

FINAL

FINAL DATA VALIDATION REPORT

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Prepared for

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List of Acronyms and Abbreviations

µg/Kg	Milligrams per Kilogram
µg/L	Milligrams per Liter
>	Greater Than
<	Less Than
≤	Less Than or Equal To
#	Number
%	Percent
CLP	Contract Laboratory Program
DOC	Dissolved Organic Carbon
DOD	Department of Defense
DL	Detection Limit
DQO	Data Quality Objective
DRO	Diesel Range Organics
EB	Equipment Blank
ESC	ESC Lab Science
F	The analysis meets all qualitative identification criteria, but the measured concentration is less than the limit of quantitation
FD	Field Duplicate
GRO	Gasoline Range Organics
I	Bias in sample result is indeterminate
ICS	Interference Check Samples
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LD	Laboratory Duplicate
LOD	Limit of Detection
LOQ	Limit of Quantitation
MCL	Maximum Contaminate Level
mg/Kg	Milligrams per Kilogram
mg/L	Milligrams per Liter
MS/MSD	Matrix Spike/Matrix Spike Duplicate
ND	Non-detect
NFG	National Functional Guidelines
NMED	New Mexico Environmental Department

List of Acronyms and Abbreviations

ORO	Oil Range Organics
PAHs	Polynuclear Aromatic Hydrocarbons
PARCCS	Precision, Accuracy, Representativeness, Analytical Completeness and Comparability, Sensitivity
QAPP	Quality Assurance Project Plan
QC	Quality Control
RPD	Relative Percent Difference
SAP	Sampling and Analysis Plan
SM	Standard Methods
SOP	Standard Operating Procedure
SQL	Reported sample concentration is between the method detection limit and the sample quantitation limit.
SW	Test Methods for Evaluating Solid Waste
TDS	Total Dissolved Solids
TPH	Total Petroleum Hydrocarbons
URS	URS Group, Inc.
USEPA	United States Environmental Protection Agency
VOCs	Volatile Organic Compounds

This report presents results of the data validation conducted on chemical laboratory data for water samples collected during the October-November 2014 sampling event at Holloman Air Force Base, New Mexico. Data were collected by URS Group, Inc. (URS) in accordance with the Final Interim Measures Work Plan – Appendix A, Sampling and Analysis Plan/Quality Assurance Project Plan: Former Septic System Site TU904 (URS, September 2014); Group 2 Former Underground Storage Sites: AOC-UST-889 (TU515) (URS, September 2014); and Group 3 Former Underground Storage Tank Sites: AOC-UST-221 (TU503), AOC-UST-298 (TU508), AOC-UST-901 (TU506) and AOC-UST-7003 (TU518) (URS, August 2014); data validation standard operating procedure (SOP) 14; Department of Defense (DoD) Quality Systems Manual version 4.2 (DoD, 2010); and method requirements.

This report summarizes the findings from the validation and evaluations that were performed and the resulting qualifiers that were applied to the data.

The data validation report is organized as follows:

- Section 1 - Introduction
- Section 2 - A discussion of the data evaluation procedures
- Section 3 - An assessment of precision, accuracy, representativeness, analytical completeness, comparability and sensitivity (PARCCS)
- Section 4 - A summary of the quality control (QC) samples collected for this sampling event and any resultant data qualification.
- Appendix A - The individual data review summaries and qualified data sheets for the twenty-two data packages, and

In accordance with the QAPP, data validation was conducted on all chemical laboratory data.

Samples were sent to ESC Lab Sciences (ESC) of Mount Juliet, Tennessee for analysis by the analytical methods listed in Table 2.1.

Table 2.1: List of Analytical Methods

Analytical Method	Analyte
SW8260B	VOCs
SW8270C	SVOCs
SW8270C SIM	PAHs
SW8015D	GRO/DRO/ORO
SW6010B/6020/7470A/7471A	Total/Dissolved Metals
SM2540C	TDS
SW9045D	pH

DOC – Dissolved Organic Carbon

DRO – Diesel Range Organics

EPA – U.S. Environmental Protection Agency

Physical/Chemical Methods (SW-846)

GRO – Gasoline Range Organics

ORO – Oil Range Organics

PAHs – Polynuclear Aromatic Hydrocarbons

SM – Standard Methods

SW – Test Methods for Evaluating Solid Waste

TDS – Total Dissolved Solids

VOCs – Volatile Organic Compounds

The data review was conducted by URS in accordance with DOD QSM 4.2, data validation SOP 14 provided in the QAPP (URS, September 2014), and evaluation of method criteria, as applicable.

