroscopy using an energy specific region of interest.

Samples demonstrated acceptable results for Thorium-228, Thorium-230 and Thorium-232 activity. Chemical recovery was acceptable for all samples except for the laboratory control sample, which demonstrated a slightly high chemical recovery. Results for the method blank demonstrated acceptable Thorium-228, Thorium-230 and Thorium-232 activity. Results for the Thorium-228, Thorium-230 and Thorium-232 duplicate demonstrated a high relative percent difference; however, normalized difference is within acceptable limits for the analytical technique. Results for the Thorium-228, Thorium-230 and Thorium-232 laboratory control sample demonstrated an acceptable percent recovery.

RADIUM-226

Samples were prepared by drying, pulverizing and homogenization. Representative aliquots were removed and digested using mixed acids. Radium-226 was precipitated as Radium sulfate using elemental Barium and Lead as carriers. Sulfates were dissolved in alkaline EDTA. Radium-226 was selectively precipitated from slightly acidic EDTA. Precipitates were then mounted by semi-micro-precipitations onto micro-porous filters. Samples were counted by alpha spectroscopy using an energy specific region of interest for Radium-226. Chemical recovery was calculated by the use of a Barium-133 tracer, which was determined by HPGe gamma spectroscopy.

Samples demonstrated acceptable results for Radium-226 activity. Chemical recovery was acceptable for all samples. Results for the Radium-226 method blank demonstrated acceptable activity. Results for the Radium-226 duplicate demonstrated an acceptable relative percent difference and normalized difference. Results for the Radium-226 laboratory control sample demonstrated an acceptable percent recovery.

ANALYTICAL RESULTS CONTINUED

RADIUM-228

Samples were prepared by removing representative aliquots. Samples were precipitated as Radium sulfate using elemental Barium and Lead as carriers. Sulfates were dissolved in alkaline EDTA. Radium/Barium Sulfate precipitates were redissolved and allowed for sufficient ingrowth of the Actinium-228 daughter. After ingrowth, Actinium-228 was selectively precipitated. Precipitates were filtered and Actinium-228 beta emissions were then counted on a gas proportional counter. Chemical recovery was determined by the use of a Barium-133 tracer. Tracer activity was determined by HPGe gamma spectroscopy and an elemental Yttrium carrier by gravimetric measurements. The product of the tracer activity and elemental Yttrium carrier was used to calculate chemical yield.

2nd Analytical Attempt

Due a failure of results to meet laboratory QC requirements, samples were reanalyzed. Samples demonstrated acceptable results for Radium-228 activity. Chemical recovery was acceptable for all samples. Results for the Radium-228 method blank demonstrated acceptable activity. Results for the Radium-228 duplicate demonstrated a high relative percent difference; however, normalized difference is within acceptable limits for the analytical technique. Results for the Radium-228 laboratory control sample demonstrated an acceptable percent recovery.

LEAD-210

A standardized elemental Bismuth standard/carrier was added to each sample. Samples were digested as appropriate for the matrix and were acidified as appropriate for selective extractions. Bismuth was extracted by solvent extraction using DDTC and Chloroform. Bismuth was then precipitated by a soft pH adjustment. Chemical recovery was determined gravimetrically by the stable Bismuth carrier mass after precipitation. Lead-210 from Bismuth-210 activity was determined by gas proportional counting. Results for Lead-210/Bismuth-210 were decay corrected from separation times, t0 of Bismuth-210 from the supporting parent, Lead-210.

Samples demonstrated acceptable results for Lead-210 activity. Chemical recovery was acceptable for all samples. Results for the Lead-210 method blank demonstrated acceptable activity. Results for the Lead-210 duplicate demonstrated a slightly high relative percent difference; however, normalized difference is within acceptable limits for the analytical technique. Results for the Lead-210 laboratory control sample demonstrated an acceptable percent recovery.

CERTIFICATION OF ACCURACY

I certify that this data report is in compliance with the terms and conditions of the Purchase Order, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the cognizant project manager or his/her designee to be accurate as verified by the following signature.

M.R. McDougall
Laboratory Manager

Date: 1/4/2011

SECTION IV

ANALYTICAL RESULTS SUMMARY

Maureen McMyler
Tetra Tech, Inc.
800 Oak Ridge Turnpike, Suite A-500
Oak Ridge, TN 37830

Project: Holloman AFB SD27
SDG: 1011052
Date Received: 11/16/2010

Client Sample ID	Lab Sample ID	Sample Type	Data Analyzed	Analyte	Method	Result	Error	MDA	Qualifier	Units
10-11052-01	10-11052-01	BS	12/8/2010	Lead-210	EML Pb-01 Modified	18.860	0.964	0.856		pCi/g
10-11052-01	10-11052-01	BS	11/30/2010	Radium-226	EPA 903.0 Modified	11.930	1.648	0.113		pCi/g
10-11052-01	10-11052-01	BS	12/13/2010	Radium-228	EPA 904.0 Modified	16.112	1.020	0.979		pCi/g
10-11052-01	10-11052-01	BS	11/21/2010	Thorium-228	EML Th-01 Modified	4.775	0.924	0.134		pCi/g
10-11052-01	10-11052-01	BS	11/21/2010	Thorium-230	EML Th-01 Modified	5.716	1.076	0.084		pCi/g
10-11052-01	10-11052-01	BS	11/21/2010	Thorium-232	EML Th-01 Modified	4.952	0.952	0.064		pCi/g
10-11052-01	10-11052-01	BS	11/23/2010	Uranium-234	EML U-02 Modified	7.582	1.272	0.034		pCi/g
10-11052-01	10-11052-01	BS	11/23/2010	Uranium-235	EML U-02 Modified	0.392	0.169	0.085		pCi/g
10-11052-01	10-11052-01	BS	11/23/2010	Uranium-238	EML U-02 Modified	7.727	1.292	0.059		pCi/g
10-11052-02	10-11052-02	MB	12/8/2010	Lead-210	EML Pb-01 Modified	-0.257	0.390	0.864	U	pCi/g
10-11052-02	10-11052-02	MB	11/30/2010	Radium-226	EPA 903.0 Modified	0.213	0.198	0.264	J	pCi/g
10-11052-02	10-11052-02	MB	12/13/2010	Radium-228	EPA 904.0 Modified	0.327	0.475	0.979	U	pCi/g
10-11052-02	10-11052-02	MB	11/21/2010	Thorium-228	EML Th-01 Modified	0.053	0.066	0.086	U	pCi/g
10-11052-02	10-11052-02	MB	11/21/2010	Thorium-230	EML Th-01 Modified	0.031	0.054	0.101	U	pCi/g
10-11052-02	10-11052-02	MB	11/21/2010	Thorium-232	EML Th-01 Modified	-0.003	0.006	0.086	U	pCi/g
10-11052-02	10-11052-02	MB	11/23/2010	Uranium-234	EML U-02 Modified	0.065	0.068	0.105	U	pCi/g
10-11052-02	10-11052-02	MB	11/23/2010	Uranium-235	EML U-02 Modified	0.081	0.076	0.076	J	pCi/g
10-11052-02	10-11052-02	MB	11/23/2010	Uranium-238	EML U-02 Modified	0.040	0.047	0.036	U	pCi/g
SD27-DPT-13A	10-11052-03	LR	12/8/2010	Lead-210	EML Pb-01 Modified	0.732	0.422	0.822	J	pCi/g
SD27-DPT-13A	10-11052-03	LR	11/30/2010	Radium-226	EPA 903.0 Modified	0.361	0.244	0.185	J	pCi/g
SD27-DPT-13A	10-11052-03	LR	12/13/2010	Radium-228	EPA 904.0 Modified	1.225	0.498	0.922	J	pCi/g
SD27-DPT-13A	10-11052-03	LR	11/21/2010	Thorium-228	EML Th-01 Modified	0.312	0.165	0.048		pCi/g
SD27-DPT-13A	10-11052-03	LR	11/21/2010	Thorium-230	EML Th-01 Modified	0.127	0.099	0.048	J	pCi/g
SD27-DPT-13A	10-11052-03	LR	11/21/2010	Thorium-232	EML Th-01 Modified	0.484	0.214	0.082		pCi/g
SD27-DPT-13A	10-11052-03	LR	11/23/2010	Uranium-234	EML U-02 Modified	0.298	0.131	0.067		pCi/g
SD27-DPT-13A	10-11052-03	LR	11/23/2010	Uranium-235	EML U-02 Modified	0.005	0.033	0.101	U	pCi/g
SD27-DPT-13A	10-11052-03	LR	11/23/2010	Uranium-238	EML U-02 Modified	0.298	0.130	0.057		pCi/g
SD27-DPT-13A	10-11052-04	N	12/8/2010	Lead-210	EML Pb-01 Modified	1.015	0.434	0.806	J	pCi/g
SD27-DPT-13A	10-11052-04	N	11/30/2010	Radium-226	EPA 903.0 Modified	0.349	0.240	0.238	J	pCi/g
SD27-DPT-13A	10-11052-04	N	12/13/2010	Radium-228	EPA 904.0 Modified	0.599	0.560	1.133	J	pCi/g
SD27-DPT-13A	10-11052-04	N	11/21/2010	Thorium-228	EML Th-01 Modified	0.191	0.128	0.107	J	pCi/g
SD27-DPT-13A	10-11052-04	N	11/21/2010	Thorium-230	EML Th-01 Modified	0.371	0.183	0.096		pCi/g
SD27-DPT-13A	10-11052-04	N	11/21/2010	Thorium-232	EML Th-01 Modified	0.248	0.144	0.082		pCi/g
SD27-DPT-13A	10-11052-04	N	11/23/2010	Uranium-234	EML U-02 Modified	0.281	0.136	0.103		pCi/g
SD27-DPT-13A	10-11052-04	N	11/23/2010	Uranium-235	EML U-02 Modified	0.008	0.036	0.104	U	pCi/g
SD27-DPT-13A	10-11052-04	N	11/23/2010	Uranium-238	EML U-02 Modified	0.154	0.100	0.103	J	pCi/g

Maureen McMyler
Tetra Tech, Inc.
800 Oak Ridge Turnpike, Suite A-500
Oak Ridge, TN 37830

Project: Holloman AFB SD27
SDG: 1011052
Date Received: 11/16/2010

Client Sample ID	Lab Sample ID	Sample Type	Data Analyzed	Analyte	Method	Result	Error	MDA	Qualifier	Units
SD27-DPT-13B	10-11052-05	N	12/8/2010	Lead-210	EML Pb-01 Modified	0.659	0.387	0.754	J	pCi/g
SD27-DPT-13B	10-11052-05	N	11/30/2010	Radium-226	EPA 903.0 Modified	0.419	0.425	0.484	U	pCi/g
SD27-DPT-13B	10-11052-05	N	12/13/2010	Radium-228	EPA 904.0 Modified	0.594	0.530	1.068	J	pCi/g
SD27-DPT-13B	10-11052-05	N	11/21/2010	Thorium-228	EML Th-01 Modified	0.346	0.196	0.131		pCi/g
SD27-DPT-13B	10-11052-05	N	11/21/2010	Thorium-230	EML Th-01 Modified	0.661	0.284	0.058		pCi/g
SD27-DPT-13B	10-11052-05	N	11/21/2010	Thorium-232	EML Th-01 Modified	0.370	0.200	0.100		pCi/g
SD27-DPT-13B	10-11052-05	N	11/23/2010	Uranium-234	EML U-02 Modified	0.614	0.202	0.071		pCi/g
SD27-DPT-13B	10-11052-05	N	11/23/2010	Uranium-235	EML U-02 Modified	0.024	0.047	0.097	U	pCi/g
SD27-DPT-13B	10-11052-05	N	11/23/2010	Uranium-238	EML U-02 Modified	0.310	0.136	0.070		pCi/g
SD27-DPT-13C	10-11052-06	N	12/8/2010	Lead-210	EML Pb-01 Modified	0.586	0.365	0.714	J	pCi/g
SD27-DPT-13C	10-11052-06	N	11/30/2010	Radium-226	EPA 903.0 Modified	0.216	0.216	0.143	U	pCi/g
SD27-DPT-13C	10-11052-06	N	12/13/2010	Radium-228	EPA 904.0 Modified	0.691	0.480	0.947	J	pCi/g
SD27-DPT-13C	10-11052-06	N	11/21/2010	Thorium-228	EML Th-01 Modified	0.417	0.223	0.157		pCi/g
SD27-DPT-13C	10-11052-06	N	11/21/2010	Thorium-230	EML Th-01 Modified	0.490	0.240	0.121		pCi/g
SD27-DPT-13C	10-11052-06	N	11/21/2010	Thorium-232	EML Th-01 Modified	0.429	0.220	0.060		pCi/g
SD27-DPT-13C	10-11052-06	N	11/23/2010	Uranium-234	EML U-02 Modified	0.342	0.141	0.058		pCi/g
SD27-DPT-13C	10-11052-06	N	11/23/2010	Uranium-235	EML U-02 Modified	0.013	0.032	0.072	U	pCi/g
SD27-DPT-13C	10-11052-06	N	11/23/2010	Uranium-238	EML U-02 Modified	0.266	0.123	0.034		pCi/g

Work Order # 10-11052

Analysis	Lab Method	EPA Equivalent Method
Isotopic Uranium	EML U-02 Modified	EPA 907.0 Modified
Isotopic Thorium	EML Th-01 Modified	EPA 907.0 Modified
Lead-210	EML Pb-01 Modified	EPA 905.0 Modified

SECTION V

ANALYTICAL STANDARD

QA/QC REVIEWED
Date 1/16/95 Initials [illegible]

U-8

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide:	U-238NAT	Customer:	TMA EBERLINE
Half Life:	(4.468 ± 0.005) x 10^9 years	P.O.No.:	OR2778
Catalog No.:	7338	Reference Date:	January 1 1995 12:00 PST.
Source No.:	479-50	Contained Radioactivity:	(Total U) 8.016 μCi
		Contained Radioactivity:	(Total U) 297 kBq

Description of Solution

a. Mass of solution: 65.2896 g in a 50 ml flame sealed ampoule

b. Chemical form: Uranyl Nitrate in H2O

c. Carrier content: None

d. Density: Approximately 1.3202 g/ml @ 20°C.

Radioimpurities

Refer to attached technical data sheet

Radioactive Daughters

Refer to attached technical data sheet

Radionuclide Concentration

(Total U) 0.1228 μCi/g.

Method of Calibration

Activity calculations are based upon known specific activity and mass.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration:	±3.0%
b. Random uncertainty in assay:	±0.0%
c. Random uncertainty in weighing(s):	±2.0%
d. Total uncertainty at the 99% confidence level:	±3.6%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

ERIC ALLAS
QUALITY CONTROL

29 DECEMBER 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
3017 N. SAN FERNANDO BLVD.
BURBANK, CALIFORNIA 91504
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EBERLINE SERVICES

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Rev.8; 11/01/03
Title: Radioactive Reference Standards Solutions & Records

EBERLINE SERVICES - OAK RIDGE LABORATORY
RADIOACTIVE REFERENCE SOLUTIONS
PRIMARY DILUTION RECERTIFICATION
MP 009

CURRENT DATE 10/12/2010 0:00

SOLUTION REFERENCE # IPL 479-50 **SOLUTION #** U-8

Principal Radionuclide	Half Life, Years	Half Life, Days
$^{234, 235, 238}U$	4.468E+09	1.632E+12

Radionuclide $^{234, 235, 238}U$ **Reference Date** 1/1/1995 0:00

Certified Activity 8.016E+00 µCi

Certified Concentration µCi per gram

Ampoule /Solution Gross	97.6400	Weight, Grams
Empty Ampoule	32.5020	Weight, Grams
Solution Net	65.1380	Weight, Grams
Total Activity in Ampoule	8.0160	µCi

Chemical Composition of Standard Solution

Uranyl nitrate in dilute HNO_3

Dilution Instructions: **Dilution Solvent Used** 1M HNO_3

Dilute to a volume of 1000.00 **milliliters**

Certified Total Activity of 8.0160 µCi **Which Equals** 1.780E+07 **dpm at the date listed above**

And after dilution the activity of this solution is 1.77955E+04 **dpm/ml**

This activity concentration is based on the original reference date listed above. All activities are corrected to the date and time of analysis by the laboratory data processing software.

Expiration Date: October 12, 2011

Recertified By _____ Date: 12/10/2010 0:00

Verified & Approved By _____ Date: 10/25/10

QC Approval _____ Date: 10/26/10

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SECONDARY DILUTION RECERTIFICATION

MP-009

Solution Reference # IPL 479-50

Date 10/12/2010 0:00

Solution # U-8a

Principal Radionuclide	Half Life, Years	Half Life, Days
$^{234, 235, 238}U$	4.468E+09	1.632E+12

Radionuclide of Interest $^{234, 235, 238}U$

Parent Solution Conc. 1.7796E+04 dpm/ml

Reference Date 1/1/1995 0:00

Chemical Composition of Standard Solution

Uranly Nitrate in 1M HNO_3

Dilution Instructions:

Dilution Solvent Used 1M HNO_3

SECONDARY VOLUMETRIC DILUTION

Vol. Parent Solution: 4.0000 ml
Total Activity: 7.1182E+04 dpm
Final Volume: 1000.00 ml

Final Activity Concentration: 7.1182E+01 dpm/ml

This activity concentration is based on the original reference date listed above. All activities are corrected to the date and time of analysis by the laboratory data processing software.

NOTES:

Isotopic Distribution as:
U-238 Atom % = 48.239 U-238 = 71.182 dpm/ml X 0.48249 = 34.345 dpm/ml
U-235 Atom % = 2.25 U-235 = 71.182 dpm/ml X 0.0225 = 1.602 dpm/ml
U-234 Atom % = 49.501 U-238 = 71.182 dpm/ml X 0.49501 = 35.236 dpm/ml
All values +/- 3.6%

Isotopic ratios from manufacturer's data sheet

Expiration Date: October 12, 2011

Recertified By _____ Date: 12/12/2010 0:00

Verified & Approved By _____ Date: 10/25/10

QC Approval _____ Date: 10/26/10

RECORD COPY

Tracer Solution for Environmental Analysis & Disequilibrium Studies

Product Description & Measurement Certificate

Description	Principal radionuclide:	**uranium 232** (U-232)	Product code: **UDP10050**
	Daughter Nuclide:	Th-228	Batch Number: 92/232/67

Measurement	Reference date:	01 March 2000
	Radioactive concentration U-232	6.739E+03 becquerels per gram of solution
	which is equivalent to	1.821E-01 microcuries per gram of solution
	Mass of solution	5.356 grams
	Volume of solution	5.035 millilitres
	Total activity of U-232	3.61E+04 becquerels
	which is equivalent to	9.76E-01 microcuries

Method of measurement (see reverse of this certificate)

Accuracy Random uncertainty is: ± 0.7% Systematic uncertainty: ± 0.5%
Overall uncertainty in the radioactive concentration quoted above: ± 1.7%
Overall uncertainty is defined on the reverse of this certificate.

Radionuclidic Purity Any radioactive impurities measured are listed below, expressed as percentages of the activity of the principle radionuclide at the reference date .

Th-228 and daughter activity removed 2 Feb 2000
U-232 daughters activity will increase with time. By alpha 88% U-232, 12% daughters on 1/3/00

Isotopic Purity The isotopic composition, expressed as atom per cent at the reference date .

Not measured

Chemical Composition Calculated weight of U-232, 4.42E-08 grams, as 2M HNO3 solution in a flame sealed glass vial.
This Tracer solution has been produced 'carrier free'.

Physical Data Recommended half life of uranium 232: 6.980E+01 years
Principle energies of alpha emissions (MeV): 5.263 31.7%, 5.320 68.0%
Branching ratio for alpha emission: 100%
Calculated specific activity of uranium 232: 8.167E+05 Bq per microgram U-232.

Remarks For safety information and notes to ensure correct usage by all persons handling this radioactive Tracer solution please read the instructions accompanying the package.

AEA Technology operates a quality management system which has been independently audited and approved to ISO 9001.

Approved Signatory

Roger Wiltshire

Project Ref. AE2315

Roger Wiltshire

Prepared and characterised in the UK, for world wide distribution by **Isotrak, AEA Technology, QSA**.

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RADIOACTIVE REFERENCE SOLUTIONS
PRIMARY DILUTION RECERTIFICATION
MP 009

CURRENT DATE: 10/13/2010 0:00

SOLUTION REFERENCE #: AEA/Amersham 92/232/67

SOLUTION #: U-10

Principal Radionuclide	Half Life, Years	Half Life, Days
^{232}U	7.200E+01	2.630E+04

Radionuclide: ^{232}U

Reference Date: 3/1/2000 0:00

Certified Activity: 9.760E-01 µCi

Certified Concentration: µCi per gram

Ampoule /Solution Gross: Weight, Grams

Empty Ampoule: Weight, Grams

Solution Net: Weight, Grams

Total Activity in Ampoule: 0.9760 µCi

Chemical Composition of Standard Solution

$^{232}U(NO_3)_6$ in 2M HNO_3

Dilution Instructions:

Dilution Solvent Used: 2M HNO_3

Dilute to a volume of 1000.00 milliliters

Certified Total Activity of 0.9760 µCi Which Equals 2.167E+06 dpm at the date listed above

And after dilution the activity of this solution is 2.167E+03 dpm/ml

This activity concentration is based on the original reference date listed above. All activities are corrected to the date and time of analysis by the laboratory data processing software.

Expiration Date: October 13, 2011

Recertified By _____ Date: 10/13/2010 0:00

Verified & Approved By _____ Date: 10/25/10

QC Approval _____ Date: 10/26/10

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EBERLINE SERVICES - OAK RIDGE LABORATORY
RADIOACTIVE REFERENCE STANDARD SOLUTIONS

SECONDARY DILUTION RECERTIFICATION

MP-009

Solution Reference # AEA/Amersham 92/232/67

Date 10/13/2010 0:00

Solution # U-10a

Principal Radionuclide	Half Life, Years	Half Life, Days
^{232}U	7.200E+01	2.630E+04

Radionuclide of Interest ^{232}U

Parent Solution Conc. 2.167E+03 dpm/ml

Reference Date 3/1/2000 0:00

Chemical Composition of Standard Solution

$^{232}U(NO_3)_6$ in 2M HNO_3

Dilution Instructions:

Dilution Solvent Used 2M HNO_3

SECONDARY VOLUMETRIC DILUTION

Vol. Parent Solution: 10.0000 ml
Total Activity: 2.1670E+04 dpm
Final Volume: 1000.00 ml

Final Activity Concentration: 2.1670E+01 dpm/ml

NOTES:

This activity concentration is based on the original reference date listed above. All activities are corrected to the date and time of analysis by the laboratory data processing software.

Expiration Date: October 13, 2011

Recertified By _____ Date: 10/13/2010 0:00

Verified & Approved By _____ Date: 10/25/10

QC Approval _____ Date: 10/26/10

Th-8

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide:	Th-232	Customer:	TMA EBERLINE
Half Life:	(1.405± 0.006) x 10^10 years	P.O.No.:	VH1632
Catalog No.:	7232	Reference Date:	November 1 1993 12:00 PST.
Source No.:	435-104-2	Contained Radioactivity:	(Th-232) 0.0933 µCi.
		Contained Radioactivity:	(Th-232) 3.45 kBq.

Description of Solution

a. Mass of solution: 11.9712 g (in a 10 ml flame sealed ampoule)

b. Chemical form: Th(NO3)4 in water

c. Carrier content: None added

d. Density: Approx. 1.21 g/ml @ 20°C.

Radioimpurities None detected (other than daughters).

Radioactive Daughters

Ra-228, Ac-228, Th-228, Ra-224, Rn-220, Po-216, Pb-212, Bi-212, Po-212, Tl-208

Radionuclide Concentration

(Th-232) 0.00779 µCi/g.

Method of Calibration

Activity calculations are based upon known specific activity and mass.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.0%

c. Random uncertainty in weighing(s): ±2.0%

d. Total uncertainty at the 99% confidence level: ±3.6%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Kha

QUALITY CONTROL

Nov. 8, 1993

Date Signed

ISOTOPE PRODUCTS LABORATORIES
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EBERLINE SERVICES

QUALITY CONTROL PROGRAM

MP-009

Rev.8; 1/10/03
Title Radioactive Reference Standards Solutions & Records

EBERLINE SERVICES - OAK RIDGE LABORATORY
RADIOACTIVE REFERENCE SOLUTIONS
PRIMARY DILUTION RECERTIFICATION
MP 009

CURRENT DATE: 12/8/2009 0:00

SOLUTION REFERENCE #: IPL 435-104-2

SOLUTION #: Th-8

Principal Radionuclide	Half Life, Years	Half Life, Days
^{232}Th, ^{228}Th	1.405E+10	5.132E+12

Radionuclide: $^{232\ \&\ 228}Th$

Reference Date: 11/1/1993 0:00

Certified Activity: 9.330E-02 µCi

Certified Concentration: µCi per gram

Ampoule /Solution Gross	18.8415	Weight, Grams
Empty Ampoule	6.9296	Weight, Grams
Solution Net	11.9119	Weight, Grams
Total Activity in Ampoule	0.0933	µCi

Chemical Composition of Standard Solution

$Th(NO_3)_4$ in H2O

Dilution Instructions:

Dilution Solvent Used: 1% Nitric Acid

Dilute to a volume of 1000.00 milliliters

Certified Total Activity of 0.0933 µCi Which Equals 2.071E+05 dpm at the date listed above

And after dilution the activity of this solution is 2.071E+02 dpm/ml

This activity concentration is based on the original reference date listed above. All activities are corrected to the date and time of analysis by the laboratory data processing software.

Expiration Date: December 8, 2010

Recertified By _____ Date: 12/8/2009 0:00

Verified & Approved By _____ Date: 1/15/10

QC Approval _____ Date: 1/15/10

EBERLINE SERVICES

QUALITY CONTROL PROGRAM

MP-009

Rev.8; 1/10/03

Title: **Radioactive Reference Standards Solutions & Records**

EBERLINE SERVICES - OAK RIDGE LABORATORY
RADIOACTIVE REFERENCE STANDARD SOLUTIONS

SECONDARY DILUTION RECERTIFICATION

	MP-009	Date	12/8/2009 0:00
Solution Reference #	IPL 435-104-2	Solution #	Th-8b

Principal Radionuclide	Half Life, Years	Half Life, Days
$^{228\ \&\ 232}Th$	1.405E+10	5.132E+12

Radionuclide of Interest: $^{228\ \&\ 232}Th$

Parent Solution Conc.: 2.07E+02 dpm/ml

Reference Date: 11/1/1993 0:00

Chemical Composition of Standard Solution

$Th(NO_3)_4$ in 1% HNO_3

Dilution Instructions:

Dilution Solvent Used: 1% Nitric Acid

SECONDARY VOLUMETRIC DILUTION

Vol. Parent Solution: 500.0000 ml

Total Activity: 1.0355E+05 dpm

Final Volume: 1000.00 ml

Final Activity Concentration: 1.0355E+02 dpm/ml

NOTES:

This activity concentration is based on the original reference date listed above. All activities are corrected to the date and time of analysis by the laboratory data processing software.

Expiration Date: December 8, 2010

Recertified By _____ Date: 12/8/2009 0:00

Verified & Approved By _____ Date: 1/15/10

QC Approval _____ Date: 1/15/10

QA/QC REVIEWED
Date 10/14/91 Initials WT 10/14/91

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Received
OCT 14 1991
TMA/Eberline
Oak Ridge Lab

Radionuclide	Th-230	Customer:	TMA EBERLINE
Half Life:	(7.54 ± 0.03) x 10^4 years	P.O.No.:	TT4944
Catalog No.:	7230	Reference Date:	November 1 1991 12:00 PST.
Source No.:	388-116	Contained Radioactivity:	1.036 µCi.

Description of Solution

a. Mass of solution: 5.0042 grams.
b. Chemical form: Th(NO3)4 in 0.1N HNO3
c. Carrier content: None added
d. Density: 1.0016 gram/ml @ 20°C.

Radioimpurities

See attached technical data sheet

Radioactive Daughters

See attached technical data sheet

Radionuclide Concentration

0.207 µCi/gram.

Method of Calibration

Weighed aliquots of the solution were assayed using a liquid scintillation counter.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±2.0%
b. Random uncertainty in assay: ±0.5%
c. Random uncertainty in weighing(s): ±0.2%
d. Total uncertainty at the 99% confidence level: ±2.7%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Notes

1. Nuclear data were taken from "Table of Isotopes", Seventh Edition, edited by Virginia S. Shirley.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay(and later NIST certification) of Standard Reference Materials. (As in NRC Regulatory Guide 4.15)

QUALITY CONTROL

ISOTOPE PRODUCTS LABORATORIES
1800 No. Keystone Street.,
Burbank, California 91504
(818) 843 - 7000

EBERLINE SERVICES

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MP-009

Rev.8; 11/01/03
Title: Radioactive Reference Standards Solutions & Records

EBERLINE SERVICES - OAK RIDGE LABORATORY
RADIOACTIVE REFERENCE SOLUTIONS
PRIMARY DILUTION RECERTIFICATION
MP 009

CURRENT DATE 3/30/2010 0:00
SOLUTION REFERENCE # IPL 388-116 **SOLUTION #** Th-1

Principal Radionuclide	Half Life, Years	Half Life, Days
^{230}Th	7.540E+04	2.754E+07

Radionuclide ^{230}Thorium
Reference Date 11/1/1991 0:00
Certified Activity 1.036E+00 µCi
Certified Concentration µCi per gram

Ampoule /Solution Gross 9.2660 **Weight, Grams**
Empty Ampoule 4.6218 **Weight, Grams**
Solution Net 4.6442 **Weight, Grams**
Total Activity in Ampoule 1.0360 µCi

Chemical Composition of Standard Solution
$^{230}Th(NO_3)_4$ in 0.1N HNO_3

Dilution Instructions:

Dilution Solvent Used 0.1N HNO_3

Dilute to a volume of 1000.00 **milliliters**

Certified Total Activity of 1.0360 µCi **Which Equals** 2.300E+06 **dpm at the date listed above**

And after dilution the activity of this solution is 2.300E+03 **dpm/ml**

This activity concentration is based on the original reference date listed above. All activities are corrected to the date and time of analysis by the laboratory data processing software.

Expiration Date: March 30, 2011

Recertified By _____ Date: 3/30/2010 0:00

Verified & Approved By _____ Date: 4/2/10

QC Approval _____ Date: 4/2/10

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EBERLINE SERVICES - OAK RIDGE LABORATORY
RADIOACTIVE REFERENCE STANDARD SOLUTIONS

SECONDARY DILUTION RECERTIFICATION

MP-009

Solution Reference # IPL 388-116 **Date** 3/30/2010 0:00
Solution # Th-1b

Principal Radionuclide	Half Life, Years	Half Life, Days
^{230}Th	7.540E+04	2.754E+07

Radionuclide of Interest ^{230}Thorium **Reference Date** 11/1/1991 0:00
Parent Solution Conc. 2.30E+03 dpm/ml

Chemical Composition of Standard Solution
$^{230}Th(NO_3)_4$ in 0.1N HNO_3

Dilution Instructions: **Dilution Solvent Used** 0.1N HNO_3

SECONDARY VOLUMETRIC DILUTION

Vol. Parent Solution: 10.0000 ml
Total Activity: 2.2999E+04 dpm
Final Volume: 1000.00 ml

Final Activity Concentration: 2.2999E+01 dpm/ml

NOTES:

This activity concentration is based on the original reference date listed above. All activities are corrected to the date and time of analysis by the laboratory data processing software.

Expiration Date: March 30, 2011

Recertified By _____ Date: 3/30/2010 0:00

Verified & Approved By _____ Date: 4/2/10

QC Approval _____ Date: 4/2/10

Th-18

Isotope Products Laboratories
An Eckert & Ziegler Company

24937 Avenue Tibbitts
Valencia, California 91355

Tel 661•309•1010
Fax 661•257•8303

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide:	Th-229	**Customer:**	EBERLINE SERVICES
Half-life:	7340 ± 160 years	**P.O. No.:**	00009633
Catalog No.:	7229	**Reference Date:**	15-Jan-02 12:00 PST
Source No.:	867-54	**Contained Radioactivity: (Th-229 only)**	1.013 µCi 37.48 kBq

Physical Description:

A. Mass of solution: 5.0147 g in 5 mL flame-sealed ampoule
B. Chemical form: $Th(NO_3)_4$ in 0.1M HNO_3
C. Carrier content: 10µg Th/mL
D. Density: 1.0016 g/mL @ 20°C.

Radioimpurities:

None detected (daughters in equilibrium)

Radionuclide Concentration: 0.2020 µCi/g, 7.474 kBq/g

Method of Calibration:

This source was prepared from a weighed aliquot of solution whose activity in µCi/g was determined using gamma ray spectrometry.
Peak energy used for integration: 193.5 keV
Branching ratio used: 0.0441 gammas per decay

Uncertainty of Measurement:

A. Type A (random) uncertainty: ± 0.7 %
B. Type B (systematic) uncertainty: ± 3.0 %
C. Uncertainty in aliquot weighing: ± 0.0 %
D. Total uncertainty at the 99% confidence level: ± 3.1 %

Notes:

- See reverse side for leak test(s) performed on this source.
- IPL participates in a NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).
- Nuclear data was taken from IAEA Technical Report Series No. 261.
- This solution has a working life of 5 years.

[illegible] — **Quality Control**

9-Jan-02 — **Date Signed**

IPL Ref. No.: 867-54

EBERLINE SERVICES

QUALITY CONTROL PROGRAM

MP-009

Rev.8; 1/10/03
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EBERLINE SERVICES - OAK RIDGE LABORATORY
RADIOACTIVE REFERENCE SOLUTIONS
PRIMARY DILUTION RECERTIFICATION
MP 009

CURRENT DATE: 12/8/2009 0:00
SOLUTION REFERENCE #: iPL 867-54
SOLUTION #: Th-18

Principal Radionuclide	Half Life, Years	Half Life, Days
^{229}Th	7.340E+03	2.681E+06

Radionuclide: ^{229}Th
Reference Date: 1/15/2002 0:00
Certified Activity: 1.013E+00 µCi
Certified Concentration: µCi per gram

Ampoule /Solution Gross	8.7752	Weight, Grams
Empty Ampoule	3.7591	Weight, Grams
Solution Net	5.0161	Weight, Grams
Total Activity in Ampoule	1.0130	µCi

Chemical Composition of Standard Solution
$^{229}Th(NO_3)_4$ in 0.1M HNO_3

Dilution Instructions:

Dilution Solvent Used: 0.1 M HNO_3

Dilute to a volume of 1000.00 milliliters

Certified Total Activity of 1.0130 µCi Which Equals 2.249E+06 dpm at the date listed above

And after dilution the activity of this solution is 2.249E+03 dpm/ml

This activity concentration is based on the original reference date listed above. All activities are corrected to the date and time of analysis by the laboratory data processing software.

Expiration Date: December 8, 2010

Recertified By _____ Date: 12/8/2009 0:00

Verified & Approved By _____ Date: 12/11/09

QC Approval _____ Date: 12/21/09

EBERLINE SERVICES

QUALITY CONTROL PROGRAM

MP-009

Rev.7; 9/29/99

Title: **Radioactive Reference Standards Solutions & Records**

EBERLINE SERVICES - OAK RIDGE LABORATORY
RADIOACTIVE REFERENCE STANDARD SOLUTIONS

SECONDARY DILUTION RECERTIFICATION

MP-009

Solution Reference # IPL 867-54

Date 12/8/2009 0:00

Solution # Th-18a

Principal Radionuclide	Half Life, Years	Half Life, Days
^{229}Th	7.340E+03	2.681E+06

Radionuclide of Interest ^{229}Th

Parent Solution Conc. 2.25E+03 dpm/ml

Reference Date 1/15/2002 0:00

Chemical Composition of Standard Solution

$TH(NO_3)_4$ in 0.1M HNO_3

Dilution Instructions:

Dilution Solvent Used 0.1M HNO_3

SECONDARY VOLUMETRIC DILUTION

Vol. Parent Solution: 10.0000 ml

Total Activity: 2.2490E+04 dpm

Final Volume: 1000.00 ml

Final Activity Concentration: 2.2490E+01 dpm/ml

NOTES:

This activity concentration is based on the original reference date listed above. All activities are corrected to the date and time of analysis by the laboratory data processing software.

Expiration Date: December 8, 2010

Recertified By _____ Date: 12/8/2009 0:00

Verified & Approved By _____ Date: 12/11/09

QC Approval _____ Date: 12/21/09

Ba-6
(# 6a)

National Institute of Standards & Technology

Certificate

Standard Reference Material 4251C
Barium-133 Radioactivity Standard

This Standard Reference Material (SRM) consists of radioactive barium-133 chloride, non-radioactive barium chloride, and hydrochloric acid dissolved in 5 mL of distilled water. The solution is contained in a flame-sealed NIST borosilicate-glass ampoule. The SRM is intended for the calibration of ionization chambers and solid-state gamma-ray spectrometry systems.

Radiological Hazard

The SRM ampoule contains barium-133 with a total activity of approximately 2.5 MBq. Barium-133 decays by electron capture and during the decay process X-rays and gamma rays with energies from 4 to 400 keV are emitted. Most of these photons escape from the SRM ampoule and can represent a radiation hazard. Approximate unshielded dose rates at several distances (as of the reference time) are given in note [a]*. Appropriate shielding and/or distance should be used to minimize personnel exposure. The SRM should be used only by persons qualified to handle radioactive material.

Chemical Hazard

The SRM ampoule contains hydrochloric acid (HCl) with a concentration of 1 mole per liter of water. The solution is corrosive and represents a health hazard if it comes in contact with eyes or skin. If the ampoule is to be opened to transfer the solution, the recommended procedure is given on page 2. The ampoule should be opened only by persons qualified to handle both radioactive material and strong acid solution.

Storage and Handling

The SRM should be stored and used at a temperature between 5 and 65 °C. The solution in an unopened ampoule should remain stable and homogeneous until at least June 2004.

The ampoule (or any subsequent container) should always be clearly marked as containing radioactive material. If the ampoule is transported it should be packed, marked, labeled, and shipped in accordance with the applicable national, international, and carrier regulations. The solution in the ampoule is a dangerous good (hazardous material) both because of the radioactivity and because of the strong acid.

Preparation

This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, J.M.R. Hutchinson, Group Leader. The overall technical direction and physical measurements leading to certification were provided by L.L. Lucas of the Radioactivity Group and D.B. Golas, Nuclear Energy Institute Research Associate.

The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program by N.M. Trahey.

Gaithersburg, Maryland 20899
October 1994

Thomas E. Gills, Chief
Standard Reference Materials Program

*Notes and references are on pages 5 and 6.

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QCP-009

Rev.8; 11/10/03
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EBERLINE SERVICES - OAK RIDGE LABORATORY
RADIOACTIVE REFERENCE SOLUTIONS
PRIMARY DILUTION RECERTIFICATION
QCP 009-1

CURRENT DATE: 10/7/2010 0:00

SOLUTION REFERENCE #: NIST SRM4251C

SOLUTION #: Ba-6

Principal Radionuclide	Half Life, Years	Half Life, Days
^{133}Barium	1.048E+01	3.828E+03

Radionuclide: ^{133}Barium

Reference Date: 9/1/1993 0:00

Certified Activity: µCi

Certified Concentration: 1.318E+01 µCi per gram

Ampoule /Solution Gross	9.3081	Weight, Grams
Empty Ampoule	4.2582	Weight, Grams
Solution Net	5.0499	Weight, Grams
Total Activity in Ampoule	66.5577	µCi

Chemical Composition of Standard Solution

$^{133}BaCl_2$ in 1M HCl

Dilution Instructions:

Dilution Solvent Used: 1M HCl

Dilute to a volume of 1000.00 milliliters

Certified Total Activity of 66.5577 µCi Which Equals 1.478E+08 dpm at the date listed above

And after dilution the activity of this solution is 1.478E+05 dpm/ml

This activity concentration is based on the original reference date listed above. All activities are corrected to the date and time of analysis by the laboratory data processing software.

Expiration Date: October 7, ~~2010~~ 2011

Recertified By _____ Date: 10/7/10

Verified & Approved By _____ Date: 10/26/10

QC Approval _____ Date: 10/26/10

EBERLINE SERVICES

QUALITY CONTROL PROGRAM

QCP-009

Rev.8; 11/10/03
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EBERLINE SERVICES - OAK RIDGE LABORATORY
RADIOACTIVE REFERENCE STANDARD SOLUTIONS

SECONDARY DILUTION RECERTIFICATION

Solution Reference # QCP-009-1-A NIST SRM4251C

Date 10/7/10
Solution # Ba-6a

Principal Radionuclide	Half Life, Years	Half Life, Days
^{133}Ba	1.048E+01	3.828E+03

Radionuclide of Interest ^{133}Ba
Parent Solution Conc. 1.48E+05 dpm/ml

Reference Date 9/1/1993 0:00

Chemical Composition of Standard Solution
$^{133}BaCl_2$ in 1M HCl

Dilution Instructions:

Dilution Solvent Used 1M HCl

SECONDARY VOLUMETRIC DILUTION

Vol. Parent Solution: 25.0000 ml
Total Activity: 3.6950E+06 dpm
Final Volume: 1000.00 ml

Final Activity Concentration: 3.6950E+03 dpm/ml

NOTES:

This activity concentration is based on the original reference date listed above. All activities are corrected to the date and time of analysis by the laboratory data processing software.

Expiration Date: October 7, ~~2010~~ 2011

Recertified By _____ Date: 10/7/10

Verified & Approved By _____ Date: 10/25/10

QC Approval _____ Date: 10/25/10

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Ra-5
QA/QC REVIEWED
Date 2/8/94 Initials MT

Radionuclide:	Ra-226	Customer:	TMA EBERLINE
Half Life:	1600 ± 7 years	P.O.No.:	VH1888
Catalog No.:	7226	Reference Date:	February 1 1994 12:00 PST.
Source No.:	453-26	Contained Radioactivity: (Ra-226)	1.001 μCi.
		Contained Radioactivity: (Ra-226)	37.0 kBq.

Description of Solution

a. Mass of solution: 5.1864 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Ra(NO3)2 in 1 N HNO3

c. Carrier content: None added

d. Density: 1.0318 g/ml @ 20°C.

Radioimpurities None detected(other than daughters)

Radioactive Daughters

Rn-222, Po-218, At-218, Pb-214, Bi-214, Po-214, Tl-210, Pb-210, Bi-210, Po-210 and Tl-206.

Radionuclide Concentration

(Ra-226) 0.1929 μCi/g.

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry:
Energy peak(s) integrated under: 186 keV.
Branching ratio(s) used: 0.0351 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.4%

b. Random uncertainty in assay: ±3.1%

c. Random uncertainty in weighing(s): ±0.2%

d. Total uncertainty at the 99% confidence level: ±4.6%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Ann U. Kuen
QUALITY CONTROL

Feb. 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
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EBERLINE SERVICES

QUALITY CONTROL PROGRAM

MP 009

Rev.8; 11/01/03
Title: Radioactive Reference Standards Solutions & Records

EBERLINE SERVICES - OAK RIDGE LABORATORY
RADIOACTIVE REFERENCE SOLUTIONS
PRIMARY DILUTION RECERTIFICATION
MP 009

CURRENT DATE 12/17/2009 0:00

SOLUTION REFERENCE # IPL 453-26 **SOLUTION #** Ra-5

Principal Radionuclide	Half Life, Years	Half Life, Days
^{226}Radium	1.600E+03	5.844E+05

Radionuclide ^{226}Radium **Reference Date** 2/1/1994 0:00
Certified Activity 1.001E+00 µCi
Certified Concentration µCi per gram

Ampoule /Solution Gross Weight, Grams
Empty Ampoule Weight, Grams
Solution Net Weight, Grams
Total Activity in Ampoule 1.0010 µCi

Chemical Composition of Standard Solution
$^{226}Ra(NO_3)_2$ in 1M HNO_3

Dilution Instructions: **Dilution Solvent Used** 1M HNO_3

Dilute to a volume of 1000.00 **milliliters**

Certified Total Activity of 1.0010 µCi **Which Equals** 2.222E+06 **dpm at the date listed above**

And after dilution the activity of this solution is 2.222E+03 **dpm/ml**

This activity concentration is based on the original reference date listed above. All activities are corrected to the date and time of analysis by the laboratory data processing software.

Expiration Date: December 17, 2010

Diluted By _____ Date: 12/17/2009

Verified & Approved By _____ Date: 1/15/10

QC Approval _____ Date: 1/15/10

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RADIOACTIVE REFERENCE STANDARD SOLUTIONS

SECONDARY DILUTION RECERTIFICATION

MP 009

Solution Reference # IPL-453-26

Date 12/17/2009 0:00

Solution # Ra-5b

Principal Radionuclide ^{226}Radium

Half Life, Years 1.600E+03

Half Life, Days 5.844E+05

Radionuclide of Interest ^{226}Radium

Parent Solution Conc. 2.22E+03 dpm/ml

Reference Date 2/1/1994 0:00

Chemical Composition of Standard Solution

$^{226}Ra(NO_3)_2$ in 1M HNO_3

Dilution Instructions:

Dilution Solvent Used 1M HNO_3

SECONDARY VOLUMETRIC DILUTION

Vol. Parent Solution: 20.0000 ml

Total Activity: 4.4440E+04 dpm

Final Volume: 1000.00 ml

Final Activity Concentration: 4.4440E+01 dpm/ml

This activity concentration is based on the original reference date listed above. All activities are corrected to the date and time of analysis by the laboratory data processing software.

NOTES:

Expiration Date: December 17, 2010

Recertified By _____ Date: 12/17/2009 0:00

Verified & Approved By _____ Date: 1/5/10

QC Approval _____ Date: 1/15/10

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 · U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

61680-416

Ra-228 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Ra-228
ACTIVITY (dps):	3.586 E3
HALF-LIFE:	5.75 years
CALIBRATION DATE:	June 4, 2001 12:00 EST
TOTAL UNCERTAINTY*:	5.1%
SYSTEMATIC:	3.6%
RANDOM:	1.5%

RECEIVED 6/11/01 INITIALS

*99% Confidence Level

Impurities: γ-impurities (other than decay products) <0.1%

5.00872 grams 0.1M HCl solution with 50 μg/g Ba carrier.

P O NUMBER 00008864, Item 1

SOURCE PREPARED BY: M. D. Currie
M. D. Currie, Radiochemist

Q A APPROVED: ACMcd 6/8/01

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EBERLINE SERVICES - OAK RIDGE LABORATORY
RADIOACTIVE REFERENCE SOLUTIONS
PRIMARY DILUTION RECERTIFICATION
MP 009

CURRENT DATE: 12/17/2009 0:00

SOLUTION REFERENCE #: Analytics 61680-416

SOLUTION #: Ra-10

Principal Radionuclide	Half Life, Years	Half Life, Days
^{228}Ra	5.750E+00	2.100E+03

Radionuclide: ^{228}Ra

Reference Date: 6/4/2001 0:00

Certified Activity: 9.692E-02 µCi

Certified Concentration: µCi per gram

Ampoule /Solution Gross	9.4982	Weight, Grams
Empty Ampoule	4.4895	Weight, Grams
Solution Net	5.0087	Weight, Grams
Total Activity in Ampoule	0.0969	µCi

Chemical Composition of Standard Solution

$^{228}Ra(NO_3)_2$ in 0.5 M HCl

Dilution Instructions:

Dilution Solvent Used: 0.5 M HCl

Dilute to a volume of 1000.00 milliliters

Certified Total Activity of 0.0969 µCi Which Equals 2.152E+05 dpm at the date listed above

And after dilution the activity of this solution is 2.152E+02 dpm/ml

This activity concentration is based on the original reference date listed above. All activities are corrected to the date and time of analysis by the laboratory data processing software.

Expiration Date: December 17, 2010

Recertified By _____ Date: 12/17/2009 0:00

Verified & Approved By _____ Date: 1/4/10

QC Approval _____ Date: 1/5/10

Pb-3

NIST TRACEABLE CERTIFICATE
GAMMA STANDARD SOLUTION

QA/QC REVIEWED - 8/17/00 Initial

Radionuclide:	Pb-210	**Customer:**	THERMO NUTECH
Half-life:	22.3 ± 0.2 years	**P.O. No.:**	00007582
Catalog No.:	7210	**Reference Date:**	15-Aug-00 12:00 PST
Source No.:	707-28-2	**Contained Radioactivity:**	10.06 µCi 372.2 kBq

Physical description:

A. Mass of solution:	4.44237 g in 5 mL flame-sealed ampoule
B. Chemical form:	$Pb(NO_3)_2$ in 1M HNO_3
C. Carrier content:	None
D. Density:	1.0318 g/mL @ 20°C.

Radioimpurities: Ra-226 = 2.27% on 15 Aug 00; daughters not in equilibrium
Bi-210 in equilibrium with Pb-210; Po-210 not in equilibrium

Radionuclide concentration: 2.265 µCi/g, 83.81 kBq/g

Method of Calibration:

This source was prepared from a weighed aliquot of solution whose activity in µCi/g was determined using gamma ray spectrometry.

Peak energy used for integration:	46.5 keV
Branching ratio used:	0.0418 gammas per decay

Uncertainty of Measurement:

A. Type A (random) uncertainty:	± 1.2 %
B. Type B (systematic) uncertainty:	± 3.5 %
C. Uncertainty in aliquot weighing:	± 0.0 %
D. Total uncertainty at the 99% confidence level:	± 3.7 %

Notes:

- See reverse side for leak tests performed on this source.
- IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).
- Nuclear data was taken from NCRP Report No. 58, 1985.
- This solution has a working life of 5 years.