Data validation SOP 14 was developed using guidance from the United States Environmental Protection Agency (USEPA) Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Inorganic Data Review (October 2004) and USEPA CLP NFG for Organic Data Review (June 2008). Data validation flags were assigned using guidance from or as described in the data validation SOP 14 (URS). In cases where flagging criteria were not provided in the data validation SOP, professional judgment was used and documented in each individual data review summary (Appendix A). Table 2.2 summarizes the final data validation qualifiers used in the database. In the process of validation, reason and bias qualifiers were also applied for informational purposes regarding the validation findings. Table 2.3 summarizes the data validation qualifier reason and bias direction codes. These reason codes are applied to the qualified results forms and the application explained in each data validation summary, both included in Appendix A. Laboratory sample results were reported by ESC in twenty-two data packages.

Data packages were reviewed by URS to determine compliance with the QAPP as applicable to the method. The parameters evaluated during validation included chain of custody review, sample receipt conditions, holding times, method blanks, continuing calibration blanks, trip blanks, laboratory control sample (LCS) recoveries, serial dilution results, post-digestion spike recoveries, interference check samples (ICS), internal standard results, surrogate recoveries, initial and continuing calibrations, and any issues identified in the laboratory case narrative. Review of these parameters is discussed in the individual review narratives (Appendix A). Additionally, each data package was reviewed by URS for the following parameters to determine compliance with project-specific requirements: matrix spike/matrix spike duplicate (MS/MSD) recoveries and precision, laboratory duplicate (LD) samples, field duplicate (FD) samples (as

applicable), field blanks, and equipment blanks (EB). The overall qualification of sample results following review of these QC samples is presented in Section 4.

The data packages listed below were also selected for an evaluation of the following: examination of tuning criteria, target compound identification and result recalculation. Collectively, these parameters represent 4% of the October-November 2014 sampling event validated, consistent with the QAPP requirement of 2% of the data be evaluated for tuning criteria, target compound identification and result recalculation.

- Data Package L729012 – volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), polyaromatic hydrocarbons (PAHs), gasoline range organics (GRO), diesel range organics (DRO), oil range organics (ORO), total metals, and pH.

Table 2.2: Data Validation Qualifier Definitions

Qualifier	Definitions ¹
U	The analyte was analyzed for, but was not detected.
J	The analyte was positively identified; the associated numeric value is the approximate concentration of the analyte in the sample (i.e., estimated value).
UJ	The analyte was not detected. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
F	The analysis meets all qualitative identification criteria, but the measured concentration is less than the limit of quantitation
R	The data are unusable and have been rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

¹ Definitions cited were modified after the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, June 2008.

Table 2.3: Data Validation Qualifier Reason and Bias Direction Codes

Qualifier Code	Data Quality Condition Resulting in Assigned Qualification
General Use	
HT	Holding time requirement was not met
P	Preservation requirement(s) not met
MB	Method blank or preparation blank contamination
LCS	Laboratory control sample evaluation criteria not met
MS	Matrix spike and/or matrix spike duplicate accuracy evaluation criteria not met
D	Duplicate or spike duplicate precision evaluation criteria not met
TB	Trip blank contamination
FB	Field blank contamination
RB	Rinsate blank contamination
FD	Field duplicate evaluation criteria not met
TvP	Partial analysis results greater than total analysis results; difference is great than accuracy limitations of the method
ID	Target compound identification criteria not met
IS	Internal standard evaluation criteria not met
CO	Suspected carry-over from previously analyzed samples
SQL	Reported sample concentration is between the method detection limit and the sample quantitation limit.
RL	Reporting limit exceeds decision criterion (for non-detects)
LR	Reported concentration is over linear range without re-analysis
TUNE	Instrument performance (tuning) criteria not met
ICAL	Initial calibration evaluation criteria not met
Inorganic Methods	
ICV	Initial calibration verification evaluation criteria not met
CCV	Continuing calibration verification evaluation criteria not met
CCB	Continuing calibration blank contamination
ICS	Interference Check Sample evaluation criteria not met
PDS	Post-digestion spike recovery outside acceptance range
MSA	Method of standard additions correlation coefficient < 0.995
DL	Serial dilution results did not meet evaluation criteria
Organic Methods	
CCAL	Continuing calibration evaluation criteria not met
SUR	Surrogate recovery outside acceptance range

Table 2.3: Data Validation Qualifier Reason and Bias Direction Codes

Qualifier Code	Data Quality Condition Resulting in Assigned Qualification
Bias Codes	Bias Direction
H	Bias in sample result likely to be high
L	Bias in sample result likely to be low
I	Bias in sample result is indeterminate

This section summarizes the validation performed and the overall quality of the data through assessment of the various data quality objectives (DQOs) and their applicability to the PARCCS parameters. The individual validation reports are provided in Appendix A.