ISOTOPE PRODUCTS LABORATORIES
1800 N. Keystone St.
Burbank, California 91504
818-843-7600 Fax 818-843-6168

ISO 9001 CERTIFIED

Daniel James Van Dalsem
Quality Control

14-Aug-00
Date Signed

IPL Reference Number: 707-28

EBERLINE SERVICES

QUALITY CONTROL PROGRAM

QCP-009

Rev.8; 11/01/03
Title: Radioactive Reference Standards Solutions & Records

EBERLINE SERVICES - OAK RIDGE LABORATORY
RADIOACTIVE REFERENCE SOLUTIONS
PRIMARY DILUTION RECERTIFICATION
QCP 009-1

		CURRENT DATE	1/2/2010 0:00
SOLUTION REFERENCE #	IPL 707-28-2	SOLUTION #	Pb-3

Principal Radionuclide	Half Life, Years	Half Life, Days
^{210}Lead & ^{210}Polonium	2.226E+01	8.130E+03

Radionuclide	^{210}Lead	Reference Date	8/15/2000 0:00
Certified Activity	1.006E+01 µCi		
Certified Concentration	µCi per gram		

Ampoule /Solution Gross		Weight, Grams
Empty Ampoule		Weight, Grams
Solution Net		Weight, Grams
Total Activity in Ampoule	10.0600	µCi

Chemical Composition of Standard Solution
$^{210}Pb(NO_3)_2$ in I.0 M HNO_3

Dilution Instructions: Dilution Solvent Used: 1M HNO_3

Dilute to a volume of 1000.00 milliliters

Certified Total Activity of 10.0600 µCi Which Equals 2.233E+07 dpm at the date listed above

And after dilution the activity of this solution is 2.233E+04 dpm/ml

This activity concentration is based on the original reference date listed above. All activities are corrected to the date and time of analysis by the laboratory data processing software.

Sufficient time has occurred for complete ingrowth of Po-210, therefore, this standard is used for both Pb-210 and Po-210

Expiration Date: January 2, 2011

Recertified By _____ Date: 1/2/2010 0:00

Verified & Approved By _____ Date: 1/15/10

QC Approval _____ Date: 1/15/10

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EBERLINE SERVICES - OAK RIDGE LABORATORY
RADIOACTIVE REFERENCE STANDARD SOLUTIONS

SECONDARY DILUTION RECERTIFICATION

QCP-009-1-A

Solution Reference # IPL 707-28-2

Date 1/2/2010 0:00

Solution # Pb-3a

Principal Radionuclide	Half Life, Years	Half Life, Days
^{210}Lead & ^{210}Polonium	2.226E+01	8.130E+03

Radionuclide of Interest ^{210}Pb

Parent Solution Conc. 2.23E+04 dpm/ml

Reference Date 8/15/2000 0:00

Chemical Composition of Standard Solution

$^{210}Pb(NO_3)_2$ in I.0 M HNO_3

Dilution Instructions:

Dilution Solvent Used 1M HNO_3

SECONDARY VOLUMETRIC DILUTION

Vol. Parent Solution: 10.0000 ml

Total Activity: 2.2330E+05 dpm

Final Volume: 1000.00 ml

Final Activity Concentration: 2.2330E+02 dpm/ml

NOTES:

This activity concentration is based on the original reference date listed above. All activities are corrected to the date and time of analysis by the laboratory data processing software.

Sufficient time has occurred for complete ingrowth of Po-210, therefore, this standard is used for both Pb-210 and Po-210

Expiration Date: January 2, 2011

Recertified By _____ Date: 1/2/2010 0:00

Verified & Approved By _____ Date: 1/15/10

QC Approval _____ Date: 1/15/10

SECTION VI

QUALITY CONTROL SAMPLE RESULTS SUMMARY

Eberline Services
Analysis Control Chart

WO	Analysis	Run	Activity Units	Aliquot Units	Client Name
10-11052	UUISO	1	pCi	g	Tetra Tech Divisions

Laboratory Control Sample

Analyte	Normalized Difference	LCS Measured	CSU Measured	LCS Expected	Uncert. Expected	Known	Known Error	Result	CSU	Standard ID	Standard ACT (dpm)	Standard Error	Standard Added (g)
U-234	0.85	93.13%	16.78%	100.00%	3.60%	8.14E+00	2.93E-01	7.58E+00	1.27E+00	U-8a	3.52E+01	3.60E+00	5.13E-01
U-238	0.31	97.37%	16.73%	100.00%	3.60%	7.94E+00	2.86E-01	7.73E+00	1.29E+00	U-8a	3.44E+01	3.60E+00	5.13E-01

Matrix Spike

Analyte	Normalized Difference	MS Actual % Rec	Expected MS Result	Expected MS Uncert	Actual MS Result	Actual MS CSU	Sample Result	Sample CSU	Sample Aliquot	Standard ID	Standard ACT (dpm)	Standard Error %	Standard Added (g)

Replicate Sample

Analyte	Normalized Difference	RPD	Original Result	Original CSU	Replicate Result	Replicate CSU
U-234	0.17	5.70	2.81E-01	1.36E-01	2.98E-01	1.31E-01
U-238	1.73	64.01	1.54E-01	1.00E-01	2.98E-01	1.30E-01
U-235	0.14	52.59	8.50E-03	3.62E-02	4.96E-03	3.28E-02

QC Summary

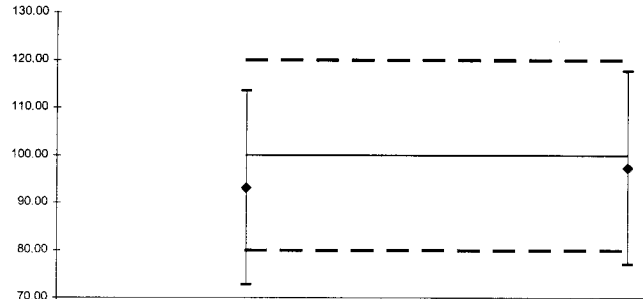
LCS Relative Bias	LCS % R	LCS ND	MS % R	MS ND	Rep RPD	Rep ND
0.93	OK	OK			OK	OK
0.97	OK	OK			INV	OK
	OK	OK			NA	OK

Version

0059

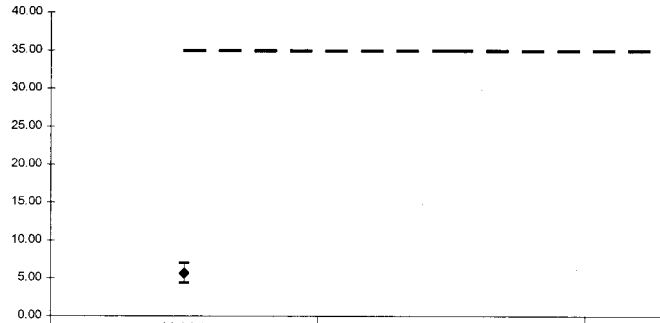
WO	Analysis	Run	Activity Units	Aliquot Units	Client Name
10-11052	UUISO	1	pCi	g	Tetra Tech Divisions

LCS % Recovery



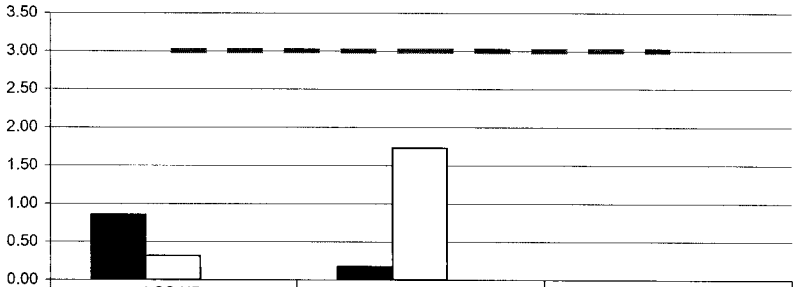
	U-234	U-238
Lower Error	72.74	77.04
Upper Error	113.51	117.69
%R	93.13	97.37
LCL	80	80
Mean	100	100
UCL	120	120

Replicate Sample RPD



	U-234	U-238	U-235
Lower Error	7.02	80.32	187.35
Upper Error	4.39	47.70	-82.18
RPD	5.70	64.01	52.59
CL	35	35	35

Normalized Difference



	LCS ND	REP ND	MS ND
U-234	0.85	0.17	0.00
U-238	0.31	1.73	0.00
	0.00	0.00	0.00
UCL	3	3	3

No Matrix Spike

WO	Analysis	Run	Activity Units	Aliquot Units	Client Name
10-11052	ThISO	1	pCi	g	Tetra Tech Divisions

Laboratory Control Sample

Analyte	Normalized Difference	LCS Measured	CSU Measured	LCS Expected	Uncert. Expected	Known	Known Error	Result	CSU	Standard ID	Standard ACT (dpm)	Standard Error	Standard Added (g)
TH-228	0.11	98.90%	19.35%	100.00%	3.60%	4.83E+00	1.74E-01	4.78E+00	9.24E-01	Th-8b	1.04E+02	3.60E+00	1.04E-01
TH-230	0.48	104.84%	18.83%	100.00%	2.70%	5.45E+00	1.47E-01	5.72E+00	1.08E+00	Th-1b	2.35E+01	2.70E+00	5.15E-01
TH-232	0.25	102.57%	19.22%	100.00%	3.60%	4.83E+00	1.74E-01	4.95E+00	9.52E-01	Th-8b	1.04E+02	3.60E+00	1.04E-01

Matrix Spike

Analyte	Normalized Difference	MS Actual % Rec	Expected MS Result	Expected MS Uncert	Actual MS Result	Actual MS CSU	Sample Result	Sample CSU	Sample Aliquot	Standard ID	Standard ACT (dpm)	Standard Error %	Standard Added (g)

Replicate Sample / QC Summary

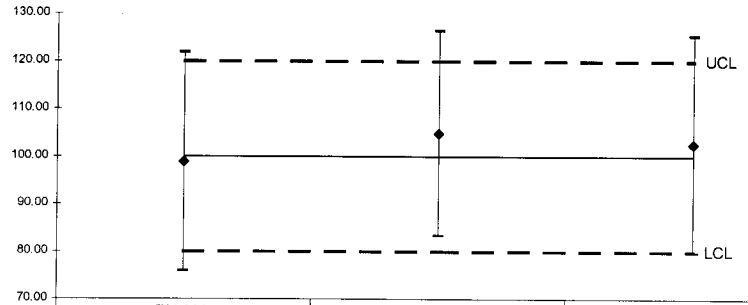
Analyte	Normalized Difference	RPD	Original Result	Original CSU	Replicate Result	Replicate CSU	LCS Relative Bias	LCS % R	LCS ND	MS % R	MS ND	Rep RPD	Rep ND
TH-228	1.13	47.94	1.91E-01	1.28E-01	3.12E-01	1.65E-01	0.99	OK	OK			NA	OK
TH-230	2.31	98.29	3.71E-01	1.83E-01	1.27E-01	9.93E-02	1.05	OK	OK			NA	OK
TH-232	1.80	64.48	2.48E-01	1.44E-01	4.84E-01	2.14E-01	1.03	OK	OK			INV	OK

Version

00522

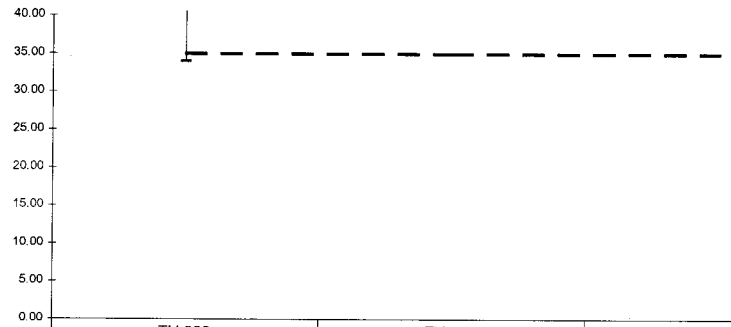
WO	Analysis	Run	Activity Units	Aliquot Units	Client Name
10-11052	ThISO	1	pCi	g	Tetra Tech Divisions

LCS % Recovery



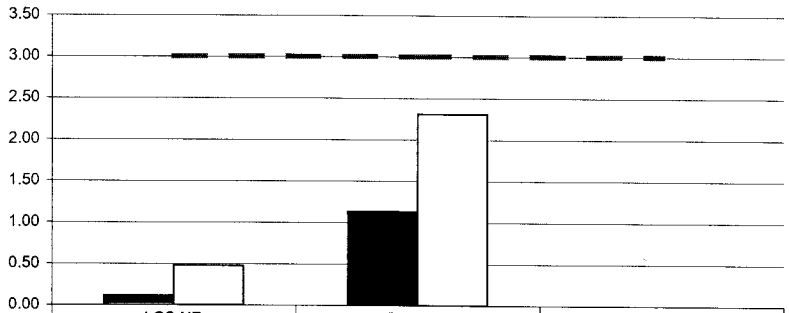
	TH-228	TH-230	TH-232
Lower Error	75.95	83.31	79.75
Upper Error	121.85	126.36	125.38
%R	98.90	104.84	102.57
LCL	80	80	80
Mean	100	100	100
UCL	120	120	120

Replicate Sample RPD



	TH-228	TH-230	TH-232
Lower Error	61.90	126.12	80.23
Upper Error	33.98	70.46	48.73
RPD	47.94	98.29	64.48
CL	35	35	35

Normalized Difference



	LCS ND	REP ND	MS ND
TH-228	0.11	1.13	0.00
TH-230	0.48	2.31	0.00
UCL	3	3	3

No Matrix Spike

Version

Eberline Services
Analysis Control Chart

WO	Analysis	Run	Activity Units	Aliquot Units	Client Name
10-11052	Ra226	1	pCi	g	Tetra Tech Divisions

Laboratory Control Sample

Analyte	Normalized Difference	LCS Measured	CSU Measured	LCS Expected	Uncert. Expected	Known	Known Error	Result	CSU	Standard ID	Standard ACT (dpm)	Standard Error	Standard Added (g)
RA-226	2.02	116.91%	13.82%	100.00%	4.60%	1.02E+01	4.69E-01	1.19E+01	1.65E+00	Ra-5b	4.41E+01	4.60E+00	5.14E-01

Matrix Spike

Analyte	Normalized Difference	MS Actual % Rec	Expected MS Result	Expected MS Uncert	Actual MS Result	Actual MS CSU	Sample Result	Sample CSU	Sample Aliquot	Standard ID	Standard ACT (dpm)	Standard Error %	Standard Added (g)

Replicate Sample

Analyte	Normalized Difference	RPD	Original Result	Original CSU	Replicate Result	Replicate CSU
RA-226	0.07	3.32	3.49E-01	2.40E-01	3.61E-01	2.44E-01

QC Summary

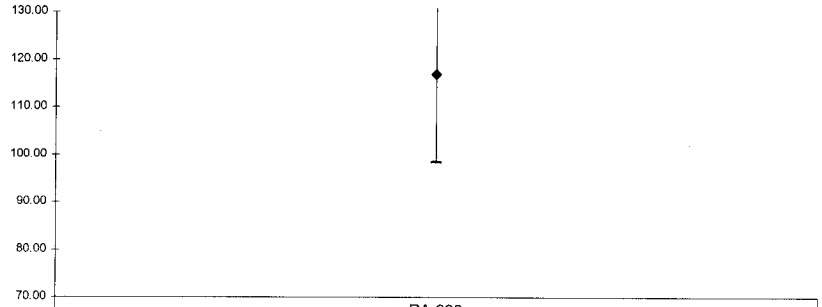
LCS Relative Bias	LCS % R	LCS ND	MS % R	MS ND	Rep RPD	Rep ND
1.17	OK	OK			NA	OK

Version

0054

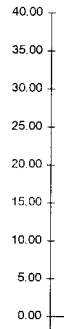
WO	Analysis	Run	Activity Units	Aliquot Units	Client Name
10-11052	Ra226	1	pCi	g	Tetra Tech Divisions

LCS % Recovery



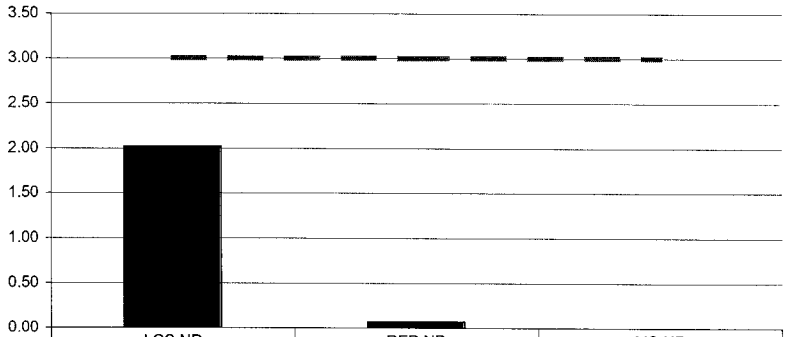
	RA-226
Lower Error	98.49
Upper Error	135.32
%R	116.91
LCL	80
Mean	100
UCL	120

Replicate Sample RPD



	RA-226
Lower Error	4.45
Upper Error	2.19
RPD	3.32
CL	35

Normalized Difference



	LCS ND	REP ND	MS ND
RA-226	2.02	0.07	0.00
UCL	3	3	3

No Matrix Spike

Version

0055

WO	Analysis	Run	Activity Units	Aliquot Units	Client Name
10-11052	Ra228	2	pCi	g	Tetra Tech Divisions

Laboratory Control Sample

Analyte	Normalized Difference	LCS Measured	CSU Measured	LCS Expected	Uncert. Expected	Known	Known Error	Result	CSU	Standard ID	Standard ACT (dpm)	Standard Error	Standard Added (g)
RA-228	1.24	86.86%	23.51%	100.00%	5.10%	1.85E+01	9.46E-01	1.61E+01	3.79E+00	Ra-10	6.83E+01	5.10E+00	6.03E-01

Matrix Spike

Analyte	Normalized Difference	MS Actual % Rec	Expected MS Result	Expected MS Uncert	Actual MS Result	Actual MS CSU	Sample Result	Sample CSU	Sample Aliquot	Standard ID	Standard ACT (dpm)	Standard Error %	Standard Added (g)

Replicate Sample

Analyte	Normalized Difference	RPD	Original Result	Original CSU	Replicate Result	Replicate CSU
RA-228	1.51	68.70	5.99E-01	5.76E-01	1.23E+00	5.70E-01

QC Summary

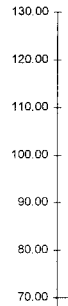
LCS Relative Bias	LCS % R	LCS ND	MS % R	MS ND	Rep RPD	Rep ND
0.87	OK	OK			NA	OK

Version

0056

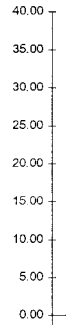
WO	Analysis	Run	Activity Units	Aliquot Units	Client Name
10-11052	Ra228	2	pCi	g	Tetra Tech Divisions

LCS % Recovery



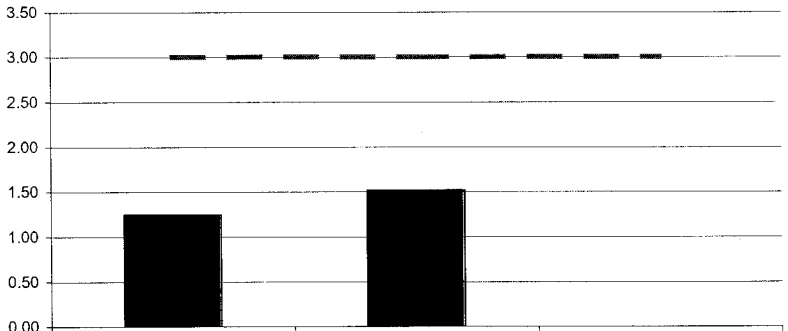
	RA-228
Lower Error	58.25
Upper Error	115.47
%R	86.86
LCL	80
Mean	100
UCL	120

Replicate Sample RPD



	RA-228
Lower Error	90.29
Upper Error	47.10
RPD	68.70
CL	35

Normalized Difference



	LCS ND	REP ND	MS ND
RA-228	1.24	1.51	0.00
UCL	3	3	3

No Matrix Spike

Version

0057

WO	Analysis	Run	Activity Units	Aliquot Units	Client Name
10-11052	Pb210	1	pCi	g	Tetra Tech Divisions

Laboratory Control Sample

Analyte	Normalized Difference	LCS Measured	CSU Measured	LCS Expected	Uncert. Expected	Known	Known Error	Result	CSU	Standard ID	Standard ACT (dpm)	Standard Error	Standard Added (g)
PB-210	1.16	92.19%	14.03%	100.00%	3.70%	2.05E+01	7.57E-01	1.89E+01	2.65E+00	Pb-3a	1.62E+02	3.70E+00	2.80E-01

Matrix Spike

Analyte	Normalized Difference	MS Actual % Rec	Expected MS Result	Expected MS Uncert	Actual MS Result	Actual MS CSU	Sample Result	Sample CSU	Sample Aliquot	Standard ID	Standard ACT (dpm)	Standard Error %	Standard Added (g)

Replicate Sample

Analyte	Normalized Difference	RPD	Original Result	Original CSU	Replicate Result	Replicate CSU
PB-210	0.88	32.41	1.01E+00	4.54E-01	7.32E-01	4.32E-01

QC Summary

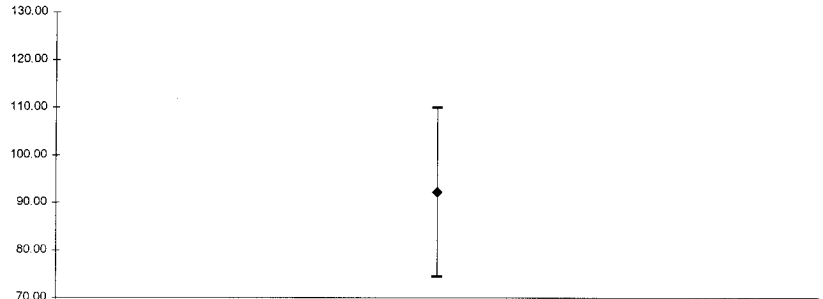
LCS Relative Bias	LCS % R	LCS ND	MS % R	MS ND	Rep RPD	Rep ND
0.92	OK	OK			NA	OK

Version

0958

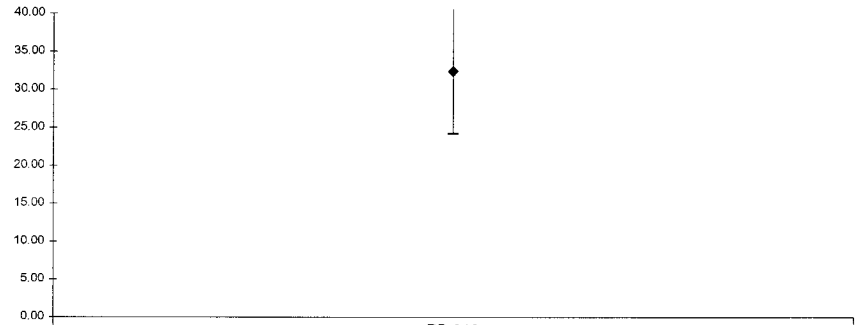
WO	Analysis	Run	Activity Units	Aliquot Units	Client Name
10-11052	Pb210	1	pCi	g	Tetra Tech Divisions

LCS % Recovery



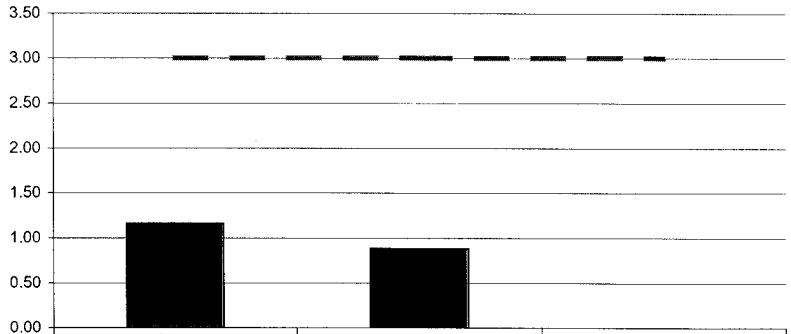
	PB-210
Lower Error	74.46
Upper Error	109.92
%R	92.19
LCL	80
Mean	100
UCL	120

Replicate Sample RPD



	PB-210
Lower Error	40.64
Upper Error	24.18
RPD	32.41
CL	35

Normalized Difference



	LCS ND	REP ND	MS ND
PB-210	1.16	0.88	0.00
UCL	3	3	3

No Matrix Spike

Version

SECTION VII

LABORATORY TECHNICIAN'S NOTES

ISO-U NOTES

EBERLINE SERVICES

Work Order Analysis Notes

Oak Ridge Laboratory
601 Scarboro Rd.
Oak Ridge, TN 37830
Voice: 865.481.0683
www.eberlineservices.com

Internal Work Order	10-11052
Analysis Code	UUISO
Run Number	1

#	Date	Dept	User	Notes
1	11/17/10 13:40	PREP	JBARNARD	ALIQUOTED AND ADDED SPIKES AND TRACERS- ADDED HF AND DRIED SAMPLES DOWN- ADDED MIXED ACIDS AND TOOK SAMPLES TO DRYNESS

JB
11/17/10

EBERLINE SERVICES

Work Order Analysis Notes

Oak Ridge Laboratory
601 Scarboro Rd.
Oak Ridge, TN 37830
Voice: 865.481.0683
www.eberlineservices.com

Internal Work Order	10-11052
Analysis Code	UUISO
Run Number	1

#	Date	Dept	User	Notes
1	11/17/10 13:40	PREP	JBARNARD	ALIQUOTED AND ADDED SPIKES AND TRACERS- ADDED HF AND DRIED SAMPLES DOWN- ADDED MIXED ACIDS AND TOOK SAMPLES TO DRYNESS
2	11/22/10 17:51	CHEM	RMARTZ	PRECONDITIONED RESIN COLUMN WITH 35 ML 8N HCL & CENTRIFUGED SAMPLES; ADDED SAMPLES TO COLUMNS; AFTER SAMPLES RAN THROUGH THE COLUMNS, ADDED 35 ML 8N HCL/NH4I & LET RUN THROUGH, FOLLOWED UP WITH ADDING 35 ML 6.5N HCL/0.04N HF & THEN 10 ML 6.5N HCL. ELUTED SAMPLES WITH 50 ML 0.5N HCL INTO CLEAN 100 ML BEAKERS. TOOK SAMPLES TO DRYNESS ON HOTPLATE & ADDED 10 ML CONCENTRATED HCL TO SAMPLES; TRANSFERRED SAMPLES INTO C-TUBES WITH D.I. H2O & SET SAMPLES ON COUNTERTOP FOR NEXT DAY FILTRATION.

RMA
11/22/10

EBERLINE SERVICES

Work Order Analysis Notes

Oak Ridge Laboratory
601 Scarboro Rd.
Oak Ridge, TN 37830
Voice: 865.481.0683
www.eberlineservices.com

Internal Work Order	10-11052
Analysis Code	UUISO
Run Number	1

#	Date	Dept	User	Notes
1	11/17/10 13:40	PREP	JBARNARD	ALIQUOTED AND ADDED SPIKES AND TRACERS- ADDED HF AND DRIED SAMPLES DOWN- ADDED MIXED ACIDS AND TOOK SAMPLES TO DRYNESS
2	11/22/10 17:51	CHEM	RMARTZ	PRECONDITIONED RESIN COLUMN WITH 35 ML 8N HCL & CENTRIFUGED SAMPLES; ADDED SAMPLES TO COLUMNS; AFTER SAMPLES RAN THROUGH THE COLUMNS, ADDED 35 ML 8N HCL/NH4I & LET RUN THROUGH, FOLLOWED UP WITH ADDING 35 ML 6.5N HCL/0.04N HF & THEN 10 ML 6.5N HCL. ELUTED SAMPLES WITH 50 ML 0.5N HCL INTO CLEAN 100 ML BEAKERS. TOOK SAMPLES TO DRYNESS ON HOTPLATE & ADDED 10 ML CONCENTRATED HCL TO SAMPLES; TRANSFERRED SAMPLES INTO C-TUBES WITH D.I. H2O & SET SAMPLES ON COUNTERTOP FOR NEXT DAY FILTRATION.
3	11/23/10 09:49	CHEM	JDEMELAS	Added 0.1 ml Neodymium Carrier, 0.3 ml Titanous Chloride and 1 ml HF to samples in C-Tubes and mixed; Immersed samples in ice bath for minimum of 1 hour; Setup filters, added Alcohol and Carbon Substrate, then added samples; When samples were filtered, added 10 ml DI H2O rinses from C-Tubes and filtered; When rinsates were filtered, placed filters in new, labeled Petri Dishes; Let filters dry and set T-0; Completed documentation and sent sample set to the Count Room.

John DeMels
11/23/10

EBERLINE SERVICES

Reagents Used in an Analysis

Internal Work Order	
10-11052	
Analysis Code	Run
UUISO	1

Reagent ID	Reagent Name	Reagent Concentration	Analyst ID	Date Recorded
010108P	Hydrofluoric Acid	Reagent Grade	JBARNARD	11/17/2010
010289P	Perchloric Acid	Reagent Grade	JBARNARD	11/17/2010
006799P	Sulfuric Acid	Reagent Grade	JBARNARD	11/17/2010
010253P	Nitric Acid	Reagent Grade	JBARNARD	11/17/2010
010367P	Anion Exchange Resin	Reagent Grade	JDEMELAS	11/23/2010
010399S	HCl - HF	6.5N - 0.04N	JDEMELAS	11/23/2010
010428S	Hydrochloric Acid	0.5N	JDEMELAS	11/23/2010
010230S	Hydrochloric Acid	6.5N	JDEMELAS	11/23/2010
010426S	Hydrochloric Acid	8N	JDEMELAS	11/23/2010
010345P	Hydrochloric Acid	Reagent Grade	JDEMELAS	11/23/2010
010432S	HCl - NH4l	8N - 0.1M	JDEMELAS	11/23/2010
010394S	Carbon substrate	Solution	JDEMELAS	11/23/2010
010054P	Ethanol	Reagent Grade	JDEMELAS	11/23/2010
010108P	Hydrofluoric Acid	Reagent Grade	JDEMELAS	11/23/2010
010154S	Neodymium Carrier	1 mg/ml	JDEMELAS	11/23/2010
009884P	Titanous Chloride	Reagent Grade	JDEMELAS	11/23/2010

Alpha # 1

Date	Sample #	Client	Load Time	Ct Time	Analysis	Tech
11/18/10	1011049A (20)	CDM	1827	2hrs 50min	Ra-6	ICB
11/18/10	1011054A (1-4)	GRACE	1829	2hr 50min	Ra-6	ICB
11/19/10	Daily pulser	Lab	0535	10 min	NA	EH
11/19/10	Secondary check	Lab	0606	2.5 hr	α	EH
11/19/10	1011028A (1-4, 6, 8, 10)	BSC	0943	2hr 50min	Am 241	EH
11/19/10	1011041A (1-2)	Safety Ec.	0944	2hr 50min	Th	EH
11/19/10	1011041A (3-4)	Safety Ec.	1245	2hr 50min	Th	EH
11/19/10	1011041A (4)	Safety Ec.	1246	2hr 50min	Th NT	EH
11/19/10	1011031A (1-5)	Safety Ec.	1248	2hr 50min	Np	EH
11/19/10	1011028A (1)	BSC	1250	2hr 50min	Am 243	EH
11/19/10	Weekly Blank	Lab	1733	16.40 hrs	α	ICB
11/20/10	DAILY PULSER	LAB	1044	10 MIN	NA	AG
11/20/10	1011044A (14-18)	CDM	1109	2HR 50 MIN	TH	AG
11/20/10	1011044A (1-4)	CDM	1113	2HR 50 MIN	U	AG
11/20/10	1011048A (1-9)	CDM	1538	2HR 50 MIN	U	AG
11/21/10	AG Daily Pulser	LAB	0951	10 MIN	NA	AG
11/21/10	1011048A (12-18)	CDM	1026	2HR 50 MIN	TH	AG
11/21/10	1011049A (1,2)	CDM	1029	2 HR 50 MIN	TH	AG
11/21/10	1011049A (3-11)	CDM	1401	2 HR 50 MIN	U	AG
11/22/10	Daily pulser	Lab	0531	10 min	NA	EH
11/22/10	1011058A (1-7)	BSC	0614	2hr 50min	Pu	EH
11/22/10	1011054A (1-2)	Grace Dav.	0616	2hr 50min	Th	EH
11/22/10	1011059A (1-9)	DeNuke	1041	2hr 50min	UU	EH
11/22/10	1011059A (1-9)	De Nuke	1343	2hr 50min	Pu	ICB
11/23/10	Daily pulser	Lab	0522	10 min	NA	EH
11/23/10	1011058A (1-7)	BSC	1025	2hr 50min	Am 241	EH
11/23/10	1011068A (1-2)	BSC	1026	2hr 50min	Am 241	EH
11/23/10	1011052A (3-6)	Tetra Tech	1337	2hr 50min	UU	ICB
11/23/10	1011068A (1-4)	BSC	1340	2hr 50min	Th	ICB
11/23/10	1011068A (4)	BSC	1340	2hr 50min	Th NT	ICB

Alpha # 3

Date	Sample #	Client	Load Time	Ct Time	Analysis	Tech
11/21/10	1011049A (16-20)	CDM	1406	2HR 50MIN	U	AG
11/21/10	1011052A (1-6)	TETRA TECH	1408	2HR 50MIN	TH	AG
11/21/10	1011030A (1-4)	BJC	1411	2HR 50MIN	TH	AG
11/21/10	1011030A NT (4)	BJC	1412	2HR 50MIN	TN (NT)	AG
11/22/10	1011045 A (1-4)	B>C	0618	2hr 50min	Th	EH
11/22/10	1011045 A (4)	B>C	0619	2hr 50min	Th NT	EH
11/22/10	1011058 A (5-7)	B>C	1044	2hr 50min	UU	EH
11/22/10	1011054A (1-6)	GRACE	1112	2hr 50min	UU	KB
11/22/10	1011030 A (1-4,7)	B>C	1211	2hr 50min	Pu	EH
11/22/10	1011030 A (4)	B>C	1212	2hr 50min	Pu NT	EH
11/22/10	1011059 A (10)	De Nuke	1343	2hr 50min	Pu	KB
11/23/10	Daily pulser	Lab	0522	10 min	NA	EH
11/23/10	1011068 A (3-4)	B>C	1026	2hr 50min	Am241	EH
11/23/10	1011068 A (1-4)	B>C	1107	2hr 50min	Am243	KB
11/23/10	1011068 A (1-4)	B>C	1109	2hr 50min	UU	KB
11/23/10	1011030 A (1-4)	B>C	1110	2hr 50min	UU	KB
11/23/10	1011052 A (1-2)	Tetra Tech	1111	2hr 50min	UU	KB

ISO-TH NOTES

EBERLINE SERVICES **Work Order Analysis Notes**	**Oak Ridge Laboratory** **601 Scarboro Rd.** **Oak Ridge, TN 37830** **Voice: 865.481.0683** **www.eberlineservices.com**	Internal Work Order	10-11052
		Analysis Code	ThISO
		Run Number	1

#	Date	Dept	User	Notes
1	11/17/10 13:40	PREP	JBARNARD	ALIQUOTED AND ADDED SPIKES AND TRACERS- ADDED HF AND DRIED SAMPLES DOWN- ADDED MIXED ACIDS AND TOOK SAMPLES TO DRYNESS

JBar
11/17/10

EBERLINE SERVICES

Work Order Analysis Notes

Oak Ridge Laboratory
601 Scarboro Rd.
Oak Ridge, TN 37830
Voice: 865.481.0683
www.eberlineservices.com

Internal Work Order	10-11052
Analysis Code	ThISO
Run Number	1

#	Date	Dept	User	Notes
1	11/17/10 13:40	PREP	JBARNARD	ALIQUOTED AND ADDED SPIKES AND TRACERS- ADDED HF AND DRIED SAMPLES DOWN- ADDED MIXED ACIDS AND TOOK SAMPLES TO DRYNESS
2	11/19/10 16:25	CHEM	RMARTZ	PRECONDITIONED RESIN COLUMN WITH 50 ML 8N HNO3 & CENTRIFUGED SAMPLES; ADDED SAMPLES TO COLUMNS; AFTER SAMPLES RAN THROUGH THE COLUMNS, ADDED 40 ML 8N HNO3 & LET RUN THROUGH, & ELUTED SAMPLES WITH 50 ML 8N HCL INTO CLEAN 100 ML BEAKERS. TOOK SAMPLES TO DRYNESS ON HOTPLATE & ADDED 10 ML CONCENTRATED HCL TO SAMPLES; TRANSFERRED SAMPLES INTO C-TUBES WITH D.I. H2O & SET SAMPLES ON COUNTERTOP FOR NEXT DAY FILTRATION.

RM
11/19/10

EBERLINE SERVICES **Work Order Analysis Notes**	**Oak Ridge Laboratory** **601 Scarboro Rd.** **Oak Ridge, TN 37830** **Voice: 865.481.0683** **www.eberlineservices.com**	Internal Work Order	10-11052
		Analysis Code	ThISO
		Run Number	1

#	Date	Dept	User	Notes
1	11/17/10 13:40	PREP	JBARNARD	ALIQUOTED AND ADDED SPIKES AND TRACERS- ADDED HF AND DRIED SAMPLES DOWN- ADDED MIXED ACIDS AND TOOK SAMPLES TO DRYNESS
2	11/19/10 16:25	CHEM	RMARTZ	PRECONDITIONED RESIN COLUMN WITH 50 ML 8N HNO3 & CENTRIFUGED SAMPLES; ADDED SAMPLES TO COLUMNS; AFTER SAMPLES RAN THROUGH THE COLUMNS, ADDED 40 ML 8N HNO3 & LET RUN THROUGH, & ELUTED SAMPLES WITH 50 ML 8N HCL INTO CLEAN 100 ML BEAKERS. TOOK SAMPLES TO DRYNESS ON HOTPLATE & ADDED 10 ML CONCENTRATED HCL TO SAMPLES; TRANSFERRED SAMPLES INTO C-TUBES WITH D.I. H2O & SET SAMPLES ON COUNTERTOP FOR NEXT DAY FILTRATION.
3	11/20/10 14:16	CHEM	JDEMELAS	Added 0.75 ml of 0.1 mg/ml Cerium Carrier and 1 ml HF to samples in C-Tubes and mixed; Immersed sample set in ice bath for minimum one hour; Setup filters by adding Alcohol and Carbon Substrate, then added samples; When samples were filtered, added 10 ml DI H2O rinses from C-Tubes; When rinsates were filtered, removed filters and placed in new, labeled Petri Dishes; Set T-0, let filters dry, completed documentation, and sent set to the Count Room.

John DeMelas
11/20/10

EBERLINE SERVICES

Reagents Used in an Analysis

Internal Work Order	
10-11052	
Analysis Code	Run
ThISO	1

Reagent ID	Reagent Name	Reagent Concentration	Analyst ID	Date Recorded
010108P	Hydrofluoric Acid	Reagent Grade	JBARNARD	11/17/2010
010289P	Perchloric Acid	Reagent Grade	JBARNARD	11/17/2010
006799P	Sulfuric Acid	Reagent Grade	JBARNARD	11/17/2010
010253P	Nitric Acid	Reagent Grade	JBARNARD	11/17/2010
010287P	Anion Exchange Resin	Reagent Grade	RMARTZ	11/19/2010
010418S	Hydrochloric Acid	8N	RMARTZ	11/19/2010
010414S	Nitric Acid	8N	RMARTZ	11/19/2010
009926S	Cerrium Carrier	0.1mg/ml	JDEMELAS	11/20/2010
010054P	Ethanol	Reagent Grade	JDEMELAS	11/20/2010
010108P	Hydrofluoric Acid	Reagent Grade	JDEMELAS	11/20/2010
010394S	Carbon substrate	Solution	JDEMELAS	11/20/2010

Alpha # 3

Date	Sample #	Client	Load Time	Lt Time	Analysis	Tech
11/21/10	1011049A (16-20)	CDM	1406	2HR 50MIN	U	AG
11/21/10	1011052A (1-6)	TETRA TECH	1408	2HR 50MIN	TH	AG
11/21/10	1011030A (1-4)	BJC	1411	2HR 50MIN	TH	AG
11/21/10	1011030A NT (4)	BJC	1412	2HR 50MIN	TN (NT)	AG

RA-226 NOTES

EBERLINE SERVICES **Work Order Analysis Notes**	**Oak Ridge Laboratory** **601 Scarboro Rd.** **Oak Ridge, TN 37830** **Voice: 865.481.0683** **www.eberlineservices.com**	Internal Work Order	10-11052
		Analysis Code	Ra226
		Run Number	1

#	Date	Dept	User	Notes
1	11/17/10 13:38	PREP	JBARNARD	ALIQUOTED AND ADDED SPIKES AND TRACERS- ADDED HF AND DRIED SAMPLES DOWN- ADDED MIXED ACIDS AND TOOK SAMPLES TO DRYNESS- PH'D SAMPLES- PRECIPITATED WITH BA AND PB CARRIERS AND POTASSIUM SULFATE- DECANTED SAMPLES AND CENTRIFUGED- ADDED .25M EDTA AND PHENOLPTHALEIN TO PRECIP, VORTEXED AND PUT SAMPLES IN A HOT WATER BATH- VORTEXED AND CHECKED PH- CENTRIFUGED AND TRANSFERRED SUPERNATE INTO CLEAN C-TUBES AND SUBMITTED TO SEPARATIONS

JB
11/17/10

EBERLINE SERVICES

Work Order Analysis Notes

Oak Ridge Laboratory
601 Scarboro Rd.
Oak Ridge, TN 37830
Voice: 865.481.0683
www.eberlineservices.com

Internal Work Order	10-11052
Analysis Code	Ra226
Run Number	1

#	Date	Dept	User	Notes
1	11/17/10 13:38	PREP	JBARNARD	ALIQUOTED AND ADDED SPIKES AND TRACERS- ADDED HF AND DRIED SAMPLES DOWN- ADDED MIXED ACIDS AND TOOK SAMPLES TO DRYNESS- PH'D SAMPLES- PRECIPITATED WITH BA AND PB CARRIERS AND POTASSIUM SULFATE- DECANTED SAMPLES AND CENTRIFUGED- ADDED .25M EDTA AND PHENOLPTHALEIN TO PRECIP, VORTEXED AND PUT SAMPLES IN A HOT WATER BATH- VORTEXED AND CHECKED PH- CENTRIFUGED AND TRANSFERRED SUPERNATE INTO CLEAN C-TUBES AND SUBMITTED TO SEPARATIONS
2	11/30/10 13:08	CHEM	TSMITH	Followed steps 12.2 to 12.8 in AP-006 rev. 9 . (Sringe filtered samples. Precipitated and filtered samples, obtained final weights, and took to count room)

11-30-10
JM

EBERLINE SERVICES

Reagents Used in an Analysis

Internal Work Order	
10-11052	
Analysis Code	Run
Ra226	1

Reagent ID	Reagent Name	Reagent Concentration	Analyst ID	Date Recorded
010031P	Ammonium Hydroxide	Reagent Grade	JBARNARD	11/17/2010
010341S	EDTA	0.25M	JBARNARD	11/17/2010
010108P	Hydrofluoric Acid	Reagent Grade	JBARNARD	11/17/2010
009872P	Nitric Acid	Reagent Grade	JBARNARD	11/17/2010
010123S	Phenolphthalein Indicator	0.1%	JBARNARD	11/17/2010
009383P	Potassium Sulfate	Reagent Grade	JBARNARD	11/17/2010
006799P	Sulfuric Acid	Reagent Grade	JBARNARD	11/17/2010
010253P	Nitric Acid	Reagent Grade	JBARNARD	11/17/2010
009718D07	Barium Carrier	1 mg/ml	JBARNARD	11/17/2010
008973D16	Lead Carrier	40 mg/ml	JBARNARD	11/17/2010
010289P	Perchloric Acid	Reagent Grade	JBARNARD	11/17/2010
010032P	Acetic Acid	Reagent Grade	TSMITH	11/30/2010
010382S	Ammonium Sulfate	200 mg/ml	TSMITH	11/30/2010

Alpha #3

DATE	Sample #	Client	Load Time	CT Time	Analysis	Tech
11/24/10	1011045A (4)	BJC	1420	2hr50min	UUNT	ICB
11/24/10	Weekly Blkgd	Lab	1823	16.40 hrs	α	ICB
11/24/10	Daily Pulsers	Lab	0934	10mins	NA	ICB
11/26/10	1011074A (10-13)	CDM	1331	2hr50min	Rak	ICB
11/26/10	1011084A (4-5)	USA	1448	2hr50min	Rak	ICB
11/29/10	Daily pulser	Lab	0543	10 min	NA	EH
11/29/10	1011078A (1-9)	CDM	1011	2hr50min	Th	EH
11/29/10	1011077A (1-6)	CDM	1134	2hr50min	UU	EH
11/29/10	1011077A (16-19)	CDM	~~1297~~ 1309 EH	2hr50min	UU	EH
11/29/10	1011077A (1-5)	CDM	1316	2hr50min	Th	EH
11/29/10	1011077A(6-11)	CDM	1433	2hr50min	Th	ICB
11/29/10	1011041A(1-4)	SEC	1615	2hr50min	Am^{241}	ICB
11/29/10	1011041A(1-4)	SEC	1616	2hr50min	Am^{243}/Cm	ICB
11/29/10	1011065A(1-6)	SCDHEC	1731	5hr35min	Am^{241}	ICB
11/29/10	1011077A(10-18)	CDM	1922	2hr50min	Rak	ICB
11/30/10	Daily pulser	Lab	0520	10min	NA	EH
11/30/10	1011046A(5-14)	BJC	0926	2hr50min	Np	EH
11/30/10	1011046A(1-5)	BJC	1009	2hr50min	UU	EH
11/30/10	1011046A(1-10)	BJC	1231	2hr50min	Pu	EH
11/30/10	1011046A(11-14)	BJC	1304	2hr50min	Pu	EH
11/30/10	1011090A (1)	BJC	1305	2hr50min	Pu	EH
11/30/10	1011060A(7-13)	MPA	1532	2hr50min	Rak	ICB
11/30/10	1011099A(1-3,6,7)	Sevenson	1722	2hr50min	Rak	ICB
11/30/10	1011055A(1-4)	BJC	1845	2hr50mins	Rak	ICB
11/30/10	1011052A(1-4)	TetraTech	1947	2hr50min	Rak	ICB

RA-228 NOTES

EBERLINE SERVICES

Work Order Analysis Notes

Oak Ridge Laboratory
601 Scarboro Rd.
Oak Ridge, TN 37830
Voice: 865.481.0683
www.eberlineservices.com

Internal Work Order	10-11052
Analysis Code	Ra228
Run Number	2

#	Date	Dept	User	Notes
1	12/09/10 06:50	PREP	JBARNARD	ALIQUOTED AND ADDED SPIKE- ADDED HF AND DRIED SAMPLES DOWN- ADDED MIXED ACIDS AND TOOK SAMPLES TO DRYNESS- PH'D SAMPLES- PRECIPITATED WITH BA AND PB CARRIERS AND POTASSIUM SULFATE- DECANTED SAMPLES AND CENTRIFUGED- ADDED .25M EDTA AND PHENOLTPHALEIN TO PRECIP, VORTEXED AND PUT SAMPLES IN A HOT WATER BATH- VORTEXED AND CHECKED PH- CENTRIFUGED AND TRANSFERRED SUPERNATE INTO CLEAN C-TUBES AND SUBMITTED TO SEPARATIONS

12/9/10

EBERLINE SERVICES

Work Order Analysis Notes

Oak Ridge Laboratory
601 Scarboro Rd.
Oak Ridge, TN 37830
Voice: 865.481.0683
www.eberlineservices.com

Internal Work Order	10-11052
Analysis Code	Ra228
Run Number	2

#	Date	Dept	User	Notes
1	12/09/10 06:50	PREP	JBARNARD	ALIQUOTED AND ADDED SPIKE- ADDED HF AND DRIED SAMPLES DOWN- ADDED MIXED ACIDS AND TOOK SAMPLES TO DRYNESS- PH'D SAMPLES- PRECIPITATED WITH BA AND PB CARRIERS AND POTASSIUM SULFATE- DECANTED SAMPLES AND CENTRIFUGED- ADDED .25M EDTA AND PHENOLTPHALEIN TO PRECIP, VORTEXED AND PUT SAMPLES IN A HOT WATER BATH- VORTEXED AND CHECKED PH- CENTRIFUGED AND TRANSFERRED SUPERNATE INTO CLEAN C-TUBES AND SUBMITTED TO SEPARATIONS
2	12/10/10 15:36	CHEM	TSMITH	Sringe filtered samples. Followed steps 12.2 to 12.9 in AP-007 rev. 14 . (Chemical cleanup for Ra 228)
3	12/13/10 09:42	CHEM	TSMITH	Followed steps 12.10 to 12.18 in AP-007 rev. 14 . (Precipitated samples, centrifuged, and discarded supernate. Dissolved precip, precipitated samples, hot bathed, centrifuged, and discarded supernate. Dissolved precip, precipitated and filtered samples, obtained final weights, covered with aluminum foil, and took to count room)

12-13-10
JM

EBERLINE SERVICES

Reagents Used in an Analysis

Internal Work Order	
10-11052	
Analysis Code	Run
Ra228	2

Reagent ID	Reagent Name	Reagent Concentration	Analyst ID	Date Recorded
010031P	Ammonium Hydroxide	Reagent Grade	JBARNARD	12/9/2010
010108P	Hydrofluoric Acid	Reagent Grade	JBARNARD	12/9/2010
008973D16	Lead Carrier	40 mg/ml	JBARNARD	12/9/2010
010289P	Perchloric Acid	Reagent Grade	JBARNARD	12/9/2010
010123S	Phenolphthalein Indicator	0.1%	JBARNARD	12/9/2010
009383P	Potassium Sulfate	Reagent Grade	JBARNARD	12/9/2010
006799P	Sulfuric Acid	Reagent Grade	JBARNARD	12/9/2010
010342P	Nitric Acid	Reagent Grade	JBARNARD	12/9/2010
009718D08	Barium Carrier	1 mg/ml	JBARNARD	12/9/2010
010473S	EDTA	0.25M	JBARNARD	12/9/2010
010349D01	Lead Carrier	1.5 mg/ml	TSMITH	12/10/2010
010342P	Nitric Acid	Reagent Grade	TSMITH	12/10/2010
010389S	Yttrium Carrier	9 mg/ml	TSMITH	12/10/2010
010227D09	Ammonium Sulfide	2%	TSMITH	12/10/2010
008974D06	Ammonium Oxalate	5%	TSMITH	12/13/2010
010411D01	Sodium Hydroxide	10M	TSMITH	12/13/2010
010492S	Sodium Hydroxide	18M	TSMITH	12/13/2010
010412D02	Nitric Acid	6N	TSMITH	12/13/2010
010412D01	Nitric Acid	1N	TSMITH	12/13/2010

Date	Sample #	Client	Load Time	Ct Time	Analysis	Tech
12/7/10	10 11077 Ra1 (1)	Com	1014	30 min	Ra 8	EH
12/7/10	1012005SR(1-4,6,8)	BJC	1233	2hrs	TOT Sr	ICB
12/7/10	1012015SR(2-4,6)	BJC	1236	2hrs	TOT Sr	ICB
12/7/10	1012015SR1(1)	BJC	1236	30mins	TOT Sr	ICB
12/7/10	1012005RA(2-4,6)	BJC	1717	2hrs	Ra 8 Ei	ICB
12/7/10	1012005RA1(1)	BJC	1718	30mins	Ra 8 Ei	ICB
12/7/10	1011045RA(2-4)	BJC	1719	2hrs	Ra 8 Ei	ICB
12/7/10	1011045RA1(1)	BJC	1720	30mins	Ra 8 Ei	ICB
12/8/10	Daily Bkgd / QC	Lab	0552/0515	1hr/30min	αβ	EH
12/8/10	10 11085 Np (14-18)	BJC	0831	10 min	Np	EH
12/8/10	10 12022 AB (1-4)	BJC	0835	1hr	αβ	EH
12/8/10	10 11052 RA (1-6)	Tetra Tech	1108	2hr	Ra 8	EH
12/8/10	10 12001 SR(1-5,7)	BJC	1122	2hr	SR Tot	EH
12/9/10	1011052Pb(1-6)	TetraTech	1505	2hrs	Pb 210	ICB
12/9/10	Daily Bkgd / QC	Lab	0545/0510	1hr/30min	αβ	EH
12/9/10	1012018AB(1-4)	CERAC	0954	1hr	αβ	EH
12/9/10	Ra8 Test (4-6)	Lab	1039	30 min	Ra 8	EH
12/9/10	10 11085 SY (14-20)	BJC	1155	2hr	Sr 90/Y	EH
12/9/10	RA-10 Recert (1-5)	Lab	1259	15 min	αβ	EH
12/9/10	1011096AB(1-5)	BJC	1607	30mins	αβ	ICB
12/10/10	Daily Bkgd / QC	Lab	0552/0517	1hr/30min	αβ	EH
12/10/10	1011118AB(1-5)	BJC	0715	1hr	αβ	EH
12/10/10	1011073 Ra (1-4)	State of ND	0924	2hr	Ra 8	EH
12/10/10	1011061 Ra (2-7)	MPA	0928	2hr	Ra 8	EH
12/10/10	1012023RA(1-4)	BJC	1606	2hrs	Ra 8 Ei	ICB
12/11/10	Weekly Bkgd	Lab	0743	12hrs	αβ	ICB
12/13/10	QC / Daily Bkgd	LAB	0808/0843	30min/1 HR	αβ	AG
12/13/10	1011052RB (1-6)	TETRA TECH	1113	2 HR	RA-228	AG

PB-210 NOTES

EBERLINE SERVICES

Work Order Analysis Notes

Oak Ridge Laboratory
601 Scarboro Rd.
Oak Ridge, TN 37830
Voice: 865.481.0683
www.eberlineservices.com

Internal Work Order	10-11052
Analysis Code	Pb210
Run Number	1

#	Date	Dept	User	Notes
1	12/06/10 13:58	CHEM	TSMITH	Samples were aliquoted. Added DI water and HF to samples and took to dryness. Added HNO3 and HClO4 to samples and took to dryness. Added HNO3 and HCl to samples and took to dryness. Added HCL to samples and took to dryness.
2	12/07/10 19:23	CHEM	TSMITH	Dissolved samples, transferred to centrifuge tubes, centrifuged, poured supernate into clean centrifuge tubes. Poured samples into separatory funnels, added HCl and DDTC/Chloroform to samples, shook for one minute, and drew off extractant in to labeled beakers. Repeated addition of DDTC/Chloroform and shook twice more, combining extractants.Placed beakers on hotplate and took to dryness.
3	12/08/10 14:08	CHEM	TSMITH	Added HN O3 to samples and took to dryness. Dissolved samples, transferred to centrifuge tubes. Added Bi carrier and Ammonia Hydroxide to precipitate samples, centrifgued, and discarded supernate. Dissolved precip with HCl and diluted with DI water to precipitate. Filtered samples, obtained final weights, covered with aluminum foil, and took to count room.

12-8-10
JM

EBERLINE SERVICES

Reagents Used in an Analysis

Internal Work Order	
10-11052	
Analysis Code	Run
Pb210	1

Reagent ID	Reagent Name	Reagent Concentration	Analyst ID	Date Recorded
009879P	Hydrofluoric Acid	Reagent Grade	TSMITH	12/6/2010
010289P	Perchloric Acid	Reagent Grade	TSMITH	12/6/2010
010479S	DDTC in Chloroform	0.1% DDTC	TSMITH	12/7/2010
010495S	DDTC in Chloroform	0.1% DDTC	TSMITH	12/7/2010
010031P	Ammonium Hydroxide	Reagent Grade	TSMITH	12/8/2010
010276S	Bismuth Carrier	1.0 mg/ml	TSMITH	12/8/2010
010342P	Nitric Acid	Reagent Grade	TSMITH	12/8/2010
010389S	Yttrium Carrier	9 mg/ml	TSMITH	12/8/2010
010474S	EDTA	0.25M	TSMITH	12/8/2010
010492S	Sodium Hydroxide	18M	TSMITH	12/8/2010
010107D06	Nitric Acid	6N	TSMITH	12/8/2010
010411D01	Sodium Hydroxide	10M	TSMITH	12/8/2010
010107D07	Nitric Acid	1N	TSMITH	12/8/2010
008974D06	Ammonium Oxalate	5%	TSMITH	12/8/2010
009622P	Hydrochloric Acid	Reagent Grade	TSMITH	12/8/2010

LB4110 Aqua

Date	Sample #	Client	Load Time	Ct Time	Analysis	Tech
12/7/10	10 11077 Ra1 (1)	Com	1014	30 min	Ra 8	EH
12/7/10	1012005SR(1-4,6,8)	BJC	1233	2hrs	TOT Sr	ICB
12/7/10	10120155R(2-4,6)	BJC	1236	2hrs	TOT Sr	ICB
12/7/10	10120155R1 (1)	BJC	1236	30mins	TOT Sr	ICB
12/7/10	1012005RA(2-4,6)	BJC	1717	2hrs	Ra 8 Ei	ICB
12/7/10	1012005 RA1 (1)	BJC	1718	30mins	Ra 8 Ei	ICB
12/7/10	1011045RA(2-4)	BJC	1719	2hrs	Ra 8 Ei	ICB
12/7/10	1011045RA1(1)	BJC	1720	30mins	Ra 8 Ei	ICB
12/8/10	Daily Bkgd / QC	Lab	0552/0515	1hr/30min	αβ	EH
12/8/10	10 11085 Np (14-18)	BJC	0831	10 min	Np	EH
12/8/10	10 12022 AB (1-4)	BJC	0835	1hr	αβ	EH
12/8/10	10 11052 RA (1-6)	Tetra Tech	1108	2hr	Ra 8	EH
12/8/10	10 12001 SR(1-5,7)	BJC	1122	2hr	SR Tot	EH
12/8/10	1011052Pb(1-6)	TetraTech	1505	2hrs	Pb 2W	ICB

SECTION VIII

ANALYTICAL DATA (ISOTOPIC URANIUM)

Eberline Services
Oak Ridge Laboratory
Analysis Sheet

10-11052
UUISO
Run 1

Work Order	10-11052
Analysis Code	UUISO
Run	1
Date Received	11/16/2010
Lab Deadline	12/6/2010
Client	Tetra Tech Divisions
Project	HOLLOMAN
Report Level	4
Activity Units	pCi
Aliquot Units	g
Matrix	SO
Method	EML U-02 Modified
Instrument Type	Alpha Spectroscopy
Radiometric Tracer	U-232
Radiometric Sol#	U-10a
Tracer Act (dpm/g)	19.546
Carrier	
Carrier Conc (mg/ml)	

Internal Fraction	Sample Desc	Client ID	Login CPM	Sample Date	Sample Aliquot
01	LCS	LCS		11/16/10 00:00	1.0000E+00
02	MBL	BLANK		11/16/10 00:00	1.0000E+00
03	DUP	SD27-DPT-13A	30	11/05/10 13:10	1.0350E+00
04	DO	SD27-DPT-13A	30	11/05/10 13:10	1.0003E+00
05	TRG	SD27-DPT-13B	32	11/05/10 13:20	1.0202E+00
06	TRG	SD27-DPT-13C	43	11/05/10 13:40	1.0211E+00

* SAF1 is used for Gross Alpha and all other radionuclides. SAF2 is used for Gross Beta only. ** Actual mass exceeded the calibration curve range. Results should be qualified as appropriate.

0089

10-11052
UUISO
Run 1

Internal Fraction	Sample Desc	Tracer Aliquot (g)	Tracer Total ACT (dpm)	Radiometric Tracer (pCi)	Radiometric % Rec	Grav Carrier Added (ml)	Grav Filter Tare (g)	Grav Filter Final (g)	Grav Filter Net (g)	Grav % Rec	Mean % Rec	SAF 1*	SAF 2*
01	LCS	0.6135	12.0		0.00								
02	MBL	0.6128	12.0		0.00								
03	DUP	0.6128	12.0		0.00								
04	DO	0.6117	12.0		0.00								
05	TRG	0.6118	12.0		0.00								
06	TRG	0.6119	12.0		0.00								

* SAF1 is used for Gross Alpha and all other radionuclides. SAF2 is used for Gross Beta only. ** Actual mass exceeded the calibration curve range. Results should be qualified as appropriate.

10-11052
UUISO
Run 1

Internal Fraction	Sample Desc	Rough Prep Date	Rough Prep By	Prep Date	Prep By	Sep t0 Date/Time	Sep t0 By	Sep t1 Date/Time	Sep t1 By
01	LCS			11/17/10 13:18	JBARNARD	11/23/10 10:16	JDEMELAS		
02	MBL			11/17/10 13:18	JBARNARD	11/23/10 10:16	JDEMELAS		
03	DUP			11/17/10 13:18	JBARNARD	11/23/10 10:16	JDEMELAS		
04	DO	11/17/10 09:34	KSALLINGS	11/17/10 13:18	JBARNARD	11/23/10 10:16	JDEMELAS		
05	TRG	11/17/10 09:34	KSALLINGS	11/17/10 13:18	JBARNARD	11/23/10 10:16	JDEMELAS		
06	TRG	11/17/10 09:34	KSALLINGS	11/17/10 13:18	JBARNARD	11/23/10 10:16	JDEMELAS		

* SAF1 is used for Gross Alpha and all other radionuclides. SAF2 is used for Gross Beta only. ** Actual mass exceeded the calibration curve range. Results should be qualified as appropriate.

Eberline Services
Oak Ridge Laboratory

Preliminary Data Report & Analytical Calculations

Work Order: 10-11052-UUISO-1

Client: Tetra Tech Divisions
Eberline Services Work Order: 10-11052
Analysis Code: UUISO
Run: 1

Lab Fraction	Nuclide	Sample Desc	Client Identification	Activity Units	Results	Error Estimate	MDA	LCS Known	LCS %R	LCS Flag	RPD Flag	MDA Flag	Blank Flag
01	U-234	LCS	LCS	pCi/g	7.58E+00	1.27E+00	3.42E-02	8.14E+00	93.13	OK		OK	
02	U-234	MBL	BLANK	pCi/g	6.51E-02	6.81E-02	1.05E-01					OK	INV
03	U-234	DUP	SD27-DPT-13A	pCi/g	2.98E-01	1.31E-01	6.74E-02				OK	OK	
04	U-234	DO	SD27-DPT-13A	pCi/g	2.81E-01	1.36E-01	1.03E-01					OK	
05	U-234	TRG	SD27-DPT-13B	pCi/g	6.14E-01	2.02E-01	7.06E-02					OK	
06	U-234	TRG	SD27-DPT-13C	pCi/g	3.42E-01	1.41E-01	5.82E-02					OK	

Preliminary Data Report & Analytical Calculations
Work Order: 10-11052-UUISO-1

Client: Tetra Tech Divisions
Eberline Services Work Order: 10-11052
Analysis Code: UUISO
Run: 1

Lab Fraction	Nuclide	Sample Desc	Sample Date	Sample Aliquot	Radiometric % Rec	Grav % Rec	Mean % Rec	SAF	Sep t0 Date/Time	Sep t1 Date/Time
01	U-234	LCS	11/16/10 00:00	1.00E+00	114.65	0.00	0.00		11/23/2010 10:16	
02	U-234	MBL	11/16/10 00:00	1.00E+00	107.36	0.00	0.00		11/23/2010 10:16	
03	U-234	DUP	11/05/10 13:10	1.04E+00	110.49	0.00	0.00		11/23/2010 10:16	
04	U-234	DO	11/05/10 13:10	1.00E+00	93.95	0.00	0.00		11/23/2010 10:16	
05	U-234	TRG	11/05/10 13:20	1.02E+00	107.72	0.00	0.00		11/23/2010 10:16	
06	U-234	TRG	11/05/10 13:40	1.02E+00	100.97	0.00	0.00		11/23/2010 10:16	

Preliminary Data Report & Analytical Calculations
Work Order: 10-11052-UUISO-1

Client: Tetra Tech Divisions
Eberline Services Work Order: 10-11052
Analysis Code: UUISO
Run: 1

Lab Fraction	Nuclide	Sample Desc	Counting Date/Time	Halflife (days)	Detect	Carrier	Count Time	Counts	Bkg CPM	Eff
01	U-234	LCS	11/23/10 11:11		A_Spec	47	170	5.88 E+02	0.00 E+00	18
02	U-234	MBL	11/23/10 11:11		A_Spec	48	170	4.81 E+00	7.00 E-03	18.3
03	U-234	DUP	11/23/10 13:37		A_Spec	3	170.1	2.37 E+01	2.00 E-03	18.5
04	U-234	DO	11/23/10 13:38		A_Spec	4	170.07	2.00 E+01	6.00 E-03	20.1
05	U-234	TRG	11/23/10 13:38		A_Spec	5	170.07	4.67 E+01	2.00 E-03	18.3
06	U-234	TRG	11/23/10 13:38		A_Spec	10	170.03	2.68 E+01	1.00 E-03	20.2

Eberline Services
Oak Ridge Laboratory

Preliminary Data Report & Analytical Calculations

Work Order: 10-11052-UUISO-1

Client	Eberline Services Work Order	Analysis Code	Run
Tetra Tech Divisions	10-11052	UUISO	1

Lab Fraction	Nuclide	Sample Desc	Client Identification	Activity Units	Results	Error Estimate	MDA	LCS Known	LCS %R	LCS Flag	RPD Flag	MDA Flag	Blank Flag
01	U-238	LCS	LCS	pCi/g	7.73E+00	1.29E+00	5.86E-02	7.94E+00	97.37	OK		OK	
02	U-238	MBL	BLANK	pCi/g	4.05E-02	4.71E-02	3.57E-02					OK	INV
03	U-238	DUP	SD27-DPT-13A	pCi/g	2.98E-01	1.30E-01	5.72E-02				INV	OK	
04	U-238	DO	SD27-DPT-13A	pCi/g	1.54E-01	1.00E-01	1.03E-01					OK	
05	U-238	TRG	SD27-DPT-13B	pCi/g	3.10E-01	1.36E-01	7.03E-02					OK	
06	U-238	TRG	SD27-DPT-13C	pCi/g	2.66E-01	1.23E-01	3.36E-02					OK	

Preliminary Data Report & Analytical Calculations

Work Order: 10-11052-UUISO-1

Client: Tetra Tech Divisions
Eberline Services Work Order: 10-11052
Analysis Code: UUISO
Run: 1

Lab Fraction	Nuclide	Sample Desc	Sample Date	Sample Aliquot	Radiometric % Rec	Grav % Rec	Mean % Rec	SAF	Sep t0 Date/Time	Sep t1 Date/Time
01	U-238	LCS	11/16/10 00:00	1.00E+00	114.65	0.00	0.00		11/23/2010 10:16	
02	U-238	MBL	11/16/10 00:00	1.00E+00	107.36	0.00	0.00		11/23/2010 10:16	
03	U-238	DUP	11/05/10 13:10	1.04E+00	110.49	0.00	0.00		11/23/2010 10:16	
04	U-238	DO	11/05/10 13:10	1.00E+00	93.95	0.00	0.00		11/23/2010 10:16	
05	U-238	TRG	11/05/10 13:20	1.02E+00	107.72	0.00	0.00		11/23/2010 10:16	
06	U-238	TRG	11/05/10 13:40	1.02E+00	100.97	0.00	0.00		11/23/2010 10:16	

Preliminary Data Report & Analytical Calculations
Work Order: 10-11052-UUISO-1

Client	Eberline Services Work Order	Analysis Code	Run
Tetra Tech Divisions	10-11052	UUISO	1

Lab Fraction	Nuclide	Sample Desc	Counting Date/Time	Halflife (days)	Detect	Carrier	Count Time	Counts	Bkg CPM	Eff
01	U-238	LCS	11/23/10 11:11		A_Spec	47	170	6.02 E+02	1.00 E-03	18
02	U-238	MBL	11/23/10 11:11		A_Spec	48	170	3.00 E+00	0.00 E+00	18.3
03	U-238	DUP	11/23/10 13:37		A_Spec	3	170.1	2.38 E+01	1.00 E-03	18.5
04	U-238	DO	11/23/10 13:38		A_Spec	4	170.07	1.10 E+01	6.00 E-03	20.1
05	U-238	TRG	11/23/10 13:38		A_Spec	5	170.07	2.37 E+01	2.00 E-03	18.3
06	U-238	TRG	11/23/10 13:38		A_Spec	10	170.03	2.10 E+01	0.00 E+00	20.2

Eberline Services
Oak Ridge Laboratory

Preliminary Data Report & Analytical Calculations

Work Order: 10-11052-UUISO-1

Client: Tetra Tech Divisions
Eberline Services Work Order: 10-11052
Analysis Code: UUISO
Run: 1

Lab Fraction	Nuclide	Sample Desc	Client Identification	Activity Units	Results	Error Estimate	MDA	LCS Known	LCS %R	LCS Flag	RPD Flag	MDA Flag	Blank Flag
01	U-235	LCS	LCS	pCi/g	3.92E-01	1.69E-01	8.53E-02					OK	
02	U-235	MBL	BLANK	pCi/g	8.07E-02	7.59E-02	7.63E-02					OK	INV
03	U-235	DUP	SD27-DPT-13A	pCi/g	4.96E-03	3.28E-02	1.01E-01				NA	OK	
04	U-235	DO	SD27-DPT-13A	pCi/g	8.50E-03	3.62E-02	1.04E-01					OK	
05	U-235	TRG	SD27-DPT-13B	pCi/g	2.42E-02	4.71E-02	9.70E-02					OK	
06	U-235	TRG	SD27-DPT-13C	pCi/g	1.30E-02	3.19E-02	7.18E-02					OK	

0098

Preliminary Data Report & Analytical Calculations
Work Order: 10-11052-UUISO-1

Client: Tetra Tech Divisions
Eberline Services Work Order: 10-11052
Analysis Code: UUISO
Run: 1

Lab Fraction	Nuclide	Sample Desc	Sample Date	Sample Aliquot	Radiometric % Rec	Grav % Rec	Mean % Rec	SAF	Sep t0 Date/Time	Sep t1 Date/Time
01	U-235	LCS	11/16/10 00:00	1.00E+00	114.65	0.00	0.00		11/23/2010 10:16	
02	U-235	MBL	11/16/10 00:00	1.00E+00	107.36	0.00	0.00		11/23/2010 10:16	
03	U-235	DUP	11/05/10 13:10	1.04E+00	110.49	0.00	0.00		11/23/2010 10:16	
04	U-235	DO	11/05/10 13:10	1.00E+00	93.95	0.00	0.00		11/23/2010 10:16	
05	U-235	TRG	11/05/10 13:20	1.02E+00	107.72	0.00	0.00		11/23/2010 10:16	
06	U-235	TRG	11/05/10 13:40	1.02E+00	100.97	0.00	0.00		11/23/2010 10:16	

Preliminary Data Report & Analytical Calculations

Work Order: 10-11052-UUISO-1

Client	Eberline Services Work Order	Analysis Code	Run
Tetra Tech Divisions	10-11052	UUISO	1

Lab Fraction	Nuclide	Sample Desc	Counting Date/Time	Halflife (days)	Detect	Carrier	Count Time	Counts	Bkg CPM	Eff
01	U-235	LCS	11/23/10 11:11		A_Spec	47	170	2.47 E+01	2.00 E-03	18
02	U-235	MBL	11/23/10 11:11		A_Spec	48	170	4.83 E+00	1.00 E-03	18.3
03	U-235	DUP	11/23/10 13:37		A_Spec	3	170.1	3.20 E-01	4.00 E-03	18.5
04	U-235	DO	11/23/10 13:38		A_Spec	4	170.07	4.90 E-01	3.00 E-03	20.1
05	U-235	TRG	11/23/10 13:38		A_Spec	5	170.07	1.49 E+00	3.00 E-03	18.3
06	U-235	TRG	11/23/10 13:38		A_Spec	10	170.03	8.30 E-01	1.00 E-03	20.2

Count Room Report
Client: Tetra Tech Divisions

10-11052-UUISO-1 (pCi/g) in SO
Tracer ID: U-10a

2.5

47-48

3-10

Internal Fraction	Sample Desc	Client ID	Sample Date	Sample Aliquot	Tracer Aliquot (g)	Tracer ACT (dpm)	Radiometric Tracer (pCi)	Radiometric % Rec	SAF 1*	SAF 2*
01	LCS	LCS	11/16/10 00:00	1.0000	0.6135	11.9915		0.00		
02	MBL	BLANK	11/16/10 00:00	1.0000	0.6128	11.9778		0.00		
03	DUP	SD27-DPT-13A	11/05/10 13:10	1.0350	0.6128	11.9778		0.00		
04	DO	SD27-DPT-13A	11/05/10 13:10	1.0003	0.6117	11.9563		0.00		
05	TRG	SD27-DPT-13B	11/05/10 13:20	1.0202	0.6118	11.9582		0.00		
06	TRG	SD27-DPT-13C	11/05/10 13:40	1.0211	0.6119	11.9602		0.00		

Eberline Services
Oak Ridge Laboratory

Spike and Tracer Worksheet

Printed: 11/17/2010 1:18 PM

Internal Work Order	Run	Analysis Code	Date	Technician	Technician Initials	Witness Initials
10-11052	1	UUISO	11/17/2010 13:15	JBARNARD	JB	

LCS & Matrix Spikes					LCS	MS	LCSD	MSD	LCS		MS		LCSD		MSD	
Isotope	Sol #	Activity dpm/g	Solution Date	Approx Addition	Volume Used (g)	Volume Used (g)	Volume Used (g)	Volume Used (g)	Known pCi	Error Estimate	Added pCi	Error Estimate	Known pCi	Error Estimate	Added pCi	Error Estimate
U-234	U-8a	35.240	11/17/2010	0.500	0.5129				8.14	0.293	0.00	0.000	0.00	0.000	0.00	0.000
U-238	U-8a	34.350	11/17/2010	0.500	0.5129				7.94	0.286	0.00	0.000	0.00	0.000	0.00	0.000

Tracers

fraction	Isotope	Sol #	Activity dpm/g	Solution Date	Volume Used (g)	Approx Addition
01	U-232	U-10a	19.546	11/17/2010	0.6135	0.6200
02	U-232	U-10a	19.546	11/17/2010	0.6128	0.6200
03	U-232	U-10a	19.546	11/17/2010	0.6128	0.6200
04	U-232	U-10a	19.546	11/17/2010	0.6117	0.6200
05	U-232	U-10a	19.546	11/17/2010	0.6118	0.6200
06	U-232	U-10a	19.546	11/17/2010	0.6119	0.6200

Balance Printer Tapes

Tracer

0.6135 g
0.6128 g
0.6128 g
0.6117 g
0.6118 g
0.6119 g

LCS

0.5129 g

Matrix Spike

Version 2.0 08/99

0102

Eberline Analytical
Oak Ridge Laboratory

Aliquot Worksheet

Work Order	Run	Analysis Code	Rpt Units	Lab Deadline	Technician
10-11052	1	UUISO	grams	12/6/2010	DSILER

Lab Fraction	Tetra Tech Divisions Client ID	Sample Type	Muffle Data Ratio Post/Pre	Dilution Data No of Dils	Dil Factor	Ratio	Aliquot Data Aliquot	Net Equiv	MS Aliquot Data Aliquot	Net Equiv	H-3 Solids Only Water Added (ml)	H3 Dist Aliq
01	LCS	LCS					1.0000E+00	1.0000E+00				
02	BLANK	MBL					1.0000E+00	1.0000E+00				
03	SD27-DPT-13A	DUP					1.0350E+00	1.0350E+00				
04	SD27-DPT-13A	DO					1.0003E+00	1.0003E+00				
05	SD27-DPT-13B	TRG					1.0202E+00	1.0202E+00				
06	SD27-DPT-13C	TRG					1.0211E+00	1.0211E+00				

1.0350 g
1.0003 g
1.0202 g
1.0211 g

Comments	

Technician: [signature] Date: 11/17/10

0103

Eberline Services - Oak Ridge
Prep Logbook
Version 2.0 8/1999

Rough Sample Preparation Log Book

Work Order	Lab Deadline	Date Received in Prep	Date Sealed	Date Returned	Technician
10-11052	12/6/2010	11/16/2010	11/17/2010	11/18/2010	KSALLINGS

Eberline	Tetra Tech Divisions	Tare (g)	Gross (g)		Net (g)		Percent		Gamma		Special
Fraction	Client ID	Pan Wt	Wet Wt.	Dry Wt.	Wet Wt.	Dry Wt.	Liquid	Solid	Dry Wt.	LEPS Wt.	Info
04	SD27-DPT-13A	14.5700	401.9600	312.6300	387.3900	298.0600	23.06%	76.94%			
05	SD27-DPT-13B	13.6400	407.4200	313.2400	393.7800	299.6000	23.92%	76.08%			
06	SD27-DPT-13C	13.6000	487.5000	389.0100	473.9000	375.4100	20.78%	79.22%			

Comments	
Special Codes	H: Hot, O: Organic Hazard, P: PCB Hazard, R: Rush, T: Other (see comments)

Technician: Kenny Sallings

Date: Analysis: Rough Prep Logbook

Analysis: UUISO Page No. 7309

Eberline Services
Oak Ridge Laboratory

ALPHA SPECTROMETRY REPORT
23-NOV-2010 17:05:07

****
Spectral File: ND_AMS_ARCHIVE_C:C_1011052A-UU$01_UU.CNF
****

BATCH ID:	1011052A-UU	SAMPLE ID:	01
SAMPLE DATE:	23-NOV-2010 00:00	ALIQUOT:	1.000E+00 gram
SAMPLE TITLE:	SPIKE	DETECTOR NUMBER:	047
ACQ DATE:	23-NOV-2010 11:11	AVERAGE EFFICIENCY:	17.96%
ELAPSED LIVE TIME:	10200.	RECOVERY:	114.65%
TRACER ID:	UU-10A	TRACER FWHM (kev):	75.76
LAMBDA VALUE:	613.	ROI TYPE:	STANDARD
TRACER DPM AT SAMPLE DATE:	11.990	CONFIDENCE FACTOR:	4.65
SAMPLE MATRIX:	SOIL	LLD CONSTANT:	2.65
ENERGY CAL DATE:	19-NOV-2010 11:22	EFF CAL DATE:	14-NOV-2010 09:46
BKG FILENAME:	B_047_19NOV10	BKG ELAPSED TIME:	60000.

****

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	NET AREA	BKG	%ABN	ACTIVITY pCi/ gram	TPU/ERROR 2-SIGMA	MDC pCi/ gram
U232	5302.5	418.83	0.17	99.8	5.401E+00	6.937E-01	5.889E-02
U-234	4761.5	588.00	0.00	99.8	7.582E+00	1.272E+00	3.417E-02
U-235	4385.5	24.66	0.34	80.9	3.923E-01	1.692E-01	8.529E-02
U-238	4184.4	601.83	0.17	100.2	7.727E+00	1.292E+00	5.864E-02

****

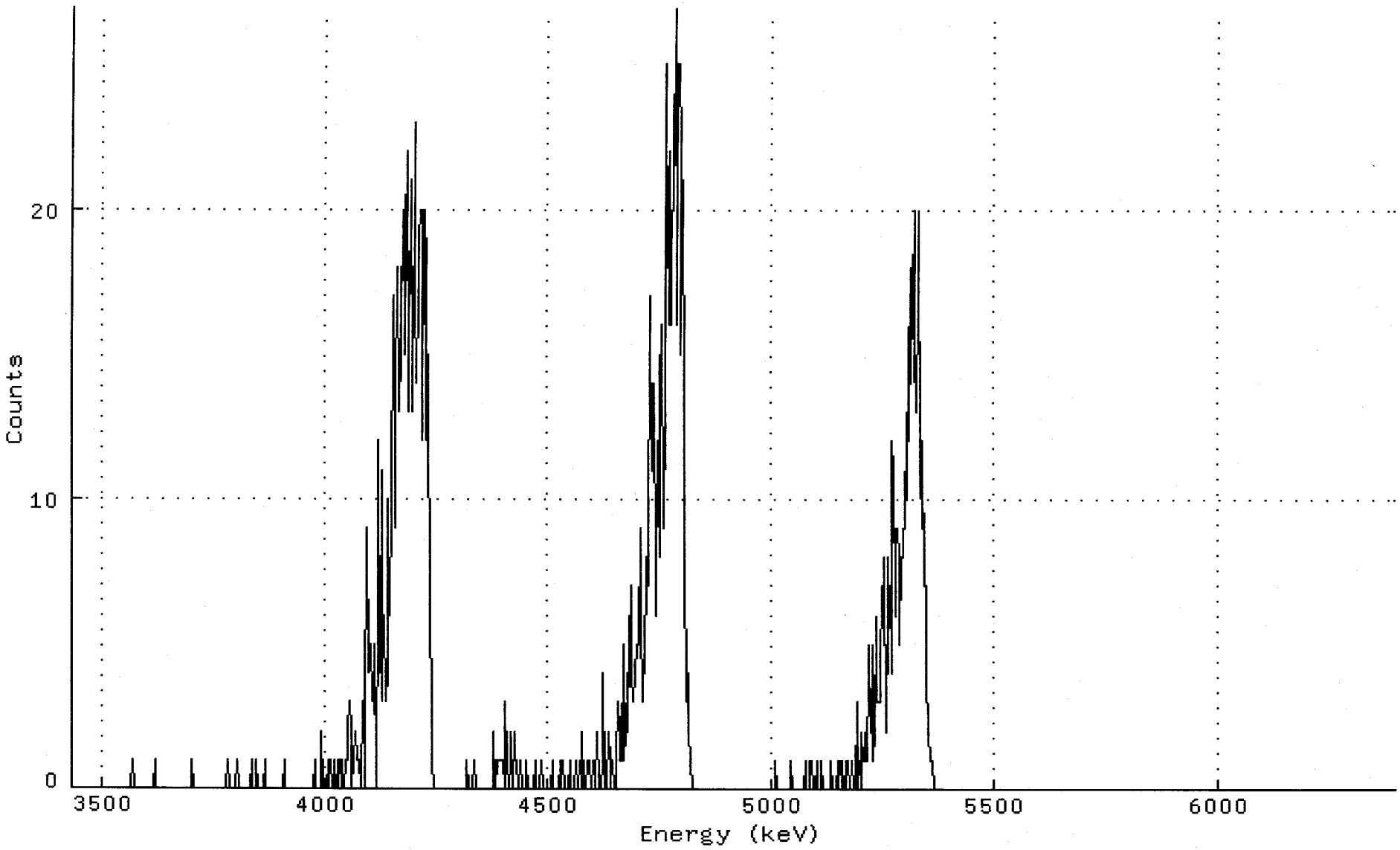
JC Bannister
Analyst

11/23/10
Date

Dan Megeby
Reviewer

11/24/10
Date

Spectrum : DKA100:[ALPHA.ALUSR.ARCHIVE.C]C_1011052A-UU$01_UU.CNF;1
Title : 047
Sample Title: SPIKE
Start Time: 23-NOV-2010 11:11 Sample Time: 23-NOV-2010 00:00 Energy Offset: 3.42008E+03
Real Time : 0 02:50:00.10 Sample ID : 01 Energy Slope : 3.07477E+00
Live Time : 0 02:50:00.00 Sample Type: UU Energy Quad : -1.67920E-04



0106

Channel Contents for ND_AMS_ARCHIVE_C:C_1011052A-UU$01_UU

Channel

1:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	1	0	0	0	0	0	0	0	0
57:	0	0	0	0	0	0	0	1	0	0	0	0	0	0
71:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85:	0	0	0	0	0	0	0	1	0	0	0	0	0	0
99:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113:	0	0	0	0	0	1	0	0	0	0	0	0	1	0
127:	0	0	0	0	0	0	0	0	0	1	0	0	0	1
141:	0	0	0	0	0	1	0	0	0	0	0	0	0	0
155:	0	0	0	0	0	1	0	0	0	0	0	0	0	0
169:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
183:	1	0	0	0	0	2	0	0	0	0	1	0	1	0
197:	1	0	0	1	0	1	1	0	0	1	1	2	3	2
211:	0	1	2	2	1	1	0	0	3	0	2	9	4	4
225:	5	3	3	5	0	7	12	4	11	3	6	3	4	10
239:	6	10	9	17	9	13	18	13	15	16	20	15	19	22
253:	13	16	21	13	23	17	14	17	19	20	20	12	20	18
267:	12	15	5	4	1	0	0	0	0	0	0	0	0	0
281:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
295:	0	0	1	0	0	0	0	1	0	0	0	0	0	0
309:	0	0	0	0	0	0	0	0	2	0	1	1	1	1
323:	1	1	0	3	1	0	1	2	0	2	1	1	0	0
337:	1	0	0	0	0	1	0	0	0	0	0	1	0	0
351:	0	0	1	0	0	0	0	0	0	0	1	0	0	0
365:	0	0	1	0	1	0	0	0	0	1	0	0	0	0
379:	1	0	0	1	0	2	0	0	0	1	1	0	0	1
393:	0	0	2	0	1	0	1	4	0	0	0	2	1	0
407:	1	0	0	1	3	2	1	1	5	1	2	4	2	5
421:	7	4	3	4	5	5	5	9	6	3	6	4	8	8
435:	7	17	11	14	14	7	6	12	8	14	16	9	13	25
449:	18	22	16	16	24	20	27	16	25	25	22	15	21	13
463:	8	3	4	2	1	0	0	0	0	0	0	0	0	0
477:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
491:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
505:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
519:	0	0	0	0	0	0	0	0	0	0	0	0	0	1
533:	0	0	0	0	0	0	0	0	0	0	0	1	0	0
547:	0	0	0	0	0	0	0	0	1	0	0	0	1	1
561:	0	0	0	1	0	0	0	1	0	0	0	0	0	0
575:	1	0	0	0	0	1	0	1	1	0	0	1	0	1
589:	0	0	1	0	0	0	3	0	1	0	2	1	2	1
603:	1	4	5	2	5	1	2	6	3	3	3	4	7	5
617:	8	2	8	4	7	4	12	11	6	9	9	8	5	8
631:	8	9	9	13	10	14	18	14	17	20	15	13	17	20
645:	11	9	12	7	7	4	2	1	1	1	0	0	0	0
659:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
673:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
687:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
701:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
715:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
729:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
743:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
757:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
771:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
785:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
799:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
813:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
827:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
841:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
855:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
869:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
883:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
897:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
911:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
939:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
953:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
967:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
981:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
995:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1009:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1023:	0	0												

Eberline Services
Oak Ridge Laboratory

Gross Sample Counts Within Peak Regions Generated: 23-NOV-2010 17:04:56.87

Detector ID: 47 Acquisition Start: 23-NOV-2010 11:11:19.01
Live Time: 0 02:50:00.00 Real Time: 0 02:50:00.10
Batch Id: 1011052A-UU Sample Id: 01
Sample Type: UU

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4175.33	602	0	115.09	249.01	191	91	5.90E-02	4.1	
2	0	4406.62	25	0	48.37	326.68	291	68	2.45E-03	20.0	
3	0	4755.49	588	0	80.79	445.13	392	83	5.76E-02	4.1	
4	0	5293.68	419	0	75.76	631.10	581	77	4.11E-02	4.9	

Background Counts Within Peak Regions Generated: 23-NOV-2010 17:05:04.13

Acquisition Start: 19-NOV-2010 17:34:26.01
Live Time: 0 16:40:00.00 Real Time: 0 16:40:00.00

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4136.37	1	0	3.07	236.00	191	91	1.67E-05	100.0	
2	0	4400.16	2	0	159.89	324.50	291	68	3.33E-05	70.7	
3	0	4719.97	0	0	0.00	433.00	392	83	0.00E+00	0.0	
4	0	5259.02	1	0	3.07	619.00	581	77	1.67E-05	100.0	

Net Sample Counts Within Peak Regions Generated: 23-NOV-2010 17:05:04.51

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4175.33*	602	0	115.09	249.01	191	91	5.90E-02	4.1	
2	0	4406.62*	25	0	48.37	326.68	291	68	2.42E-03	20.3	
3	0	4755.49*	588	0	80.79	445.13	392	83	5.76E-02	4.1	
4	0	5293.68*	419	0	75.76	631.10	581	77	4.11E-02	4.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.0 Generated 23-NOV-2010 17:05:06

Configuration	: MCA0:[AMSCOUNT]0000B4BC$1		
Analyses by	: ROIPEAK V1.2,PEAKEFF V2.2,ENBACK V1.6,NID V3.3		
Sample title	: SPIKE		
Sample date	: 23-NOV-2010 00:00:00	Acquisition date	: 23-NOV-2010 11:11:19
Sample ID	: 01	Sample quantity	: 1.0000 gram
Sample type	: UU	Sample geometry	:
Detector name	: 047	Detector geometry	:
Elapsed live time	: 0 02:50:00.00	Elapsed real time	: 0 02:50:00.10 0.0%
Energy tolerance	: 100.00 keV	Half life ratio	: 8.00
Errors propagated	: Yes	Systematic Error	: 3.00 %
Efficiency type	: Average value	Efficiencies at	: Peak Energy
Abundance limit	: 75.00		

Post-NID Peak Search Report

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity pCi/gram
0	4175.33*	602	115.09	249.01	191	91	8.2		U-238	8.86
0	4406.62*	25	48.37	326.68	291	68	40.6		U-235	0.450
0	4755.49*	588	80.79	445.13	392	83	8.2		U-234	8.69
0	5293.68*	419	75.76	631.10	581	77	9.8		U232	6.19

Eberline Services
Oak Ridge Laboratory

ALPHA SPECTROMETRY REPORT
23-NOV-2010 17:05:21

****
Spectral File: ND_AMS_ARCHIVE_R:R_1011052A-UU$02_UU.CNF
****

BATCH ID:	1011052A-UU	SAMPLE ID:	02
SAMPLE DATE:	23-NOV-2010 00:00	ALIQUOT:	1.000E+00 gram
SAMPLE TITLE:	BLANK	DETECTOR NUMBER:	048
ACQ DATE:	23-NOV-2010 11:11	AVERAGE EFFICIENCY:	18.26%
ELAPSED LIVE TIME:	10200.	RECOVERY:	107.36%
TRACER ID:	UU-10A	TRACER FWHM (kev):	68.90
LAMBDA VALUE:	613.	ROI TYPE:	STANDARD
TRACER DPM AT SAMPLE DATE:	11.976	CONFIDENCE FACTOR:	4.65
SAMPLE MATRIX:	SOIL	LLD CONSTANT:	2.65
ENERGY CAL DATE:	19-NOV-2010 11:23	EFF CAL DATE:	14-NOV-2010 09:46
BKG FILENAME:	B_048_19NOV10	BKG ELAPSED TIME:	60000.

****

NUCLIDE ACTIVITY SUMMARY

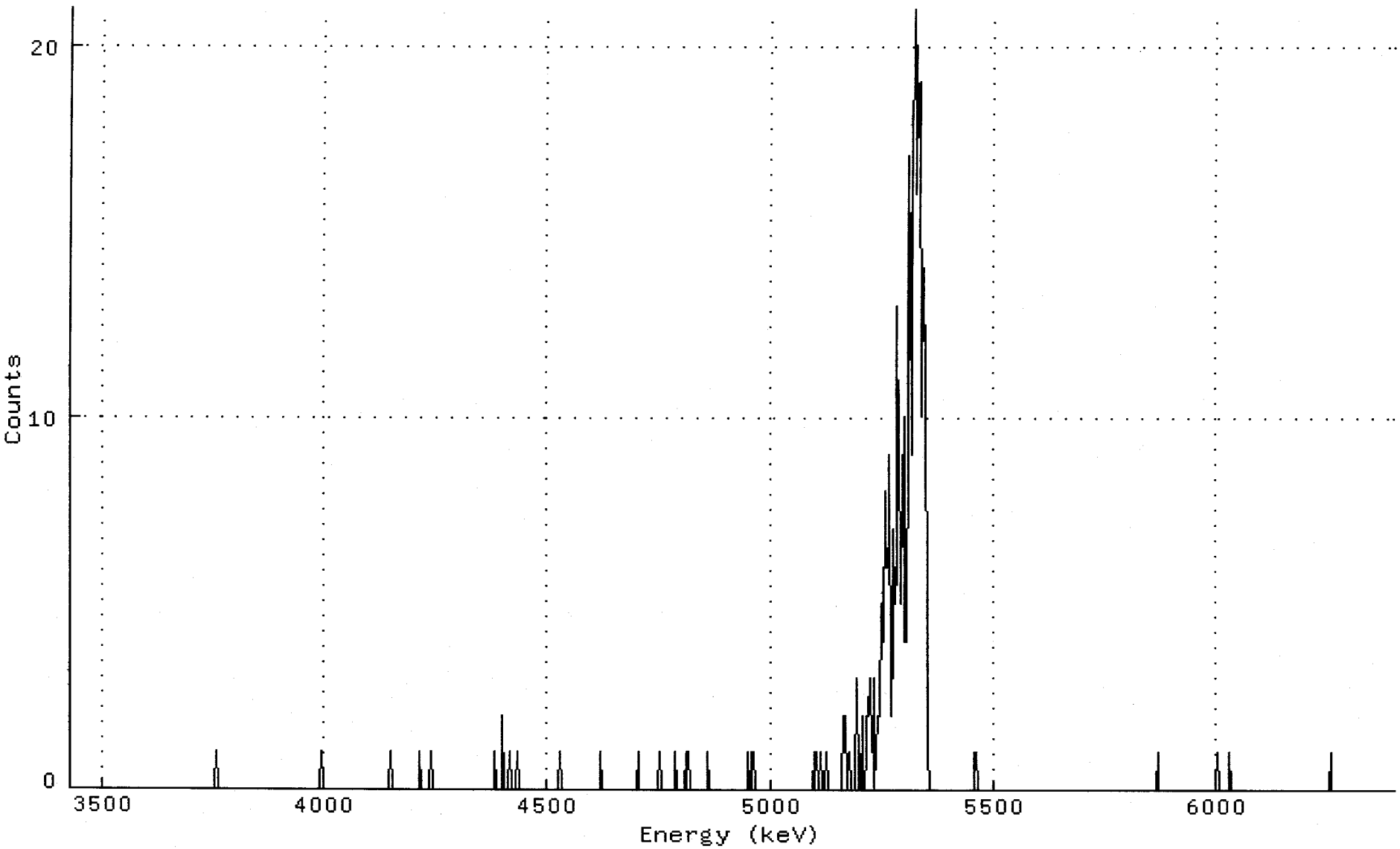
NUCLIDE	ENERGY	NET AREA	BKG	%ABN	ACTIVITY pCi/ gram	TPU/ERROR 2-SIGMA	MDC pCi/ gram
U232	5302.5	398.32	0.68	99.8	5.395E+00	7.034E-01	8.782E-02
U-234	4761.5	4.81	1.19	99.8	6.514E-02	6.814E-02	1.046E-01
U-235	4385.5	4.83	0.17	80.9	8.070E-02	7.588E-02	7.631E-02
U-238	4184.4	3.00	0.00	100.2	4.046E-02	4.709E-02	3.574E-02

****

Analyst — Date 11/23/10

Reviewer — Date 11/24/10

Spectrum : DKA100:[ALPHA.ALUSR.ARCHIVE.R]R_1011052A-UU$02_UU.CNF;1
Title : 048
Sample Title: BLANK
Start Time: 23-NOV-2010 11:11 Sample Time: 23-NOV-2010 00:00 Energy Offset: 3.41881E+03
Real Time : 0 02:50:00.20 Sample ID : 02 Energy Slope : 3.07189E+00
Live Time : 0 02:50:00.00 Sample Type: UU Energy Quad : -1.62701E-04



0111

Channel Contents for ND_AMS_ARCHIVE_R:R_1011052A-UU$02_UU

Channel

1:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99:	0	0	0	0	0	0	0	0	0	0	0	0	1	0
113:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
127:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
155:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
169:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
183:	0	0	0	0	0	0	1	1	0	0	0	0	0	0
197:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
211:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
225:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
239:	0	0	1	0	0	0	0	0	0	0	0	0	0	0
253:	0	0	0	0	0	0	0	0	0	0	1	0	0	0
267:	0	0	0	0	1	0	0	0	0	0	0	0	0	0
281:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
295:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
309:	0	0	0	0	0	0	0	0	0	0	1	0	0	0
323:	0	0	2	0	0	0	0	1	0	0	0	0	0	1
337:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
351:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
365:	0	0	0	1	0	0	0	0	0	0	0	0	0	0
379:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
393:	0	0	0	0	0	0	1	0	0	0	0	0	0	0
407:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
421:	0	0	0	0	0	0	1	0	0	0	0	0	0	0
435:	0	0	0	0	0	0	0	0	0	1	0	0	0	0
449:	0	0	0	0	0	0	0	1	0	0	0	0	0	0
463:	0	1	0	1	0	0	0	0	0	0	0	0	0	0
477:	0	0	0	0	1	0	0	0	0	0	0	0	0	0
491:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
505:	0	0	0	0	0	0	0	1	0	0	1	1	0	0
519:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
533:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
547:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
561:	0	0	1	0	1	0	0	1	0	0	0	1	0	0
575:	0	0	0	0	0	0	0	0	0	0	2	2	2	0
589:	0	1	0	0	0	0	0	3	0	1	0	2	0	0
603:	1	2	2	3	3	1	3	0	1	2	2	2	5	4
617:	4	8	6	6	7	9	2	4	7	5	6	13	9	6
631:	5	9	4	10	4	10	17	14	9	16	21	16	20	18
645:	17	19	10	14	14	11	4	1	0	0	0	0	0	0
659:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
673:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
687:	0	1	1	0	0	0	0	0	0	0	0	0	0	0
701:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
715:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
729:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
743:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
757:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
771:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
785:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
799:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
813:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
827:	0	0	0	0	0	0	1	0	0	0	0	0	0	0
841:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
855:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
869:	0	0	0	0	0	0	0	0	0	0	0	0	1	0
883:	0	0	0	0	0	0	0	0	1	0	0	0	0	0
897:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
911:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
939:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
953:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
967:	0	0	0	0	0	1	0	0	0	0	0	0	0	0
981:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
995:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1009:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1023:	0	0												

Eberline Services
Oak Ridge Laboratory

Gross Sample Counts Within Peak Regions Generated: 23-NOV-2010 17:05:14.13

Detector ID: 48 Acquisition Start: 23-NOV-2010 11:11:36.01
Live Time: 0 02:50:00.00 Real Time: 0 02:50:00.20
Batch Id: 1011052A-UU Sample Id: 02
Sample Type: UU

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4201.52	3	0	95.23	258.33	191	91	2.94E-04	57.7	
2	0	4405.92	5	0	3.07	327.00	291	69	4.90E-04	44.7	
3	0	4746.75	6	0	208.89	442.67	393	83	5.88E-04	40.8	
4	0	5300.12	399	0	68.90	633.70	581	77	3.91E-02	5.0	

Background Counts Within Peak Regions Generated: 23-NOV-2010 17:05:19.32

Acquisition Start: 19-NOV-2010 17:34:28.01
Live Time: 0 16:40:00.00 Real Time: 0 16:40:00.10

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4134.71	0	0	0.00	236.00	191	91	0.00E+00	0.0	
2	0	4399.99	1	0	3.07	325.00	291	69	1.67E-05	100.0	
3	0	4721.36	7	0	181.24	434.00	393	83	1.17E-04	37.8	
4	0	5257.97	4	0	181.24	619.00	581	77	6.67E-05	50.0	

Net Sample Counts Within Peak Regions Generated: 23-NOV-2010 17:05:19.61

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4201.52*	3	0	95.23	258.33	191	91	2.94E-04	57.7	
2	0	4405.92*	5	0	3.07	327.00	291	69	4.74E-04	46.4	
3	0	4746.75*	5	0	208.89	442.67	393	83	4.72E-04	51.8	
4	0	5300.12*	398	0	68.90	633.70	581	77	3.91E-02	5.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.0 Generated 23-NOV-2010 17:05:20

Configuration	: MCA0:[AMSCOUNT]0000B4BC$1		
Analyses by	: ROIPEAK V1.2,PEAKEFF V2.2,ENBACK V1.6,NID V3.3		
Sample title	: BLANK		
Sample date	: 23-NOV-2010 00:00:00	Acquisition date	: 23-NOV-2010 11:11:36
Sample ID	: 02	Sample quantity	: 1.0000 gram
Sample type	: UU	Sample geometry	:
Detector name	: 048	Detector geometry	:
Elapsed live time	: 0 02:50:00.00	Elapsed real time	: 0 02:50:00.20 0.0%
Energy tolerance	: 100.00 keV	Half life ratio	: 8.00
Errors propagated	: Yes	Systematic Error	: 3.00 %
Efficiency type	: Average value	Efficiencies at	: Peak Energy
Abundance limit	: 75.00		

Post-NID Peak Search Report

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity pCi/gram
0	4201.52*	3	95.23	258.33	191	91	115.5		U-238	4.343E-02
0	4405.92*	5	3.07	327.00	291	69	92.9		U-235	8.664E-02
0	4746.75*	5	208.89	442.67	393	83	103.6		U-234	6.994E-02
0	5300.12*	398	68.90	633.70	581	77	10.0		U232	5.79

Eberline Services
Oak Ridge Laboratory

ALPHA SPECTROMETRY REPORT
23-NOV-2010 17:05:42

****
Spectral File: ND_AMS_ARCHIVE_S:S_1011052A-UU$03_UU.CNF
****

BATCH ID:	1011052A-UU	SAMPLE ID:	03
SAMPLE DATE:	5-NOV-2010 00:00	ALIQUOT:	1.035E+00 gram
SAMPLE TITLE:	SD27-DPT-13A	DETECTOR NUMBER:	003
ACQ DATE:	23-NOV-2010 13:37	AVERAGE EFFICIENCY:	18.45%
ELAPSED LIVE TIME:	10206.	RECOVERY:	110.49%
TRACER ID:	UU-10A	TRACER FWHM (kev):	69.94
LAMBDA VALUE:	613.	ROI TYPE:	STANDARD
TRACER DPM AT SAMPLE DATE:	11.982	CONFIDENCE FACTOR:	4.65
SAMPLE MATRIX:	SOIL	LLD CONSTANT:	2.65
ENERGY CAL DATE:	19-NOV-2010 06:06	EFF CAL DATE:	11-NOV-2010 16:31
BKG FILENAME:	B_003_19NOV10	BKG ELAPSED TIME:	60004.