The data validation provides a system for the evaluation and documentation of the quality and usability of project data (i.e., whether or not the data are of sufficient quality to support their intended use in project decision making). Outliers in terms of precision and accuracy are assessed in accordance with the data validation SOP, DOD QSM 4.2, and using guidance from EPA NFGs. Data may be qualified as estimated when QC results are outside of the QAPP-defined measurement quality objectives. Unqualified data may be used for all project decisions for which they were generated. Qualified data are generally still of sufficient quality to support their use in project decision making. Data are rejected when QC results are unacceptable, and rejected data are not usable for project decision making. With the exception of those discussed in Section 4, no data were rejected from the October-November 2014 sampling event.

This section presents precision, accuracy, representativeness, analytical completeness, comparability, and sensitivity (i.e., PARCCS parameters), with respect to the water investigation sampling event.

3.1 PRECISION

Precision is a quantitative term that estimates the reproducibility of a set of replicate measurements under a given set of conditions. It is defined as a measurement of mutual agreement between measurements of the same property, and is expressed in terms of relative percent difference (RPD) between duplicate determinations.

The precision for the reported data was evaluated through a review of the RPD between LD results, MS/MSD results, LCS and LCS duplicate (LCSD) results, and FD results.

3.1.1 Field Quality Control Samples

3.1.1.1 Field Duplicates

A field duplicate sample is a second separate sample volume collected at the same location as the original sample; homogenization is not performed between the original sample and the field duplicate. The water field duplicate samples were collected using identical recovery techniques, and treated in an identical manner during storage, transportation, and analysis to assess precision of field sample collection. For this sampling event, five field duplicate samples were collected, satisfying the QAPP requirement of one per twenty environmental samples. With the exception of those discussed in Section 4, the RPDs between all FD results satisfied the applicable evaluation criterion, indicating acceptable precision was attained with respect to the analytical method and sample matrix.

FD sample results were evaluated using the following performance criteria from QAPP Worksheet #12:

- When both the sample and duplicate values are >5x limit of quantitation (LOQ), acceptance is indicated by a RPD between the results of 30% or less.

- Where the result for one or both analytes is $<5x$ LOQ, satisfactory precision is indicated if the absolute difference between the results is $<2x$ LOQ.

With the exceptions noted in Table 4.3b, the comparison between parent sample and FD results met the above criteria. Overall, $>99\%$ of the FD results met the above-listed precision criteria.

3.1.2 Matrix-Dependent Quality Control

3.1.2.1 Matrix Spike Duplicates

Matrix spike and matrix spike duplicate samples were prepared by spiking additional aliquots of samples with known concentrations of all project target analytes. The RPD between the MS and MSD is used to evaluate the precision of the sampling and analysis. MS/MSD is used to document the bias of a method due to sample matrix. A minimum of one MS and one MSD was analyzed for every 20 environmental aliquots tested. MS/MSD samples were not required for the equipment blanks.

With the exceptions noted in the individual narratives, the MS/MSD RPDs met the QAPP performance criteria. In instances of less than 35% of MS/MSD RPD were outside of acceptance criteria, only the parent result was considered for qualification. Overall, the RPDs of all the site-specific MS/MSD results satisfied the applicable evaluation criterion, indicating acceptable precision was attained with respect to the analytical method and sample matrix.

3.1.2.2 Laboratory Duplicates

A laboratory duplicate was prepared and analyzed in the same manner as the parent sample. The LD is used to assess the precision of the method due to sample matrix for those methods not using an MSD (e.g. TDS). A minimum of one LD was analyzed for every 20 environmental aliquots analyzed, as applicable to the analytical method. For this event, ten laboratory duplicates were performed.