****

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	NET AREA	BKG	%ABN	ACTIVITY pCi/ gram	TPU/ERROR 2-SIGMA	MDC pCi/ gram
U232	5302.5	414.49	0.51	99.8	5.215E+00	6.672E-01	7.509E-02
U-234	4761.5	23.66	0.34	99.8	2.975E-01	1.307E-01	6.743E-02
U-235	4385.5	0.32	0.68	80.9	4.959E-03	3.278E-02	1.006E-01
U-238	4184.4	23.83	0.17	100.2	2.984E-01	1.301E-01	5.719E-02

****

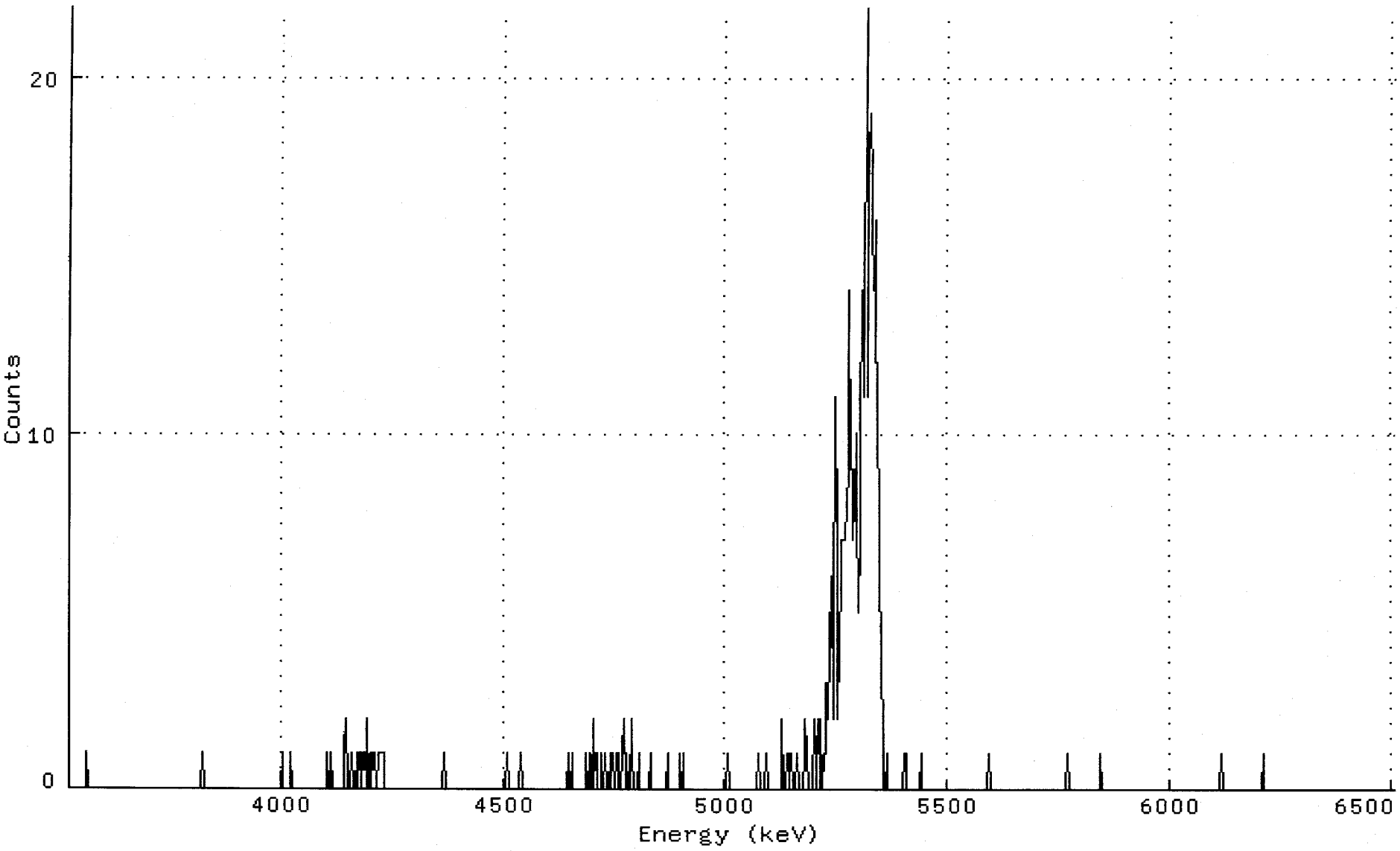
JCBannister
Analyst

11/23/10
Date

Dan Gregory
Reviewer

11/24/10
Date

Spectrum : DKA100:[ALPHA.ALUSR.ARCHIVE.S]S_1011052A-UU$03_UU.CNF;1
Title : 003
Sample Title: SD27-DPT-13A
Start Time: 23-NOV-2010 13:37 Sample Time: 5-NOV-2010 00:00: Energy Offset: 3.51107E+03
Real Time : 0 02:50:06.00 Sample ID : 03 Energy Slope : 3.07206E+00
Live Time : 0 02:50:06.00 Sample Type: UU Energy Quad : -1.46841E-04



Channel Contents for ND_AMS_ARCHIVE_S:S_1011052A-UU$03_UU

Channel

1:	10206	10206	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	1	0	0	0	0	0	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99:	0	0	0	1	0	0	0	0	0	0	0	0	0	0
113:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
127:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
155:	0	0	0	0	0	0	1	0	0	0	0	0	0	1
169:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
183:	0	0	0	0	0	0	0	0	0	0	0	0	1	0
197:	0	1	0	0	0	0	0	0	0	0	0	1	2	0
211:	0	0	1	0	0	0	1	0	1	1	0	1	1	0
225:	2	0	1	0	1	1	1	0	1	1	1	1	1	0
239:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
267:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
281:	0	1	0	0	0	0	0	0	0	0	0	0	0	0
295:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
309:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
323:	0	0	0	0	0	0	0	1	0	0	0	0	0	0
337:	0	0	0	1	0	0	0	0	0	0	0	0	0	0
351:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
365:	0	0	0	0	0	0	0	0	0	0	0	1	0	0
379:	1	0	0	0	0	0	0	0	0	0	0	1	0	1
393:	0	0	2	0	1	1	0	0	0	1	0	1	0	0
407:	0	1	0	1	0	0	1	1	0	0	1	1	2	0
421:	1	0	0	2	1	0	0	0	0	1	0	0	0	0
435:	0	0	0	0	1	0	0	0	0	0	0	0	0	0
449:	0	0	0	1	0	0	0	0	0	0	0	0	0	1
463:	0	1	0	0	0	0	0	0	0	0	0	0	0	0
477:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
491:	0	0	0	0	0	0	0	1	0	0	0	0	0	0
505:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
519:	0	0	0	1	0	0	0	0	0	1	0	0	0	0
533:	0	0	0	0	0	0	0	2	0	0	0	1	0	1
547:	1	0	0	0	1	1	0	0	0	0	1	2	1	0
561:	0	0	0	0	2	0	1	2	0	2	0	1	1	3
575:	2	4	4	6	2	4	11	7	2	4	6	7	7	7
589:	7	8	9	14	9	9	7	8	10	8	5	7	10	14
603:	13	11	22	11	18	19	17	16	14	16	12	12	6	6
617:	4	1	0	0	1	0	0	0	0	0	0	0	0	0
631:	0	0	0	0	1	1	0	0	0	0	0	0	0	0
645:	0	0	0	1	0	0	0	0	0	0	0	0	0	0
659:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
673:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
687:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
701:	1	0	0	0	0	0	0	0	0	0	0	0	0	0
715:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
729:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
743:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
757:	0	0	0	0	0	0	1	0	0	0	0	0	0	0
771:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
785:	0	0	0	0	1	0	0	0	0	0	0	0	0	0
799:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
813:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
827:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
841:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
855:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
869:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
883:	0	0	1	0	0	0	0	0	0	0	0	0	0	0
897:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
911:	0	0	0	0	0	0	0	1	0	0	0	0	0	0
925:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
939:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
953:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
967:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
981:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
995:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1009:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1023:	0	0												

Eberline Services
Oak Ridge Laboratory

Gross Sample Counts Within Peak Regions Generated: 23-NOV-2010 17:05:27.05

Detector ID: 3 Acquisition Start: 23-NOV-2010 13:37:49.01
Live Time: 0 02:50:06.00 Real Time: 0 02:50:06.00
Batch Id: 1011052A-UU Sample Id: 03
Sample Type: UU

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4170.29	24	0	53.67	216.83	160	91	2.35E-03	20.4	
2	0	4365.71	1	0	3.07	282.00	260	68	9.80E-05	100.0	
3	0	4742.11	24	0	93.70	408.71	361	82	2.35E-03	20.4	
4	0	5296.93	415	0	69.94	598.44	548	76	4.07E-02	4.9	

Background Counts Within Peak Regions Generated: 23-NOV-2010 17:05:40.16

Acquisition Start: 19-NOV-2010 17:33:09.01
Live Time: 0 16:40:04.00 Real Time: 0 16:40:04.00

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4134.67	1	0	3.07	205.00	160	91	1.67E-05	100.0	
2	0	4400.07	4	0	132.10	293.50	260	68	6.67E-05	50.0	
3	0	4720.83	2	0	104.45	401.50	361	82	3.33E-05	70.7	
4	0	5259.42	3	0	190.47	585.50	548	76	5.00E-05	57.7	

Net Sample Counts Within Peak Regions Generated: 23-NOV-2010 17:05:40.46

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4170.29*	24	0	53.67	216.83	160	91	2.33E-03	20.6	
2	0	4365.71*	0	0	3.07	282.00	260	68	3.13E-05	330.5	
3	0	4742.11*	24	0	93.70	408.71	361	82	2.32E-03	20.7	
4	0	5296.93*	414	0	69.94	598.44	548	76	4.06E-02	4.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.0 Generated 23-NOV-2010 17:05:41

Configuration	: MCA0:[AMSCOUNT]0000B4BC$1		
Analyses by	: ROIPEAK V1.2,PEAKEFF V2.2,ENBACK V1.6,NID V3.3		
Sample title	: SD27-DPT-13A		
Sample date	: 5-NOV-2010 00:00:00	Acquisition date	: 23-NOV-2010 13:37:49
Sample ID	: 03	Sample quantity	: 1.0350 gram
Sample type	: UU	Sample geometry	:
Detector name	: 003	Detector geometry	:
Elapsed live time	: 0 02:50:06.00	Elapsed real time	: 0 02:50:06.00 0.0%
Energy tolerance	: 100.00 keV	Half life ratio	: 8.00
Errors propagated	: Yes	Systematic Error	: 3.00 %
Efficiency type	: Average value	Efficiencies at	: Peak Energy
Abundance limit	: 75.00		

Post-NID Peak Search Report

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity pCi/gram
0	4170.29*	24	53.67	216.83	160	91	41.1		U-238	0.330
0	4365.71*	0	3.07	282.00	260	68	660.9		U-235	5.479E-03
0	4742.11*	24	93.70	408.71	361	82	41.5		U-234	0.329
0	5296.93*	414	69.94	598.44	548	76	9.8		U232	5.76

Eberline Services
Oak Ridge Laboratory

ALPHA SPECTROMETRY REPORT
23-NOV-2010 17:05:55

****
Spectral File: ND_AMS_ARCHIVE_S:S_1011052A-UU$04_UU.CNF
****

BATCH ID:	1011052A-UU	SAMPLE ID:	04
SAMPLE DATE:	5-NOV-2010 00:00	ALIQUOT:	1.000E+00 gram
SAMPLE TITLE:	SD27-DPT-13A	DETECTOR NUMBER:	004
ACQ DATE:	23-NOV-2010 13:38	AVERAGE EFFICIENCY:	20.08%
ELAPSED LIVE TIME:	10204.	RECOVERY:	93.95%
TRACER ID:	UU-10A	TRACER FWHM (kev):	68.02
LAMBDA VALUE:	612.	ROI TYPE:	STANDARD
TRACER DPM AT SAMPLE DATE:	11.960	CONFIDENCE FACTOR:	4.65
SAMPLE MATRIX:	SOIL	LLD CONSTANT:	2.65
ENERGY CAL DATE:	19-NOV-2010 06:06	EFF CAL DATE:	11-NOV-2010 16:31
BKG FILENAME:	B_004_19NOV10	BKG ELAPSED TIME:	60001.

****

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	NET AREA	BKG	%ABN	ACTIVITY pCi/ gram	TPU/ERROR 2-SIGMA	MDC pCi/ gram
U232	5302.5	382.81	1.19	99.8	5.386E+00	7.061E-01	1.086E-01
U-234	4761.5	19.98	1.02	99.8	2.810E-01	1.359E-01	1.033E-01
U-235	4385.5	0.49	0.51	80.9	8.497E-03	3.619E-02	1.036E-01
U-238	4184.4	10.98	1.02	100.2	1.537E-01	1.003E-01	1.029E-01

****

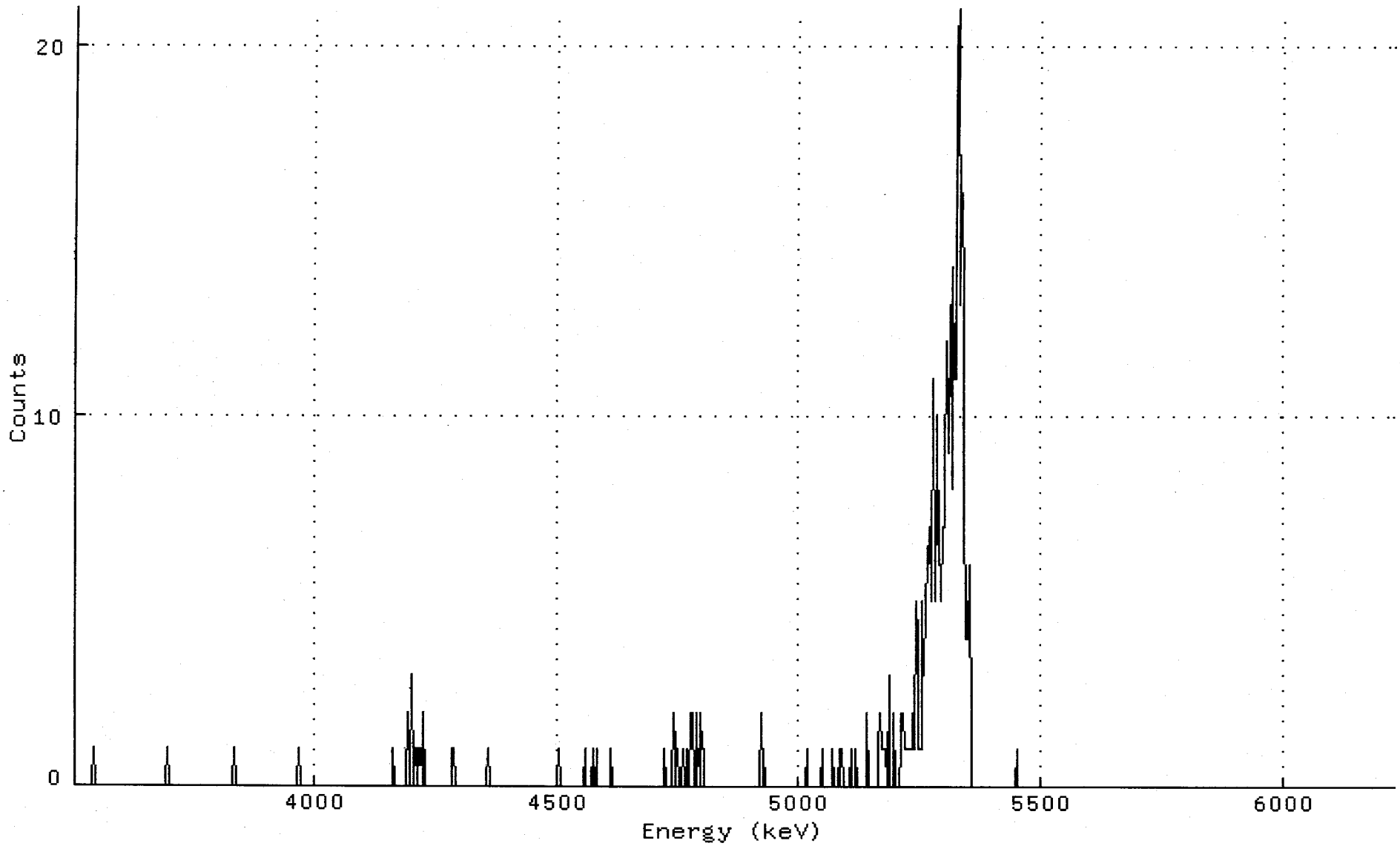
KBannister
Analyst

11/23/10
Date

Dan Gregory
Reviewer

11/24/10
Date

Spectrum : DKA100:[ALPHA.ALUSR.ARCHIVE.S]S_1011052A-UU$04_UU.CNF;1
Title : 004
Sample Title: SD27-DPT-13A
Start Time: 23-NOV-2010 13:38 Sample Time: 5-NOV-2010 00:00: Energy Offset: 3.49568E+03
Real Time : 0 02:50:04.00 Sample ID : 04 Energy Slope : 2.77026E+00
Live Time : 0 02:50:04.00 Sample Type: UU Energy Quad : -1.02636E-04



Channel Contents for ND_AMS_ARCHIVE_S:S_1011052A-UU$04_UU

Channel

1:	10204	10204	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	1	0	0	0	0	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71:	0	0	1	0	0	0	0	0	0	0	0	0	0	0
85:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113:	0	0	0	0	0	0	0	0	0	0	1	0	0	0
127:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
155:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
169:	0	0	0	1	0	0	0	0	0	0	0	0	0	0
183:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
197:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
211:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
225:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
239:	0	0	0	0	1	0	0	0	0	0	0	0	0	0
253:	0	2	0	0	3	0	0	1	1	0	1	1	0	2
267:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
281:	0	0	0	0	0	0	0	1	1	0	0	0	0	0
295:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
309:	0	0	0	0	0	0	1	0	0	0	0	0	0	0
323:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
337:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
351:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
365:	0	0	0	0	1	0	0	0	0	0	0	0	0	0
379:	0	0	0	0	0	0	0	0	0	0	1	0	0	0
393:	0	0	1	0	0	1	0	0	0	0	0	0	0	0
407:	0	0	1	0	0	0	0	0	0	0	0	0	0	0
421:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
435:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
449:	0	1	0	0	0	0	0	0	2	1	0	1	0	0
463:	0	1	1	0	1	0	0	2	1	2	0	2	0	1
477:	0	2	1	1	0	0	0	0	0	0	0	0	0	0
491:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
505:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
519:	0	0	0	0	0	0	2	0	1	0	0	0	0	0
533:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
547:	0	0	0	0	0	0	0	0	0	0	0	0	0	1
561:	0	0	0	0	0	0	0	0	0	0	0	1	0	0
575:	0	0	0	0	0	1	0	0	0	0	1	0	1	0
589:	0	0	0	0	0	1	0	0	0	1	0	0	0	0
603:	0	0	0	0	2	0	0	0	0	0	0	0	0	1
617:	2	1	1	1	1	1	0	3	0	0	0	2	0	0
631:	0	0	1	2	2	1	1	1	1	1	1	1	3	1
645:	5	4	1	1	1	5	3	5	5	6	7	7	5	11
659:	11	5	8	10	6	6	5	7	7	8	12	10	9	13
673:	8	14	11	11	20	21	13	17	15	14	8	4	5	4
687:	6	1	0	0	0	0	0	0	0	0	0	0	0	0
701:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
715:	0	0	0	0	0	0	0	0	0	1	0	0	0	0
729:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
743:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
757:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
771:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
785:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
799:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
813:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
827:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
841:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
855:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
869:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
883:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
897:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
911:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
939:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
953:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
967:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
981:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
995:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1009:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1023:	0	0												

Eberline Services
Oak Ridge Laboratory

Gross Sample Counts Within Peak Regions Generated: 23-NOV-2010 17:05:47.24

Detector ID: 4 Acquisition Start: 23-NOV-2010 13:38:08.01
Live Time: 0 02:50:04.00 Real Time: 0 02:50:04.00
Batch Id: 1011052A-UU Sample Id: 04
Sample Type: UU

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4204.94	12	0	34.63	258.50	183	100	1.18E-03	28.9	
2	0	4358.13	1	0	2.77	315.00	294	75	9.80E-05	100.0	
3	0	4763.70	21	0	62.24	465.76	405	90	2.06E-03	21.8	
4	0	5297.66	384	0	68.02	666.95	611	84	3.76E-02	5.1	

Background Counts Within Peak Regions Generated: 23-NOV-2010 17:05:53.65

Acquisition Start: 19-NOV-2010 17:33:12.01
Live Time: 0 16:40:01.00 Real Time: 0 16:40:01.00

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4134.22	6	0	202.23	232.50	183	100	1.00E-04	40.8	
2	0	4401.39	3	0	83.11	331.00	294	75	5.00E-05	57.7	
3	0	4720.18	6	0	152.36	449.50	405	90	1.00E-04	40.8	
4	0	5259.58	7	0	2.77	652.50	611	84	1.17E-04	37.8	

Net Sample Counts Within Peak Regions Generated: 23-NOV-2010 17:05:53.97

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4204.94*	11	0	34.63	258.50	183	100	1.08E-03	31.8	
2	0	4358.13*	0	0	2.77	315.00	294	75	4.80E-05	212.8	
3	0	4763.70*	20	0	62.24	465.76	405	90	1.96E-03	23.0	
4	0	5297.66*	383	0	68.02	666.95	611	84	3.75E-02	5.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.0 Generated 23-NOV-2010 17:05:54

Configuration	: MCA0:[AMSCOUNT]0000B4BC$1		
Analyses by	: ROIPEAK V1.2,PEAKEFF V2.2,ENBACK V1.6,NID V3.3		
Sample title	: SD27-DPT-13A		
Sample date	: 5-NOV-2010 00:00:00	Acquisition date	: 23-NOV-2010 13:38:08
Sample ID	: 04	Sample quantity	: 1.0003 gram
Sample type	: UU	Sample geometry	:
Detector name	: 004	Detector geometry	:
Elapsed live time	: 0 02:50:04.00	Elapsed real time	: 0 02:50:04.00 0.0%
Energy tolerance	: 100.00 keV	Half life ratio	: 8.00
Errors propagated	: Yes	Systematic Error	: 3.00 %
Efficiency type	: Average value	Efficiencies at	: Peak Energy
Abundance limit	: 75.00		

Post-NID Peak Search Report

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity pCi/gram
0	4204.94*	11	34.63	258.50	183	100	63.6		U-238	0.144
0	4358.13*	0	2.77	315.00	294	75	425.7		U-235	7.983E-03
0	4763.70*	20	62.24	465.76	405	90	46.1		U-234	0.264
0	5297.66*	383	68.02	666.95	611	84	10.2		U232	5.06

Eberline Services
Oak Ridge Laboratory

ALPHA SPECTROMETRY REPORT
23-NOV-2010 17:06:07

****
Spectral File: ND_AMS_ARCHIVE_S:S_1011052A-UU$05_UU.CNF
****

BATCH ID:	1011052A-UU	SAMPLE ID:	05
SAMPLE DATE:	5-NOV-2010 00:00	ALIQUOT:	1.020E+00 gram
SAMPLE TITLE:	SD27-DPT-13B	DETECTOR NUMBER:	005
ACQ DATE:	23-NOV-2010 13:38	AVERAGE EFFICIENCY:	18.34%
ELAPSED LIVE TIME:	10204.	RECOVERY:	107.72%
TRACER ID:	UU-10A	TRACER FWHM (kev):	85.54
LAMBDA VALUE:	612.	ROI TYPE:	STANDARD
TRACER DPM AT SAMPLE DATE:	11.962	CONFIDENCE FACTOR:	4.65
SAMPLE MATRIX:	SOIL	LLD CONSTANT:	2.65
ENERGY CAL DATE:	19-NOV-2010 06:06	EFF CAL DATE:	11-NOV-2010 16:31
BKG FILENAME:	B_005_19NOV10	BKG ELAPSED TIME:	60005.

****

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	NET AREA	BKG	%ABN	ACTIVITY pCi/ gram	TPU/ERROR 2-SIGMA	MDC pCi/ gram
U232	5302.5	400.98	1.02	99.8	5.282E+00	6.828E-01	9.673E-02
U-234	4761.5	46.66	0.34	99.8	6.143E-01	2.017E-01	7.059E-02
U-235	4385.5	1.49	0.51	80.9	2.420E-02	4.706E-02	9.698E-02
U-238	4184.4	23.66	0.34	100.2	3.102E-01	1.363E-01	7.029E-02

****

*** Tracer FWHM > 80.0 Kev ***

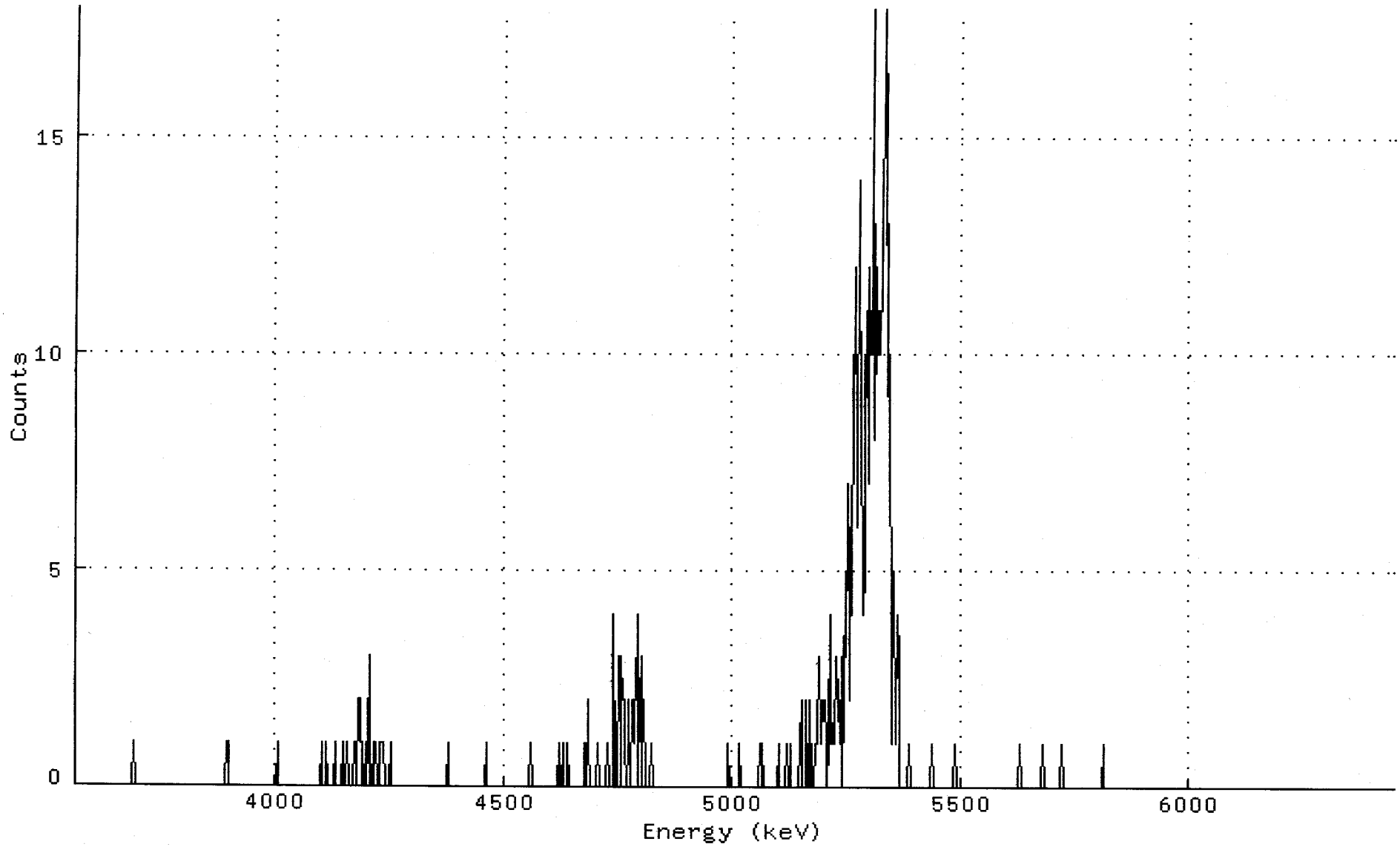
K Bannister
Analyst

11/23/10
Date

Alan Gregory
Reviewer

11/24/10
Date

Spectrum : DKA100:[ALPHA.ALUSR.ARCHIVE.S]S_1011052A-UU$05_UU.CNF;1
Title : 005
Sample Title: SD27-DPT-13B
Start Time: 23-NOV-2010 13:38 Sample Time: 5-NOV-2010 00:00: Energy Offset: 3.55215E+03
Real Time : 0 02:50:04.00 Sample ID : 05 Energy Slope : 2.96719E+00
Live Time : 0 02:50:04.00 Sample Type: UU Energy Quad : -1.37005E-04



0126

Channel Contents for ND_AMS_ARCHIVE_S:S_1011052A-UU$05_UU

Channel

1:	10204	10204	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	1	0	0	0	0	0	0	0	0	0
57:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113:	0	0	0	1	1	0	0	0	0	0	0	0	0	0
127:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141:	0	0	0	0	0	0	0	0	0	0	0	0	0	1
155:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
169:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
183:	0	0	0	0	1	0	0	0	1	0	0	0	0	0
197:	1	0	0	0	0	0	1	0	0	1	0	0	0	0
211:	0	1	0	0	2	1	2	0	0	1	0	1	3	0
225:	0	1	0	1	0	0	1	1	1	1	0	0	0	0
239:	1	0	0	0	0	0	0	0	0	0	0	0	0	0
253:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
267:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
281:	0	1	0	0	0	0	0	0	0	0	0	0	0	0
295:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
309:	0	0	1	0	0	0	0	0	0	0	0	0	0	0
323:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
337:	0	0	0	0	0	0	0	0	1	0	0	0	0	0
351:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
365:	0	1	0	0	1	0	0	0	1	0	0	0	0	0
379:	0	0	0	0	0	0	0	1	0	2	1	0	0	0
393:	0	0	0	1	0	0	0	0	0	0	1	0	0	0
407:	0	4	0	1	0	3	0	3	2	2	1	0	1	2
421:	0	2	1	2	2	4	0	2	3	0	2	0	0	0
435:	0	0	1	0	0	0	0	0	0	0	0	0	0	0
449:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
463:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
477:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
491:	0	0	0	0	0	1	0	0	0	0	0	0	0	0
505:	1	0	0	0	0	0	0	0	0	0	0	0	0	0
519:	0	0	1	0	1	0	0	0	0	0	0	0	0	0
533:	0	0	1	0	0	0	0	0	1	1	0	1	0	0
547:	0	0	0	0	0	1	2	0	0	0	2	0	0	2
561:	0	0	0	1	1	1	3	1	2	2	2	1	0	1
575:	4	1	1	2	1	3	2	2	1	3	0	2	5	3
589:	7	2	6	4	10	7	12	8	6	14	7	9	4	5
603:	9	11	7	12	10	10	18	8	11	12	10	10	11	11
617:	18	17	16	9	13	7	5	1	5	1	1	4	3	0
631:	0	0	0	0	0	0	1	0	0	0	0	0	0	0
645:	0	0	0	0	0	0	0	0	0	0	1	0	0	0
659:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
673:	1	0	0	0	0	0	0	0	0	0	0	0	0	0
687:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
701:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
715:	0	0	0	0	0	0	0	0	0	1	0	0	0	0
729:	0	0	0	0	0	0	0	0	0	0	0	0	0	1
743:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
757:	1	0	0	0	0	0	0	0	0	0	0	0	0	0
771:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
785:	0	0	0	0	0	1	0	0	0	0	0	0	0	0
799:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
813:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
827:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
841:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
855:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
869:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
883:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
897:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
911:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
939:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
953:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
967:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
981:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
995:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1009:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1023:	0	0												

Eberline Services
Oak Ridge Laboratory

Gross Sample Counts Within Peak Regions Generated: 23-NOV-2010 17:06:00.41

Detector ID: 5 Acquisition Start: 23-NOV-2010 13:38:27.01
Live Time: 0 02:50:04.00 Real Time: 0 02:50:04.00
Batch Id: 1011052A-UU Sample Id: 05
Sample Type: UU

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4184.25	24	0	25.93	215.17	152	94	2.35E-03	20.4	
2	0	4419.88	2	0	89.02	296.50	255	70	1.96E-04	70.7	
3	0	4755.20	47	0	64.78	413.34	359	85	4.61E-03	14.6	
4	0	5295.61	402	0	85.54	604.45	553	78	3.94E-02	5.0	

Background Counts Within Peak Regions Generated: 23-NOV-2010 17:06:05.31

Acquisition Start: 19-NOV-2010 17:33:15.01
Live Time: 0 16:40:05.00 Real Time: 0 16:40:05.00

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4135.74	2	0	41.54	198.50	152	94	3.33E-05	70.7	
2	0	4399.67	3	0	112.75	289.50	255	70	5.00E-05	57.7	
3	0	4719.96	2	0	62.31	401.00	359	85	3.33E-05	70.7	
4	0	5259.31	6	0	2.97	591.50	553	78	1.00E-04	40.8	

Net Sample Counts Within Peak Regions Generated: 23-NOV-2010 17:06:05.63

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4184.25*	24	0	25.93	215.17	152	94	2.32E-03	20.7	
2	0	4419.88*	1	0	89.02	296.50	255	70	1.46E-04	97.0	
3	0	4755.20*	47	0	64.78	413.34	359	85	4.57E-03	14.7	
4	0	5295.61*	401	0	85.54	604.45	553	78	3.93E-02	5.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.0 Generated 23-NOV-2010 17:06:06

Configuration	: MCA0:[AMSCOUNT]0000B4BC$1		
Analyses by	: ROIPEAK V1.2,PEAKEFF V2.2,ENBACK V1.6,NID V3.3		
Sample title	: SD27-DPT-13B		
Sample date	: 5-NOV-2010 00:00:00	Acquisition date	: 23-NOV-2010 13:38:27
Sample ID	: 05	Sample quantity	: 1.0202 gram
Sample type	: UU	Sample geometry	:
Detector name	: 005	Detector geometry	:
Elapsed live time	: 0 02:50:04.00	Elapsed real time	: 0 02:50:04.00 0.0%
Energy tolerance	: 100.00 keV	Half life ratio	: 8.00
Errors propagated	: Yes	Systematic Error	: 3.00 %
Efficiency type	: Average value	Efficiencies at	: Peak Energy
Abundance limit	: 75.00		

Post-NID Peak Search Report

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity pCi/gram
0	4184.25*	24	25.93	215.17	152	94	41.5		U-238	0.334
0	4419.88*	1	89.02	296.50	255	70	193.9		U-235	2.606E-02
0	4755.20*	47	64.78	413.34	359	85	29.4		U-234	0.662
0	5295.61*	401	85.54	604.45	553	78	10.0		U232	5.69

Eberline Services
Oak Ridge Laboratory

ALPHA SPECTROMETRY REPORT
23-NOV-2010 17:06:25

****
Spectral File: ND_AMS_ARCHIVE_S:S_1011052A-UU$06_UU.CNF
****

BATCH ID:	1011052A-UU	SAMPLE ID:	06
SAMPLE DATE:	5-NOV-2010 00:00	ALIQUOT:	1.021E+00 gram
SAMPLE TITLE:	SD27-DPT-13C	DETECTOR NUMBER:	010
ACQ DATE:	23-NOV-2010 13:38	AVERAGE EFFICIENCY:	20.21%
ELAPSED LIVE TIME:	10202.	RECOVERY:	100.97%
TRACER ID:	UU-10A	TRACER FWHM (kev):	42.82
LAMBDA VALUE:	612.	ROI TYPE:	STANDARD
TRACER DPM AT SAMPLE DATE:	11.964	CONFIDENCE FACTOR:	4.65
SAMPLE MATRIX:	SOIL	LLD CONSTANT:	2.65
ENERGY CAL DATE:	19-NOV-2010 06:06	EFF CAL DATE:	11-NOV-2010 16:31
BKG FILENAME:	B_010_19NOV10	BKG ELAPSED TIME:	60001.

****

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	NET AREA	BKG	%ABN	ACTIVITY pCi/ gram	TPU/ERROR 2-SIGMA	MDC pCi/ gram
U232	5302.5	414.15	0.85	99.8	5.278E+00	6.755E-01	8.837E-02
U-234	4761.5	26.83	0.17	99.8	3.418E-01	1.414E-01	5.818E-02
U-235	4385.5	0.83	0.17	80.9	1.304E-02	3.193E-02	7.177E-02
U-238	4184.4	21.00	0.00	100.2	2.663E-01	1.225E-01	3.361E-02

****

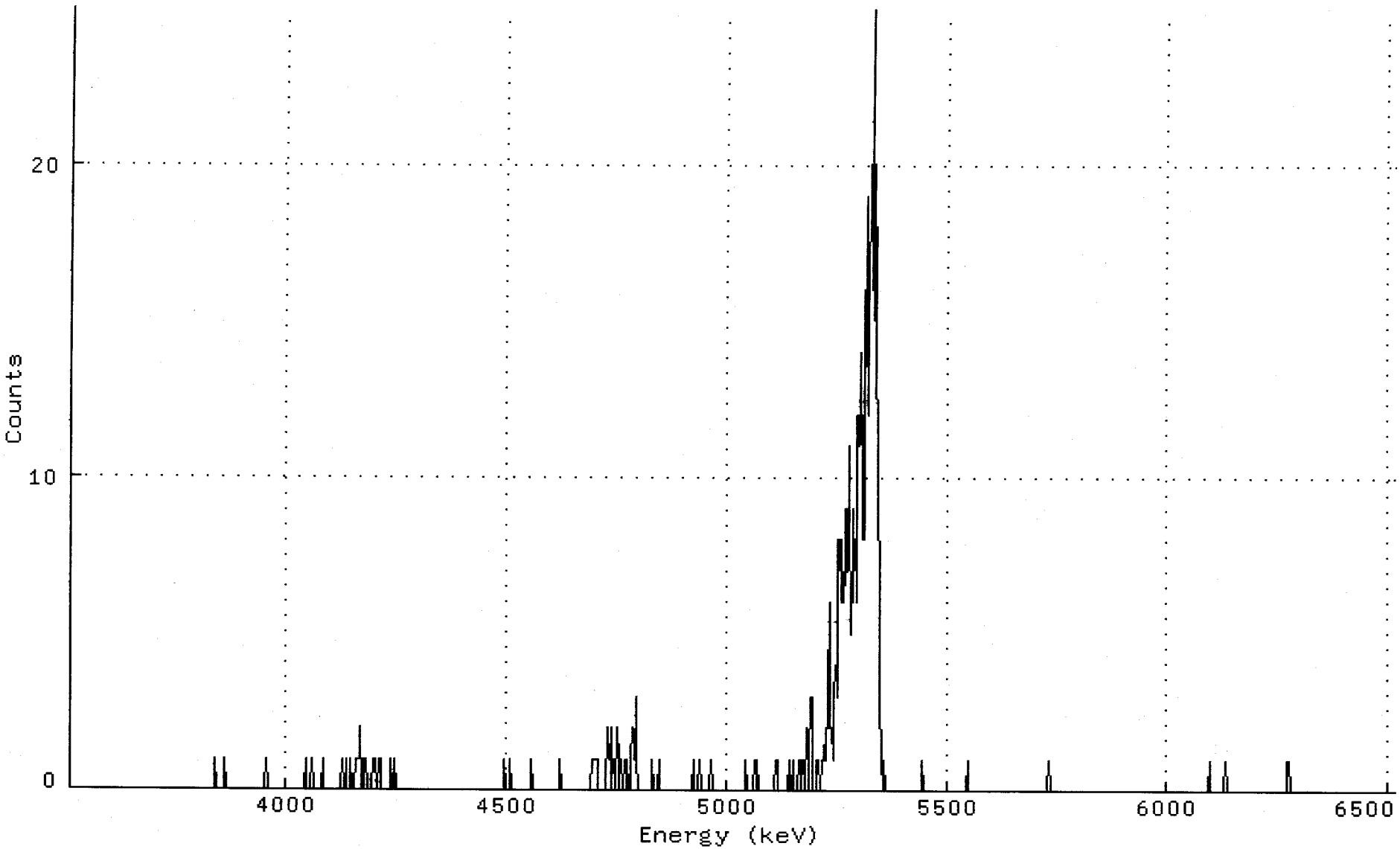
JC Bannister
Analyst

11/23/10
Date

Reviewer

11/24/10
Date

Spectrum : DKA100:[ALPHA.ALUSR.ARCHIVE.S]S_1011052A-UU$06_UU.CNF;1
Title : 010
Sample Title: SD27-DPT-13C
Start Time: 23-NOV-2010 13:38 Sample Time: 5-NOV-2010 00:00: Energy Offset: 3.50061E+03
Real Time : 0 02:50:02.00 Sample ID : 06 Energy Slope : 3.11455E+00
Live Time : 0 02:50:02.00 Sample Type: UU Energy Quad : -1.70364E-04



Channel Contents for ND_AMS_ARCHIVE_S:S_1011052A-UU$06_UU

Channel

1:	10202	10202	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99:	0	0	0	0	0	0	0	0	0	0	0	1	0	0
113:	0	0	0	0	1	0	0	0	0	0	0	0	0	0
127:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141:	0	0	0	0	0	0	0	1	0	0	0	0	0	0
155:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
169:	0	0	0	0	0	0	0	0	1	0	0	0	0	1
183:	0	0	0	0	0	0	0	1	0	0	0	0	0	0
197:	0	0	0	0	0	0	0	0	1	0	1	0	0	0
211:	1	0	0	1	1	1	1	2	0	1	0	1	0	0
225:	0	0	1	1	1	0	0	1	1	0	0	0	0	0
239:	0	0	1	0	0	1	0	0	0	0	0	0	0	0
253:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
267:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
281:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
295:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
309:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
323:	0	0	0	1	0	0	0	1	0	0	0	0	0	0
337:	0	0	0	0	0	0	0	0	0	1	0	0	0	0
351:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
365:	0	0	0	1	0	0	0	0	0	0	0	0	0	0
379:	0	0	0	0	0	0	0	0	0	0	0	0	0	1
393:	1	1	1	1	0	0	0	0	0	0	0	2	1	2
407:	0	1	0	0	2	1	0	1	0	0	1	0	1	0
421:	0	1	2	1	3	1	0	0	0	0	0	0	0	0
435:	0	0	0	1	0	0	0	0	1	0	0	0	0	0
449:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
463:	0	0	0	0	0	0	1	0	0	0	0	1	0	0
477:	0	0	0	0	0	0	1	0	0	0	0	0	0	0
491:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
505:	0	0	0	0	0	1	0	0	0	0	0	0	1	0
519:	1	0	0	0	0	0	0	0	0	0	0	0	0	0
533:	1	1	0	0	0	0	0	0	0	0	1	0	0	1
547:	0	0	0	0	1	1	0	1	0	0	2	0	1	3
561:	3	0	0	0	1	1	0	0	1	1	2	1	3	6
575:	2	2	1	3	4	3	8	8	6	8	6	7	9	7
589:	11	9	5	9	6	8	6	12	11	13	14	8	16	8
603:	19	12	15	20	16	25	15	18	15	10	6	3	1	0
617:	1	0	0	0	0	0	0	0	0	0	0	0	0	0
631:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
645:	0	0	1	0	0	0	0	0	0	0	0	0	0	0
659:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
673:	0	0	0	0	0	0	0	0	0	1	0	0	0	0
687:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
701:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
715:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
729:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
743:	0	0	0	1	0	0	0	0	0	0	0	0	0	0
757:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
771:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
785:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
799:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
813:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
827:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
841:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
855:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
869:	0	0	0	0	0	1	0	0	0	0	0	0	0	0
883:	0	0	0	0	1	0	0	0	0	0	0	0	0	0
897:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
911:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925:	0	0	0	0	0	0	0	0	0	0	0	0	1	1
939:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
953:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
967:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
981:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
995:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1009:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1023:	0	0												

Eberline Services
Oak Ridge Laboratory

Gross Sample Counts Within Peak Regions Generated: 23-NOV-2010 17:06:12.35

Detector ID: 10 Acquisition Start: 23-NOV-2010 13:38:47.01
Live Time: 0 02:50:02.00 Real Time: 0 02:50:02.00
Batch Id: 1011052A-UU Sample Id: 06
Sample Type: UU

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4166.85	21	0	4.57	216.48	162	89	2.06E-03	21.8	
2	0	4497.84	1	0	3.11	326.00	260	68	9.80E-05	100.0	
3	0	4750.70	27	0	68.52	410.59	360	82	2.65E-03	19.2	
4	0	5297.95	415	0	42.82	596.55	546	76	4.07E-02	4.9	

Background Counts Within Peak Regions Generated: 23-NOV-2010 17:06:23.04

Acquisition Start: 19-NOV-2010 17:33:17.01
Live Time: 0 16:40:01.00 Real Time: 0 16:40:01.00

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4134.97	0	0	0.00	206.00	162	89	0.00E+00	0.0	
2	0	4400.05	1	0	3.11	293.50	260	68	1.67E-05	100.0	
3	0	4720.66	1	0	3.11	400.50	360	82	1.67E-05	100.0	
4	0	5259.94	5	0	0.00	583.50	546	76	8.33E-05	44.7	

Net Sample Counts Within Peak Regions Generated: 23-NOV-2010 17:06:23.37

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	4166.85*	21	0	4.57	216.48	162	89	2.06E-03	21.8	
2	0	4497.84*	1	0	3.11	326.00	260	68	8.14E-05	122.2	
3	0	4750.70*	27	0	68.52	410.59	360	82	2.63E-03	19.4	
4	0	5297.95*	414	0	42.82	596.55	546	76	4.06E-02	4.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.0 Generated 23-NOV-2010 17:06:24

Configuration	: MCA0:[AMSCOUNT]0000B4BC$1		
Analyses by	: ROIPEAK V1.2,PEAKEFF V2.2,ENBACK V1.6,NID V3.3		
Sample title	: SD27-DPT-13C		
Sample date	: 5-NOV-2010 00:00:00	Acquisition date	: 23-NOV-2010 13:38:47
Sample ID	: 06	Sample quantity	: 1.0211 gram
Sample type	: UU	Sample geometry	:
Detector name	: 010	Detector geometry	:
Elapsed live time	: 0 02:50:02.00	Elapsed real time	: 0 02:50:02.00 0.0%
Energy tolerance	: 100.00 keV	Half life ratio	: 8.00
Errors propagated	: Yes	Systematic Error	: 3.00 %
Efficiency type	: Average value	Efficiencies at	: Peak Energy
Abundance limit	: 75.00		

Post-NID Peak Search Report

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity pCi/gram
0	4166.85*	21	4.57	216.48	162	89	43.6		U-238	0.269
0	4497.84*	1	3.11	326.00	260	68	244.4		U-235	1.317E-02
0	4750.70*	27	68.52	410.59	360	82	38.8		U-234	0.345
0	5297.95*	414	42.82	596.55	546	76	9.8		U232	5.33

Review of QA results (Daily Pulser Check) 23-NOV-2010 05:37:07 Page 1

Detector	Parameter	Flag	Filename
1	OFFLINE		
2	OFFLINE		
3	ALL	Passed	D_003_NONE
4	ALL	Passed	D_004_NONE
5	ALL	Passed	D_005_NONE
6	OFFLINE		
7	OFFLINE		
8	OFFLINE		
9	OFFLINE		
10	ALL	Passed	D_010_NONE
11	ALL	Passed	D_011_NONE
12	ALL	Passed	D_012_NONE
13	ALL	Passed	D_013_NONE
14	ALL	Passed	D_014_NONE
15	ALL	Passed	D_015_NONE
16	OFFLINE		
17	OFFLINE		
18	ALL	Passed	D_018_NONE
19	ALL	Passed	D_019_NONE
20	OFFLINE		
21	ALL	Passed	D_021_NONE
22	OFFLINE		
23	ALL	Passed	D_023_NONE
24	OFFLINE		
25	OFFLINE		
26	OFFLINE		
27	OFFLINE		
28	OFFLINE		
29	OFFLINE		
30	OFFLINE		
31	OFFLINE		
32	OFFLINE		
33	ALL	Passed	D_033_NONE
34	ALL	Passed	D_034_NONE
35	PSCTSS-5000	Below	D_035_NONE
36	PSCENTRD-5000	Above	D_036_NONE
37	ALL	Passed	D_037_NONE
38	ALL	Passed	D_038_NONE
39	ALL	Passed	D_039_NONE
40	ALL	Passed	D_040_NONE
41	ALL	Passed	D_041_NONE
42	ALL	Passed	D_042_NONE
43	ALL	Passed	D_043_NONE
44	ALL	Passed	D_044_NONE
45	ALL	Passed	D_045_NONE
46	ALL	Passed	D_046_NONE
47	ALL	Passed	D_047_NONE
48	ALL	Passed	D_048_NONE

APPROVAL DATE: 11/23/10 APPROVAL TIME: _____

APPROVED BY: EH PROCEDURE # _____

SECTION IX

ANALYTICAL DATA (ISOTOPIC THORIUM)

10-11052
ThISO
Run 1

Work Order	10-11052
Analysis Code	ThISO
Run	1
Date Received	11/16/2010
Lab Deadline	12/6/2010
Client	Tetra Tech Divisions
Project	HOLLOMAN
Report Level	4
Activity Units	pCi
Aliquot Units	g
Matrix	SO
Method	EML Th-01 Modified
Instrument Type	Alpha Spectroscopy
Radiometric Tracer	Th-229
Radiometric Sol#	Th-18a
Tracer Act (dpm/g)	22.472
Carrier	
Carrier Conc (mg/ml)	

Internal Fraction	Sample Desc	Client ID	Login CPM	Sample Date	Sample Aliquot
01	LCS	LCS		11/16/10 00:00	1.0000E+00
02	MBL	BLANK		11/16/10 00:00	1.0000E+00
03	DUP	SD27-DPT-13A	30	11/05/10 13:10	1.0059E+00
04	DO	SD27-DPT-13A	30	11/05/10 13:10	1.0125E+00
05	TRG	SD27-DPT-13B	32	11/05/10 13:20	1.0019E+00
06	TRG	SD27-DPT-13C	43	11/05/10 13:40	1.0030E+00

* SAF1 is used for Gross Alpha and all other radionuclides. SAF2 is used for Gross Beta only. ** Actual mass exceeded the calibration curve range. Results should be qualified as appropriate.