The following criteria were used to evaluate the laboratory duplicate results:

- When both results are $>5x$ LOQ, acceptable analytical precision is indicated by an RPD between the results of $\leq 20\%$ for aqueous samples and $\leq 35\%$ for soil and sediment samples.
- Where the result for one or both analysis of the laboratory duplicate pair is $\leq 5x$ LOQ, satisfactory precision is indicated if the absolute difference between the laboratory duplicate results is $\leq 1x$ the greater LOQ for aqueous samples and $\leq 2x$ the greater LOQ for soil and sediment samples.

The RPDs of all of the LD results satisfied the applicable evaluation criterion, indicating acceptable precision was attained with respect to the analytical method and sample matrix.

3.1.3 Method-Specific Quality Control Measures

3.1.3.1 Laboratory Control Sample Duplicates

The LCS and LCSD are analyte-free (non-detect at the specified reporting limit) waters or solids spiked with all analytes. The LCS/LCSD was carried through the digestion/ extraction and analysis procedure. The LCS is used to evaluate each analytical batch and to determine if the method is in control. An LCS was prepared with each analytical batch. Greater than 99% of the RPDs between LCS and LCSD results satisfied the applicable evaluation criterion, indicating acceptable precision was attained with respect to the analytical method.

3.2 ACCURACY

Accuracy is defined as the difference between the measured value and the actual value. Accuracy was evaluated through review of the LCS recoveries, MS/MSD recoveries, and surrogate recoveries, as applicable for the selected methods.

3.2.1 Matrix-Dependent Quality Control

3.2.1.1 Matrix Spike Recoveries

MS and MSD samples were prepared by spiking additional aliquots of samples with known concentrations of all project target analytes. The aliquots for MS and MSD were obtained in the same preparation and analytical procedures as the environmental samples. The MS recovery is used to evaluate the accuracy and bias of the analyses with respect to the site-specific matrix. A minimum of one MS and one MSD were analyzed for every 20 environmental aliquots tested, as applicable to the analytical method. MS/MSD samples were not required for the equipment blanks.

With the exceptions noted in the individual narratives, the MS/MSD percent recoveries met the QAPP performance criteria. Table 4.1b provides a summary of analytes with greater than 35% of percent recoveries outside acceptance limits, resulting in overall qualification. In instances where less than 35%, only the parent result was considered for qualification. Overall, greater than > 98% of the site-specific MS recoveries were within the acceptance limits indicating acceptable accuracy was attained with respect to the analytical method and sample matrix.

3.2.2 Laboratory and Method-Specific Quality Control Measures

3.2.2.1 Laboratory Control Sample

The LCS and LCSD were performed as described in Section 3.1.3.1. Overall, greater than 99% of the LCS recoveries were within the acceptance limits indicating acceptable accuracy was attained with respect to the analytical method.

3.2.2.2 Surrogate Recoveries

Surrogates are organic compounds that are similar to the target analyte(s) in chemical composition and behavior in the analytical process, but that are not normally found in environmental samples. Surrogates are used to evaluate accuracy, method performance, and extraction efficiency. Surrogates were added to all environmental samples, controls, and blanks, in accordance with the method requirements during sample preparation or extraction, but prior to analyses. Overall, greater than 99% of the surrogate recoveries were within the acceptance limits indicating acceptable accuracy, method performance, and extraction efficiency was attained. See individual narratives for any data qualification applied as a result of surrogate recoveries.

3.3 REPRESENTATIVENESS

Representativeness is a qualitative term that expresses the degree to which data accurately and precisely represent a characteristic of a population, parameter variations at a sampling point, or an environmental condition. Representativeness was maintained during sampling efforts by consistently sampling in compliance with the SAP, prescribed methods, and relevant SOPs.

3.4 COMPARABILITY

Comparability expresses the confidence with which one data set can be compared to another. Strict adherence to prescribed standard sample collection procedures, analytical detection limits, and analytical methods are important factors for the data from like samples and sample conditions to be comparable. This comparability is independent of laboratory personnel, data reviewers, or sampling personnel.

Data are comparable if collection techniques, measurement procedures, and method and reporting processes are equivalent for the samples within a sample set. To maximize comparability, all samples covered by this report were collected and analyzed in accordance with the SAP and relevant SOPs, such that consistent protocol and techniques were used for all project samples. Consistency in sample collection was accomplished through adherence to sample collection and management SOPs. This is further demonstrated by the acceptable precision and accuracy during different parts of the laboratory process which is discussed in detail above in the Precision and Accuracy Sections, including the respective acceptance criteria established for the project and included in the QAPP.

3.5 ANALYTICAL COMPETENESS

Completeness is defined as the ratio of the number of valid analytical results (for this calculation, valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for analysis.

As a result of data review, nine results were qualified as unusable (rejected) out of 16,362 total results for the project (i.e., <1%). As such, the overall analytical completeness for this program is greater than 99%. The QAPP defined analytical completeness goal is 90%. This completeness goal was met.

3.6 SENSITIVITY

LOQs are established by the analytical laboratory based on the detection limits (DLs) and limits of detection (LODs). The DL is a statistically determined value specific to the laboratory and to each instrument, defined as the concentration of an analyte that produces a signal with a 99 percent probability that the concentration is above that of a blank. The DL represents the best fundamental measurement of instrument sensitivity and the basis for establishing quantitation limits. The DL is below the lowest point on the calibration curve, which is often considered the LOQ. When an analyte was not detected (U), the result is reported as undetected, "U", meaning not detected at the LOD. Some samples were analyzed at dilutions due to matrix interference and the LODs were elevated accordingly. The laboratory reported positive results between the DL and the LOQ. These results were qualified as estimated during the data review (F SQL-I).

3.6.1 Metals

Groundwater

There were 599 groundwater results out of 1,152 metals results (total and dissolved metals) where results for a given analyte were reported as ND or qualified as ND due to blank contamination. Of these 599 results, the total beryllium results for 21 samples the total thallium results for 27 samples were reported as non-detect at an elevated LODs, and exceeded the USEPA maximum contaminate level (MCL) of 0.004 mg/L for beryllium and 0.002 mg/L for thallium. These non-detect results will be evaluated during the risk assessment. All other results reported as ND met the screening limits.

Soil

There were 776 soil results out of 1,277 metals results where results for a given analyte were reported as ND or qualified as ND due to blank contamination. Of these 776 results, the arsenic results for 70 samples and the thallium results for 78 samples were reported as non-detect at elevated LODs, and exceeded the New Mexico Environmental Department (NMED) residential soil screening level of 4.25 mg/Kg for arsenic and 0.782 mg/Kg for thallium. These non-detect results will be evaluated during the risk assessment. All other results reported as ND met the screening limits.

3.6.2 General Chemistry Parameters

No general chemistry parameters were reported as non-detect at levels that exceeded the screening limits.

3.6.3 Organic Parameters

Groundwater

There were 4,286 results out of 4,773 organic results where results for a given analyte were reported as ND or qualified as ND due to blank contamination. Of these 4,286 results, 556 results exceeded the USEPA MCLS or New Mexico Human Health Standards, as noted in the table below. These non-detect results will be evaluated during the risk assessment. All other results reported as ND met the respective screening limits.

Table 3.6a: Non-detect Organic Groundwater Results Exceeding Standards

# of Results	Analyte	Criteria (µg/L)	Standard
1	1,1,2-Trichloroethane	5	USEPA MCL
1	1,1-Dichloroethene	5	New Mexico Human Health Standard
1	1,2,4-Trichlorobenzene	70	USEPA MCL
39	1,2-Dibromo-3-Chloropropane	0.2	USEPA MCL
39	1,2-Dibromoethane	0.05	USEPA MCL
1	1,2-Dichloroethane	5	USEPA MCL
1	1,2-Dichloropropane	5	USEPA MCL
35	2,4,5-Trichlorophenol	5	New Mexico Human Health Standard
36	2,4,6-Trichlorophenol	5	New Mexico Human Health Standard
36	2,4-Dichlorophenol	5	New Mexico Human Health Standard
36	2,4-Dimethylphenol	5	New Mexico Human Health Standard
36	2,4-Dinitrophenol	5	New Mexico Human Health Standard
36	2-Chlorophenol	5	New Mexico Human Health Standard
35	2-Methylphenol (O-Cresol)	5	New Mexico Human Health Standard
36	2-Nitrophenol	5	New Mexico Human Health Standard
36	4,6-Dinitro-2-Methylphenol	5	New Mexico Human Health Standard
36	4-Chloro-3-Methylphenol	5	New Mexico Human Health Standard
36	4-Nitrophenol	5	New Mexico Human Health Standard
2	Benzo(a)pyrene	0.5	USEPA MCL
1	Bis(2-Ethylhexyl) Phthalate	6	USEPA MCL
1	Carbon Tetrachloride	1	USEPA MCL
1	Hexachlorobenzene	1	USEPA MCL
1	m,p Xylene	10	USEPA MCL
1	Methylene Chloride	5	USEPA MCL
36	Pentachlorophenol	1	USEPA MCL
36	Phenol	5	New Mexico Human Health Standard
1	Tetrachloroethylene (PCE)	5	USEPA MCL
1	Trichloroethylene (TCE)	5	USEPA MCL
2	Vinyl Chloride	2	New Mexico Human Health Standard