10-11052
ThISO
Run 1

Internal Fraction	Sample Desc	Tracer Aliquot (g)	Tracer Total ACT (dpm)	Radiometric Tracer (pCi)	Radiometric % Rec	Grav Carrier Added (ml)	Grav Filter Tare (g)	Grav Filter Final (g)	Grav Filter Net (g)	Grav % Rec	Mean % Rec	SAF 1*	SAF 2*
01	LCS	0.4642	10.4		0.00								
02	MBL	0.2328	5.2		0.00								
03	DUP	0.2325	5.2		0.00								
04	DO	0.2320	5.2		0.00								
05	TRG	0.2317	5.2		0.00								
06	TRG	0.2309	5.2		0.00								

* SAF1 is used for Gross Alpha and all other radionuclides. SAF2 is used for Gross Beta only. ** Actual mass exceeded the calibration curve range. Results should be qualified as appropriate.

10-11052
ThISO
Run 1

Internal Fraction	Sample Desc	Rough Prep Date	Rough Prep By	Prep Date	Prep By	Sep t0 Date/Time	Sep t0 By	Sep t1 Date/Time	Sep t1 By
01	LCS			11/17/10 13:24	JBARNARD	11/20/10 14:14	JDEMELAS		
02	MBL			11/17/10 13:24	JBARNARD	11/20/10 14:14	JDEMELAS		
03	DUP			11/17/10 13:24	JBARNARD	11/20/10 14:14	JDEMELAS		
04	DO	11/17/10 09:34	KSALLINGS	11/17/10 13:24	JBARNARD	11/20/10 14:14	JDEMELAS		
05	TRG	11/17/10 09:34	KSALLINGS	11/17/10 13:24	JBARNARD	11/20/10 14:14	JDEMELAS		
06	TRG	11/17/10 09:34	KSALLINGS	11/17/10 13:24	JBARNARD	11/20/10 14:14	JDEMELAS		

* SAF1 is used for Gross Alpha and all other radionuclides. SAF2 is used for Gross Beta only. ** Actual mass exceeded the calibration curve range. Results should be qualified as appropriate.

Eberline Services
Oak Ridge Laboratory

Preliminary Data Report & Analytical Calculations

Work Order: 10-11052-ThISO-1

Client: Tetra Tech Divisions
Eberline Services Work Order: 10-11052
Analysis Code: ThISO
Run: 1

Lab Fraction	Nuclide	Sample Desc	Client Identification	Activity Units	Results	Error Estimate	MDA	LCS Known	LCS %R	LCS Flag	RPD Flag	MDA Flag	Blank Flag
01	TH-228	LCS	LCS	pCi/g	4.78E+00	9.24E-01	1.34E-01	4.83E+00	98.90	OK		OK	
02	TH-228	MBL	BLANK	pCi/g	5.32E-02	6.64E-02	8.57E-02					OK	INV
03	TH-228	DUP	SD27-DPT-13A	pCi/g	3.12E-01	1.65E-01	4.79E-02				NA	OK	
04	TH-228	DO	SD27-DPT-13A	pCi/g	1.91E-01	1.28E-01	1.07E-01					OK	
05	TH-228	TRG	SD27-DPT-13B	pCi/g	3.46E-01	1.96E-01	1.31E-01					OK	
06	TH-228	TRG	SD27-DPT-13C	pCi/g	4.17E-01	2.23E-01	1.57E-01					OK	

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Preliminary Data Report & Analytical Calculations
Work Order: 10-11052-ThISO-1

Client: Tetra Tech Divisions
Eberline Services Work Order: 10-11052
Analysis Code: ThISO
Run: 1

Lab Fraction	Nuclide	Sample Desc	Sample Date	Sample Aliquot	Radiometric % Rec	Grav % Rec	Mean % Rec	SAF	Sep t0 Date/Time	Sep t1 Date/Time
01	TH-228	LCS	11/16/10 00:00	1.00E+00	113.52	0.00	0.00		11/20/2010 14:14	
02	TH-228	MBL	11/16/10 00:00	1.00E+00	73.43	0.00	0.00		11/20/2010 14:14	
03	TH-228	DUP	11/05/10 13:10	1.01E+00	73.59	0.00	0.00		11/20/2010 14:14	
04	TH-228	DO	11/05/10 13:10	1.01E+00	73.65	0.00	0.00		11/20/2010 14:14	
05	TH-228	TRG	11/05/10 13:20	1.00E+00	63.98	0.00	0.00		11/20/2010 14:14	
06	TH-228	TRG	11/05/10 13:40	1.00E+00	59.61	0.00	0.00		11/20/2010 14:14	

Preliminary Data Report & Analytical Calculations
Work Order: 10-11052-ThISO-1

Client: Tetra Tech Divisions
Eberline Services Work Order: 10-11052
Analysis Code: ThISO
Run: 1

Lab Fraction	Nuclide	Sample Desc	Counting Date/Time	Halflife (days)	Detect	Carrier	Count Time	Counts	Bkg CPM	Eff
01	TH-228	LCS	11/21/10 14:08		A_Spec	38	170	3.40 E+02	1.30 E-02	16.6
02	TH-228	MBL	11/21/10 14:09		A_Spec	39	170	2.83 E+00	1.00 E-03	19.2
03	TH-228	DUP	11/21/10 14:09		A_Spec	40	170	1.70 E+01	0.00 E+00	19.8
04	TH-228	DO	11/21/10 14:10		A_Spec	41	170	1.05 E+01	3.00 E-03	19.8
05	TH-228	TRG	11/21/10 14:10		A_Spec	42	170	1.55 E+01	3.00 E-03	18.8
06	TH-228	TRG	11/21/10 14:10		A_Spec	43	170	1.82 E+01	5.00 E-03	19.6

Eberline Services
Oak Ridge Laboratory

Preliminary Data Report & Analytical Calculations
Work Order: 10-11052-ThISO-1

Client: Tetra Tech Divisions
Eberline Services Work Order: 10-11052
Analysis Code: ThISO
Run: 1

Lab Fraction	Nuclide	Sample Desc	Client Identification	Activity Units	Results	Error Estimate	MDA	LCS Known	LCS %R	LCS Flag	RPD Flag	MDA Flag	Blank Flag
01	TH-230	LCS	LCS	pCi/g	5.72E+00	1.08E+00	8.40E-02	5.45E+00	104.84	OK		OK	
02	TH-230	MBL	BLANK	pCi/g	3.12E-02	5.43E-02	1.01E-01					OK	INV
03	TH-230	DUP	SD27-DPT-13A	pCi/g	1.27E-01	9.93E-02	4.79E-02				NA	OK	
04	TH-230	DO	SD27-DPT-13A	pCi/g	3.71E-01	1.83E-01	9.64E-02					OK	
05	TH-230	TRG	SD27-DPT-13B	pCi/g	6.61E-01	2.84E-01	5.83E-02					OK	
06	TH-230	TRG	SD27-DPT-13C	pCi/g	4.90E-01	2.40E-01	1.21E-01					OK	

Preliminary Data Report & Analytical Calculations

Work Order: 10-11052-ThISO-1

Client: Tetra Tech Divisions
Eberline Services Work Order: 10-11052
Analysis Code: ThISO
Run: 1

Lab Fraction	Nuclide	Sample Desc	Sample Date	Sample Aliquot	Radiometric % Rec	Grav % Rec	Mean % Rec	SAF	Sep t0 Date/Time	Sep t1 Date/Time
01	TH-230	LCS	11/16/10 00:00	1.00E+00	113.52	0.00	0.00		11/20/2010 14:14	
02	TH-230	MBL	11/16/10 00:00	1.00E+00	73.43	0.00	0.00		11/20/2010 14:14	
03	TH-230	DUP	11/05/10 13:10	1.01E+00	73.59	0.00	0.00		11/20/2010 14:14	
04	TH-230	DO	11/05/10 13:10	1.01E+00	73.65	0.00	0.00		11/20/2010 14:14	
05	TH-230	TRG	11/05/10 13:20	1.00E+00	63.98	0.00	0.00		11/20/2010 14:14	
06	TH-230	TRG	11/05/10 13:40	1.00E+00	59.61	0.00	0.00		11/20/2010 14:14	

Preliminary Data Report & Analytical Calculations

Work Order: 10-11052-ThISO-1

Client: Tetra Tech Divisions
Eberline Services Work Order: 10-11052
Analysis Code: ThISO
Run: 1

Lab Fraction	Nuclide	Sample Desc	Counting Date/Time	Halflife (days)	Detect	Carrier	Count Time	Counts	Bkg CPM	Eff
01	TH-230	LCS	11/21/10 14:08		A_Spec	38	170	4.07 E+02	3.00 E-03	16.6
02	TH-230	MBL	11/21/10 14:09		A_Spec	39	170	1.66 E+00	2.00 E-03	19.2
03	TH-230	DUP	11/21/10 14:09		A_Spec	40	170	7.00 E+00	0.00 E+00	19.8
04	TH-230	DO	11/21/10 14:10		A_Spec	41	170	2.07 E+01	2.00 E-03	19.8
05	TH-230	TRG	11/21/10 14:10		A_Spec	42	170	3.00 E+01	0.00 E+00	18.8
06	TH-230	TRG	11/21/10 14:10		A_Spec	43	170	2.17 E+01	2.00 E-03	19.6

Eberline Services
Oak Ridge Laboratory

Preliminary Data Report & Analytical Calculations

Work Order: 10-11052-ThISO-1

Client: Tetra Tech Divisions
Eberline Services Work Order: 10-11052
Analysis Code: ThISO
Run: 1

Lab Fraction	Nuclide	Sample Desc	Client Identification	Activity Units	Results	Error Estimate	MDA	LCS Known	LCS %R	LCS Flag	RPD Flag	MDA Flag	Blank Flag
01	TH-232	LCS	LCS	pCi/g	4.95E+00	9.52E-01	6.41E-02	4.83E+00	102.57	OK		OK	
02	TH-232	MBL	BLANK	pCi/g	-3.19E-03	6.42E-03	8.57E-02					OK	INV
03	TH-232	DUP	SD27-DPT-13A	pCi/g	4.84E-01	2.14E-01	8.24E-02				INV	OK	
04	TH-232	DO	SD27-DPT-13A	pCi/g	2.48E-01	1.44E-01	8.19E-02					OK	
05	TH-232	TRG	SD27-DPT-13B	pCi/g	3.70E-01	2.00E-01	1.00E-01					OK	
06	TH-232	TRG	SD27-DPT-13C	pCi/g	4.29E-01	2.20E-01	5.99E-02					OK	

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Preliminary Data Report & Analytical Calculations
Work Order: 10-11052-ThISO-1

Client: Tetra Tech Divisions
Eberline Services Work Order: 10-11052
Analysis Code: ThISO
Run: 1

Lab Fraction	Nuclide	Sample Desc	Sample Date	Sample Aliquot	Radiometric % Rec	Grav % Rec	Mean % Rec	SAF	Sep t0 Date/Time	Sep t1 Date/Time
01	TH-232	LCS	11/16/10 00:00	1.00E+00	113.52	0.00	0.00		11/20/2010 14:14	
02	TH-232	MBL	11/16/10 00:00	1.00E+00	73.43	0.00	0.00		11/20/2010 14:14	
03	TH-232	DUP	11/05/10 13:10	1.01E+00	73.59	0.00	0.00		11/20/2010 14:14	
04	TH-232	DO	11/05/10 13:10	1.01E+00	73.65	0.00	0.00		11/20/2010 14:14	
05	TH-232	TRG	11/05/10 13:20	1.00E+00	63.98	0.00	0.00		11/20/2010 14:14	
06	TH-232	TRG	11/05/10 13:40	1.00E+00	59.61	0.00	0.00		11/20/2010 14:14	

Preliminary Data Report & Analytical Calculations
Work Order: 10-11052-ThISO-1

Client: Tetra Tech Divisions
Eberline Services Work Order: 10-11052
Analysis Code: ThISO
Run: 1

Lab Fraction	Nuclide	Sample Desc	Counting Date/Time	Halflife (days)	Detect	Carrier	Count Time	Counts	Bkg CPM	Eff
01	TH-232	LCS	11/21/10 14:08		A_Spec	38	170	3.53 E+02	1.00 E-03	16.6
02	TH-232	MBL	11/21/10 14:09		A_Spec	39	170	-1.70 E-01	1.00 E-03	19.2
03	TH-232	DUP	11/21/10 14:09		A_Spec	40	170	2.68 E+01	1.00 E-03	19.8
04	TH-232	DO	11/21/10 14:10		A_Spec	41	170	1.38 E+01	1.00 E-03	19.8
05	TH-232	TRG	11/21/10 14:10		A_Spec	42	170	1.68 E+01	1.00 E-03	18.8
06	TH-232	TRG	11/21/10 14:10		A_Spec	43	170	1.90 E+01	0.00 E+00	19.6

Count Room Report
Client: Tetra Tech Divisions

10-11052-ThISO-1 (pCi/g) in SO
Tracer ID: Th-18a

2.5

38-43

Internal Fraction	Sample Desc	Client ID	Sample Date	Sample Aliquot	Tracer Aliquot (g)	Tracer ACT (dpm)	Radiometric Tracer (pCi)	Radiometric % Rec	SAF 1*	SAF 2*
01	LCS	LCS	11/16/10 00:00	1.0000	0.4642	10.4315		0.00		
02	MBL	BLANK	11/16/10 00:00	1.0000	0.2328	5.2315		0.00		
03	DUP	SD27-DPT-13A	11/05/10 13:10	1.0059	0.2325	5.2247		0.00		
04	DO	SD27-DPT-13A	11/05/10 13:10	1.0125	0.2320	5.2135		0.00		
05	TRG	SD27-DPT-13B	11/05/10 13:20	1.0019	0.2317	5.2068		0.00		
06	TRG	SD27-DPT-13C	11/05/10 13:40	1.0030	0.2309	5.1888		0.00		

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Eberline Services
Oak Ridge Laboratory

Spike and Tracer Worksheet

Printed: 11/17/2010 1:24 PM

Internal Work Order	Run	Analysis Code	Date	Technician	Technician Initials	Witness Initials
10-11052	1	ThISO	11/17/2010 13:19	JBARNARD		

LCS & Matrix Spikes					LCS	MS	LCSD	MSD	LCS		MS		LCSD		MSD	
Isotope	*Sol #*	*Activity dpm/g*	*Solution Date*	*Approx Addition*	*Volume Used (g)*	*Volume Used (g)*	*Volume Used (g)*	*Volume Used (g)*	*Known pCi*	*Error Estimate*	*Added pCi*	*Error Estimate*	*Known pCi*	*Error Estimate*	*Added pCi*	*Error Estimate*
Th-228	Th-8b	103.560	11/17/2010	**0.100**	**0.1035**				4.83	0.174	0.00	0.000	0.00	0.000	0.00	0.000
Th-230	Th-1b	23.526	11/17/2010	**0.500**	**0.5145**				5.45	0.147	0.00	0.000	0.00	0.000	0.00	0.000
Th-232	Th-8b	103.560	11/17/2010	**0.100**	**0.1035**				4.83	0.174	0.00	0.000	0.00	0.000	0.00	0.000

Tracers

fraction	*Isotope*	*Sol #*	*Activity dpm/g*	*Solution Date*	*Volume Used (g)*	*Approx Addition*
01	**Th-229**	Th-18a	22.472	11/17/2010	**0.4642**	**0.2200**
02	**Th-229**	Th-18a	22.472	11/17/2010	**0.2328**	**0.2200**
03	**Th-229**	Th-18a	22.472	11/17/2010	**0.2325**	**0.2200**
04	**Th-229**	Th-18a	22.472	11/17/2010	**0.2320**	**0.2200**
05	**Th-229**	Th-18a	22.472	11/17/2010	**0.2317**	**0.2200**
06	**Th-229**	Th-18a	22.472	11/17/2010	**0.2309**	**0.2200**

Balance Printer Tapes

Tracer

0.4642 g
0.2328 g
0.2325 g
0.2320 g
0.2317 g
0.2309 g

LCS

0.5145 g
0.1035 g

Matrix Spike

0158

APPENDIX D

FIELD DATA FORMS

JULY 2010 GROUNDWATER

FIELD DATA FORMS

Tetra Tech

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: Holloman AFB
Project No.: 100-TEN-T93002
Location: DP-30/SD-33
Personnel: ~~G.Grande & A. Moreno~~ Jeremy Bench, Brandon Clowers
Weather Conditions: Partly Cloudy 96°
Measuring Device: Water Level Indicator / Inter-phase probe
Remarks:

Well Number	Date	Time	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Free Product (feet)*	Comments
30-33-01	7/6/10	1229	30.62	22.65	7.97	
30-33-02	7/6/10	1236	31.50	22.52	8.98	
30-33-03	7/6/10	1240	26.36	21.46	4.90	
30-33-04	7/6/10	1244	30.99	20.57	10.42	
30-33-05R	7/6/10	1248	32.80	21.47	11.33	

* All measurements to the nearest 0.01 foot

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 30.62
Depth to Water: 22.72
Water Column: 7.9
Well Casing Diameter & Material: 2" PVC
One Casing Volume: 1.3 gal
Three Casing Volumes: 3.8 gal
Start Purge: 1400
End Purge: 1435
Total Purge Time: 35 min

Well ID: MW30-33-01
Date: 7-6-10
Weather: partly cloudy

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
1400	0.4	22.72	0	6.83	36.6	21.91	6.1	4.74	2.3	144
1405	0.33	22.72	1.5	7.07	35.9	22.13	7.4	3.13	2.3	114
1410	0.33	22.72	3	7.14	35.4	22.02	8.7	2.31	2.2	100
1415	0.33	22.72	4.5	7.11	36.0	21.89	7.2	1.89	2.3	95
1420	0.33	22.72	6	7.12	36.0	21.48	7.4	1.31	2.3	91
1425	0.25	22.72	7.25	7.13	35.8	21.65	8.1	0.85	2.3	88
1430	0.33	22.72	8.75	7.17	99.9	21.53	8.9	0.70	4.0	84
1435	0.3	22.72	10.25	7.22	99.9	21.47	9.7	0.50	4.0	82

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TDS	none	1 - 0.5 L plastic	JSB
Dissolved RCRA 8 metals	none	1 - 0.5 L plastic	JSB
Total RCRA 8 metals	HNO_3	1 - 0.5 L plastic	JSB
VOCs	HCL	3 - 40 mL vials	JSB

OBSERVATIONS / NOTES:

Sample time 1435

Quality Samples:

MS/MSD: MW30-33-01-MS-070610
Duplicate ID No.: MW30-33-01-MSD-070610

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 31.50
Depth to Water: 22.52
Water Column: 8.98
Well Casing Diameter & Material: 2" PVC
One Casing Volume: 1.4 gal
Three Casing Volumes: 4.3 gal
Start Purge: 1716
End Purge: 1751
Total Purge Time: 35 min

Well ID: MW30 & 33-02
Date: 7-6-10
Weather: light rain

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
1716	0.2	22.52	0	7.58	47.7	21.30	4.2	7.90	3.1	105
1721	0.2	23.10	1	7.33	48.4	20.59	5.5	6.16	3.2	105
1726	0.2	23.11	2	7.36	48.6	20.65	5.3	5.49	3.2	106
1731	0.18	23.09	2.9	7.34	48.3	20.68	8.1	5.01	3.2	106
1736	0.14	23.06	3.6	7.32	49.2	20.80	6.2	4.83	3.2	106
1741	0.16	23.06	4.4	7.31	49.2	20.76	5.9	4.70	3.2	106
1746	0.16	23.05	5.2	7.30	49.2	20.73	6.0	4.29	3.2	106
1751	0.18	23.05	6.1	7.30	49.1	20.63	5.9	4.08	3.2	106

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TDS	none	1 - 0.5L plastic	JSB
Dissolved RCRA 8 metals	none	1 - 0.5L plastic	JSB
Total RCRA 8 metals	HNO_3	1 - 0.5L plastic	JSB
VOCs	HCl	3 - 40 mL vials	JSB

OBSERVATIONS / NOTES:

Sample time: 1751

Qualify Samples:

Signature(s):

MS/MSD:
Duplicate ID No.:

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 26.36
Depth to Water: 21.46
Water Column: 4.90
Well Casing Diameter & Material: 2" PVC
One Casing Volume: 0.784 gal
Three Casing Volumes: 2.352 gal
Start Purge: 1500
End Purge: 1555
Total Purge Time: 55 min

Well ID: MW-30-33-03
Date: 7/6/10
Weather: Partly Cloudy

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
1505	0.32	22.18	1.6	6.23	>99.9	21.1	65.7	4.54	>4	146
1510	0.32	22.62	3.2	6.28	>99.9	20.9	24.3	4.31	>4	141
1515	0.32	22.71	4.8	6.33	>99.9	20.7	18.0	4.14	>4	138
1520	0.32	22.78	6.4	6.35	>99.9	20.6	28.2	4.01	>4	133
1525	0.32	22.89	8.0	6.36	>99.9	20.6	30.5	3.94	>4	130
1530	0.32	see	Notes							
1535	0.32	22.84	9.6	6.22	>99.9	20.5	54.7	4.02	>4	194
1540	0.32	22.89	11.2	6.26	>99.9	20.6	26.7	4.07	>4	180
1545	0.32	22.92	12.8	6.28	>99.9	20.5	31.2	4.08	>4	172
1550	0.32	22.95	14.4	6.26	>99.9	20.5	34.4	4.07	>4	171
1555	End Purge								>	

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TDS	none	1 - 0.5 L plastic	BC
Dissolved RCRA 8 metals	none	1 - 0.5 L plastic	BC
Total RCRA 8 metals	HNO_3	1 - 0.5 L plastic	BC
VOCs	HCl	3 - 40 mL vials	BC

OBSERVATIONS / NOTES:

At 1525 stopped pump to calibrate Horiba. Calibration fine. Conductivity and salinity are above limits. Sampled at 1600.

Quality Samples:

MS/MSD:
Duplicate ID No.:

Signature(s): Brandon Clauss

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 30.99
Depth to Water: 20.59
Water Column: 10.4
Well Casing Diameter & Material: 2" PVC
One Casing Volume: 1.664 gal
Three Casing Volumes: 4.992 gal
Start Purge: 1633
End Purge: 1740
Total Purge TIme: 67 min

Well ID: MW-30-33-04
Date: 7/6/10
Weather: Partly Cloudy

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
1640	0.35	21.34	1.75	6.16	>99.9	19.93	48.7	3.74	>4	166
1645	0.35	21.71	3.5	6.21	>99.9	19.91	53.8	3.54	>4	163
1650	0.35	21.81	5.25	6.24	>99.9	19.75	60.9	3.29	>4	156
1655	0.35	21.94	7.0	6.29	>99.9	19.76	43.2	3.20	>4	146
1700	0.35	21.92	8.75	6.30	>99.9	19.78	43.1	3.25	>4	143
1705	0.35	21.93	10.5	6.31	>99.9	19.82	44.0	2.94	>4	139
1710	0.35	21.99	12.25	6.32	95.1	19.81	44.9	2.74	>4	137
1715	0.35	22.02	14.0	6.32	54.4	19.85	46.7	2.53	3.9	135
1720	0.35	22.05	15.75	6.33	44.0	19.86	47.1	2.37	2.8	133
1725	0.35	22.01	17.5	6.32	37.9	19.86	49.2	2.27	2.4	131
1730	0.35	22.02	19.25	6.34	35.0	19.84	47.1	2.24	2.2	129
1735	0.35	22.02	21.0	6.34	37.3	19.82	46.1	2.19	2.2	127
1740	0.35	22.04	22.75	6.35	34.9	19.86	48.9	2.13	2.2	126

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TDS	none	1- 0.5L plastic	BC
Dissolved RCRA 8 metals	none	1- 0.5L plastic	BC
Total RCRA 8 metals	HNO_3	1- 0.5L plastic	BC
VOCs	HCL	3- 40 mL vials	BC

OBSERVATIONS / NOTES:

Sample taken at 1745.

Quality Samples:

MS/MSD:
Duplicate ID No.:

Signature(s): Brandon Clowers

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 32.80
Depth to Water: 21.46
Water Column: 11.34
Well Casing Diameter & Material: 2" PVC
One Casing Volume: 1.8 gal
Three Casing Volumes: 5.4 gal
Start Purge: 1523
End Purge: 1556
Total Purge Time: 33 min.

Well ID: MW30:33-05R
Date: 7-6-10
Weather: mostly cloudy

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
1526	0.25	21.46	0	7.02	33.5	22.53	9.8	5.33	2.1	100
1531	0.25	21.50	1.25	6.96	32.9	21.79	8.9	2.34	2.1	104
1536	0.30	21.49	2.75	7.01	33.3	21.45	10.3	1.67	2.1	99
1541	0.25	21.49	4	7.07	33.2	21.20	6.8	1.12	2.1	98
1546	0.25	21.49	5.25	7.10	99.9	21.23	5.2	0.83	4.0	96
1551	0.21	21.49	6.30	7.13	99.9	21.15	5.0	0.67	4.0	95
1556	0.24	21.49	7.50	7.14	99.9	20.98	4.3	0.52	4.0	95

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TDS	none	1 - 0.5 L plastic	JSB
Dissolved RCRA 8 metals	none	1 - 0.5 L plastic	JSB
Total RCRA 8 metals	HNO_3	1 - 0.5 L plastic	JSB
VOCs	HCL	3 - 40 mL vials	JSB

OBSERVATIONS / NOTES:

Sample time: 1556

Quality Samples:

Signature(s):

MS/MSD:

Duplicate ID No.: MW30:33-Dup01-070610

Tetra Tech

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: Holloman AFB
Project No.: 100-TEN-T93002
Location: SS-39
Personnel: Jeremy Bennett, Brandon Clowers
Weather Conditions: Sunny
Measuring Device: Water Level Indicator / Inter-phase probe
Remarks:

Well Number	Date	Time	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Free Product (feet)*	Comments
MW39-01	7-7-10	0852	29.70	24.86	4.84	
MW39-02	7-7-10	0920	26.91	18.76	8.15	
MW39-03	7-7-10	0906	16.5	8.40	8.10	Refusal on root ball at 8' and 14', TD marked at 16.5
MW39-04	7-7-10	0900	14.72	Dry	—	
MW39-05	7-7-10	0942	15.20	5.57	9.63	
MW39-06	7-7-10	0928	16.29	7.34	8.95	
MW39-06D	7-7-10	0931	26.53	7.12	19.41	
MW39-07	7-7-10	0936	14.11	6.60	7.51	
MW39-08	7-7-10	0957	7.77	3.71	4.06	
MW39-09	7-7-10	0958	8.39	3.17	5.22	
MW39-10	7-7-10	0959	6.59	4.98	1.61	
MW39-11	7-7-10	0951	7.42	4.30	3.12	
MW39-12	7-7-10	0954	8.24	3.32	4.92	

* All measurements to the nearest 0.01 foot

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name:	Holloman AFB	Well ID:	MW39-02
Project No.:	100-TEN-T93002	Date:	7/8/10
Well Depth:	26.91	Weather:	Sunny
Depth to Water:	18.77		
Water Column:	8.14		
Well Casing Diameter & Material:	2" PVC		
One Casing Volume:	1.3 gal		
Three Casing Volumes:	3.9 gal		
Start Purge:	0924		
End Purge:	1034		
Total Purge Time:	50 min.		

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
		18.77								
0929	0.1	18.90	0.5	5.84	18.2	21.24	1.2	4.82	1.1	180
0934	0.14	18.88	1.2	6.03	27.9	21.12	0.0	4.74	1.7	157
0939	0.16	18.88	2	6.13	35.0	21.19	0.0	4.70	2.0	145
0944	0.20	18.88	3	6.18	47.1	21.11	0.0	4.55	2.8	138
0949	0.20	18.88	4	6.20	49.0	21.10	0.0	4.66	2.6	137
0954	0.20	18.88	5	6.23	43.8	21.11	0.0	4.62	2.9	136
0959	0.20	18.88	6	6.23	52.9	21.24	0.0	4.63	3.9	135
1004	0.18	18.88	6.9	5.25	47.1	21.11	0.0	4.72	3.1	133
1009	0.20	18.88	7.9	6.25	68.1	21.14	0.0	4.93	4.0	133
1014	0.20	18.88	8.9	6.26	75.6	21.07	0.0	4.98	4.0	132
1019	0.18	18.88	9.6	6.26	82.2	21.16	0.0	4.93	4.0	132
1022	0.14	18.88	10.3	6.27	99.9	21.16	0.0	5.00	4.0	131

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TDS	none	1-0.5L plastic	JSB
Dissolved RCRA 8 metals	none	1-0.5L plastic	JSB
Total RCRA 8 metals	HNO_3	1-0.5L plastic	JSB
perchlorate	none	1-250mL plastic	JSB
VOCs	HCl	3-40 mL vials	JSB

OBSERVATIONS / NOTES:

Collecting samples at 1034

Quality Samples:

MS/MSD:
Duplicate ID No.:

Signature(s):

Tetra Tech

FIELD PARAMETER FORM
Horiba U-22/YSI

Date: 7/8/10

Project Name: Holloman AFB
Project Number: 100-TEN-T93002
Investigation Site: SS-39

Well / Boring Number: MW39-02
Sample Number: MW39-02-070810
Samplers: JSB

Time Began Purging: 0924

Time End Purging: 1034

Time (24hr)	Purge Volume (Gallons)	pH (Standard Units)	Conductivity (mS/cm)	Turbidity (NTU)	Temperature (C)	D.O (mg/L)	ORP/Eh (mV)
1029	21.2	6.30	98.3	0.0	21.19	5.07	130
1034	~~21~~ 22.2	6.30	99.9	0.0	21.14	5.02	130

Sol
4.0
4.0

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name:	Holloman AFB	Well ID:	MW39-03
Project No.:	100-TEN-T93002	Date:	7/8/10
Well Depth:	16.5	Weather:	Sunny
Depth to Water:	8.41		
Water Column:	8.09		
Well Casing Diameter & Material:	2" PVC		
One Casing Volume:	1.3 gal		
Three Casing Volumes:	3.9 gal		
Start Purge:	1406		
End Purge:	1544		
Total Purge Time:	98 min.		

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
		8.41								
1411	0.06	8.59	0.3	6.17	12.4	21.63	9.4	5.64	0.7	136
1416	0.18	8.58	1.2	6.13	34.8	22.26	2.7	4.32	2.4	139
1421	0.16	8.58	2	6.14	91.9	22.11	4.2	3.89	4.0	139
1426	0.18	8.58	2.9	6.17	99.9	22.35	0.0	3.48	4.0	137
1431	0.14	8.58	3.6	6.20	99.9	22.49	0.0	3.22	4.0	133
1436	0.18	8.58	4.3	6.21	99.9	22.65	1.5	2.95	4.0	130
1441	0.18	8.58	5.1	6.23	99.9	22.63	0.0	2.71	4.0	128
1446	0.18	8.58	5.9	6.23	99.9	22.36	7.1	2.64	4.0	126
1451	0.14	8.58	6.6	6.25	99.9	23.04	0.0	2.49	4.0	124
1456	0.18	8.58	7.3	6.23	99.9	22.00	0.0	2.54	4.0	123
1501	0.16	8.58	8.1	6.25	75.1	22.81	0.0	2.37	4.0	122
1506	0.18	8.58	9	6.25	49.1	21.75	0.0	2.43	3.1	120

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TDS	none	1 - 0.5 L plastic	JSB
Dissolved RCRA 8 metals	none	1 - 0.5 L plastic	JSB
Total RCRA 8 metals	HNO_3	1 - 0.5 L plastic	JSB
perchlorate	none	1 - 250 mL plastic	JSB
VOCs	HCL	3 - 40 mL vials	JSB

OBSERVATIONS / NOTES:

Sample time 1544

Quality Samples:	**Signature(s):**
MS/MSD: **Duplicate ID No.:**	

Tetra Tech

FIELD PARAMETER FORM
Horiba U-22/YSI

Date: 7-8-10

Project Name: Holloman AFB
Project Number: 100-TEN-T93002
Investigation Site: SS-39

Well / Boring Number: MW39-03
Sample Number: MW39-03-070810
Samplers: JSB

Time Began Purging: 1406

Time End Purging: 1544

Time (24hr)	Purge Volume ~~(Gallons)~~	pH (Standard Units)	Conductivity (mS/cm)	Turbidity (NTU)	Temperature (C)	D.O (mg/L)	ORP/Eh (mV)	Sol
1511	9.8	6.24	43.9	0.0	21.41	2.41	118	2.8
1516	10.6	6.23	43.7	0.0	21.27	2.35	117	2.8
1521	11.5	6.28	45.4	0.0	22.01	2.25	116	3.0
1526	12.2	6.31	56.1	0.0	22.13	2.25	115	2.8
1531	12.9	6.32	38.9	0.0	22.30	2.23	114	2.5
1536	13.6	6.32	32.6	0.0	22.14	2.24	113	2.0
1541	14.4	6.33	30.9	0.0	22.27	2.21	112	1.9

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 15.20
Depth to Water: 5.57
Water Column: 9.63
Well Casing Diameter & Material: 2" PVC
One Casing Volume: 1.5 gal
Three Casing Volumes: 4.6 gal
Start Purge: 912
End Purge: 1015
Total Purge Time: 63 min

Well ID: MW-~~03~~ 39-05
Date: 7/8/10
Weather: Partly cloudy 80°F

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
915	0.135	5.72	0.495	6.75	98.4	24.06	0.2	5.41	>4	205
920	0.135	5.72	1.08	7.11	98.4	24.06	Ø	3.48	>4	180
925	0.135	5.73	1.755	7.15	93.2	23.79	Ø	2.69	>4	167
930	0.135	5.73	2.43	7.17	89.6	23.70	Ø	2.06	>4	163
935	0.135	5.74	3.105	7.18	87.0	23.58	Ø	1.53	>4	157
940	0.135	5.74	3.78	7.19	86.2	23.70	Ø	1.04	>4	152
945	0.135	5.73	4.455	7.19	87.4	23.71	Ø	0.82	>4	147
950	0.135	5.74	5.13	7.19	86.0	23.81	Ø	0.66	>4	148
955	0.135	5.74	5.805	7.20	86.4	23.95	Ø	0.54	>4	143
1000	0.135	5.73	6.48	7.20	86.7	24.07	Ø	0.47	>4	143
1005	0.135	5.73	7.155	7.20	86.8	23.88	Ø	0.26	>4	144
1010	0.135	5.74	7.83	7.20	85.8	23.96	Ø	0.22	>4	145
1015	0.135	5.73	8.505	7.20	86.7	24.01	Ø	0.20	>4	145

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TDS	none	1 - 0.5 L plastic	BC
Dissolved RCRA 8 metals	none	1 - 0.5 L plastic	BC
Total RCRA 8 metals	HNO_3	1 - 0.5 L plastic	BC
Perchlorate	none	1 - 250 mL plastic	BC
VOCs	HCL	3 - 40 mL vials	BC

OBSERVATIONS / NOTES:

Sampled at 1020.

Quality Samples:

MS/MSD:
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 16.29
Depth to Water: 7.32
Water Column: 8.97
Well Casing Diameter & Material: 2" PVC
One Casing Volume: 1.4 gal
Three Casing Volumes: 4.3 gal
Start Purge: 1118
End Purge: 1210
Total Purge Time: 52 min

Well ID: MW-39-06
Date: 7/8/10
Weather: partly cloudy 85°F

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
1125	0.166	7.42	1.162	7.24	58.0	23.00	8.4	2.30	3.8	133
1130	0.166	7.44	1.992	7.21	51.7	22.29	20.2	1.68	2.1	129
1135	0.166	7.46	2.822	7.16	46.8	21.91	Ø	0.73	3.1	127
1140	0.166	7.45	3.652	7.10	44.0	21.87	Ø	0.61	2.8	128
1145	0.166	7.46	4.482	7.07	39.8	21.81	Ø	0.56	2.5	127
1150	0.166	7.46	5.312	7.03	40.8	21.59	Ø	0.38	2.6	124
1155	0.166	7.45	6.142	7.01	41.0	21.79	Ø	0.36	2.5	122
1200	0.166	7.45	6.972	7.00	39.9	21.89	Ø	0.34	2.5	122
1205	0.166	7.46	7.802	7.00	39.5	22.05	Ø	0.33	2.5	121
1210	0.166	7.46	8.632	7.00	39.4	21.96	Ø	0.32	2.5	121

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TDS	none	1 - 0.5L plastic	BC
Dissolved RCRA 8 metals	none	1 - 0.5L plastic	BC
Total RCRA 8 metals	HNO_3	1 - 0.5L plastic	BC
Perchlorate	none	1 - 250 mL plastic	BC
VOCs	HCl	3 - 40 mL vials	BC

OBSERVATIONS / NOTES:

Sampled at 1215.

Quality Samples:

MS/MSD:
Duplicate ID No.:

Signature(s): Brenda Clark

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 26.53
Depth to Water: 7.14
Water Column: ~~7.39~~ 19.39
Well Casing Diameter & Material: 2" PVC
One Casing Volume: 3.1 gal
Three Casing Volumes: 9.3 gal
Start Purge: 1117
End Purge: 1208
Total Purge Time: 51 min.

Well ID: MW39-06D
Date: 7/8/10
Weather: Sunny

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
		7.14								
1122	0.18	7.34	0.9	6.12	99.9	20.83	0.0	5.05	4.0	158
1127	0.14	7.31	1.6	6.16	99.9	20.96	0.0	4.54	4.0	161
1132	0.18	7.31	2.3	6.21	99.9	21.13	0.0	4.12	4.0	165
1137	0.18	7.31	3.2	6.23	99.9	21.06	0.0	3.86	4.0	170
1142	0.18	7.31	4.1	6.23	99.9	21.21	0.0	3.62	4.0	175
1147	0.18	7.31	5	6.21	99.9	21.05	0.0	3.47	4.0	181
1152	0.14	7.31	5.7	6.19	99.9	20.74	0.0	3.35	4.0	184
1157	0.16	7.31	6.5	6.20	99.9	21.11	0.0	3.16	4.0	188
1202	0.18	7.31	7.4	6.18	99.9	21.15	0.0	3.10	4.0	193
1207	0.20	7.31	8.4	6.17	99.9	21.09	0.0	3.05	4.0	197

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TDS	none	1- 0.5 L plastic	JSB
Dissolved RCRA 8 metals	none	1- 0.5 L plastic	JSB
Total RCRA 8 metals	HNO_3	1- 0.5 L plastic	JSB
Perchlorate	none	1- 250 mL plastic	JSB
VOCs	HCL	3- 40 mL vials	JSB

OBSERVATIONS / NOTES:

Sample time 1208

Quality Samples:

Signature(s):

MS/MSD:
Duplicate ID No.: MW39-Dup01-070810

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 14.11
Depth to Water: 6.62
Water Column: 7.49
Well Casing Diameter & Material: 2" PVC
One Casing Volume: 1.2 gal
Three Casing Volumes: 3.6 gal
Start Purge: 1623
End Purge: 1745
Total Purge Time: 82 min

Well ID: MW-39-07
Date: 7/7/10
Weather: Sunny 90°F

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
1630	0.182	6.89	1.274	6.79	>99.9	24.90	290.0	3.67	>4	137
1635	0.182	6.91	2.184	6.79	>99.9	25.44	83.7	2.88	>4	148
1640	0.182	6.94	3.094	6.77	>99.9	24.90	47.4	2.70	>4	158
1645	0.182	6.94	4.004	6.75	>99.9	25.04	25.8	2.56	>4	167
1650	0.182	6.92	4.914	6.73	>99.9	25.04	27.9	2.57	>4	175
1655	0.182	6.92	5.924	6.71	>99.9	25.00	25.4	2.52	>4	181
1700	0.182	6.92	6.734	6.70	>99.9	24.86	17.6	2.49	>4	187
1705	0.182	6.93	7.644	6.69	>99.9	24.99	17.3	2.42	>4	192
1710	0.182	6.94	8.554	6.69	>99.9	24.57	16.1	2.40	>4	194
1715	0.182	6.93	9.464	6.64	>99.9	24.28	15.1	2.35	>4	200
1720	0.182	6.94	10.374	6.63	>99.9	24.07	14.9	2.33	>4	203
1725	0.182	6.92	11.284	6.65	>99.9	24.75	14.5	2.24	>4	205
1730	0.182	6.93	12.194	6.66	>99.9	24.74	15.1	2.22	>4	208

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TDS	none	1 - 0.5 L plastic	BC
Dissolved RCRA 8 metals	none	1 - 0.5 L plastic	BC
Total RCRA 8 metals	HNO_3	1 - 0.5 L plastic	BC
Perchlorate	none	1 - 250 mL plastic	BC
VOCs	HCL	3 - 40 mL vials	BC

OBSERVATIONS / NOTES:

Bottom of tubing is approx. 4' from bottom of well. Sample taken at 1800.

Quality Samples:

MS/MSD: MW-39-07-MS-070710 / MW-39-07-MSD-070710
Duplicate ID No.:

Signature(s):

Brandon Clowers

Tetra Tech

FIELD PARAMETER FORM
Horiba U-22/YSI

Date: 7/7/10

Project Name: Holloman AFB
Project Number: 100-TEN-T93002
Investigation Site:

Well / Boring Number: MW-39-07
Sample Number:
Samplers: B. Clowers

Time Began Purging: 1623

Time End Purging: 1745

Water level	Time (24hr)	Purge Volume ~~(Gallons)~~ L	pH (Standard Units)	Conductivity (mS/cm)	Turbidity (NTU)	Temperature (C)	D.O (mg/L)	ORP/Eh (mV)
6.93	1735	13.104	6.65	>99.9	16.1	24.50	2.20	210
6.94	1740	14.014	6.64	>99.9	14.4	24.73	2.16	211
6.93	1745	14.924	6.64	>99.9	14.4	24.71	2.12	212

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 7.77
Depth to Water: 3.52
Water Column: 4.25
Well Casing Diameter & Material: 2" PVC
One Casing Volume: 0.68 gal
Three Casing Volumes: 2.04 gal
Start Purge: 1400
End Purge: 1432
Total Purge TIme: 32

Well ID: MW39-08
Date: 7/7/10
Weather: Sunny

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
		3.52								
1405	—	4.25	—	7.64	99.9	28.83	3.0	5.91	4.0	86
1410	0.05	4.94	0.5	7.64	99.9	28.64	2.2	5.71	4.0	90
1415	0.1	5.61	1.0	7.64	99.9	28.43	2.2	6.05	4.0	97
1420	0.08	6.26	1.4	7.64	99.9	28.43	2.0	6.13	4.0	103
1425	0.08	6.78	1.8	7.63	99.9	28.23	1.9	6.27	4.0	108
1430	0.08	7.43	2.2	7.63	99.9	28.35	2.9	5.91	4.0	112

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Dissolved Metals (RCRA)	none	1 - 0.5 L plastic	JSB
Total RCRA Metals	HNO3	1 - 0.5 L plastic	JSB
& Perchlorate	none	1 - 250mL plastic	JSB
VOCs	HCL	3 - 4 mL vials	JSB
TDS	none	1 - 0.5 L plastic	JSB

OBSERVATIONS / NOTES:

Sample time: 1432

Quality Samples:

MS/MSD:
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 8.39
Depth to Water: 3.10
Water Column: 5.29
Well Casing Diameter & Material: 2" PVC
One Casing Volume: 0.84 gal
Three Casing Volumes: 2.54 gal
Start Purge: 1405
End Purge: 1500
Total Purge Time: 55 min

Well ID: MW-39-09
Date: 7/7/10
Weather: Sunny 90°F

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
1410	0.115	3.72	0.575	7.13	>99.9	30.90	878.0	5.39	>4	93
1415	0.115	4.12	1.15	7.10	>99.9	30.00	517.0	5.49	>4	107
1420	0.115	4.75	1.725	7.08	>99.9	29.17	792.0	5.33	>4	116
1425	0.115	5.39	2.3	7.09	>99.9	28.89	711.0	4.88	>4	122
1430	0.115	5.91	2.875	7.08	>99.9	28.64	445.0	4.54	>4	127
1435	0.115	6.41	3.45	7.08	>99.9	28.53	413.0	4.38	>4	131
1440	0.115	6.92	4.025	7.08	>99.9	28.55	317.0	4.05	>4	134
1445	0.115	7.52	4.6	7.07	>99.9	28.65	317.0	3.98	>4	136
1450	0.115	8.09	5.175	7.03	>99.9	28.60	416.0	3.72	>4	138
1455	0.115	8.54	5.75	7.01	>99.9	28.38	416.0	3.45	>4	138
1500	0.115	9.11	6.325	7.00	>99.9	28.43	494.0	3.82	>4	138

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TDS	none	1 - 0.5 L plastic	BC
Dissolved RCRA 8 metals	none	1 - 0.5 L plastic	BC
Total RCRA 8 metals	HNO_3	1 - 0.5 L plastic	BC
Perchlorate	none	1 - 250 mL plastic	BC
VOCs	HCL	3 - 40 mL vials	BC

OBSERVATIONS / NOTES:

Sampled at 1510.

Quality Samples:

MS/MSD:
Duplicate ID No.:

Signature(s): Brandon Clouse

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 6.59
Depth to Water: 4.93
Water Column: 1.66
Well Casing Diameter & Material: 2" PVC
One Casing Volume: 0.3 gal
Three Casing Volumes: 0.9 gal
Start Purge: 1622
End Purge: 1724
Total Purge Time: 62 min.