- Number

µg/L – Micrograms per Liter

MCL – Maximum Contaminant Level

USEPA MCL – United States Environmental Protection Agency

Soils

There were 8,868 results out of 9,372 organic results where results for a given analyte were reported as ND or qualified as ND due to blank contamination. Of these 8,868 results, 93 results exceeded the NMED residential soil screening level or the USEPA Residential Hazards, as noted

QC samples collected and analyzed during the sampling event included samples selected for MS/MSD analysis, laboratory duplicate samples, field duplicate samples, and equipment blanks. Section 4 presented the overall accuracy and precision with respect to each analyte. This section presents, an overall assessment for the data performed by evaluating the QC samples representing the sample matrix. As QC samples (e.g., MS/MSD) are only collected at a frequency of 1 per 20 samples, the results are assessed collectively to see the impact on the data set and to evaluate whether qualification should be extended to all samples. Therefore, the following evaluation was performed to determine if qualification was limited to the parent sample or if qualification was extended to all samples. Consistent with SOP 14, when QC issues for MS/MSD, laboratory duplicates, field duplicates, or equipment blanks accounted for less than 35% of the QC analyses, applicable data qualification was limited to qualification of the associated parent samples. When QC issues for MS/MSD, laboratory duplicates, field duplicates, or equipment blanks accounted for more than 35% of the QC analyses conducted, applicable data qualification was extended to all site-specific samples.

4.1 MATRIX SPIKE/MATRIX SPIKE DUPLICATE

MS/MSD analyses were performed on the samples listed in the table below. This number of MS/MSD samples met the Final QAPP-required frequency of one set per twenty site samples per matrix.

Table 4.1a: October-November 2014 MS/MSD Samples

Sample Identification	Data Package	Analyses
Soils		
TU503-SB02-NS01	L729021	VOCs, GRO, SVOCs, PAHs, DRO, Total Metals
TU503-SB04-NS01	L729024	Total Metals (6010B)
TU503-SB06-NS02	L729030	DRO
TU503-SB13-NS02	L729032	Total Metals (7471)
TU904-SB04-NS01	L729563	Total Metals (6010B-Thallium)
TU904-SB06-NS01	L729563	SVOCs
TU904-SB05-NS01	L729564	Total Metals (6010B)
TU904-SB02-NS01	L729568	VOCs, GRO, SVOCs, DRO, Total Metals
TU515-SB02-NS01	L729802	Total Metals (6010B)
TU515-SB08-NS01	L729802	VOCs
TU904-EX01-02-N	L730645	VOCs, GRO, SVOCs, PAHs, DRO, Total Metals
TU508-EX01-02-N	L730645	VOCs, GRO, SVOCs, PAHs, DRO, Total Metals
TU518-SB01-NS02	L734231	Total Metals (6010B-Lead)
TU518-SB03-NS01	L734231	Total Metals (6010B)
TU518-SB04-NS02	L734231	PAHs, DRO
Waters		
H-TU503-GW01-DD01	L729034	Dissolved Metals (6010B/7470A)
H-TU503-GW13-ND01	L729559	Dissolved Metals
H-TU503-GW13-NT01	L729559	VOCs, GRO, SVOCs, PAHs, DRO, Total Metals
H-TU904-GW01-DD01	L729798	Dissolved Metals (6010B)
H-TU904-GW03-NT01	L729800	PAHs, SVOCs, DRO, Total Metals
H-TU904-GW03-ND01	L729800	Dissolved Metals

Sample Identification	Data Package	Analyses
H-TU904-GW03-NT01	L729802	VOCs, GRO
H-TU904-MW07-NT01	L730147	SVOCs, PAHs, DRO, Total Metals
H-TU904-MW07-ND01	L730147	Dissolved Metals
H-TU904-MW10-NT01	L730147	Total Metals (6010B)
H-TU515-GW07-ND01	L730147	Dissolved Metals
H-TU515-GW07-NT01	L730147	SVOCs, PAHs, DRO, Total Metals
H-TU515-GW07-NT01	L730147	VOCs, GRO
H-TU904-MW07-NT01	L730147	VOCs, GRO
H-TU518-FIELDBLANK02-FT01*	L734231	VOCs
H-TU518-MW04-NT01	L734231	VOCs
H-TU518-MW04-ND01	L734231	Dissolved Metals (6020)
H-TU518-MW04-NT01	L734231	Total Metals (6010B/6020)
H-TU508-MW05-NT01	L735181	Total Metals (6020-Antimony, Lead, Nickel)
H-TU508-MW04-ND01	L735181	Dissolved Metals (7470A)
H-TU506-MW04-ND01	L735318	Dissolved Metals (6010B)

DRO – Diesel Range Organics GRO – Gasoline Range Organics ORO – Oil Range Organics
 PAHs – Polyaromatic Hydrocarbons SVOCs – Semivolatile Organics VOCs – Volatile Organic Compounds
 *MS/MSD performed on field QC sample; therefore, not representative of the site-specific matrix. Results from MS/MSD were not used to calculate overall qualifiers.

As applicable, qualifiers have been applied to the parent samples when the recoveries were outside the QAPP limits (Appendix A). In addition, the site-specific MS and MSD results were assessed collectively to evaluate potentially systematic matrix effects and to determine the need for qualification of associated sample results of similar matrix.

With the exceptions listed in the table below, <35% of the MS and MSD percent recoveries or RPDs were outside limits; therefore, data qualification has been limited to the parent sample results for these analytes. The table below presents the analytes where >35% of the MS and MSD percent recoveries were outside limits and data qualification has been applied to associated samples. There were no overall qualifiers applied on the basis of RPD recoveries outside control limits. The details of each MS/MSD analysis pair and qualification to parent samples are provided in the individual data review summaries (Appendix A).

Table 4.1b: October-November 2014 MS/MSD Recovery Overall Qualifiers

Analyte	# of MS/MSD Below Control Limits	# of MS/MSD Above Control Limits	Total # of MS/MSD	% MS/MSD Outside of Control Limits	Qualification
Soils					
GRO					
GRO	4	0	8	50%	All GRO sample results, with the exception of those in which the MS/MSD results were within control limits, were qualified as estimated (UJ/J MS-L) to reflect the potential low bias.
Metals					
Total Silver	8	0	14	57%	All silver sample results, with the exception of those in which the MS/MSD results were within control limits, were qualified as estimated (UJ/J MS-L) to reflect the potential low bias.

SECTION FOUR

QC Samples Collected

Analyte	# of MS/MSD Below Control Limits	# of MS/MSD Above Control Limits	Total # of MS/MSD	% MS/MSD Outside of Control Limits	Qualification
Waters					
GRO					
GRO	1	2	8	38%	All GRO sample results, with the exception of those in which the MS/MSD results were within control limits, were qualified as estimated (UJ/J MS-I) to reflect the potential indeterminate bias.
PAHs					
2-Methylnaphthalene	3	1	8	50%	As the potential bias was considered to be low, and the MS/MSD recovered <10%, the associated 2-Methylnaphthalene result for samples H-TU515-GW07-NT01 and H-TU503-GW13-NT01 were qualified as unusable (R). As the average percent recovery for the MS/MSD results were above the rejection point, the associated results for all other samples were qualified as estimated (UJ/J MS-L) to reflect the potential low bias.
Acenaphthylene	1	3	8	50%	All of the associated analyte sample results, with the exception of those in which the MS/MSD results were within control limits, were qualified as estimated (UJ/J MS-L) to reflect the potential low bias.
Anthracene	0	4	8	50%	
Benzo(a)pyrene	4	0	8	50%	
Fluoranthene	0	3	8	38%	
Fluorene	2	1	8	38%	As the potential bias was considered to be low, and the MS/MSD recovered <10%, the associated results for sample H-TU515-GW07-NT01 were qualified as unusable (R). As the average percent recovery for the MS/MSD results were above the rejection point, the associated results for all other samples were qualified as estimated (UJ/J MS-L) to reflect the potential low bias.
Naphthalene	2	2	8	50%	

Analyte	# of MS/MSD Below Control Limits	# of MS/MSD Above Control Limits	Total # of MS/MSD	% MS/MSD Outside of Control Limits	Qualification
Metals					
Total Aluminum	4	0	4	100%	All detected total aluminum sample results, with the exception of those in which the MS/MSD results were within control limits, were qualified as estimated (J MS-H) to reflect the potential high bias.
Dissolved Nickel	2	2	10	40%	All dissolved nickel sample results, with the exception of those in which the MS/MSD results were within control limits, were qualified as estimated (UJ/J MS-I) to reflect the potential indeterminate bias.