Well ID: MW39-10
Date: 7-7-10
Weather: partly cloudy

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
	—	4.93								
1627	—	5.05	0	7.59	99.9	29.08	-5.0	3.67	4.0	80
1632	0.08	5.02	0.4	7.50	99.9	29.41	-5.0	3.13	4.0	77
1637	0.10	5.04	0.9	7.49	99.9	29.27	-5.0	2.78	4.0	78
1642	0.08	5.05	1.3	7.50	99.9	29.11	-5.0	2.49	4.0	79
1647	0.10	5.06	1.7	7.54	99.9	29.19	-5.0	2.51	4.0	79
1652	—	5.05	1.7	7.58	99.9	29.34	62.9	7.10	4.0	83
1657	0.10	5.05	2.2	7.57	99.9	29.45	35.3	3.11	4.0	81
1702	0.10	5.05	2.7	7.58	99.9	29.75	29.9	2.78	4.0	79
1707	0.10	5.05	3.2	7.59	99.9	29.83	25.7	2.69	4.0	76
1712	0.10	5.04	3.7	7.61	99.9	29.71	26.0	2.60	4.0	63
1717	0.10	5.05	4.2	7.63	99.9	29.39	24.4	2.57	4.0	54
1722	0.10	5.05	4.7	7.61	99.9	29.57	23.4	2.49	4.0	54

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TDS	none	1 - 0.5 L plastic	JJB
Dissolved RCRA 8 metals	none	1 - 0.5 L plastic	JJB
Total RCRA 8 metals	HNO_3	1 - 0.5 L plastic	JJB
Perchlorate	none	1 - 250 mL plastic	JJB
VOCs	HCL	3 - 40 mL vials	JJB

OBSERVATIONS / NOTES:

1647 Cleaned out flow through cell. Sample time: 1724

Quality Samples:

MS/MSD:
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name:	Holloman AFB	Well ID:	MW39-011
Project No.:	100-TEN-T93002	Date:	7/7/10
Well Depth:	7.42	Weather:	Sunny
Depth to Water:	4.28		
Water Column:	3.14		
Well Casing Diameter & Material:	2" PVC		
One Casing Volume:	0.5 gal		
Three Casing Volumes:	1.5 gal		
Start Purge:	1031		
End Purge:	1128		
Total Purge Time:	57 min		

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
		4.28								
1036	[illegible]	4.39	0.1	7.52	99.9	27.88	124	4.9	4.0	151
1041	[illegible] 0.14	4.51	0.8	7.56	99.9	28.25	83.8	3.84	4.0	128
1046	0.10	4.58	1.3	7.60	99.9	28.72	57.4	3.75	4.0	115
1051	0.14	4.62	2	7.60	99.9	28.94	50.8	3.66	4.0	106
1056	0.06	4.64	2.3	7.62	99.9	29.27	40.8	3.50	4.0	98
1101	0.12	4.69	2.9	7.63	99.9	29.37	33.9	3.51	4.0	91
1106	0.06	4.69	3.2	7.64	99.9	29.20	31.0	3.59	4.0	87
1111	0.12	4.71	3.8	7.65	99.9	29.51	27.9	3.56	4.0	84
1116	0.08	4.72	4.2	7.65	99.9	29.38	26.7	3.50	4.0	82
1121	[illegible] 0.12	4.73	4.8	7.65	99.9	29.44	26.3	3.50	4.0	81
1126	0.06	4.74	5.1	7.65	99.9	29.43	30.0	3.44	4.0	81

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TDS	none	1 - 0.5 L plastic	JSB
Dissolved RCRA 8 metals	none	1 - 0.5 L plastic	JSB
Total RCRA 8 metals	HNO_3	1 - 0.5 L plastic	JSB
Perchlorate	none	1 - 250 mL plastic	JSB
VOCs	HCL	3 - 40 mL vials	JSB

OBSERVATIONS / NOTES:

Sample time: 1128

Quality Samples:	Signature(s):
MS/MSD: Duplicate ID No.:	

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 8.24
Depth to Water: 3.36
Water Column: 4.88
Well Casing Diameter & Material: 2" PVC
One Casing Volume: 0.78 gal
Three Casing Volumes: 2.34 gal
Start Purge: 1037
End Purge: 1140
Total Purge Time: 63 min

Well ID: MW-39-12
Date: 7/7/10
Weather: Sunny 90°F

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
1040	0.079	4.09	0.237	6.77	>99.9	26.57	382.0	3.97	>4	231
1045	0.079	4.36	0.632	6.93	>99.9	27.69	329.0	3.78	>4	209
1050	0.079	4.74	1.027	7.04	>99.9	28.17	489.0	3.74	>4	177
1055	0.079	4.90	1.422	7.05	>99.9	28.28	401.0	3.57	>4	169
1100	0.079	5.19	1.817	7.07	>99.9	28.22	279.0	3.45	>4	160
1105	0.079	5.36	2.212	7.07	>99.9	28.21	233.0	3.33	>4	158
1110	0.079	5.67	2.607	7.09	>99.9	28.42	138.0	3.13	>4	152
1115	0.079	5.87	3.002	7.10	>99.9	28.24	112.0	3.09	>4	148
1120	0.079	5.98	3.397	7.11	>99.9	28.37	62.3	3.08	>4	145
1125	Restart Pump		~~3.792~~			~~27.33~~				~~44~~
1130	0.079	6.44	3.792	7.07	>99.9	27.33	68.2	2.92	>4	140
1135	0.079	7.20	4.187	7.06	>99.9	27.40	55.1	2.76	>4	139
1140	0.079	7.82	4.582	7.09	>99.9	27.47	89.7	2.74	>4	139

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TDS	none	1 - 0.5 L plastic	BC
Dissolved RCRA 8 metals	none	1 - 0.5 L plastic	BC
Total RCRA 8 metals	HNO_3	1 - 0.5 L plastic	BC
Perchlorate	none	1 - 250 mL plastic	BC
VOCs	HCL	3 - 40 mL vials	BC

OBSERVATIONS / NOTES:

At 1120 pump battery failed, had to replace. Began pumping at 1125.
Sample taken at 1145

Quality Samples:

MS/MSD:
Duplicate ID No.:

Signature(s): Brandon Clowers

NOVEMBER 2010 GROUNDWATER

FIELD DATA FORMS

Well Completion Information

Holloman Air Force Base Alamogordo, New Mexico

Project Number: 100-TEN-T93002-1 Task 09.03.03.02

Site: SD-27 (SWMU-141)

Well ID: SD27-MW01

Date Installed: 11/10/10

Well Type: Auger Piezometer (Monitoring Well) Extraction Well

Completion Method: Stick-up (Flush Mount)

Geologic Zone: (Residuum) Interface Bedrock

Seal End Depth: 18.03' (feet) **Filter Pack Length:** 11.0 (feet)

Measuring Point Elevation (Top of Casing): _____

Total Casing Depth: 17.99 (feet)

Casing Inside Diameter: 2.0"

Casing Material: (PVC) SLS GLS OTHER _____

Screen Beginning Depth: 7.99 (feet)

Screen Length: 10.0 (feet)

Screen Slot Size: 0.01 (inches)

Screen Diameter: 2.0 (inches)

Sand Type: 20/40

Remarks: _____

Prepared By: B. Clowers

Well Development Log

Project Number: 100-TEW-T93002-1 Task 09.03.03.02
Project Name: Holloman AFB
Form Completed by: B. Clowers
Development Company: Tetra Tech Inc

Well No: SD27-MW01
Site Name: SD-27
Date Started: 11/10/10

Monitoring Well Information

Development Method: Surge / Bail
Development Equipment: Stainless Steel Bailer / Peristaltic pump to purge

Screen Length (ft): 10
Filter Pack Length (ft): 11
Casing Diameter (in): 2

Beginning Measurements
Depth to Water (ft): 10.12 TOC
Total Depth of Well (ft): ~~19.37~~ 17.99

Monitoring Well Purge Calculations

Volume of Water in Casing:
Gallons/foot = 0.041 x d^2, where casing diameter in inches = (0.041 x (2)^2) = 0.164 gal/ft.
Well Volume (gallons) = Water Column (ft) x Gal/ft = 9.19 ft x 0.164 gal/ft = 1.51 gallons

Volume of Water in Filter Pack: 10.56 − 4 = 6.52
Gallons/foot = 0.041 x (D^2 - d^2), where D is total borehole diameter in inches & d is casing diameter in inches = 0.041 x ((3.25)^2 – (2)^2) = gal/ft.
Filter Pack Volume (gal) = ((lesser of screen length+2 feet OR water column) x gal/ft) x porosity (0.3) = (9.19) ft x (0.269) gal/ft) x 0.3 = 0.74 gal.

Purge Well Volume:
Purge well Volume = Filter pack volume + Well Volume = 1.51 gal + 0.74 gal = 2.25 gal.

1 x Purge Well Volume	2 x Purge Well Volume	3 x Purge Well Volume	4 x Purge Well Volume	5 x Purge Well Volume
2.25	4.50	6.75	9.00	11.25

Development Record

Time (24 hours)	Purge Volume (gal)	Water Level (ft) (TOC)	ORP (mV)	pH (Std Units)	Conductivity (mS/cm)	Turbidity (NTU)	DO (ppm)	Temp. (C)	Clarity (color)	Comments
1330										Surge 15 mins
1350	3.0									Stopped purge, would not go dry
1410		10.18	Resume surging							Surge 10 mins
1418	8.0									Stopped purge, would not go dry

Continued on sheet 2 →

Well Development Log

Well No: SD27-MW01
Site Name: SD27
Date Started: 11/10/10

Development Record (continuation)

Time (24 hrs)	Purge Volume (gal)	Water Level (ft BTOC)	ORP (mV)	pH (Std)	Conductivity (mS/cm)	Turbidity (NTU)	DO (ppm)	Temp. (C)	Clarity (color)	Comments
0935	0	10.17	55	7.81	23.4	47.1	0.00	21.22	clear	
0940		10.19	70	7.75	26.0	185	0.00	22.15	clear	
0945		10.19	85	7.69	27.8	194	0.00	22.61	clear	
0950		10.19	96	7.69	27.6	83.7	0.00	22.84	clear	
0955		10.19	98	7.68	27.5	70.4	0.00	22.90	clear	
1000		10.19	101	7.68	27.4	44.9	0.00	22.93	clear	
1005		10.19	102	7.68	27.4	37.3	0.00	22.85	clear	
Samples taken at 1005 for VOCs, SVOCs, TPH-DRO, TPH-GRO, RCRA Metals (total + diss), TDS.										

Range and Average Discharge Rate: ~400 mL/min
Maximum Drawdown during Development: Ø at 0.25 gpm.
Disposition of Development Water: (Drums) Frac Tank Other
Number of Containers for Development Water: 1

Comments: Good producer, would not purge dry.

Final Measurements

Total Depth of Well (ft): 17.99 TOC

Date Completed: 11/11/10

Hours Developed: 2.0

Well Completion Information

Holloman Air Force Base Alamogordo, New Mexico

Project Number: 100-TEW-T93002-1 TASK 09.03.03.02

Site: SD-27 (SWMU-141)

Well ID: SD27-MW02

Date Installed: 11/6/10

Well Type: Auger Piezometer (Monitoring Well) Extraction Well

Completion Method: Stick-up (Flush Mount)

Geologic Zone: (Residuum) Interface Bedrock

Seal End Depth: 17.33 (feet) **Filter Pack Length:** 11.0 (feet)

Measuring Point Elevation (Top of Casing): _____

Total Casing Depth: 17.29 (feet)

Casing Inside Diameter: 2.0"

Casing Material: (PVC) SLS GLS OTHER _____

Screen Beginning Depth: 7.29 (feet)

Screen Length: 10.0 (feet)

Screen Slot Size: 0.01 (inches)

Screen Diameter: 2.0 (inches)

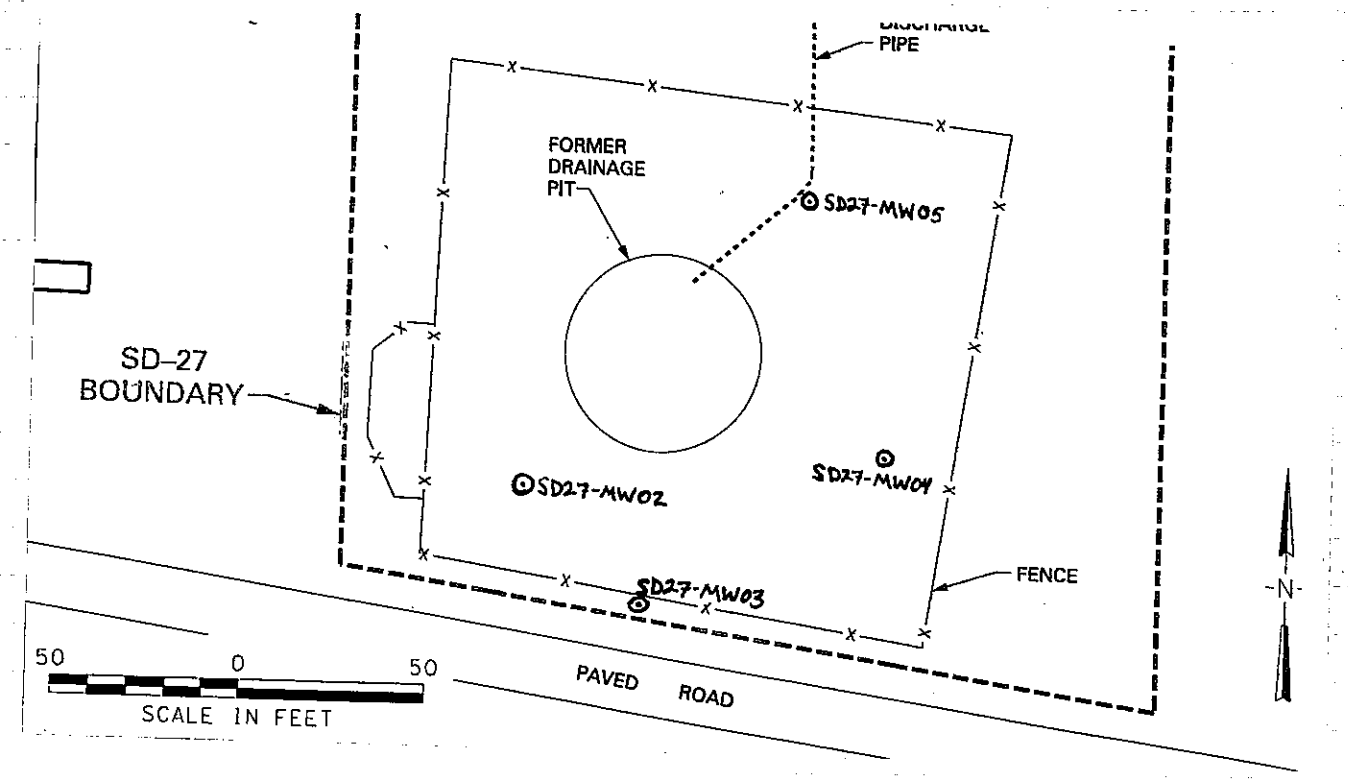
Sand Type: 20/40

Remarks: _____

Prepared By: B. Clowers

DRILLING LOG

CLIENT	AFCEE
HOLE NUMBER	SD27-MW02
DRILL SUBCONTRACTOR	Vista Geosciences
SHEET / SHEETS	1 of 2
PROJECT / PROJECT NUMBER	Holloman AFB / 100-TEW-T93002-1 Task 09.03.03.02
MANUFACTURER'S DESIGN OF DRILL	Geoprobe 7822
NAME OF DRILLER(S)	D. West / K. Geraghty
SITE NAME	SD-27 (SWMU-141)
SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	3.25" rods with expendable point.
HOLE LOCATION	SD27-MW02
SURFACE ELEVATION	
DATE STARTED	11/6/10
DATE COMPLETED	11/6/10
OVERBURDEN THICKNESS	—
DEPTH DRILLED INTO ROCK	—
TOTAL DEPTH OF HOLE	17.33'
DEPTH OF GROUNDWATER ENCOUNTERED	7.0'
DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	—
OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	—
GEOTECHNICAL SAMPLES	NO
DISTURBED	—
UNDISTURBED	—
TOTAL NUMBER OF CORE BOXES	—
SAMPLES FOR CHEMICAL ANALYSIS	NO
VOC	—
METALS	—
OTHER (SPECIFY)	—
OTHER (SPECIFY)	—
OTHER (SPECIFY)	—
TOTAL CORE RECOVERY	—
DISPOSITION OF HOLE	
BACKFILLED	NO
MONITORING WELL	yes
OTHER (SPECIFY)	—
SIGNATURE OF INSPECTOR	Brian La Claire
LOCATION SKETCH/COMMENTS	
SCALE	



SITE NAME	SD-27- (SWMU-141)
HOLE NO.	SD27-MW02

DRILLING LOG (CONTINUATION SHEET)

DISTRICT	HOLE NUMBER
AFCEE	SD27-MW02

PROJECT / PROJECT NUMBER	INSPECTOR	SHEET	SHEETS
Holloman AFB / 100-TEN-T93002-1 Task 09.03.03.02	Jeremy Bennett	2 of	2

ELEV (a)	DEPTH FT (b)	DESCRIPTION OF MATERIALS (c)	HNU SCREENING RESULTS (PPM) (d)	~~PUSH~~ SAMPLE INTERVAL (e)	ANALYTICAL SAMPLE NO (f)	USCS (g)	REMARKS (h)
	Ø	Reddish Brown 5YR 4/4 med silty sand ~~roots~~ fine roots					3'10" recovery moist
	2	pink 7.5 yr 8/4 silty sand w/ clay					
	4	reddish yellow 7.5YR 7/6 silty sand w/ clay f/a white matt					
	6	white 5YR 8/1 silty sand med pink matt 7.5 YR 8/4					
	8	Reddish yellow 7.5YR 8/6 sand w/ silt		6.5-8.5	n/a		4'7" recovery moist slight odor
	10	pale brown 2.5Y 8/3 med silty sand wet					
	12	Black layer gray 5Y 6/1 silty sand w/ clay fine		11.5-13.5	n/a		
	14	gray 5Y 6/1 silty sand fine wet coarse columnar gypsum crystals					mild odor
	16	gray to dark gray 5Y 5/1 saturated med to coarse sand					3'11" recovery
	18	pale yellow and gray 5Y 8/2 silty sand w/ clay plastic		16.5-18.5	n/a		
	20	yellowish red 5YR 5/6 clayey sand med gypsum crystals moist					3'10" recovery
	22			21.5-23.5	n/a		
	24						
	25						

SITE NAME	HOLE NO.
SD-27 (SWMU 141)	SD27-MW02

Well Development Log

Project Number: 100-TEN-T93002-1 Task 09.03.03.02
Project Name: Holloman AFB
Form Completed by: B. Clowers
Development Company: Tetra Tech Inc

Well No: SD27-MW02
Site Name: SD27 Pad 9 washrack
Date Started: 11/9/10

Monitoring Well Information

Development Method: Surge/Bail
Development Equipment: Stainless Steel bailer, peristaltic pump to purge

Screen Length (ft): 10
Filter Pack Length (ft): 11
Casing Diameter (in): 2

Beginning Measurements
Depth to Water (ft): 11.48
Total Depth of Well (ft): ~~20.57~~ 17.29

Monitoring Well Purge Calculations

Volume of Water in Casing:
Gallons/foot = 0.041 x d^2, where casing diameter in inches = (0.041 x (2)^2) = 0.164 gal/ft.
Well Volume (gallons) = Water Column (ft) x Gal/ft = 9.19 ft x 0.164 gal/ft = 1.51 gallons

Volume of Water in Filter Pack: 10.56 - 4 = 6.56
Gallons/foot = 0.041 x (D^2 - d^2), where D is total borehole diameter in inches & d is casing diameter in inches = 0.041 x ((3.25)^2 – (2)^2) = gal/ft.
Filter Pack Volume (gal) = ((lesser of screen length+2 feet OR water column) x gal/ft) x porosity (0.3) = (9.19) ft x (0.269) gal/ft) x 0.3 = 0.742 gal.

Purge Well Volume:
Purge well Volume = Filter pack volume + Well Volume = 1.51 gal + 0.742 gal = 2.25 gal.

1 x Purge Well Volume	2 x Purge Well Volume	3 x Purge Well Volume	4 x Purge Well Volume	5 x Purge Well Volume
2.25	4.50	6.75	9.0	11.25

Development Record

Time (24 hours)	Purge Volume (gal)	Water Level (ft) (TOC)	ORP (mV)	pH (Std Units)	Conductivity (mS/cm)	Turbidity (NTU)	DO (ppm)	Temp. (C)	Clarity (color)	Comments
1155										
1225	4.5	Dry	—	—	—	—	—	—	—	bailed dry after 15 mins of surging
1313	—	11.68	—	—	—	—	—	—	—	Purged second time
1330	8.5	Dry	—	—	—	—	—	—	—	bailed dry after 10 mins of surging
11/10/10 905	—	11.53	Begin	purge with	peristaltic	pump.				Flow SAL
910	9.25	11.58	-224	7.66	22.2	155	Ø	16.65	cloudy	400 ml/min 13.3
915	10	13.88	-228	7.64	22.0	90.1	Ø	17.05	cloudy	300 ml/min 13.2
920	10.5	14.17	-227	7.62	21.6	56.2	Ø	17.21	cloudy	300 ml/min 12.9
925	11.0	14.23	-228	7.61	21.4	38.6	Ø	17.31	cloudy	275 ml/min 12.8
930	11.5	14.27	-230	7.59	21.3	30.6	Ø	17.39	cloudy	275 ml/min 12.7
935	11.9	14.33	-235	7.59	21.2	14.6	Ø	17.62	cloudy	275 ml/min 12.6

Well Development Log

Well No: SD27-MW02
Site Name: SD-27 Pad 9 wash rack
Date Started: 11/9/10

Development Record (continuation)

Time (24 hrs)	Purge Volume (gal)	Water Level (ft BTOC)	ORP (mV)	pH (Std)	Conductivity (mS/cm)	Turbidity (NTU)	DO (ppm)	Temp. (C)	Clarity (color)	Comments Flow ml/min SAL PPT
940	12.2	14.42	-239	7.58	21.1	8.7	Ø	17.91	clear	300 ml/min 12.6
945	12.6	14.46	-243	7.57	21.1	7.1	Ø	18.04	clear	300 ml/min 12.6
950	13.0	14.50	-246	7.57	21.0	5.1	Ø	18.19	clear	300 ml/min 12.6
955	13.4	14.53	-248	7.57	21.0	4.3	Ø	18.33	clear	300 ml/min 12.5
										purge stopped as 5 well
										volumes and parameters
11/10/10	1200 sample	Taken including	field	Dup.	water level	11.38' TOC				reached.
		VOCs,	SVOCs,	TPH-GRO,	TPH-DRO,	RCRA metals	(Total + Diss),	TDS		

Range and Average Discharge Rate: ~300 ml/min
Maximum Drawdown during Development: 3.05' at 300 ml/min ~~gpm.~~
Disposition of Development Water: (Drums) Frac Tank Other
Number of Containers for Development Water: 1

Comments:

Final Measurements

Total Depth of Well (ft): 17.29

Date Completed: 11/10/10

Hours Developed: 2.25

Well Completion Information

Holloman Air Force Base Alamogordo, New Mexico

Project Number: 100-TEW-T93002-1 Task 09.03.03.02

Site: SD-27 (SWMU-141)

Well ID: SD27-MW03

Date Installed: 11/5/10

Well Type: Auger Piezometer (Monitoring Well) Extraction Well

Completion Method: Stick-up (Flush Mount)

Geologic Zone: (Residuum) Interface Bedrock

Seal End Depth: 15.28 (feet) **Filter Pack Length:** 8.5 (feet)

Measuring Point Elevation (Top of Casing): _____

Total Casing Depth: 15.24 (feet)

Casing Inside Diameter: 2.0

Casing Material: (PVC) SLS GLS OTHER _____

Screen Beginning Depth: 7.74 (feet)

Screen Length: 7.5 (feet)

Screen Slot Size: 0.01 (inches)

Screen Diameter: 2.0 (inches)

Sand Type: 20/40

Remarks: _____

Prepared By: B. Clowers

Well Development Log

Project Number: 100-TEN-T93002-1 Task 09.03.08.02
Project Name: Holloman AFB
Form Completed by: B. Clowers
Development Company: Tetra Tech Inc

Well No: SD27-MW03
Site Name: SD-27 Pad 9 Washrack
Date Started: 11/9/10

Monitoring Well Information

Development Method: surge / bail
Development Equipment: stainless steel bailer, peristaltic pump to purge

Screen Length (ft): 7.5
Filter Pack Length (ft): 8.5
Casing Diameter (in): 2.0

Beginning Measurements
Depth to Water (ft): 10.76 TOC
Total Depth of Well (ft): ~~10.76~~ 15.24

Monitoring Well Purge Calculations

Volume of Water in Casing:
Gallons/foot = 0.041 x d^2, where casing diameter in inches = (0.041 x (2)^2) = 0.164 gal/ft.
Well Volume (gallons) = Water Column (ft) x Gal/ft = 6 ft x 0.164 gal/ft = 0.984 gallons

Volume of Water in Filter Pack:
10.56 – 4 = 6.56
Gallons/foot = 0.041 x (D^2 - d^2), where D is total borehole diameter in inches & d is casing diameter in inches = 0.041 x ((3.25)^2 – (2)^2) = gal/ft.
Filter Pack Volume (gal) = ((lesser of screen length+2 feet OR water column) x gal/ft) x porosity (0.3) = (6) ft x (~~0.66~~ 0.269) gal/ft) x 0.3 = 0.484 gal.

Purge Well Volume:
Purge well Volume = Filter pack volume + Well Volume = 0.984 gal + 0.484 gal = 1.47 gal.

1 x Purge Well Volume	2 x Purge Well Volume	3 x Purge Well Volume	4 x Purge Well Volume	5 x Purge Well Volume
1.47	2.94	4.41	5.88	7.35

Development Record

Time (24 hours) (05)	Purge Volume (gal)	Water Level (ft) (TOC)	ORP (mV)	pH (Std Units)	Conductivity (mS/cm)	Turbidity (NTU)	DO (ppm)	Temp. (C)	Clarity (color)	Comments
1108	2.0	Dry	–	–	–	–	–	–	–	Bailed dry after 15 mins of surging
1257		10.46								Purged second time
1310	4.0	Dry								bailed dry after 10 mins of surging
1750		10.76								
1810	Begin purge with peristaltic pump.									
1815	4.3	10.79	-54	7.88	34.7	>1000	Ø	17.37	muddy	100 mL/min 21.8 ppt
1828	4.6	11.45	-40	7.54	34.3	>1000	Ø	18.57	murky	200 mL/min 21.4
1833	4.9	11.52	-47	7.49	34.2	>1000	Ø	18.78	murky	200 mL/min 21.4
1838	5.2	11.52	-67	7.42	34.5	>1000	Ø	19.25	murky	200 mL/min 21.6
1843	5.5	11.48	-80	7.39	34.3	>1000	Ø	19.35	murky	200 mL/min 21.4

Well Development Log

Well No: SD27-03
Site Name: SD-27 Pad 9 Washrack
Date Started: 11/9/10

Development Record (continuation)

Time (24 hrs)	Purge Volume (gal)	Water Level (ft BTOC)	ORP (mV)	pH (Std)	Conductivity (mS/cm)	Turbidity (NTU)	DO (ppm)	Temp. (C)	Clarity (color)	Flow mL/min	Comments SPC pot
1848	5.9	11.47	-93	7.35	34.4	490	Ø	19.44	murkey	200	21.5
1853	6.3	11.45	-104	7.34	34.4	227	Ø	19.41	Cloudy	200	21.5
1858	6.7	11.46	-111	7.33	34.4	112	Ø	19.43	cloudy	200	21.5
1903	7.2	11.45	-113	7.33	34.4	80.7	Ø	19.40	Cloudy	200	21.5
11/10/10	1120 Sample	taken, water Level		11.54'	TOC						
		VOCs,	SVOCs,	TPH-GRO,	TPH-DRO,	RCRA metals	(Total+Diss),	TDS			

Range and Average Discharge Rate: ~200 mL/min
Maximum Drawdown during Development: 0.69' at 200 mL/min ~~gpm.~~
Disposition of Development Water: (Drums) Frac Tank Other
Number of Containers for Development Water: 1

Comments:

Final Measurements

Total Depth of Well (ft): 15.24

Date Completed: 11/10/10

Hours Developed: 2.0

DRILLING LOG

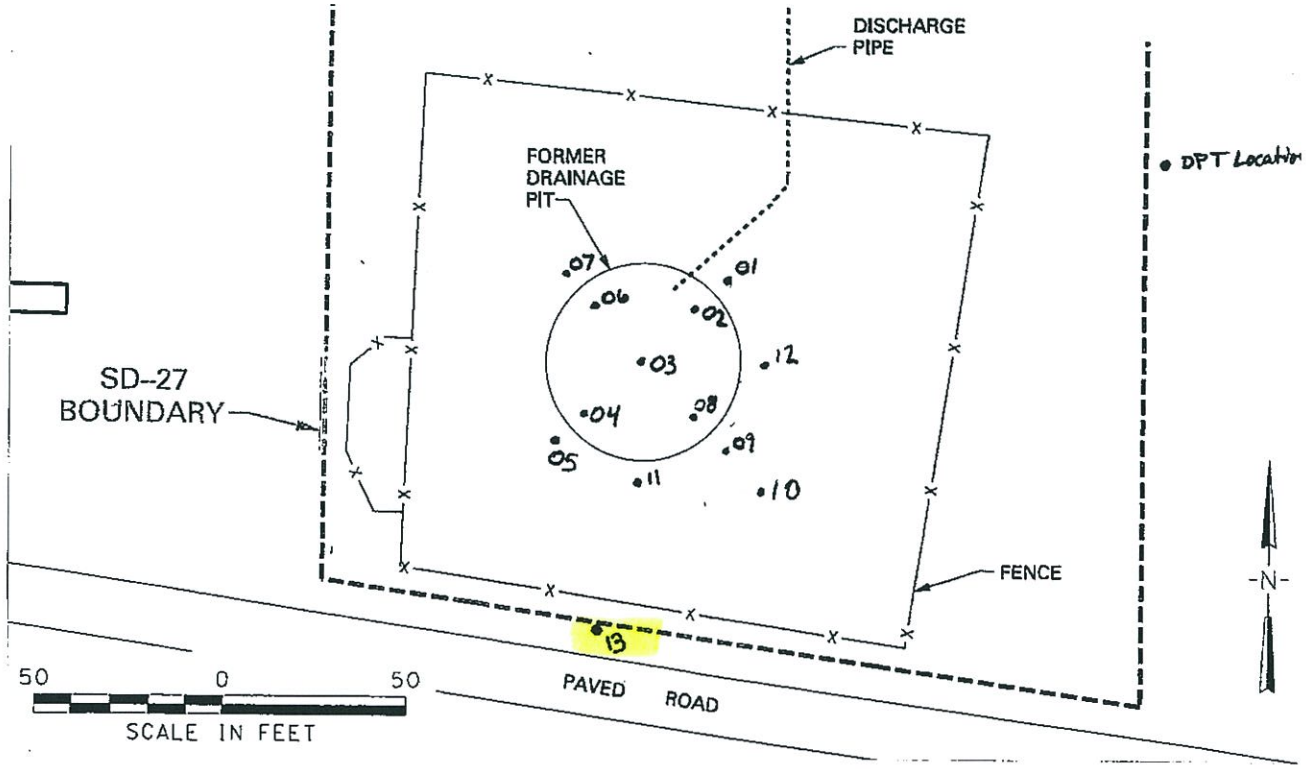
CLIENT: AECEE	HOLE NUMBER: SD27-DPT-13
DRILL SUBCONTRACTOR: Vista Geosciences	SHEET 1 of SHEETS 2
PROJECT / PROJECT NUMBER: Holloman AFB / 100-TEW-T93002-1 Task 09.03.03.02	MANUFACTURER'S DESIGN OF DRILL: Geoprobe 7822
NAME OF DRILLER(S): D. West / K Geraghty	SITE NAME: SD-27 (SWMU-141)
SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2.25" rods with inner sampling liners.	HOLE LOCATION: SD27-DPT-13
	SURFACE ELEVATION:
	DATE STARTED: 11/5/10 — DATE COMPLETED: 11/5/10
OVERBURDEN THICKNESS: — DEPTH DRILLED INTO ROCK: —	TOTAL DEPTH OF HOLE: 25.0 — DEPTH OF GROUNDWATER ENCOUNTERED: —
DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: —	OTHER WATER LEVEL MEASUREMENTS (SPECIFY): —

GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	TOTAL NUMBER OF CORE BOXES
NO	—	—	—

SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	TOTAL CORE RECOVERY
Yes	Yes	Yes	GRO/DRO	isotopes	—	—

DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	SIGNATURE OF INSPECTOR
Filled	Yes	NO	—	[signature]

LOCATION SKETCH/COMMENTS — SCALE



SITE NAME	HOLE NO.
SD-27 (SWMU-141)	SD27-DPT-13

DRILLING LOG (CONTINUATION SHEET)

DISTRICT: AFCEE

HOLE NUMBER: SD27-DPT-013

PROJECT / PROJECT NUMBER: Holloman AFB / 100-TEN-T93002-1 Task 09.03.03.02

INSPECTOR: Jeremy Bennett

SHEET 2 of SHEETS 2

ELEV (a)	DEPTH FT (b)	DESCRIPTION OF MATERIALS (c)	HNU SCREENING RESULTS (PPM) (d)	~~PUGM~~ SAMPLE INTERVAL (e)	ANALYTICAL SAMPLE NO (f)	USCS (g)	REMARKS (h)
	0	7.5YR 4/4 med silty sand	0 0				44.5" recovery
		7.5YR 6/4 silty sand cfd white mott	0 0				moist
	2						
	4	7.5YR 4/6 fine silty sand w/clay					
	6	7.5YR 6/6 med silty sand	0 0 0 0				
				6.5-8.5	SD27-DPT-013A		4'3" recovery
	8	7.5YR 7/6 med to fine silty sand	0 0 0				moist
		10YR 8/6 med silty sand	0				
	10	5Y 2.5/1 med silty sand					damp
		Clay 1 7/10Y fine-med silty sand	0.7				
	12		102	11.5-13.5	SD27-DPT-013B		3'3" recovery
		Clay 1 7/5GY fine-med silty sand friable cfd white mott fmd reddish brown mott 5YR 4/4	32.1 1.8				slight odor
	14						wet water @ 10'
	16						
		10YR 6/2 silty sand ccd light reddish brown mott	0 0 0				2'10" recovery
				16.5-18.5	SD27-DPT-013C		
	18	pink 5YR 7/4 and white 5YR 8/1 silty sand					wet
	20	pale brown 7.5Y 8/2 silty sand cmd yellow mott 10YR 8/6					
	22			21.5-23.5	n/a		recovery 2'5"
		yellowish red 5YR 7/6 clayey sand cfd white mott					
	24						damp
	25						
							installing well @ 20'

SITE NAME: SD-27 (SWMU 141)

HOLE NO.: SD27-DPT-13

Well Completion Information

Holloman Air Force Base Alamogordo, New Mexico

Project Number: 100-TEN-T93002-1 TASK 09.03.03.02

Site: SD-27 (SWMU-141)

Well ID: SD27-MW04

Date Installed: 11/6/10

Well Type: Auger Piezometer (Monitoring Well) Extraction Well

Completion Method: Stick-up (Flush Mount)

Geologic Zone: (Residuum) Interface Bedrock

Seal End Depth: 17.44 (feet) **Filter Pack Length:** 11.0 (feet)

Measuring Point Elevation (Top of Casing): _____

Total Casing Depth: 17.43 (feet)

Casing Inside Diameter: 2.0"

Casing Material: (PVC) SLS GLS OTHER _____

Screen Beginning Depth: 7.43 (feet)

Screen Length: 10.0 (feet)

Screen Slot Size: 0.01 (inches)

Screen Diameter: 2.0 (inches)

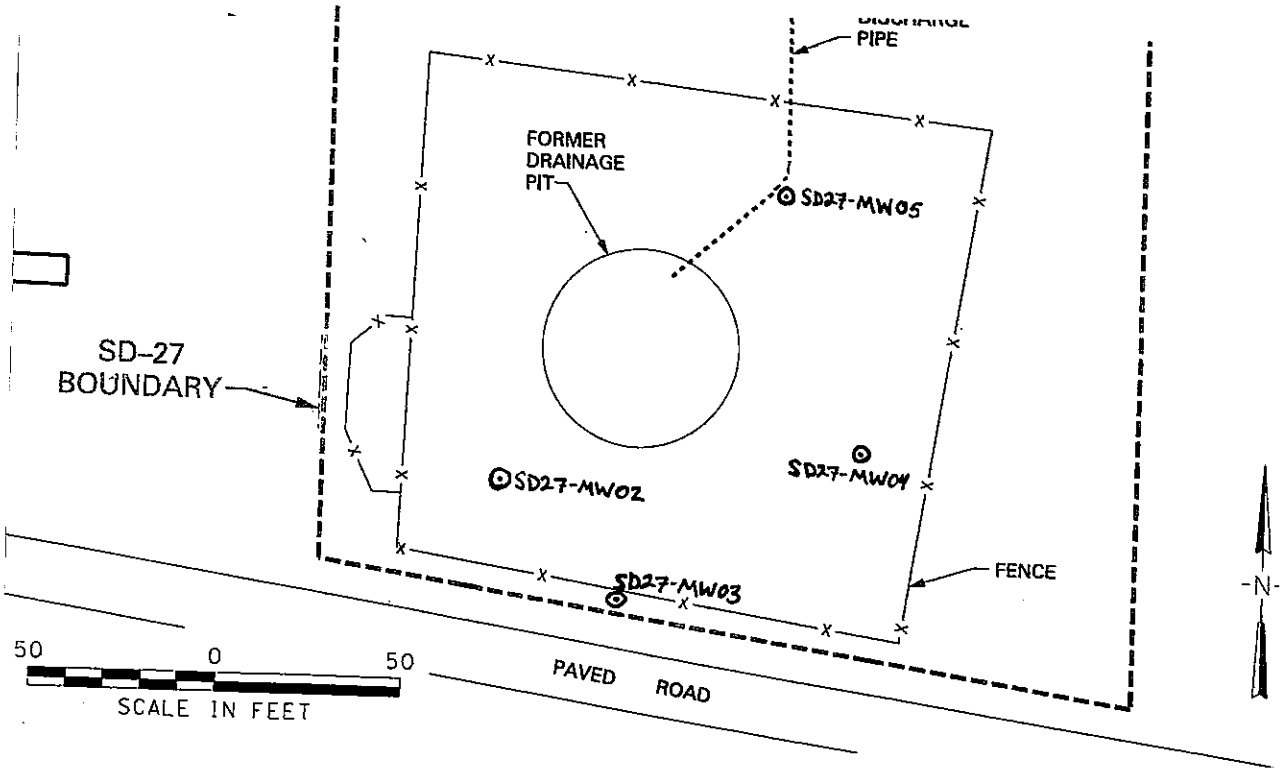
Sand Type: 20/40

Remarks: _____

Prepared By: B. Clowers

DRILLING LOG

CLIENT	AFCEE
HOLE NUMBER	SD27-MW04
DRILL SUBCONTRACTOR	Vista Geosciences
SHEET / SHEETS	1 of 2
PROJECT / PROJECT NUMBER	Holloman AFB / 1100-TEN-T43002-1 Task 09.03.03.02
MANUFACTURER'S DESIGN OF DRILL	Geoprobe 7822
NAME OF DRILLER(S)	D. West / K. Geraghty
SITE NAME	SD-27 (SWMU-141)
SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	3.25" rods with expendable point.
HOLE LOCATION	SD27-MW04
SURFACE ELEVATION	
DATE STARTED	11/6/10
DATE COMPLETED	11/6/10
OVERBURDEN THICKNESS	—
DEPTH DRILLED INTO ROCK	—
TOTAL DEPTH OF HOLE	17.50'
DEPTH OF GROUNDWATER ENCOUNTERED	7.0'
DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	—
OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	—
GEOTECHNICAL SAMPLES	NO
DISTURBED	—
UNDISTURBED	—
TOTAL NUMBER OF CORE BOXES	—
SAMPLES FOR CHEMICAL ANALYSIS	NO
VOC	—
METALS	—
OTHER (SPECIFY)	—
OTHER (SPECIFY)	—
OTHER (SPECIFY)	—
TOTAL CORE RECOVERY	—
DISPOSITION OF HOLE	
BACKFILLED	NO
MONITORING WELL	YES
OTHER (SPECIFY)	—
SIGNATURE OF INSPECTOR	Brandon Clar[illegible]
LOCATION SKETCH/COMMENTS	
SCALE	



SITE NAME	SD-27 (SWMU-141)
HOLE NO.	SD27-MW04

DRILLING LOG (CONTINUATION SHEET)

DISTRICT: AFCEE

HOLE NUMBER: SD27-MW04

PROJECT / PROJECT NUMBER: Holloman AFB / 100-TEN-T93002-1 Task 09.03.03.02

INSPECTOR: B. Clowers

SHEET 2 of SHEETS 2

ELEV (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	HNU SCREENING RESULTS (PPM) (d)	PUSH / SAMPLE INTERVAL (e)	ANALYTICAL SAMPLE NO (f)	USCS (g)	REMARKS (h)
	0	Dark yellowish brown 10YR 3/4 Silty sand with clay 24"	Ø				5' push, 48" recovery
	2	Reddish yellow 7.5YR 7/6 clayey sand Damp 16"	Ø				
		reddish yellow 7.5YR 8/4 silty sand wet. 14"	Ø				
	4	No Recovery					No Recovery
		same as above but damp. 24"					5' push. 50" recovery
	6	reddish yellow 7.5YR 7/6 silty sand wet 8"	Ø				
		same color as above but Damp, Friable 18"	Ø				
	8		Ø				
		No Recovery					No Recovery
	10	same as above 8"	74.1				5' push, 36" recovery
		Gray Gley1 5/N silty sand, Saturated 10"	310.0				
	12	same color as above but moist Friable. 18"	35.1				
			78.0				
	14	No Recovery					No Recovery
		Same as above, but wet 5"					
	16	Lt gray Gley1 7/N silty sand, fine Course 8"	Ø				2.5' push, 23" recovery
		Red 2.5YR 5/6 clayey sand Damp, firm 10" with trace 30% gray silty sand	Ø				
	18	NO Recovery					No Recovery
		Gray Gley1 6/N fine silty sand, wet 13"	Ø				2.5' push, 33" recovery.
		Very pale brown 10YR 7/4 silty sand, moist firm 10"	Ø				
	20	Pink 5YR 7/4, silty sand, Dry, firm, with Gypsum crystals. 10"	Ø				
		Boring terminated					Boring Terminated, well set.

SITE NAME: SD-27 (SWMU-141)

HOLE NO.: SD27-MW-04

Well Development Log

Project Number: 100-TEN-T93002-1 Task 09.03.03.02
Project Name: Holloman AFB
Form Completed by: B. Clowers
Development Company: Tetra Tech Inc

Well No: SD27-MW04
Site Name: SD-27 Pad 9 Washrack
Date Started: 11/9/10

Monitoring Well Information

Development Method: Surge/Bail
Development Equipment: Stainless steel
bailer to surge / peristaltic pump to purge

Screen Length (ft): ~~[illegible]~~ 10
Filter Pack Length (ft): ~~5.5~~ 11
Casing Diameter (in): 2

Beginning Measurements
Depth to Water (ft): 11.26' TOC
Total Depth of Well (ft): ~~20.07~~ TOC 17.43

Monitoring Well Purge Calculations

Volume of Water in Casing:
Gallons/foot = 0.041 x d^2, where casing diameter in inches = (0.041 x (2)^2) = 0.164 gal/ft.
Well Volume (gallons) = Water Column (ft) x Gal/ft = 8.81 ft x 0.164 gal/ft = 1.45 gallons

10.56 - 4 = 6.56

Volume of Water in Filter Pack:
Gallons/foot = 0.041 x (D^2 - d^2), where D is total borehole diameter in inches & d is casing diameter in inches = 0.041 x ((3.25)^2 – (2)^2) = gal/ft.
Filter Pack Volume (gal) = ((lesser of screen length+2 feet OR water column) x gal/ft) x porosity (0.3) = (8.5) ft x (0.269) gal/ft) x 0.3 = 0.69 gal.

2 1
3 1
4 7.

Purge Well Volume:
Purge well Volume = Filter pack volume + Well Volume = 1.45 gal + 0.69 gal = 2.14 gal.

1 x Purge Well Volume	2 x Purge Well Volume	3 x Purge Well Volume	4 x Purge Well Volume	5 x Purge Well Volume
2.14	4.28	6.42	8.56	10.7

Development Record

Time (24 hours) 912	Purge Volume (gal)	Water Level (ft) (TOC)	ORP (mV)	pH (Std Units)	Conductivity (mS/cm)	Turbidity (NTU)	DO (ppm)	Temp. (C)	Clarity (color)	Comments SPC ppt
930	2.25	Dry	—	—	—	—	—	—	—	Purged dry after 15 min of surging
1235	—	11.26	—	—	—	—	—	—	—	Purge second time
1250	4.25	Dry	—	—	—	—	—	—	—	purged dry after 10 mins of surging
1606	4.25	11.25	256	6.23	34.2	45	0.20	20.39	clear	start purge with peristaltic pump
1622		11.78	↓	↓	↓	↓	↓	↓	↓	300 ml/min
1627	4.50	12.04	139	7.23	34.9	99.3	0	20.08	cloudy	
1632	Stopped to fix flow thru cell							?		
1636	Resume									
1641	5.10	12.07	-78	7.55	35.6	147	Ø	20.40	cloudy	400 ml/min 22.5ppt
1646	5.70	12.22	-102	7.53	35.8	124	Ø	20.56	cloudy	400 ml/min 22.5ppt

Well Development Log

Well No: SD27-MW04
Site Name: SD-27 Pad 9 wastrack
Date Started: 11/9/10

Development Record (continuation)

Time (24 hrs)	Purge Volume (gal)	Water Level (ft BTOC)	ORP (mV)	pH (Std)	Conductivity (mS/cm)	Turbidity (NTU)	DO (ppm)	Temp. (C)	Clarity (color)	Comments (FLOW mL/min, SWL FT)
1651	6.3	12.25	-124	7.52	35.8	298	Ø	20.57	cloudy	400 22.5 increase flow
1656	6.9	12.34	-140	7.52	35.8	579	Ø	20.66	cloudy	500 22.5 increase flow
1701	7.4	12.43	-160	7.51	35.7	676	Ø	20.63	cloudy	600 22.4
1706	7.8	12.48	-166	7.51	35.6	>1000	Ø	20.79	murky	500 22.4
1711	8.0	12.49	-174	7.51	35.7	>1000	Ø	20.61	murky	450 22.5 As fast as pump would pu
1716	8.5	12.51	-177	7.50	35.7	558	Ø	20.60	murky	450 22.4
1721	8.9	12.51	-179	7.51	35.6	682	Ø	20.50	murky	450 22.4
1726	9.3	12.52	-180	7.51	35.6	513	Ø	20.49	murky	450 22.4
1731	9.9	12.52	-184	7.51	35.6	756	Ø	20.45	cloudy	450 22.4
1736	10.5	12.51	-185	7.51	35.7	147	Ø	20.42	cloudy	450 22.4
										5xs well volume reached for
	1040									development
11/10/10	~~1075~~ BC	Sample taken, water level			11.28'					
		VOCs,	SVOCs,	TPH-GRO,	TPH-DRO,	RCRA metals (total+diss),		TDS		

Range and Average Discharge Rate: ~450 mL/min
Maximum Drawdown during Development: 1.25' at 450mL/min ~~gpm.~~
Disposition of Development Water: (Drums) Frac Tank Other
Number of Containers for Development Water: 1

Comments:

Final Measurements

Total Depth of Well (ft): 17.43

Date Completed: 11/10/10

Hours Developed: 2.75

Well Completion Information

Holloman Air Force Base Alamogordo, New Mexico

Project Number: 100-TEN-T93002-1 Task 09.03.03.02

Site: SD-27 (SWMU-141)

Well ID: SD27-MW05

Date Installed: 11/9/10

Well Type: Auger Piezometer (Monitoring Well) Extraction Well

Completion Method: Stick-up (Flush Mount)

Geologic Zone: (Residuum) Interface Bedrock

Seal End Depth: 19.95 (feet) **Filter Pack Length:** 11.0 (feet)

Measuring Point Elevation (Top of Casing): _____

Total Casing Depth: 19.91 (feet)

Casing Inside Diameter: 2.0

Casing Material: (PVC) SLS GLS OTHER _____

Screen Beginning Depth: 9.91 (feet)

Screen Length: 10.0 (feet)

Screen Slot Size: 0.01 (inches)

Screen Diameter: 2.0 (inches)

Sand Type: 20/40

Remarks: _____

Prepared By: [signature]

Well Development Log

Project Number: 100-TEN-T93002-1 Task 09.03.03.02
Project Name: Holloman AFB
Form Completed by: B. Clowers
Development Company: Tetra Tech Inc

Well No: SD27-MW05
Site Name: SD-27 · Pad 9 wash rack
Date Started: 11/10/10

Monitoring Well Information

Development Method: Surge / Bail
Development Equipment: Stainless steel bailer / Peristaltic pump to purge

Screen Length (ft): 10
Filter Pack Length (ft): 11
Casing Diameter (in): 2

Beginning Measurements
Depth to Water (ft): 8.65
Total Depth of Well (ft): ~~20.02~~ 19.91

Monitoring Well Purge Calculations

Volume of Water in Casing:
Gallons/foot = 0.041 x d^2, where casing diameter in inches = (0.041 x (2)^2) = 0.164 gal/ft.
Well Volume (gallons) = Water Column (ft) x Gal/ft = 11.26 ft x 0.164 gal/ft = 1.85 gallons

Volume of Water in Filter Pack:
10.56 − 4 = 6.56
Gallons/foot = 0.041 x (D^2 - d^2), where D is total borehole diameter in inches & d is casing diameter in inches = 0.041 x ((3.25)^2 − (2)^2) = gal/ft.
Filter Pack Volume (gal) = ((lesser of screen length+2 feet OR water column) x gal/ft) x porosity (0.3) = (11) ft x (0.269) gal/ft) x 0.3 = 0.89 gal.

Purge Well Volume:
Purge well Volume = Filter pack volume + Well Volume = 1.85 gal + 0.89 gal = 2.74 gal.

1 x Purge Well Volume	2 x Purge Well Volume	3 x Purge Well Volume	4 x Purge Well Volume	5 x Purge Well Volume
2.74	5.48	8.22	10.96	13.7

Development Record

Time (24 hours) 1302	Purge Volume (gal)	Water Level (ft) (TOC)	ORP (mV)	pH (Std Units)	Conductivity (mS/cm)	Turbidity (NTU)	DO ~~(ppm)~~ mg/L	Temp. (C)	Clarity (color)	Comments
1320	2.5	Dry								
1420		14.97								
1432		Dry								
						Continued on next page →				

Well Development Log

Well No: ~~MW~~ SD27-MW05
Site Name: SD27
Date Started: 11/10/10

Development Record (continuation)

Time (24 hrs)	Purge Volume (gal)	Water Level (ft BTOC)	ORP (mV)	pH (Std)	Conductivity (mS/cm)	Turbidity (NTU)	DO ~~(ppm)~~ mg/L	Temp. (C)	Clarity (color)	Comments
11/11 0815	0	8.65								
0820	0.1	9.45	36	7.97	22.9	29.8	7.17	17.35	Clear	
0825	0.2	10.70	49	7.81	23.1	41.6	0.00	17.96	clear	
0830	0.4	11.39	51	7.78	23.1	30.3	0.00	18.20	clear	
0835	0.6	11.99	50	7.79	23.2	20.2	0.00	18.18	clear	
0840	0.8	12.42	49	7.78	23.3	16.8	0.00	18.21	Clear	
0845	1.0	12.83	48	7.74	23.1	14.1	0.00	18.43	Clear	
sample taken at 845 for VOCs, SVOCs, TPH-GRO, TPH-DRO, RCRA metals (total + Diss), TDS										

Range and Average Discharge Rate: ~100 mL/min
Maximum Drawdown during Development: 4.18' at 100 mL/min ~~gpm.~~
Disposition of Development Water: (Drums) Frac Tank Other
Number of Containers for Development Water: 1

Comments: Pump at lowest setting. Well still draws down without stalling

Final Measurements

Total Depth of Well (ft): 19.91 TOC
Date Completed: 11/11/10
Hours Developed: 2.75

JANUARY 2011 GROUNDWATER

FIELD DATA FORMS

Tetra Tech

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: Holloman AFB **Project No.:** 100-TEN-T93002

Location: DB-30 / SD-33 ~~MW-01~~ **Personnel:** ~~C.Grande & A. Moreno~~ JB & LT

Weather Conditions: Sunny & breezy **Measuring Device:** Water Level Indicator / Inter-phase probe

Remarks:

Well Number	Date	Time	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Free Product (feet)*	Comments
MW-01	1/24/11	13:30	30.57	22.32	8.25	
MW-02	1/24/11	13:37	31.44	22.29	9.15	
MW-03	1/24/11	13:42	26.31	21.22	5.09	
MW-04	1/24/11	13:47	30.94	20.27	10.67	
MW-05R	1/24/11	13:52	32.92	21.18	11.74	soft bottom

* All measurements to the nearest 0.01 foot

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 30.57 ft
Depth to Water: 22.32 ft
Water Column: 8.25 ft
Well Casing Diameter & Material: 2"
One Casing Volume: 1.4 gal
Three Casing Volumes: 4.2 gal
Start Purge: 1430
End Purge: 1504
Total Purge Time: 34 min

Well ID: MW 30-33-01
Date: 1/24/11
Weather: Sunny & windy

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
1430	0.34	22.33	← Begin Purge							→
1434	0.21	22.36	1.36	6.52	38.2	29.44	10.7	0.4	2.4	122
1439	0.15	22.36	2.41	7.02	38.2	24.77	8.4	0.0	2.5	99
1444	↓	22.37	3.16	7.09	38.8	24.07	9.1	0.0	2.5	96
1449		22.37	3.91	7.14	39.2	23.42	7.5	0.0	2.5	94
1454		22.37	4.66	7.19	39.7	22.81	7.1	0.0	2.6	90
1459		22.37	5.41	7.21	39.7	22.94	7.9	0.0	2.5	89
1504		22.37	6.16	7.22	39.7	22.85	7.2	0.0	2.5	89

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3- 4mL VOAs	9
Total metals	HNO3	1- 500mL plastic	3
DIS metals	None	1- 500 mL plastic	3
TDS	None	1- 500 mL plastic	3

OBSERVATIONS / NOTES:

Quality Samples:
MS/MSD: Collected MS/MSD
Duplicate ID No.: NA

Signature(s): Laura A. Tay

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 31.44
Depth to Water: 22.29
Water Column: 9.15
Well Casing Diameter & Material: 2" PVC
One Casing Volume: 1.55 gal
Three Casing Volumes: 4.66 gal
Start Purge: ~~1355~~ 1410
End Purge: 1550
Total Purge Time: 1hr 40 min

Well ID: MW30-33-02
Date: 1-24-11
Weather: sunny 57°F

PURGE DATA:

Time	Pumping Rate (mL/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
1415	225	22.88	1.125	7.32	47.3	19.87	0.5	6.18	3.08	152
1420	300	23.07	2.625	7.62	47.6	19.98	0.2	5.24	3.11	138
1425	300	23.11	4.125	7.69	47.7	20.02	0.4	5.03	3.10	134
1430	300	23.17	5.625	7.69	47.8	20.05	0.7	4.87	3.12	129
1435	300	23.28	7.125	7.68	47.9	20.12	Ø	4.59	3.13	123
1440	300	23.30	8.625	7.71	49.1	20.02	0.3	4.70	3.22	119
1445	300	23.36	10.125	7.68	49.1	20.01	Ø	4.12	3.21	115
1450	300	23.38	11.625	7.67	49.2	19.33	Ø	~~5.15~~ 4.29	3.22	115
1455	300	23.41	13.125	7.66	49.0	19.89	Ø	3.92	3.21	115
1500	300	23.43	14.625	7.68	48.9	19.95	Ø	3.90	3.20	114

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Total Metals	HNO3	1-500 mL plastic	1
TDS	None	1-500 mL Plastic	1
Dissolved Metals	None	1-500 mL Plastic	1
VOCs	HCl	3-40 mL VOAs	3

OBSERVATIONS / NOTES:

Quality Samples:
MS/MSD: NA
Duplicate ID No.: NA

Signature(s): C. Brandon Clowers

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 26.28
Depth to Water: 21.21
Water Column: 5.07
Well Casing Diameter & Material: 2" PVC
One Casing Volume: 0.86 gal
Three Casing Volumes: 2.58 gal
Start Purge: 1535
End Purge: 1615
Total Purge Time: 40 min

Well ID: MW30_33-03
Date: 1-24-11
Weather: Sunny 50°F

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
1535	—	21.21	Begin	Purge	—					→
1540	400	21.87	2.0	7.66	46.5	19.50	25	8.33	3.02	122
1545	400	22.04	4.0	7.69	43.2	19.57	11.6	3.18	2.79	120
1550	400	22.43	6.0	7.69	42.4	19.59	13.0	3.45	2.76	121
1555	400	22.92	8.0	7.69	44.5	19.48	14.4	3.57	2.88	122
1600	350	22.93	9.750	7.69	43.9	19.42	11.9	3.21	2.81	123
1605	350	22.95	11.5	7.69	43.0	19.35	9.3	3.09	2.80	124
1610	350	22.96	13.25	7.69	43.1	19.43	12.3	2.93	2.78	125
1615	350	22.95	15.0	7.69	43.8	19.42	11.3	2.91	2.82	125

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Total metals	HNO_3	1-500 mL plastic	1
Dis metals	None	1-500 mL plastic	1
TDS	None	1-500 mL plastic	1
VOCs	HCl	3-40 mL VOAs	3

OBSERVATIONS / NOTES:

Sampled at 1630

Quality Samples:

MS/MSD: NA
Duplicate ID No.: NA

Signature(s):

Brenda Clam

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 99.92'
Depth to Water: 20.30'
Water Column: 9.62'
Well Casing Diameter & Material: 2" PVC
One Casing Volume: 1.6 gal
Three Casing Volumes: 4.9 gal
Start Purge: 1638
End Purge: 1725
Total Purge Time: 47 min

Well ID: MW30-33-04
Date: 1-24-11
Weather: Sunny 53°F

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
1638	—	20.30	Begin	Purge	[illegible]		[illegible]			
1645		20.86	2.50	7.38	39.0	19.38	17.7	1.11	2.51	145
1650		21.13	4.25	7.40	39.4	19.50	17.1	0.74	2.52	143
1655		21.37	6.00	7.38	39.6	19.53	18.1	1.12	2.52	138
1700		21.58	7.75	7.37	39.5	19.31	19.0	1.91	2.53	120
1705		21.63	9.50	7.37	39.5	19.39	19.8	0.67	2.54	115
1710		21.63	11.25	7.37	39.5	19.54	18.6	Ø	2.53	111
1715		21.64	13.00	7.37	39.5	19.33	18.4	Ø	2.53	106
1720		21.65	14.75	7.37	39.5	19.37	18.6	Ø	2.53	104
1725		21.64	16.50	7.37	39.5	19.23	18.2	Ø	2.53	103

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Total metals	HNO_3	1 - 500 ml plastic	1
Dissolved metals	None	1 - 500 ml plastic	1
TDS	None	1 - 500 ml plastic	1
VOCs	HCL	3 - 40 ml vials	3

OBSERVATIONS / NOTES:

Sample collected at 1730.

Quality Samples:
MS/MSD: NA
Duplicate ID No.: NA

Signature(s):
Brianla Clowers

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 32.92
Depth to Water: 21.28
Water Column: 11.64
Well Casing Diameter & Material: 2"
One Casing Volume: 1.97 gal
Three Casing Volumes: 5.9 gal
Start Purge: 0829
End Purge: 0916
Total Purge Time: 47 min

Well ID: MW-30-33-05R
Date: 1/25/11
Weather: Sunny & Cold

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
0836	0.22	21.28	0.1	6.32	37.4	27.46	15.2	0.0	2.8	193
0841	↓	21.26	1.1	6.83	38.2	23.30	10.4	0.0	2.5	167
0846	↓	21.26	2.2	6.95	39.3	21.84	3.4	0.0	2.5	157
0851	↓	21.26	3.3	7.12	39.6	21.37	3.8	0.0	2.5	150
0856	↓	21.26	4.4	7.16	40.0	21.04	0.0	0.0	2.6	144
0901	↓	21.26	5.5	7.19	40.0	20.57	2.7	0.0	2.6	139
0906	↓	21.26	6.6	7.20	40.9	20.61	4.7	0.0	2.6	133
0911	↓	21.26	7.7	7.21	40.1	20.42	13.0	0.0	2.6	126
0916	↓	21.26	8.8	7.22	41.2	20.21	23.1	0.0	2.6	120

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3 - 40mL VOAs	6
Total metals	HNO_3	1 - 500 mL plastic	2
Dissolved metals	None	1 - 500 mL plastic	2
TDS	None	1 - 500 mL plastic	2

OBSERVATIONS / NOTES:

Quality Samples:
MS/MSD: N/A
Duplicate ID No.: Dup. Collected

Signature(s):

Tetra Tech

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: Holloman AFB **Project No.:** 100-TEN-T93002

Location: SD-27 **Personnel:** ~~G.Grande & A. Moreno~~ LAT & CBC

Weather Conditions: Sunny, breezy 50° **Measuring Device:** Water Level Indicator / Inter-phase probe

Remarks:

Well Number	Date	Time	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Free Product (feet)*	Comments
MW05	1/25/11	12:55	19.89	8.58	11.31	
MW04	1/25/11	1302	17.43	8.94	8.49	
MW03	1/25/11	1303	15.29	8.88	6.41	
MW02	1/25/11	1305	17.34	8.95	8.39	
MW01	1/25/11	1313	17.97	8.51	9.46	

* All measurements to the nearest 0.01 foot

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 17.97
Depth to Water: 8.44
Water Column: 9.53
Well Casing Diameter & Material: 2"
One Casing Volume: 1.55 gal
Three Casing Volumes: 4.66 gal
Start Purge: 1601
End Purge: 1646
Total Purge TIme: 47min

Well ID: SD27-MW01
Date: 1/25/11
Weather: Sunny

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
1601	0.169	8.50	—	6.0	47.8	20.52	—	5.44	3.0	235
1606	↓	8.51	0.819	6.86	35.9	20.79	—	5.53	2.2	224
1611	↓	8.51	1.638	6.78	32.2	20.22	258	5.52	2.0	212
1616	↓	8.51	2.457	6.87	32.0	19.84	107	5.48	2.0	187
1621	↓	8.51	3.276	6.93	32.1	20.02	90.4	5.46	2.0	160
1626	↓	8.51	4.095	6.94	31.9	20.11	133.0	5.35	2.0	135
1631	↓	8.51	4.914	6.97	32.1	19.82	44.7	5.40	2.0	123
1636	↓	8.51	5.733	6.98	32.0	19.83	33.9	5.35	2.0	114
1641	↓	8.51	6.552	6.98	32.0	19.73	48.8	5.34	2.0	117
1646	↓	8.51	7.371	6.98	32.0	19.84	42.4	5.31	2.0	117

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3-40mL VOAs	9
Total metals	HNO_3	1-500mL plastic	3
Dis metals	None	1-500mL plastic	3
DRO	H_2SO_4	2-1L Amber	6
SVOCs	None	2-1L Amber	6
GRO	HCL	3-40mL VOAs	9
TDS	None	1-500mL plastic	3

OBSERVATIONS / NOTES:

Quality Samples:
MS/MSD: Yes
Duplicate ID No.: NA

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 17.34'
Depth to Water: 9.01'
Water Column: 8.33
Well Casing Diameter & Material: 2" PVC
One Casing Volume: 1.36 gal
Three Casing Volumes: 4.08 gal
Start Purge: 1555
End Purge: 1650
Total Purge Time: 55 min

Well ID: SD27-MW02
Date: 1-25-11
Weather: Sunny 55°F

PURGE DATA:

Time	Pumping Rate (mL/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
1555	—	9.01	Begin	Purge	—					→
1600	125.0	~~9.18~~	0.625	7.06	30.7	20.74	194.0	Ø	1.9	-159
1605	150.0	9.62	1.375	7.02	31.7	19.45	143.0	Ø	2.0	-164
1610	150.0	9.78	2.125	7.02	32.2	18.89	125.0	Ø	2.0	-171
1615	150.0	9.93	2.875	7.03	32.7	18.36	114.0	Ø	2.0	-178
1620	150.0	9.98	3.625	7.04	32.5	18.65	103.0	Ø	2.0	-185
1625	150.0	10.02	4.375	7.05	32.7	18.42	97.4	Ø	2.1	-192
1630	150.0	10.03	5.125	7.05	33.1	17.88	90.1	Ø	2.1	-205
1635	150.0	10.04	5.875	7.07	33.1	18.02	82.2	Ø	2.1	-213
1640	150.0	10.06	6.625	7.10	33.3	17.97	78.5	Ø	2.1	-225
1645	150.0	10.07	7.375	7.11	33.5	17.83	76.0	Ø	2.1	-234
1650	150.0	10.06	8.125	7.11	33.4	17.86	74.2	Ø	2.1	-233

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3-40 mL VOAs	6
Total metals	HNO3	1-500 mL plastic	2
Dis. metals	None	1-500 mL plastic	2
DRO	H2SO4	2-1L Amber	4
SVOCs	None	2-1L Amber	4
GRO	HCl	3-40 mL VOAs	6
TDS	None	1-500 mL plastic	2

OBSERVATIONS / NOTES:

Quality Samples:
MS/MSD: NA
Duplicate ID No.: Duplicate sample collected

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 15.29
Depth to Water: 8.90
Water Column: 6.39
Well Casing Diameter & Material: 2in PVC
One Casing Volume: 1.04 gal
Three Casing Volumes: 3.12 gal
Start Purge: 1535
End Purge: 1630
Total Purge Time: 55 min

Well ID: SD27 MW03
Date: 1/25/11
Weather: Sunny and Cold

PURGE DATA:

Time	(L/min) Pumping Rate ~~(gpm/min)~~	Water Level (ft)	Volume Pumped (L) ~~(Liters)~~	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
1535	0.191	8.90	—	7.26	42.6	18.69	-5.0	2.20	2.74	-35
1540		9.26	0.955	7.22	42.6	18.41	352.0	0.66	2.75	-19
1597		9.22	2.29	7.22	42.9	18.40	109.0	0.20	2.76	-26
1600		9.25	2.865	7.23	43.3	18.24	88.2	0.00	2.79	-70
1605		9.27	3.82	7.24	43.5	18.11	69.2	0.00	2.80	-87
1610		9.27	4.775	7.24	43.6	18.10	58.0	0.00	2.81	-93
1615		9.28	5.73	7.24	43.6	18.17	53.6	0.00	2.81	-98
1620		9.28	6.66	7.24	43.7	18.22	48.0	0.00	2.82	-101
1625		9.28	7.64	7.24	43.8	18.17	42.5	0.00	2.83	-104
1630	0.191	9.28	8.59	7.24	43.8	18.17	43.7	0.00	2.83	-106

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3-40 mL VOAs	3
TPH-DRO	H_2SO_4	2-1 L Amber	2
-GRO	HCl	3-40 mL VOAs	3
metals-DIS	None	1-500 mL plastic	1
Metals-Total	HNO3	1-500 mL plastic	1
TDS	None	1-500 mL plastic	1
SVOCs	None	2-1 L Amber	2

OBSERVATIONS / NOTES:

Quality Samples:
MS/MSD: NA
Duplicate ID No. NA

Signature(s): Laura A Tay

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 17.43
Depth to Water: 9.21
Water Column: 8.22
Well Casing Diameter & Material: 2"
One Casing Volume: 1.34 gal
Three Casing Volumes: 4.02 gal
Start Purge: 1334
End Purge: 1430
Total Purge Time: 56 min

Well ID: SD 27-MW04
Date: 1/25/11
Weather: Sunny & windy 60°

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
1334	—	9.21	Begin	Purging						
1340	0.17	9.33	1.02	7.48	45.6	18.29	101.0	0.82	2.95	-200
1345	0.13	9.32	1.87	7.49	45.3	18.17	75.0	0.0	2.93	-204
1350		9.32	2.52	7.50	45.3	18.16	73.1	0.0	2.93	-208
1400		9.32	3.17	7.50	45.3	18.00	66.9	0.0	2.93	-211
1405		9.32	3.82	7.50	45.4	17.88	49.9	0.0	2.94	-213
1413		9.33	4.47	7.51	45.6	18.01	38.1	0.0	2.95	-213
1420		9.35	5.12	7.51	45.8	17.98	25.3	0.0	2.96	-214
1430		9.35	5.77	7.51	45.9	17.89	20.1	0.0	2.98	-214

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3-40 mL VOA	3
GRO	HCl	3-40 mL VOA	3
Total metals	HNO_3	1-500 mL plastic	1
DIS metals	none	1-500 mL plastic	1
TDS	none	1-500 mL plastic	1
DRO	H_2SO_4	2-1L Amber	2
SVOC	none	2-1L Amber	2

OBSERVATIONS / NOTES:

Quality Samples:
MS/MSD: NA
Duplicate ID No. NA

Signature(s): Karen A Tay

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 19.89
Depth to Water: 8.67"
Water Column: 11.22
Well Casing Diameter & Material: 2" PVC
One Casing Volume: 1.83 gal
Three Casing Volumes: 5.49 gal
Start Purge: 1347
End Purge: 1425
Total Purge Time: 38 min

Well ID: SD27-MW05
Date: 1-25-11
Weather: Sunny 53°F

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
1347	—	8.67	Begin Purge							→
1350	0.125	9.41	0.375	7.30	30.9	22.92	28.5	0.01	2.0	-56
1355	0.15	11.27	1.125	7.20	33.6	22.55	11.9	Ø	2.1	-44
1400	0.15	11.94	1.875	7.11	34.3	21.69	8.8	Ø	2.2	-83
1405	0.15	13.03	2.625	6.93	32.5	21.04	22.5	Ø	2.0	-95
1410	0.15	13.65	3.375	6.89	32.0	20.47	17.0	Ø	2.0	-96
1415	0.15	14.21	4.125	6.88	31.9	20.18	17.3	Ø	2.0	-97
1420	0.15	14.84	4.875	6.87	32.0	20.19	15.6	Ø	2.0	-97
1425	0.15	15.23	5.625	6.87	32.0	20.30	15.9	Ø	2.0	-98

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCL	3-40 mL VOA	3
GRO	HCl	3-40 mL VOA	3
metals (Total)	HNO_3	1-500 mL plastic	1
Dis metals	none	1-500 mL plastic	1
TDS	none	1-500 mL plastic	1
DRO	H_2SO_4	2-1L Amber	2
SVOCs	none	2-1L Amber	2

OBSERVATIONS / NOTES:

Sample collected at 1500

Quality Samples:

MS/MSD: NA
Duplicate ID No.: NA

Signature(s):

Brandon Clauss

Tetra Tech

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: Holloman AFB
Project No.: 100-TEN-T93002
Location: SS-39
Personnel: ~~G.Grande & A. Moreno~~ Jeremy Benett & L. Taylor
Weather Conditions: Sunny 50°
Measuring Device: Water Level Indicator / Inter-phase probe
Remarks:

Well Number	Date	Time	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Free Product (feet)*	Comments
39-14	1/26/11	1320	22.20	14.29	7.91	
39-02		1325	26.83	18.57	8.26	
39-15		1330	21.73	14.04	7.69	Soft bottom /undeveloped
39-05		1339	15.12	5.56	9.56	
39-12		1342	10.05	4.75	5.30	2.9 ft stick up (7.15' TWD)
39-11		1345	10.05	4.13	5.92	2.5ft stick up (7.55' TWD)
39-08		1348	10.05	4.19	5.86	3ft stick up (7.05' TWD)
39-09		1355	10.05	3.37	6.68	1.84 ft stick up (8.21' TWD)
39-10		1400	10.05	4.25	5.80	2.9 ft stick up (7.15' TWD)
39-07		1410	14.04	6.39	7.65	
39-13		1415	7.21	5.48	1.73	Well may have collapsed
39-06		1430	16.26	7.09	9.17	
39-06D		1433	26.44	6.93	19.51	Needs new lock
39-16		1445	15.36	9.66	5.70	
39-03		1450	16.50	8.09	8.41	roots in well
39-04		1456	14.58	—	--	Well Dry
39-01		1500	26.62	24.93	1.69	

* All measurements to the nearest 0.01 foot

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 26.90
Depth to Water: 18.62
Water Column: 8.28
Well Casing Diameter & Material: 2"
One Casing Volume: 1.4 gal
Three Casing Volumes: 4.2 gal
Start Purge: 1020
End Purge: 1117
Total Purge Time: 57 min

Well ID: MW39-02
Date: 1/28/11
Weather: Sunny/windy

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
1020	0.077	18.62	0.25	5.81	14.8	23.57	96.7	8.45	0.9	234
1030	0.077	18.65	0.77	6.12	16.3	20.87	123.0	5.52	1.0	227
1035	0.077	18.65	1.155	6.43	17.3	18.59	78.3	5.10	1.0	216
1040	0.077	18.65	1.54	6.51	17.4	18.17	69.4	5.04	1.0	212
1045	0.077	18.65	1.925	6.56	17.5	18.33	72.3	5.03	1.0	207
1050	0.125	18.65	2.55	6.59	17.5	18.83	67.4	5.05	1.0	202
1055	0.142	18.65	3.26	6.61	17.6	19.08	63.1	4.99	1.0	200
1100	0.142	18.65	3.97	6.61	17.6	19.23	63.1	5.01	1.0	198
1110	0.142	18.65	5.39	6.62	17.7	19.58	63.2	4.87	1.0	194
1117	0.142	18.65	6.384	6.63	17.8	19.63	61.7	4.81	1.1	192

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL VOAs	3
Total metals	HNO_3	1-500 mL plastic	1
Dis metals	none	1-500 mL plastic	1
TDS	none	1-500 mL plastic	1
Perchlorate	none	1-250 mL plastic	1

OBSERVATIONS / NOTES:

Root system in well, but not blocking sample collection. Roots keep coming up w/ H_2O level and in purge water

Quality Samples:

MS/MSD: NA
Duplicate ID No.: NA

Signature(s): Laura A. Taylor

220-4797

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 15.12
Depth to Water: 5.61
Water Column: 9.51
Well Casing Diameter & Material: 2"
One Casing Volume: 1.6 gal
Three Casing Volumes: 4.8 gal
Start Purge: 1030
End Purge: 1135
Total Purge Time: 65 min

Well ID: MW39-05
Date: 11/28/11
Weather: Sunny

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
1035	0.12	5.81	0.2	7.82	—	16.61	2.7	2.13	4.0	182
1040	0.08	5.75	0.9	7.88	—	16.51	3.3	1.38	4.0	168
1045	0.08	5.73	1.3	7.91	—	16.63	1.7	0.98	4.0	163
1050	0.14	5.75	2.0	7.93	—	17.00	0.8	0.53	4.0	160
1055	0.14	5.75	2.5	7.94	—	17.06	0.6	0.25	4.0	159
1100	0.12	5.75	3.1	7.94	—	17.09	0.3	0.15	4.0	159
1105	0.10	5.73	3.6	7.94	—	16.70	0.3	0.10	4.0	161
1110	0.12	5.73	4.2	7.94	—	16.85	1.1	0.02	4.0	162
1115	↓	5.73	4.7	7.94	—	16.87	0.4	0.06	4.0	163
1120	↓	5.73	5.1	7.94	—	16.91	0.2	0.07	4.0	164
1125	↓	5.73	5.5	7.93	99.5	17.34	0.2	0.03	4.0	165
1130	↓	5.73	6.0	7.93	99.0	17.40	0.0	0.05	4.0	166
1135	↓	5.73	6.5	7.93	98.1	17.74	0.1	0.10	4.0	167

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3-40 mL VOA	9
Total metals	HNO_3	1-500 mL plastic	3
Dis metals	none	1-500 mL plastic	3
TDS	none	1-500 mL plastic	3
Perchlorate	none	1-250 mL plastic	3

OBSERVATIONS / NOTES:

Quality Samples:
MS/MSD: ~~MS/MSD Collected~~
Duplicate ID No.: NA

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 16.26
Depth to Water: 7.09
Water Column: 9.17
Well Casing Diameter & Material: 2in PVC
One Casing Volume: 1.56 gal
Three Casing Volumes: 4.7 gal
Start Purge: 1525
End Purge: 1605
Total Purge Time: 40 min

Well ID: MW3906
Date: 1/26/11
Weather: Sunny & windy

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
1525		7.09	—							
1530		7.22	0.85	6.69	63.9	24.64	3.6	0.00	4.0	132
1535	0.17	7.22	1.70	7.08	64.7	20.32	1.6	0.00	4.0	109
1540		7.22	2.55	7.19	66.0	18.86	3.0	0.00	4.0	102
1545	0.17	7.23	3.40	7.27	63.5	17.83	2.4	0.00	4.0	98
1550		7.22	4.25	7.31	63.5	16.50	2.0	0.00	4.0	96
1555		7.22	5.10	7.33	63.5	16.50	1.0	0.00	4.0	95
1600	0.17	7.23	5.95	7.35	63.8	16.19	1.0	0.00	4.0	92
1605		7.23	6.80	7.37	63.7	15.88	0.7	0.00	4.0	87

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCL	3 - 40ml VOAs	3
Perchlorate	None	1 - 250ml Plastic	1
TAL metals - Total	HNO3	1 - 500 ml Plastic	1
TAL metals - DIS	NONE	1 - 500ml Plastic	1
TDS	NONE	1 - 500 ml Plastic	1

OBSERVATIONS / NOTES:

Quality Samples:
MS/MSD: NA
Duplicate ID No.: NA

Signature(s): Laura Tay

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 26.44
Depth to Water: 6.92
Water Column: 19.52
Well Casing Diameter & Material: 2"
One Casing Volume: 3.3 gal
Three Casing Volumes: 9.9 gal
Start Purge: 1530
End Purge: 1700
Total Purge Time: 90 min

Well ID: mw39-06D
Date: 11/26/11
Weather: Sunny 65°F

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
1538	0.17	7.0	1.36	7.51		17.52	11.1	8.48	4.0	141
1543	↓	6.97	2.21	7.56		17.35	8.3	8.54	4.0	139
1548		6.97	3.06	7.58		17.21	8.0	8.59	4.0	141
1553		6.97	3.91	7.60		17.07	9.3	8.98	4.0	145
1607		7.04	6.29	7.73		18.31	9.7	5.35	4.0	148
1612		7.05	7.14	7.70		18.68	9.6	3.50	4.0	144
1617		7.05	7.99	7.67		18.72	12.8	2.50	4.0	141
1622		7.05	8.84	7.62		18.68	13.8	2.02	4.0	139
1627		7.05	9.69	7.59		18.73	20.2	1.60	4.0	137
1632		7.05	10.54	7.55		18.71	19.2	0.43	4.0	136
1642		7.05	11.39	7.57		18.55	27.1	0.87	4.0	133
1652		7.52	12.24	7.53	—	18.60	33.5	0.59	4.0	131
1657	↓	7.51	13.09	7.52	—	18.44	38.8	0.52	4.0	130

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 ml VOAs	6
Perchlorate	none	1-250 mL plastic	2
metals - Totals	HNO_3	1-500 mL plastic	2
metals - Dis	none	1-500 mL plastic	2
TDS	none	1-500 mL plastic	2

OBSERVATIONS / NOTES:

Quality Samples:
MS/MSD: NA
Duplicate ID No.: Dup

Signature(s):

3.0

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 14.04
Depth to Water: 6.30
Water Column: 7.74
Well Casing Diameter & Material: 2"
One Casing Volume: 1.3 gal
Three Casing Volumes: 3.9 gal
Start Purge: 1221
End Purge: 1345
Total Purge Time: 84 min

Well ID: MW39-07
Date: 1/28/11
Weather: Sunny

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
1225		6.54	—	7.93	99.7	16.72	22.9	6.89	4.00	142
1230	0.08	6.49	0.4	7.95	75.8	16.41	14.5	4.51	4.00	153
1235	0.12	6.48	1.0	7.96	75.0	16.65	15.5	3.67	4.00	161
1240		6.48	1.6	7.96	74.9	16.69	34.6	2.66	4.00	162
1245		6.48	3.2	7.94	72.1	16.58	24.2	1.40	4.00	158
1300		6.48	4.0	7.94	71.8	16.70	18.9	0.99	4.00	157
1305		6.48	4.5	7.93	71.2	16.99	17.5	0.77	4.00	159
1310		6.48	5.1	7.93	71.5	16.85	13.0	0.52	4.00	159
1315		6.48	5.9	7.93	71.4	17.06	12.1	0.48	4.00	162
1320		6.48	6.3	7.93	71.3	17.19	10.1	0.31	4.00	164
1325		6.48	6.9	7.93	71.7	17.04	7.9	0.18	4.00	166
1330		6.48	7.4	7.92	71.3	17.33	7.9	0.09	4.00	168
1335		6.48	8.0	7.92	71.5	17.34	6.0	0.05	4.00	170

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3-40 mL VOAs	9
Total metals	HNO_3	1-500 mL plastic	3
Dis metals	none	1-500 mL plastic	3
TDS	none	1-500 mL plastic	3
Perchlorate	none	1-250 mL plastic	3

OBSERVATIONS / NOTES:

Quality Samples:
MS/MSD: Collected
Duplicate ID No.: NA

Signature(s):

Tetra Tech

FIELD PARAMETER FORM
Horiba U-22/YSI

Date:

Project Name: Holloman AFB
Project Number: 100-TEN-T93002
Investigation Site:

Well / Boring Number: MW39-07
Sample Number:
Samplers:

Time Began Purging:

Time End Purging:

Time (24hr)	Purge Volume L (~~Gallons~~)	pH (Standard Units)	Conductivity (mS/cm)	Turbidity (NTU)	Temperature (C)	D.O (mg/L)	ORP/Eh (mV)
1340	8.4	7.92	71.5	7.1	17.43	0.00	173
1345	9.0	7.92	71.5	5.1	17.42	0.00	174

Solid
4.0
4.0

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 10.05
Depth to Water: 4.21
Water Column: 5.84
Well Casing Diameter & Material: 2in PVC
One Casing Volume: 0.99gal
Three Casing Volumes: 2.97gal
Start Purge: 1120
End Purge: 1200
Total Purge Time: 40 min

Well ID: MW39-08
Date: 1/27/11
Weather: Sunny & Windy

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
1120	0.08	4.21	0.06	7.59	99.9	22.62	52.5	2.02	4.0	123
1130	↓	5.50	0.46	7.62	99.9	19.33	80.9	1.96	4.0	124
1135	↓	5.83	0.86	7.65	99.9	15.30	42.6	1.38	4.0	139
1140	↓	6.31	1.26	7.65	99.9	14.81	39.4	1.38	4.0	144
1145	↓	6.45	1.66	7.66	99.9	14.87	36.6	1.43	4.0	146
1150	↓	6.71	2.06	7.67	99.9	14.73	34.3	1.79	4.0	147
1155	↓	7.00	2.46	7.71	99.9	14.87	33.6	2.01	4.0	149
1200	↓	7.13	2.86	7.71	99.9	14.83	34.2	1.86	4.0	149

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3 - 40 mL VOAs	3
~~TOC~~ metals - Total	HNO_3	1 - 500 mL plastic	1
~~TOC~~ metals - DIS	none	1 - 500 mL plastic	1
TDS	none	1 - 500 mL plastic	1
Perchlorate	none	1 - 250 mL plastic	1

OBSERVATIONS / NOTES:

Quality Samples:
MS/MSD: NA
Duplicate ID No.: NA

Signature(s): Laura Tay

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 10.05
Depth to Water: 3.35
Water Column: 6.70
Well Casing Diameter & Material: 2" PVC
One Casing Volume: 1.1 gal
Three Casing Volumes: 3.4 gal
Start Purge: 0952
End Purge: 1050
Total Purge Time: 58 mins

Well ID: MW39-09
Date: 1/27/11
Weather: Sunny 65°F

10'39"

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
0955	0.09	3.35	—	6.86	—	19.75	-5.0	1.45	4.0	163
1000	0.09	4.36	0.4	7.31	—	17.59	-5.0	1.07	4.0	134
1005	0.09	5.38	1.0	7.44	—	16.10	723.0	0.92	4.0	121
1010	0.08	5.88	1.3	7.51	—	15.10	245.0	0.89	4.0	120
1015	0.08	6.38	1.7	7.53	—	14.73	0.0	0.92	4.0	120
1020	0.08	6.90	2.1	7.53	—	14.90	0.0	0.80	4.0	118
1025	0.08	7.40	2.4	7.52	—	14.92	500	0.70	4.0	106
1030	0.08	7.90	2.8	7.53	—	15.02	0.0	1.63	4.0	102
1035	0.08	8.40	3.2	7.53	—	15.15	0.0	2.07	4.0	96
1040	0.08	9.08	3.8	7.52	—	15.21	0.0	2.07	4.0	92
1045	0.08	9.42	4.1	7.51	—	15.60	0.0	2.03	4.0	81
1050	0.08	9.87	4.4	7.52	—	16.32	-5.0	2.01	4.0	79

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL	3-40 mL VOAs	3
Perchlorate	None	1-250 mL Plastic	1
TAL-Metals total	HNO3	1-500 mL Plastic	1
Metals-Dissolved	None	1-500 mL Plastic	1
TDS	None	1-500 mL Plastic	1

OBSERVATIONS / NOTES:

pumping as slow as possible; pumped well dry at 1115; resampling @ 1151

Quality Samples:

MS/MSD:
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 10.05
Depth to Water: 4.25
Water Column: 5.8
Well Casing Diameter & Material: 2"
One Casing Volume: 0.98 gal
Three Casing Volumes: 2.9 gal
Start Purge: 0950
End Purge: 1042
Total Purge Time: 52 min

Well ID: MW39-10
Date: 1/27/11
Weather: Sunny & Cold

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
950	0.08	5.00	0.06	7.61	99.9	21.14	10.0	0.00	4.0	149
1000		5.35	0.86	7.72	99.9	20.47	10.8	0.00	4.0	146
1005		6.32	1.26	7.76	99.9	19.34	12.6	0.00	4.0	140
1010		7.21	1.66	7.78	99.9	18.90	16.3	0.00	4.0	139
1020		8.37	2.52	7.89	99.9	13.2	16.18	0.05	4.0	132
1030		9.20	3.38	8.02	99.9	13.93	80.22	0.44	4.0	129
1042		9.97	4.34	8.03	99.9	13.66	122.0	0.46	4.0	128
Pumped Dry										
1600	0.08									

Collec sam

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL	3-40 mL VOAs	3
Perchlorate	None	1-500 mL Plastic	1
TAL metals - Total	HNO3	1-500 mL Plastic	1
metals - Dissolved	None	1-500 mL Plastic	1
TDS	None	1-500 mL Plastic	1

OBSERVATIONS / NOTES:

Quality Samples:
MS/MSD: NA
Duplicate ID No.: NA

Signature(s):
Laura Tay

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 10.05'
Depth to Water: 4.14'
Water Column: 5.19'
Well Casing Diameter & Material: 2"
One Casing Volume: 0.8 gal
Three Casing Volumes: 2.6 gal
Start Purge: 1545
End Purge: 1640
Total Purge TIme: 55 min

Well ID: MW039-11
Date: 1/27/11
Weather: sunny

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
1545	0.077	4.14	—	7.51	99.9	26.37	—	6.04	4.0	152
1550		4.37	0.385	7.57	99.9	20.05	—	4.51	4.0	152
1555		4.64	0.77	7.55	99.9	16.33	—	4.25	4.0	140
1600		4.90	1.155	7.55	99.9	16.25	—	2.58	4.0	148
1605		4.90	1.54	7.53	99.9	15.90	501.0	1.75	4.0	119
1610		5.16	1.925	7.52	99.9	15.99	417.0	1.60	4.0	90
1615		5.31	2.31	7.52	99.9	16.03	302.0	1.40	4.0	57
1630		5.71	3.465	7.52	99.9	15.96	248.0	1.23	4.0	51
1640		5.87	4.235	7.53	99.9	15.73	143.0	1.08	4.0	48

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3-40 mL VOAs	3
Total metals	HNO3	1- 500 mL plastic	1
Dis metals	none	1- 500 mL plastic	1
TDS	none	1- 500 mL plastic	1
Perchlorate	none		

OBSERVATIONS / NOTES:

Quality Samples:
MS/MSD: NA
Duplicate ID No.: NA

Signature(s): Ruria A Tay

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 10.05
Depth to Water: 4.61
Water Column: 5.44
Well Casing Diameter & Material: 2"
One Casing Volume: 0.9 gal
Three Casing Volumes: 2.7 gal
Start Purge: 1435
End Purge: 1515
Total Purge Time: 35 min

Well ID: MW39-12
Date: 1/27/11
Weather: Sunny & windy

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
1435	0.08	4.61	.25	6.80	99.9	23.57	90.4	5.54	4.0	169
1445		4.97	0.65	7.58	99.9	22.37	47.1	4.32	4.0	171
1450		5.21	1.05	7.66	99.9	18.46	37.2	2.17	4.0	167
1455		5.74	1.45	7.68	99.9	17.80	28.9	1.77	4.0	167
1500		6.15	1.85	7.68	99.9	17.53	30.3	1.66	4.0	168
1505		6.24	2.25	7.67	99.9	17.24	21.4	1.67	4.0	168
1510		6.59	2.65	7.65	99.9	17.32	23.7	1.65	4.0	168
1515		6.81	3.05	7.64	99.9	17.38	23.2	1.50	4.0	169

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3-40 mL VOAs	3
metals - DIS	none	1- 500 mL plastic	1
metals - Total	HNO_3	1- 500 mL plastic	1
Perchlorate	none	1- 250 mL plastic	1
TDS	none	1- 500 mL plastic	1

OBSERVATIONS / NOTES:

Quality Samples:
MS/MSD: NA
Duplicate ID No.: NA

Signature(s): Laura Tay

Well Development Log

Project Number: 100-TEN-T93002-1
Project Name: Holloman AFB
Form Completed by: B. Clowers
Development Company: Tetra Tech

Well No: MW39-13 ~~MW13~~ Bc
Site Name: SS-39
Date Started: 1/27/11

Monitoring Well Information

Development Method: Surge/Purge
Development Equipment: Teflon bailer

Screen Length (ft): 5.0
Filter Pack Length (ft): 6.0
Casing Diameter (in): 2.0

Beginning Measurements
Depth to Water (ft): 5.48
Total Depth of Well (ft): 7.21

Monitoring Well Purge Calculations

Volume of Water in Casing:
Gallons/foot = 0.041 x d^2, where casing diameter in inches = (0.041 x (2)^2) = 0.164 gal/ft.
Well Volume (gallons) = Water Column (ft) x Gal/ft = 1.73 ft x 0.164 gal/ft = 0.284 gallons

Volume of Water in Filter Pack: 10.56 - 4 = 6.56
Gallons/foot = 0.041 x (D^2 - d^2), where D is total borehole diameter in inches & d is casing diameter in inches = 0.041 x ((3.25)^2 - (2)^2) = gal/ft. 0.269
Filter Pack Volume (gal) = ((lesser of screen length+2 feet OR water column) x gal/ft) x porosity (0.3) = (1.73) ft x (0.269) gal/ft) x 0.3 = 0.14 gal.

Purge Well Volume:
Purge well Volume = Filter pack volume + Well Volume = 0.284 gal + 0.14 gal = 0.424 gal.

1 x Purge Well Volume	2 x Purge Well Volume	3 x Purge Well Volume	4 x Purge Well Volume	5 x Purge Well Volume
0.424	0.848	1.272	1.696	2.12

Development Record

	Time (24 hours)	Purge Volume (gal)	Water Level (ft) (TOC)	ORP (mV)	pH (Std Units)	Conductivity (mS/cm)	Turbidity (NTU)	DO (ppm)	Temp. (C)	Clarity (color)	Comments
1/27	1330	—	5.48	—	—	—	—	—	—	cloudy	SAL Surged ~10 mins/Not to silty
	1350	1.25	DRY	—	—	—	—	—	—	Cloudy	purged dry
1/28	1015	—	5.64	126	6.86	22.5	10.3	1.87	14.81	clear	1.4
	1030	2.0	DRY	111	7.07	—	44.1	Ø	16.61	Clear	4.0 recharges fast.
	1040	Sample taken at 1040									

Well Development Log

Well No: MW 39 - 14
Site Name: SS-39
Date Started: 1/25/11

MW14
TD = 22.20

Top of protective casing

Development Record (continuation)

	Time (24 hrs)	Purge Volume ~~(gal)~~	Water Level (ft BTOC)	ORP (mV)	pH (Std)	Conductivity (mS/cm)	Turbidity (NTU)	DO (ppm)	Temp. (C)	Clarity (color)	Comments	
1/25	0950	—	14.71								Surge well for 30 mins	
		—									with bailer,	
	1020	~~6~~.0 G									~7 gal purged from well,	
1/26	1345		14.29								did not go dry, let sit	
	1355	—	restart	purge							surge for ten mins	
		~~9.0~~										
	1425	10.0 G										
1/27	935	—	14.72									
	~~940~~ 1010	∅	Begin purge									
	1015	0.750 L	14.91	126	7.82	22.6	589.0	8.32	19.14	cloudy	Rate = 150 ml/min	SAL 1.41
	1020	1.50 L	14.91	126	7.83	23.7	863.0	7.69	19.33	cloudy	150 ml/min	1.43
	1025	2.50 L	14.92	128	7.86	25.0	809.0	8.62	19.39	cloudy	200 ml/min	1.53
	1030	3.50 L	14.94	128	7.85	24.8	732.0	8.33	19.51	cloudy	200 ml/min	1.52
	1035	4.50 L	14.95	128	7.84	24.9	639.0	8.04	19.74	cloudy	200 ml/min	1.52
	1040	5.50 L	14.95	129	7.83	24.9	485.0	8.06	19.64	cloudy	200 ml/min	1.53
	1045	6.50 L	14.97	125	7.84	25.0	430.0	7.89	19.58	cloudy	200 ml/min	1.52
	1050	7.50 L	14.98	103	7.84	24.9	487.0	8.35	19.73	cloudy	200 ml/min	1.52
	1055	8.50 L	14.98	96	7.84	24.9	431.0	8.18	19.73	cloudy	200 ml/min	1.52
	1100	9.50	14.99	95	7.84	24.8	393.0	8.11	19.71		200 ml/min	1.52

Range and Average Discharge Rate:
Maximum Drawdown during Development: at gpm.
Disposition of Development Water: Drums Frac Tank Other
Number of Containers for Development Water: None, poured on ground

Comments: Sample time - 1130

Final Measurements

Total Depth of Well (ft):

Date Completed: 1/25/11

Hours Developed:

Well Development Log

Project Number: 100-TEN-T93002-1
Project Name: Holloman AFB
Form Completed by: B. Clowers
Development Company: Tetra Tech

Well No: MW39-15
Site Name: SS-39
Date Started: 1-27-11

Monitoring Well Information

Development Method: Surge/Purge
Development Equipment: teflon bailer/ Geopump

Screen Length (ft): 10.0
Filter Pack Length (ft): 11.0
Casing Diameter (in): 2.0

Beginning Measurements
Depth to Water (ft): 14.04
Total Depth of Well (ft): 21.73

Monitoring Well Purge Calculations

Volume of Water in Casing:
Gallons/foot = 0.041 x d^2, where casing diameter in inches = (0.041 x (2)^2) = 0.164 gal/ft.
Well Volume (gallons) = Water Column (ft) x Gal/ft = 7.69 ft x 0.164 gal/ft = 1.26 gallons

10.56 − 4 6.56

Volume of Water in Filter Pack:
Gallons/foot = 0.041 x (D^2 - d^2), where D is total borehole diameter in inches & d is casing diameter in inches = 0.041 x ((3.25)^2 − (2)^2) = gal/ft. 0.269
Filter Pack Volume (gal) = ((lesser of screen length+2 feet OR water column) x gal/ft) x porosity (0.3) = (7.69) ft x (0.269) gal/ft) x 0.3 = 0.62 gal.

Purge Well Volume:
Purge well Volume = Filter pack volume + Well Volume = 1.26 gal + 0.62 gal = 1.88 gal.

1 x Purge Well Volume	2 x Purge Well Volume	3 x Purge Well Volume	4 x Purge Well Volume	5 x Purge Well Volume
1.88	3.76	5.64	7.52	9.4

Development Record

Time (24 hours)	Purge Volume (gal)	Water Level (ft) (TOC)	ORP (mV)	pH (Std Units)	Conductivity (mS/cm)	Turbidity (NTU)	DO (ppm)	Temp. (C)	Clarity (color)	Comments
1/27 1440	—								Cloudy	SAL Surge ~10 min's and hand bail.
1500	5 gal								Cloudy	Surge ~10 mins and hand bail
1515	—								Cloudy	Purge with pump.
1535	9 gal								clear	Cleared up
1/28 1120	—	14.43	Begin	Purge						SAL RATE
1130	1.0 L	14.47	117	7.27	21.3	7.6	3.86	21.84	clear	1.3 200 ml/min
1135	2.0 L	14.47	117	7.31	22.2	13.8	4.04	19.99	clear	1.3 200 ml/min
1140	3.0 L	14.48	117	7.34	22.5	14.8	4.07	19.11	clear	1.4 200 ml/min
1145	4.0 L	14.49	116	7.35	22.6	11.3	4.04	18.97	clear	1.4 200 ml/min
1150	5.0 L	14.49	97	7.36	22.7	11.3	4.04	18.61	clear	1.4 200 ml/min

Well Development Log

Well No: MW 39 -15
Site Name: SS39
Date Started: 1-27-91

Development Record (continuation)

Time (24 hrs)	Purge Volume (gal)	Water Level (ft BTOC)	ORP (mV)	pH (Std)	Conductivity (mS/cm)	Turbidity (NTU)	DO (ppm)	Temp. (C)	Clarity (color)	Comments SAL	Comments RATE ml/min
1155	6.0L	14.51	89	7.36	22.7	6.7	3.93	18.80	Clear	1.4	200
1200	7.0L	14.50	91	7.36	23.1	8.1	4.07	18.40	Clear	1.4	200
1205	8.0L	14.51	94	7.37	23.5	7.4	4.21	17.17	Clear	1.4	200
1210	9.0L	14.51	98	7.36	23.9	5.7	4.37	14.41	Clear	1.5	200
1215	10.0L	14.52	101	7.36	24.8	4.2	4.75	14.45	Clear	1.5	200
1220	11.0L	1451	103	7.38	25.6	4.9	4.91	13.46	Clear	1.5	200
1225	12.0L	14.52	106	7.38	25.9	4.4	5.04	13.31	Clear	1.6	200
1230	13.0L	14.52	108	7.39	26.2	4.0	4.95	12.67	Clear	1.6	200
1235	14.0L	14.51	112	7.39	26.5	2.3	5.04	12.31	Clear	1.6	200
1240	15.0L	14.52	114	7.39	26.7	1.3	4.99	11.96	Clear	1.6	200
1245	16.0L	14.53	115	7.39	26.8	2.5	5.08	11.91	Clear	1.6	200

Range and Average Discharge Rate: _____
Maximum Drawdown during Development: _____ at _____ gpm.
Disposition of Development Water: Drums Frac Tank Other
Number of Containers for Development Water: _____

Comments: _____

Final Measurements

Total Depth of Well (ft): _____

Date Completed: _____

Hours Developed: _____

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Facility Name: Holloman AFB
Project No.: 100-TEN-T93002
Well Depth: 17.15
Depth to Water: 9.64
Water Column: 7.51
Well Casing Diameter & Material: 2 in PVC
One Casing Volume: 1.3 gal
Three Casing Volumes: 3.8 gal
Start Purge: 1205
End Purge: 1300
Total Purge Time: 55 min

Well ID: MW39-16
Date: 1/28/11
Weather: Sunny and 60°F

PURGE DATA:

Time	Pumping Rate (L/min)	Water Level (ft)	Volume Pumped (L)	pH	S.C. (uS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity	ORP (mV)
1205		9.64		6.87	32.0	~~20.24~~	—	5.38	2.3	124
1210		10.13		6.91	39.1	22.34	—	4.12	2.5	110
1215	1 L/12 min	10.13	1 L	6.95	39.2	19.10	309.0	3.25	2.5	108
1220		~~10.17~~ 10.10		6.96	37.5	19.03	260.0	3.10	2.4	110
1225	1 L/8 min	10.06		6.96	35.1	19.05	166.0	3.34	2.2	121
1235		10.16		6.99	32.1	19.30	202.0	3.96	2.0	127
1240		10.23		7.00	30.5	19.30	196	4.32	1.9	124
1245	1 L/10 min	10.18		7.00	29.5	19.22	187.0	4.36	1.8	105
1250		10.15		6.99	29.3	19.25	163.0	4.20	1.8	98
1255		10.15		6.98	29.3	19.22	153.0	4.07	1.8	96
1300		10.15	6 Liters	6.97	29.4	19.43	138.0	3.93	1.8	100

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Perchlorate			
ORO			
TDS			
Metals - Total			
metals - Diss			
VOCs			
GRO			

OBSERVATIONS / NOTES:

Quality Samples:

MS/MSD:
Duplicate ID No.:

Signature(s): Kara Tay

APPENDIX E

RADIATION PROTECTION PROGRAM AND BASELINE GAMMA SURVEY SUMMARY

TETRA TECH

Radiation Protection Program and Baseline Gamma Survey Summary

SD-27 Environmental Site Investigation at Holloman Air Force Base

December 7, 2010

complex world

CLEAR SOLUTIONS™

Radiation Protection Program and Baseline Gamma Survey Summary

SD-27 Environmental Site Investigation at Holloman Air Force Base

Prepared for:

Tetra Tech DIV

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Tetra Tech Project No. 114-182116X

December 7, 2010

PROFESSIONAL DECLARATION

This report was prepared by Tetra Tech, Inc. under the professional supervision of H. Robert Meyer. The findings, recommendations, specifications and professional opinions presented in this report have been prepared in accordance with generally accepted professional radiation protection and measurements practice, as constrained by project scope. There is no warranty, either expressed or implied.

H. Robert Meyer, Ph.D.
Environmental/Senior Scientist, Tetra Tech, Inc.
December 7, 2010

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Appendix A: Daily Equipment and Personnel Release Forms

1.0 INTRODUCTION

This report was developed on behalf of Tetra Tech DIV of Oak Ridge, Tennessee for the U.S. Air Force Center for Engineering and the Environment based in Brooks City-Base, Texas. This *Baseline Gamma Survey and Radiation Protection Program Summary, SD-27 Environmental Site Investigation at Holloman Air Force Base* supports the field work completed as part of the *SD-27 Pad 9 Washrack Area Accelerated Corrective Measures Work Plan, Holloman Air Force Base [AFB] Alamogordo, New Mexico* (Tetra Tech, 2009).

Tetra Tech DIV was awarded a contract (Contract No. FA4890-06-D-0009, Task Order No. 5002) with the U.S. Air Force to perform environmental remediation services at two Resource Conservation and Recovery Act (RCRA) sites (SD-27 and SS-39) at Holloman AFB, New Mexico (the Site). Prior to commencing field work, Tetra Tech DIV determined that there was a potential for low-level radionuclide contamination at SD-27 based on the Site history and previous environmental investigations and reports (Tetra Tech, 2009). Given the possible risk to human health and the environment from potentially radionuclide contaminated soil and groundwater, Tetra Tech DIV initiated and Tetra Tech MMI implemented a radiation protection program during the environmental investigation field activities. Tetra Tech performed a general baseline radiological investigation within the limits of the SD-27 boundary to assess gamma exposure rates at the ground surface and in soil boring samples.

The central focus of the radiation protection program was to assess the ubiquitous background radiation within that area, determine whether soil samples exhibited significant gamma radiation levels, prevent radiological contamination moving off the Site, and monitor to prevent unnecessary ionizing radiation exposure to site workers during the environmental sampling activities. Tetra Tech DIV performed the drilling and well installation activities and collected soil samples at SD-27 from November 3 through 5, 2010 as part of the remedial investigation. During the field activities a health physics engineer from Tetra Tech MMI of Fort Collins, Colorado was at the Site to lead the radiation protection program.

The purpose of this report is to summarize the radiation protection program and the results of the baseline gamma survey conducted by Tetra Tech MMI at the Site in November 2010.

2.0 RADIATION PROTECTION PROGRAM

This section describes the radiation protection program and the measures taken to protect site workers from potential radiological contamination and the removal of any potentially contaminated material off the Site. At all times during this project radiation doses were kept “As Low As Reasonably Achievable” (ALARA).

2.1 Personnel Protection and Surveys

There were two sets of measurements performed on field personnel by the on-site health physics technician prior to free release from the Site each day. The measurements were conducted using appropriate radiation detection equipment, including a Ludlum model 44-9 Geiger-Muller detector and datalogger and a Ludlum model 43-5 alpha scintillator probe and datalogger. Table 1 summarizes information concerning the equipment used for the surveys.

Table 1. Field Personnel Radiation Measurement Equipment

Radiation Detected	Detector Type	ID and S/N	Data Logger Type	Isotope for QC	Isoptope Activity (dpm*)
Alpha	43-5	SN93647	2221	^{230}Th	23,050
Alpha, Beta, and Gamma	44-9	PR225378	2241	^{90}SrY	19,000

*dpm = disintegrations per minute

The Ludlum Model 43-5 alpha scintillator (alpha detector) is a detector designed for alpha radiation surveys when used with a general purpose meter. It utilizes a zinc sulfide scintillation crystal and a 1.5-inch diameter magnetically shielded photomultiplier tube. A plastic cover is provided for protection of the detector face when the detector is not in use (Ludlum, 1996). This detector was also used for surveying personnel prior to leaving the Site. Daily background and efficiency measurements were recorded.

The Ludlum Model 44-9 Geiger-Muller (GM detector) detector, commonly referred to as a “pancake” probe, detects alpha, beta and gamma radiation. The size and shape of the detector allow for easy handling for surveying and personnel monitoring. It is commonly used as a handheld radiation survey instrument for contamination measurements. This detector was used as part of the radiation detection equipment for this project to survey personnel for contamination prior to leaving the Site. The active surface is protected by a plastic cover between uses. Daily background and efficiency measurements were recorded. Personnel were “scanned out” by the health physics technician prior to leaving the Site. Section 2.1.1 below discusses radiation measurement limits of this detector.

2.1.1 Personnel Contamination Limits

A Certified Health Physicist (CHP) determined the appropriate survey meter measurement limits based on site conditions, regulatory requirements, and instrument capabilities. Daily background measurements were collected at the Tetra Tech field office at the Site. These measurements were used to determine the appropriate instrument readings for release of personnel and equipment each day. The release limit for the alpha detector was determined to be 5 counts per minute (cpm) above background, and the release limit for the pancake probe was determined to

be 20 cpm above background to meet regulatory release limits for natural Uranium (U-nat) of 1,000 dpm alpha per 100 square centimeters (cm^2). Tables 2 and 3 summarize the results from the background measurements and the daily release limits for the alpha detector (43-5) and the GM detector (44-9).

Table 2. Ludlum Model 43-5 Daily Background Measurements
(ID: MFG-28; S/N: SN93647)

Date	Measured Background (cpm)	Release Limit (cpm)
11/3/2010	1	6
11/4/2010	2	7

Table 3. Ludlum Model 44-9 Daily Background Measurements
(ID: TT-32; S/N: PR225378)

Date	Measured Background (cpm)	Release Limit (cpm)
11/3/2010	50	70
11/4/2010	46	66

There were no instances in which any of the field personnel showed any evidence of contamination associated with the work at SD-27. Section 2.1.2 summarizes the radiation survey results for the field personnel.

2.1.2 Personnel Survey Results

Individuals were scanned for alpha and beta contamination after work activities. During the field sampling work, there were six employees present from two different companies: Tetra Tech (Oak Ridge and Fort Collins) and the drilling company, Vista GeoSciences. Tables 2 through 3 show the acceptable contamination limits that were determined and applied each day by performing daily instrument background checks. There was no significant contamination observed on any of the field personnel. A scanned copy of the original field survey log is included in Appendix A.

2.1.3 Instrument Quality Assurance

The alpha detector and the GM detector were checked daily during use, and the results were recorded on a daily log to track potential instrument malfunction or contamination. Table 4 shows the measured standard source activity and the calculated efficiency for the alpha detector (43-5) for the two days in the field. Efficiencies were acceptable, at 9.4 percent and 11.6 percent.

Table 4. Ludlum Model 43-5 Daily Efficiency Measurements
(ID: MFG-28; S/N: SN93647)

Date	^{230}Th Measured Activity	Isotope Activity (dpm)	e* (%)
11/3/2010	2,158	23,050	9.4
11/4/2010	2,671	19,000	11.6

*e = efficiency

Figure 1, below, shows the daily instrument efficiency checks for the GM pancake probe for the two days it was in use, plus the day prior. The efficiency ranged between 14.7 percent and 16.7 percent; both values are within acceptable limits. The scanned copies of the original daily logs are included in Appendix A.

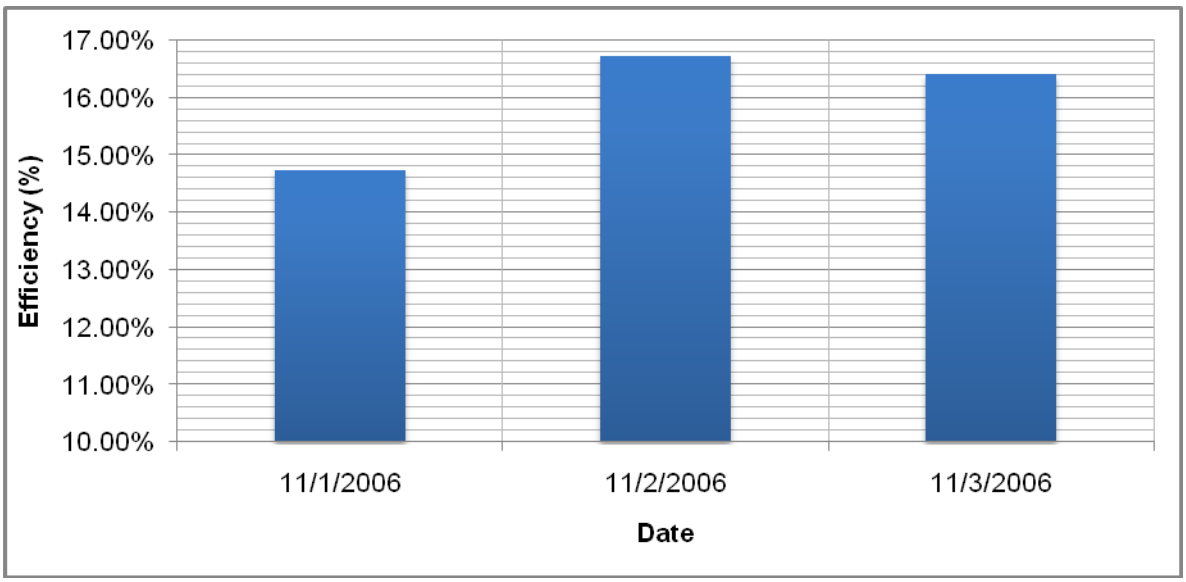

Figure 1. Ludlum 44-9 GM Detector Daily Efficiency Check

Calibration documentation for both detectors is available upon request.

2.2 Equipment Release

A Ludlum Model 44-9 GM detector was used on a daily basis to also scan out equipment prior to release from the Site. Table 1, above, characterizes the instrument.

In addition to the daily release measurements, a “swipe test” was performed before equipment, such as the drill rig, was allowed onto the Site and prior to unrestricted release. The swipe test, using a Ludlum Model 43-1 alpha scintillator (alpha detector), measures the removable surface contamination of selected areas on the equipment (100 cm^2).

Table 5. Field Personnel Radiation Measurement Equipment

Radiation Detected	Detector Type	ID and S/N	Data Logger Type	Isotope for QC	Isoptope Activity (dpm*)
Alpha	43-1	SN113027	2221	^{230}Th	23,050

Release limits were the same as previously discussed for alpha detectors: Areas with removable contamination levels causing alpha swipe counter *net* count rates (instrument background subtracted) greater than 5 cpm would be required to be cleaned, dried, and retested. Instrument background and counting efficiency were recorded daily.
There were no instances where tested equipment showed evidence of significant contamination associated with the work at SD-27.

2.3 Instrument Quality Assurance Summary

The Ludlum Model 44-9 GM detector daily efficiencies are provided in Section 2.1.3, above.

The efficiency of the Ludlum Model 43-1 was checked on a daily basis, before, during and after the work was completed. The efficiency check results are shown in Figure 2, below, and represent acceptable levels.

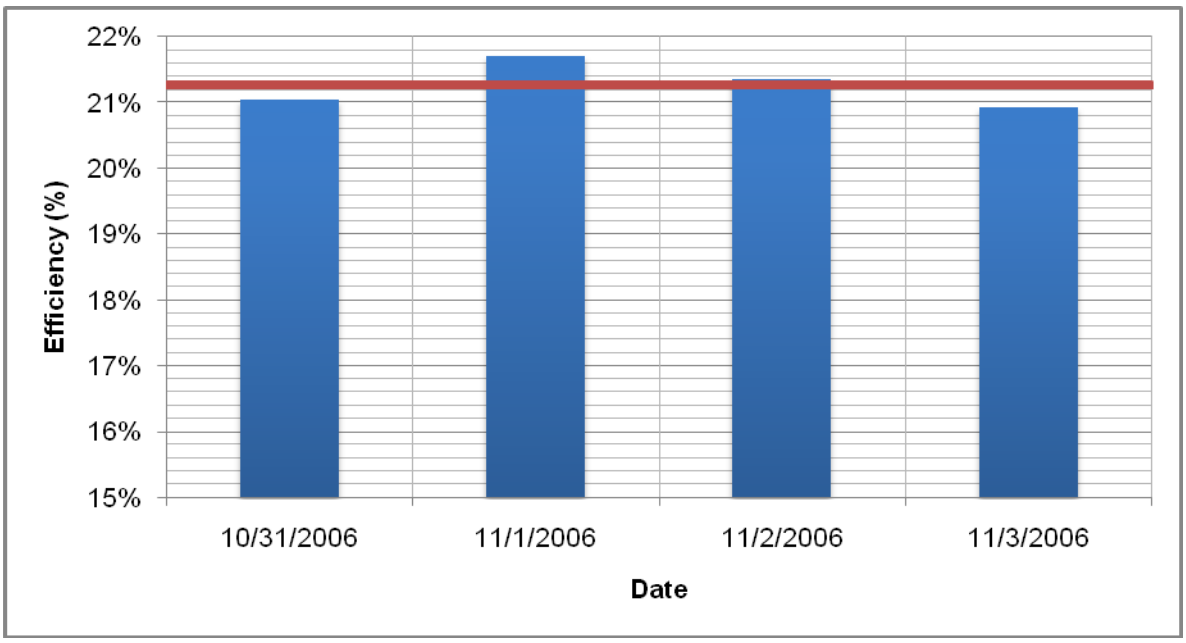

Figure 2. Ludlum 43-1 Alpha Detector Daily Efficiency Check

The instruments used for personnel contamination surveys and equipment release surveys operated within acceptable performance limits. The scanned copies of the original daily logs are included in Appendix A.

3.0 BASELINE GAMMA RADIATION SURVEY

3.1 Objective of Gamma Radiation Survey

The objective of the gamma radiation survey was to assess radiological conditions within the Site. A GPS-located Ludlum Model 44-10 sodium iodide (NaI) radiation detector with associated 2350 Ludlum datalogger were used to determine spatial distribution of gamma emissions.

3.2 Survey Period

Tetra Tech staff performed this field investigation on November 2, 2010.

3.3 Data Quality Assurance/Quality Control Methods

Radiological characterization projects conducted by Tetra Tech incorporate specific data quality assurance/quality control (QA/QC) protocols. In general, QA includes qualitative factors that provide confidence in the results, while QC involves quantitative evidence that supports the validity of results (data accuracy and precision). Calibration documentation for the radiation detectors is available upon request.

Data QA factors for this project include the following:

- All detectors used for gamma radiation scanning at the Site were calibrated by the manufacturer within the last 12 months.
- Tetra Tech's Radiological Protection and Measurements staff members possess extensive and pertinent qualifications and experience.
- Tetra Tech's radiological survey methods and results have been published in peer reviewed journals and conference proceedings (Johnson et al., 2006; Meyer et al., 005a; Meyer et al., 2005b; Whicker et al., 2006).

Prior to the gamma radiation survey, instrument comparison QC measurements were performed for all NaI detectors potentially used to survey the Site. Sets of individual, background QC measurements were compared under the same counting geometries. Instruments also meeting on-site field test criteria are designated qualified to replace instruments that fail in the field. Data developed using a qualified instrument are interchangeable with data collected using other field-qualified instruments.

3.3.1 QC Field Check Results

For normally distributed data, over 99 percent of measurements are expected to fall within ±3 standard deviations from the mean. Background, field strip, and Cs-137 test source (field check source) standard deviation values were re-calculated twice daily during the project; daily plots incorporate results to date. Any instrument with a QC result falling outside ±3 standard deviations from the mean of all QC measurements may be replaced with a pre-qualified spare detector and sent back to the manufacturer for evaluation, repair, and recalibration.

QC measurements, including a background check, a field strip check and a source check, were performed twice daily at the Site for each scanning system in use. These checks were performed outdoors at standard locations. The daily field strip check, during which data were collected along the same 100-meter strip morning and evening, provides an indication of total

measurement uncertainty for the systems. The Ludlum 2350 datalogger system employs a calibration factor to internally convert detector counts per minute to exposure rate. The calculated exposure rate, directly proportional to the measured count rate, is transmitted by the data logger to the scanning system portable computer. No record of count rate is retained by the system, but count rate can be calculated using the instrument-specific calibration factor.

Figures 3 through 5 summarize key QC data acquired during the Holloman AFB gamma survey work. All instrument QC results during this project met the acceptability criterion. The daily count rate variations within these limits, seen below, are functions of several likely variables including exact placement of detector systems during daily checks and variations in barometric pressure. The low detector count rates at low background gamma exposure rates also contribute to statistical variability. Differences in detector internal characteristics, including minor NaI crystal issues or photomultiplier tube optical interface inconsistencies, may also be responsible for observed variations in background (low) and check source (high) count rates. For this Site, only the background and field strip QC data are applicable, given low radiation levels.

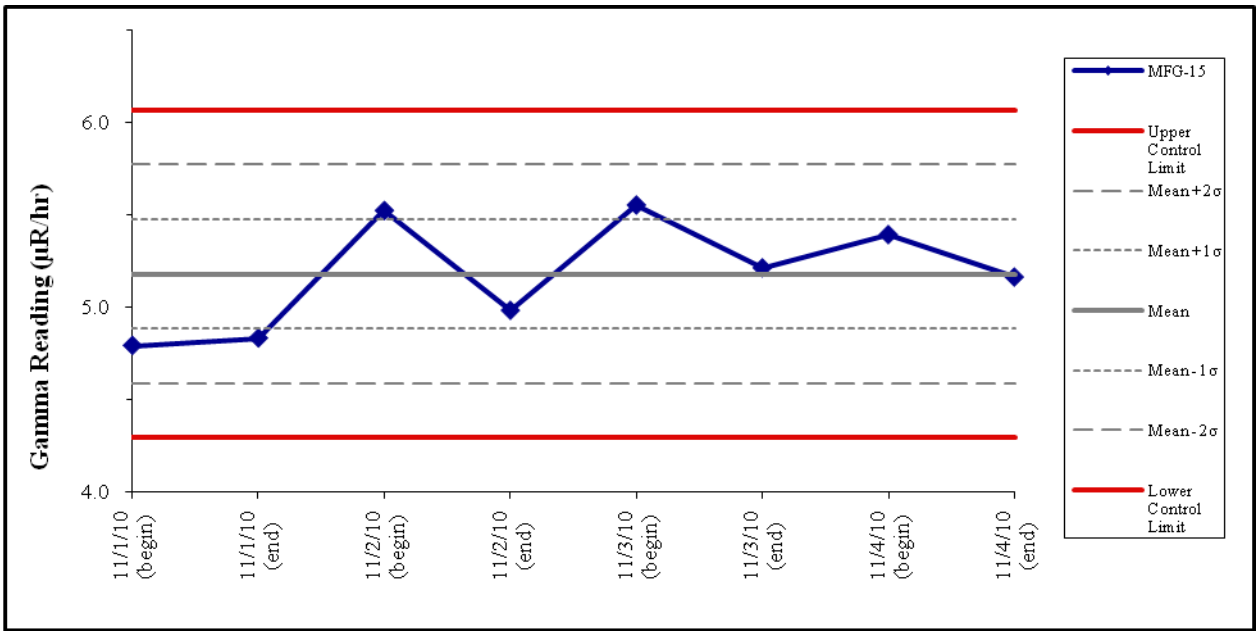

Figure 3. Background Exposure Rate Control Chart for Backpack Scan System

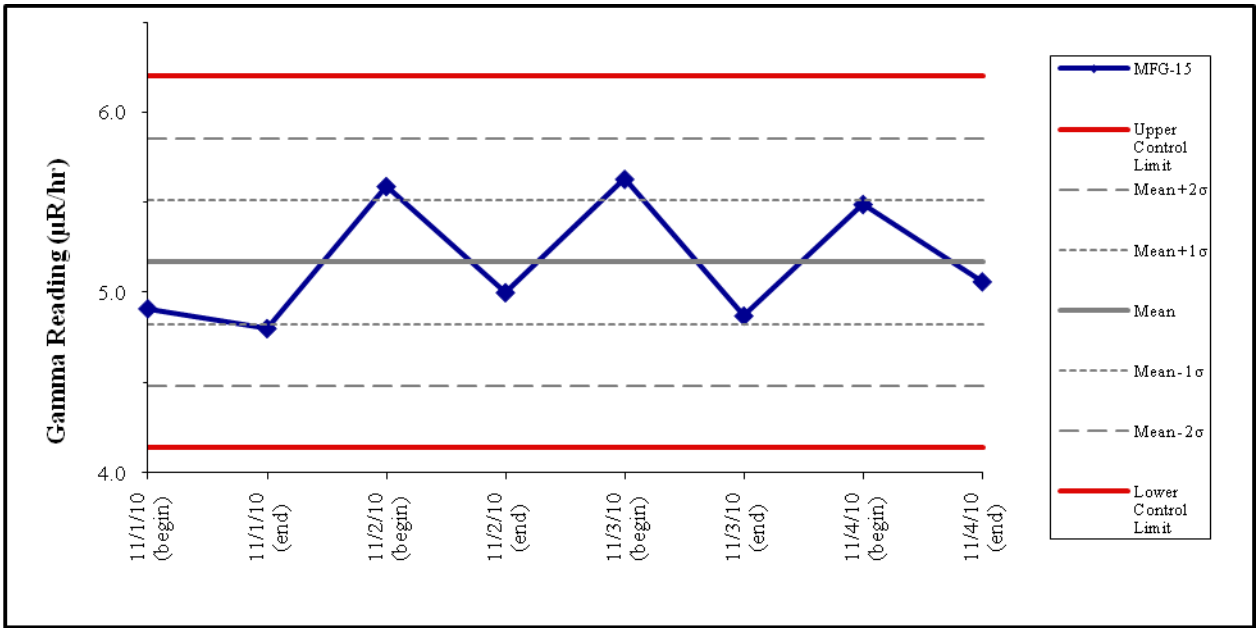

Figure 4. Field Strip Exposure Rate Control Chart for Backpack Scan System

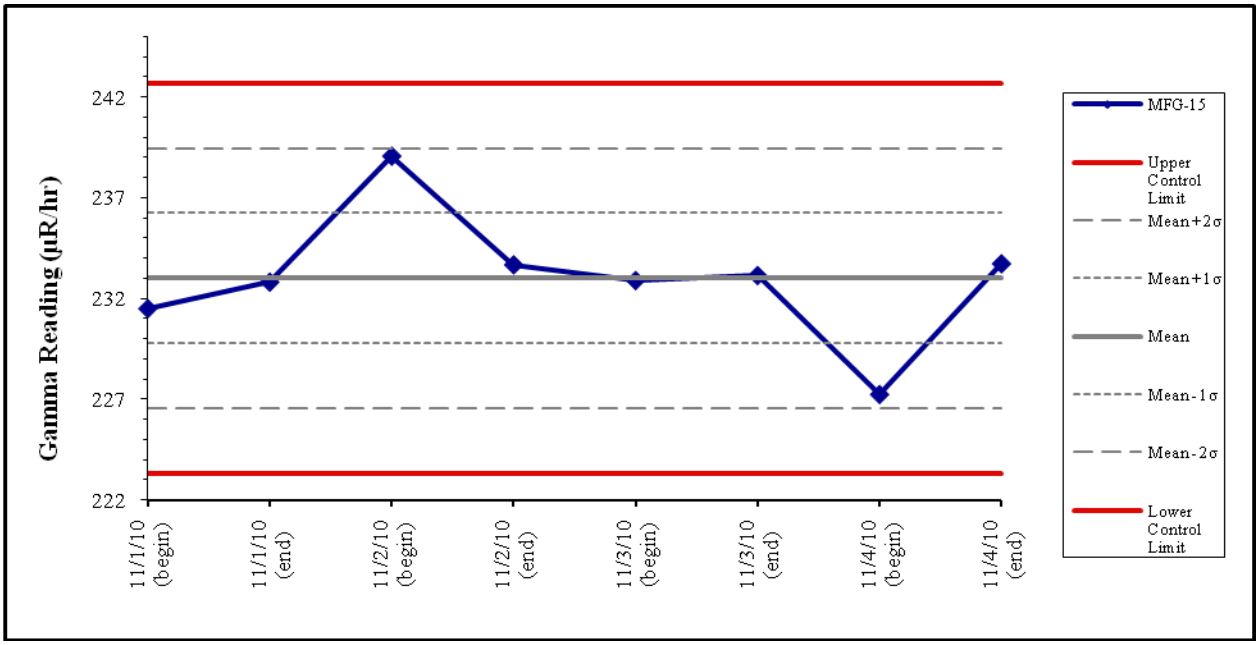

Figure 5. Cs-137 Source Exposure Rate Control Chart for Backpack Scan System

3.4 Survey Results

A total of 1,176 valid gamma radiation exposure rate data points, paired with Wide Area Augmentation System (WAAS)-corrected GPS data, were collected within the Site boundary. Summary statistics and a relative frequency histogram showing the distribution of the exposure rate data are provided in Figure 6.

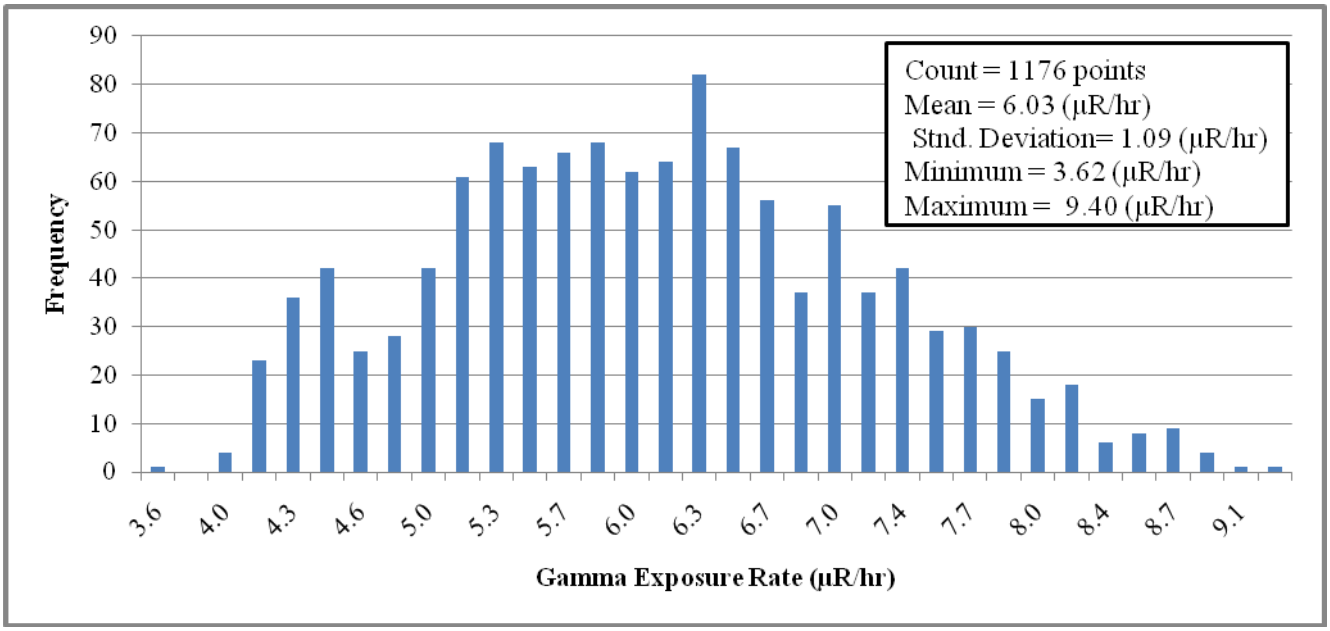

Figure 6. Frequency Histogram of Gamma Radiation Exposure Data at SD-27

The background gamma radiation exposure rates on site ranged from 3.62 to 9.40 µR/hr, with a standard deviation of 1.1 micro-Roentgen per hour (µR/hr). A map of gamma radiation exposure rates on the Site is presented as Figure 7.

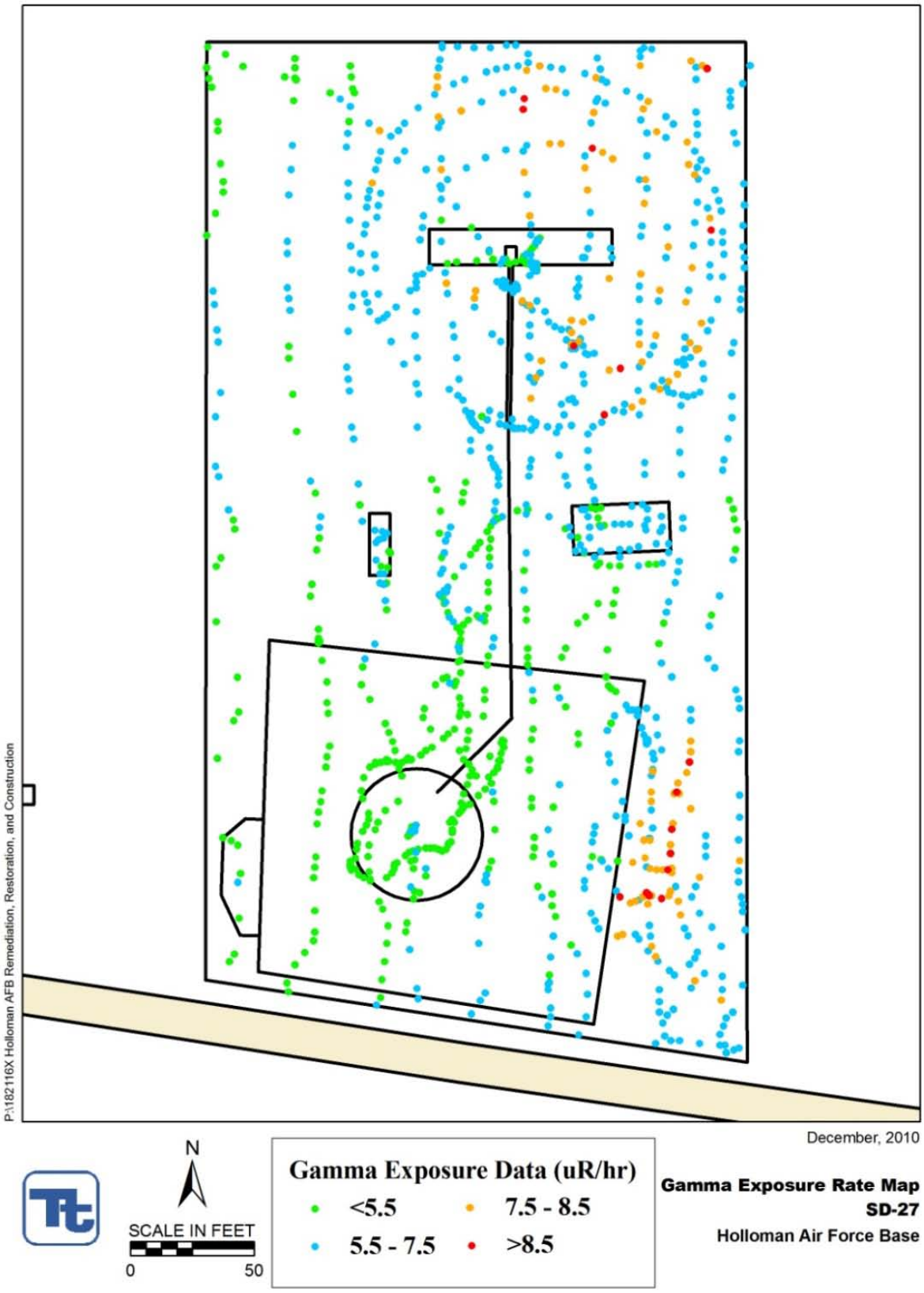

Figure 7. Gamma Exposure Rate Map for SD-27

4.0 GAMMA RADIATION ANALYSIS OF SOIL BORINGS

Gamma radiation evaluations were performed on soil borings extracted during the project. The borings were collected in intervals using a direct push technology (DPT). Gamma exposure rates were determined for each five-foot interval section by passing the 44-10 NaI probe along the soil cylinder. Table 6 shows the average, minimum and maximum gamma exposure rate for each soil boring. A total of ten boreholes were evaluated, ranging from 0 to 25 feet in depth. The gamma exposure rate ranged between 3.6 µR/hr and 5.8 µR/hr, with an average of 4.6 µR/hr. No significant excess in gamma exposure rate was noted for any tested sample.

Table 6. Gamma Radiation Analysis: Soil Borings

Borehole ID	Interval of Boring (feet below ground surface)	Average Gamma Exposure Rate (µR/hr)	Minimum Gamma Exposure Rate (µR/hr)	Maximum Gamma Exposure Rate (µR/hr)
SD27-DPT-1	0 to 5	4.6	4.2	5.0
	5 to 10	4.1	3.7	4.6
	10 to 10.7	3.9	3.6	4.3
SD27-DPT-2	0 to 5	4.2	3.6	4.7
	5 to 10	4.5	4.1	5.1
SD27-DPT-3	0 to 5	4.7	4.0	5.4
	5 to 10	4.7	3.9	5.5
SD27-DPT-4	0 to 5	4.7	4.1	5.4
	5 to 10	4.2	3.7	5.1
SD27-DPT-5	0 to 5	4.7	4.1	5.8
	5 to 10	4.6	4.1	5.5
	10 to 12	4.4	3.9	4.9
SD27-DPT-6	0 to 5	4.6	4.1	5.1
	5 to 10	4.6	4.1	5.0
SD27-DPT-7	0 to 5	4.9	4.4	5.6
	5 to 10	5.0	4.5	5.4
SD27-DPT-8	0 to 5	4.8	4.4	5.1
	5 to 10	4.8	4.3	5.6
	10 to 15	5.1	4.4	5.8
	15 to 18	4.7	4.0	5.1
	18 to 20	4.9	4.5	5.2
	20 to 25	4.9	4.5	5.4
SD27-DPT-10	0 to 5	4.7	4.0	5.1
	5 to 10	4.6	4.1	5.3
	10 to 15	4.7	4.1	5.3
	15 to 20	4.5	4.2	5.0
SD27-DPT-11	0 to 5	4.6	4.2	5.4
	5 to 10	4.4	3.9	5.2

5.0 CONCLUSIONS

A radiation protection program was performed by Tetra Tech MMI Fort Collins staff to assist during the environmental field sampling activities performed by Tetra Tech Oak Ridge. The program included daily personnel and equipment radiation surveys prior to leaving the Site to prevent off-site contamination. Detectors used during the surveys were checked daily for efficiency and background consistency. No indication of radiological contamination was observed.

In addition, a gamma survey of the site area was performed. The average background gamma exposure rate was approximately 6 μR/hr. Soil borings extracted during the project were scanned for gamma radiation; no anomalies were found.

REFERENCES

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Ludlum Measurements, Inc., (2010) *Ludlum Model 44-9 Alpha, Beta, Gamma Detector Manual.* Sweetwater, TX 79556, February 2010

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Meyer, R.; Shields, M., Green, S. (2005a) *A GPS-Based System for Preliminary or Remedial Action Gamma Scanning.* American Nuclear Society Topical Meeting on Decommissioning, Decontamination, and Reutilization. Denver, Colorado. August 7-11, 2005.

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APPENDIX A
DAILY EQUIPMENT AND PERSONNEL RELEASE FORMS

ORECHWA

TETRA TECH
PERSONAL SURVEY LOG

Instrument ID (alpha) 43-5 MFG-28 **Calibration date** 8/25/11

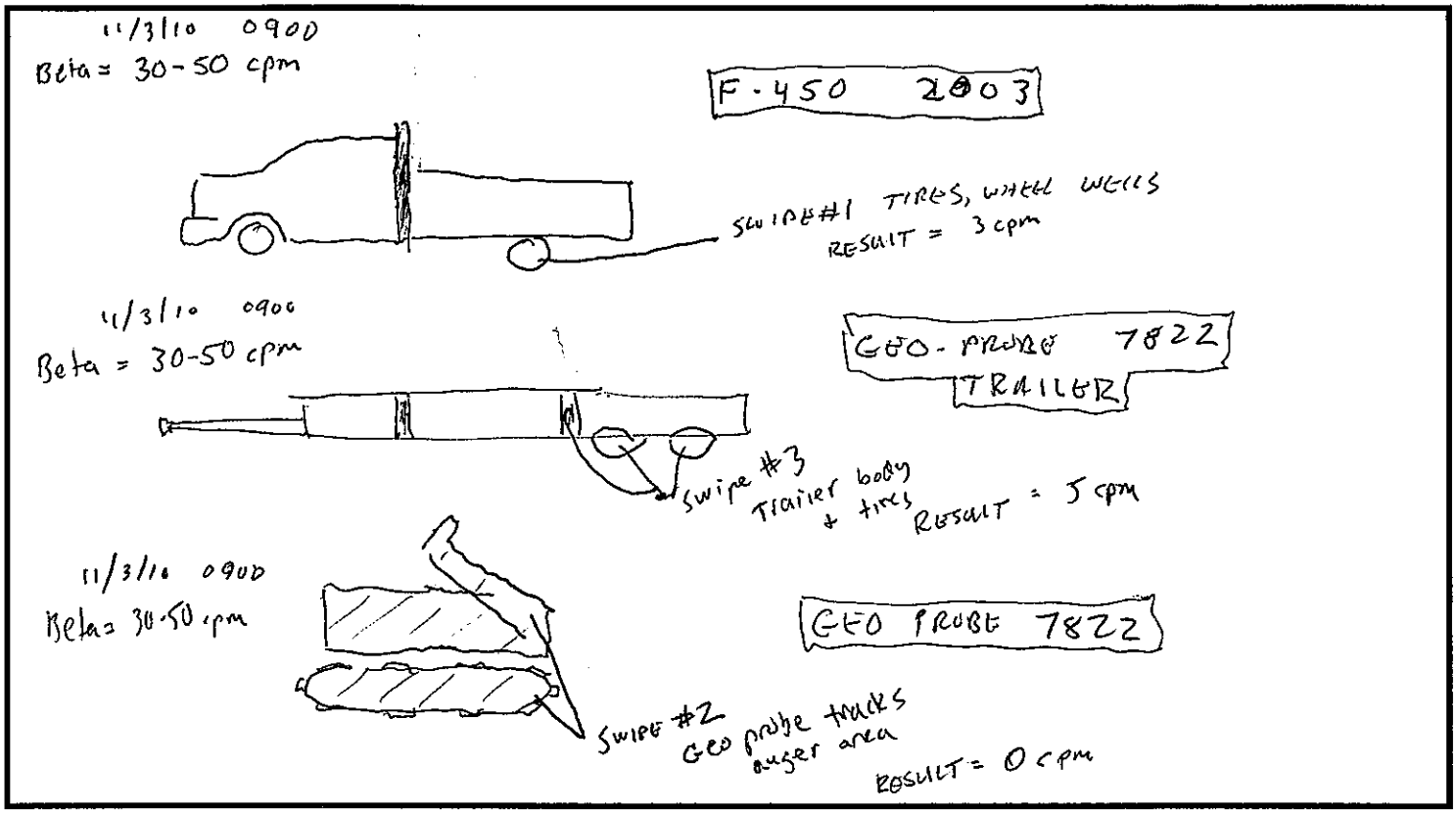
Instrument ID (beta) 44-9 TT-32 **Calibration date** 8/25/11

Date	Name		c/m alpha	c/m beta	Comments
11/3/10	AARON	Tt	3	<60	AARON ORECHWA
11/3/10	BRANDON	Tt	4	<58	Brandon Clauss
11/3/10	JEREMY	Tt	4	<38	Jeremy Banack
11/3/10	STUART	Tt	1	<40	STUART SEVERNS
11/3/10	KEVIN	V.G	6	<45	Kevin Geraghty
11/3/10	DAVE	V.G	3	<56	David West
11/4/10	AARON	Tt	4	<45.4	clean
11/4/10	Brandon	Tt	5	<51.0	clean
11/4/10	Jeremy	Tt	2	<37.9	clean
11/4/10	Stuart	Tt	2	<34.2	Re-scan then clean (7 first)
11/4	KEVIN	VG	3	<38.1	clean
11/4/10	DAVE	VG	1	<39.1	Re-scan, then clean (6 first)

Contamination limits: Beta >20 cpm + BG **Alpha** > 9 cpm
>70 cpm

TETRA TECH
EQUIPMENT SURVEY FORM

Description: VEHICLE ENTRY DRILL RIG CREW Date: 11/3/10 0900



Swipe results in circles, radiation readings in uR/hr xxx = area of direct frisk <20 cpm above background

SWIPE RESULTS (dpm/100cm^2)

Wipe No.	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Wipe No.	Alpha cpm	Alpha dpm	beta cpm	beta dpm
1	3				6				
2	0				7				
3	5				8				
4					9				
5					10				

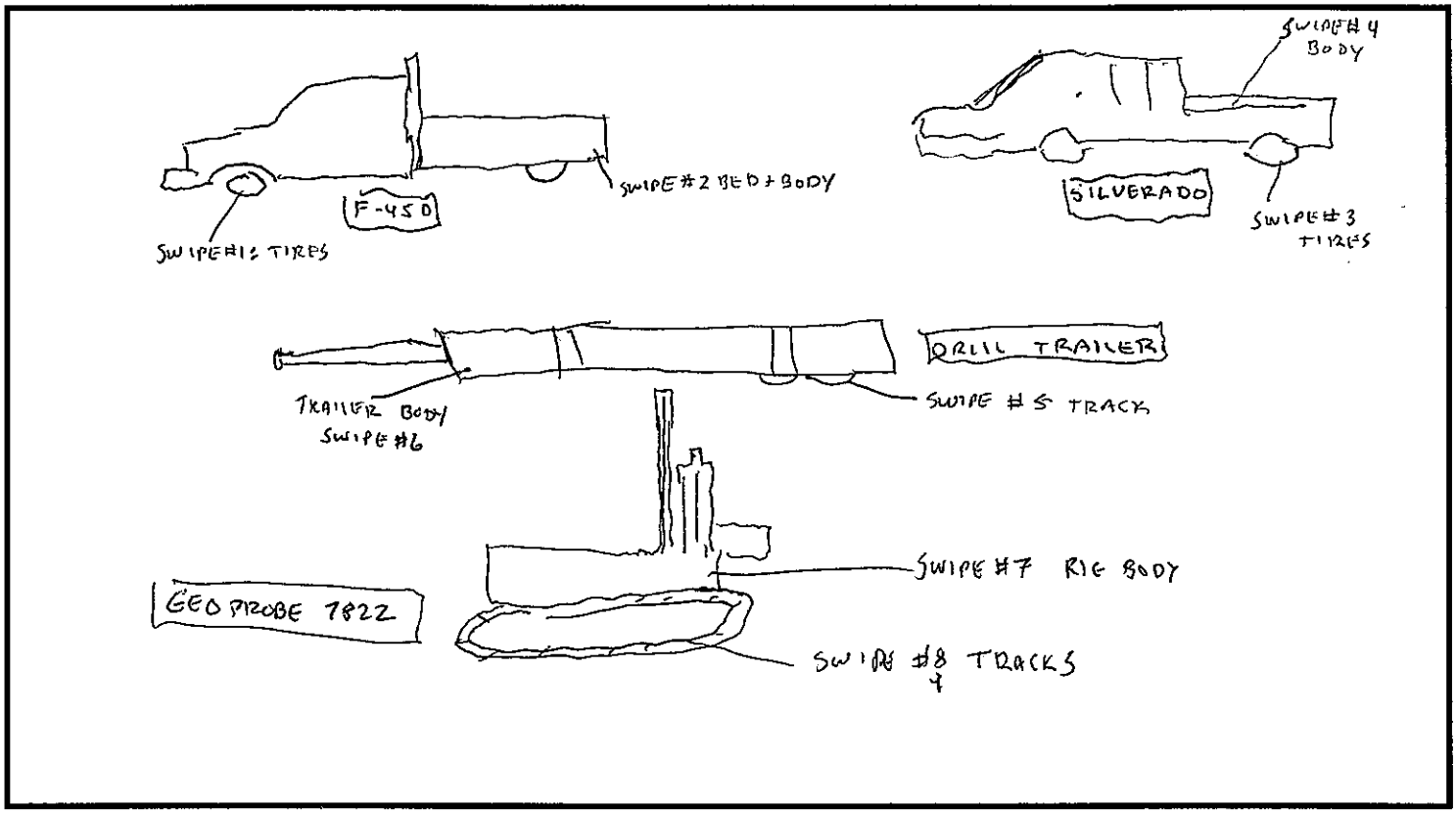
Instrument	2241
Ser. no.	225398
Cal. due.	8/25/11
Instrument	43-1
Ser. no.	113077
Cal. due.	2-11
Instrument	
Ser. no.	
Cal. due.	

Alpha detector efficiency:	21.73%
Beta detector efficiency:	16.74%

Surveyed by Aaron Orechwa Reviewed by _____

TETRA TECH
EQUIPMENT SURVEY FORM

Description: FINAL EQUIPMENT SCAN OUT Date:



Swipe results in circles, radiation readings in uR/hr xxx = area of direct frisk <20 cpm above background

SWIPE RESULTS (dpm/100cm^2)

Wipe No.	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Wipe No.	Alpha cpm	Alpha dpm	beta cpm	beta dpm
1	1		37.8		6	2		43.5	
2	2		34.2		7	2		45	
3	2		47.8		8	1		41	
4	5		36.0		9	1		40	
5	1		55.0		10				

Instrument	
Ser. no.	
Cal. due.	
Instrument	
Ser. no.	
Cal. due.	
Instrument	
Ser. no.	
Cal. due.	

Alpha detector efficiency:
Beta detector efficiency:

Surveyed by Aaron Oreck Reviewed by _____

Tetra Tech Inc.
Nov 2010 Holloman Project Daily Log
H.R. Meyer

Date: 11/2/10

Weather Conditions:
70° Sunny, wind 5-10 mph

Description of day's work (Personnel/equipment present, brief description of activities):
Efficiency and initial background and equipment checks. SITE VISIT AND TRAINING. RADIOLOGICAL SCAN OF SD-27. TETRA TECH CREW PRESENT (AARON, BRANDON, & JEREMY) SILVERADO VEHICLE ON-SITE.

Daily instrument checks:

Model 44-9 Pancake GM system

Battery check OK

Background Reading 40-50 cpm

Sr-90 Source Reading at equilibrium_____ Sr-90 source activity (d/m)_____

Previous Day's Sr-90 Source Reading_____

Efficiency = (Sr-90 source reading – background reading)/Sr-90 source activity = _____

Model 43-1 Alpha Scintillation Swipe Counter

Battery voltage 6.0

Note: To avoid swipe contamination of detector, slide tray into the second-from-top-level slot.

Background one minute count (Keypad: C, Enter) 1

One minute count with Th-230 alpha source (Keypad: C, Enter)_____

Th-230 count minus background (net count rate)_____

Th-230 Electroplated Standard disintegrations per minute_____

Instrument Efficiency = net counts per minute divided by Th-230 source disintegrations per minute 21.7 % Previous day's Efficiency N/A

Model 43-5 Handheld Alpha Scintillation Counter (if used)

Battery check N/A

Background Reading N/A

Th-230 Source Reading, with source placed close to but not touching detector surface_____

Previous Day's Check Source Reading N/A

Notes:

Sign_____ Print_____

Tetra Tech Inc.
Nov 2010 Holloman Project Daily Log
H.R. Meyer

Date: 11/3/10

Weather Conditions:
70° sunny, no precip, no wind,

Description of day's work (Personnel/equipment present, brief description of activities):
Drilling investigations, installation of GW wells.
Two drillers present, two Tt DIV, one Tt MM employee
Equipment: Geoprobe, trailer, Silverado, F-450
Gamma subsurface analysis of borings.

Daily instrument checks:

Model 44-9 Pancake GM system

Battery check OK

Background Reading 50

Sr-90 Source Reading at equilibrium 3180 Sr-90 source activity (d/m) 19000

Previous Day's Sr-90 Source Reading N/A (2800 @ 11/1/10)

Efficiency = (Sr-90 source reading – background reading)/Sr-90 source activity = 16.74%

Model 43-1 Alpha Scintillation Swipe Counter

Battery voltage 5.9

Note: To avoid swipe contamination of detector, slide tray into the second-from-top-level slot.

Background one minute count (Keypad: C, Enter) 4 cpm

One minute count with Th-230 alpha source (Keypad: C, Enter) 4922

Th-230 count minus background (net count rate) 4917

Th-230 Electroplated Standard disintegrations per minute 23 050

Instrument Efficiency = net counts per minute divided by Th-230 source disintegrations per minute 21.33% Previous day's Efficiency 21.71%

Model 43-5 Handheld Alpha Scintillation Counter (if used)

Battery check 6.1

Background Reading 1 cpm

Th-230 Source Reading, with source placed close to but not touching detector surface 2618

Previous Day's Check Source Reading N/A

Notes:
All radiation instruments in good working condition

Sign [signature] Print AARON ORTEGA

Tetra Tech Inc.
Nov 2010 Holloman Project Daily Log
H.R. Meyer

Date: 11/4/2010

Weather Conditions:
Sunny, windy, 70°, very low wind conditions.

Description of day's work (Personnel/equipment present, brief description of activities):
Soil subsurface sampling; FIELD PERSONNEL PRESENT INCLUDE # TT CREW 2 - VISTA GEOSCIENCE CREW. EQUIPMENT ON-SITE INCLUDED SILVERADO, F-450, GEOPROBE 7822 DRILL RIG, ADDITIONAL SURVEY WORK INCLUDES HEALTH SURVEY AND VEHICLE/EQUIP/COOLER SCAN OUT.

Daily instrument checks:

Model 44-9 Pancake GM system
Battery check OK
Background Reading 45.6
Sr-90 Source Reading at equilibrium 3120 Sr-90 source activity (d/m) 19000
Previous Day's Sr-90 Source Reading 3180
Efficiency = (Sr-90 source reading – background reading)/Sr-90 source activity = 16.42%

Model 43-1 Alpha Scintillation Swipe Counter
Battery voltage 6.0
Note: To avoid swipe contamination of detector, slide tray into the second-from-top-level slot.
Background one minute count (Keypad: C, Enter) 3
One minute count with Th-230 alpha source (Keypad: C, Enter) 4826
Th-230 count minus background (net count rate) 4823
Th-230 Electroplated Standard disintegrations per minute 23,050
Instrument Efficiency = net counts per minute divided by Th-230 source disintegrations per minute 20.92% Previous day's Efficiency 21.33%

Model 43-5 Handheld Alpha Scintillation Counter (if used)
Battery check 6.1
Background Reading
Th-230 Source Reading, with source placed close to but not touching detector surface 2671
Previous Day's Check Source Reading 2158

Notes:

Sign [signature] Print Aaron Orechwa