– Number

H – High Bias

MS – Matrix Spike

UJ/J – Estimated

% – Percentage

I – Indeterminate Bias

MSD – Matrix Spike Duplicate

GRO – Gasoline Range Organics

L – Low Bias

PAHs – Polyaromatic Hydrocarbons

4.2 LABORATORY DUPLICATES

The following laboratory duplicate pairs were analyzed in association with this sampling event. This number of laboratory duplicate samples met the QAPP-required frequency of one set per twenty site samples per matrix, as applicable to the method.

Table 4.2: October-November 2014 Laboratory Duplicate Samples

Sample Identification	Data Package	Analyses
Soils		
TU503-SB09-NS01	L729012	pH
TU503-SB04-NS01	L729024	Total Solids
TU503-SB06-NS02	L729030	Total Solids, pH
TU503-SB11-NS01	L729032	pH
TU904-SB04-NS01	L729563	pH
TU904-SB08-NS02	L729564	Total Solids
TU503-SB14-NS02	L729568	pH
TU904-EX01-01-N	L730645	pH
TU904-EX01-02-N	L730645	pH
TU518-SB01-NS02	L734231	pH

The laboratory duplicate results were assessed collectively to evaluate potentially systematic matrix effects and to determine the need for qualification of associated sample results of similar matrix.

There were no analytes where >35% of the field duplicate results did not meet the concentration-dependent criteria. Further action was not necessary.

The details of each laboratory duplicate pair and qualification to parent samples are provided in the individual data review summaries (Appendix A).

4.3 FIELD DUPLICATE SAMPLES

The following field duplicate pairs were collected in association with this sampling event. This number of field duplicate samples met the Final QAPP-required frequency of one set per twenty site samples per matrix.

Table 4.3a: October-November 2014 Field Duplicate Samples

Field Duplicate Pair	Data Package	Analyses
Soils		
TU503-SB01-NS01/ TU503-SB01-DS01	L729026	VOCs, GRO, SVOCs, PAHs, DRO/ORO, Total Metals, pH
TU904-SB01-NS01/ TU904-SB01-DS01	L729566	VOCs, GRO, SVOCs, PAHs, DRO/ORO, Total Metals, pH
TU904-EX01-03-N/ TU904-EX01-03-D	L730645	VOCs, GRO, SVOCs, PAHs, DRO/ORO, Total Metals, pH
TU508-EX01-01-N/ TU508-EX01-01-D	L730645	VOCs, GRO, SVOCs, PAHs, DRO/ORO, Total Metals, pH
Waters		
H-TU503-GW01-ND01/ H-TU503-GW01-DD01	L729034	Dissolved Metals
H-TU503-GW01-NT01/ H-TU503-GW01-DT01	L729034	VOCs, GRO, SVOCs, PAHs, DRO/ORO, Total Metals
H-TU904-GW01-ND01/ H-TU904-GW01-DD01	L729798	Dissolved Metals
H-TU904-GW01-NT01/ H-TU904-GW01-DT01	L729798	SVOCs, PAHs, DRO/ORO, Total Metals
H-TU904-GW01-NT01/ H-TU904-GW01-DT01	L729802	VOCs, GRO
H-TU904-MW06-NT01/ H-TU904-MW06-DT01	L730147	VOCs, GRO, SVOCs, PAHs, DRO/ORO, Total Metals
H-TU904-MW06-ND01/ H-TU904-MW06-DD01	L730147	Dissolved Metals
H-TU515-GW10-ND01/ H-TU515-GW10-DD01	L730147	Dissolved Metals
H-TU515-GW10-NT01/ H-TU515-GW10-DT01	L730147	VOCs, GRO, SVOCs, PAHs, DRO/ORO, Total Metals

DRO – Diesel Range Organics

GRO – Gasoline Range Organics

ORO – Oil Range Organics

PAHs – Polycyclic Aromatic Hydrocarbons

VOCs – Volatile Organic Compounds

The field duplicate results were assessed collectively to evaluate potentially systematic matrix effects and to determine the need for qualification of associated sample results of similar matrix.

The table below presents the analytes where >35% of the field duplicate results did not meet the concentration-dependent criteria and qualifications have been applied to associated samples.

Table 4.4b: October-November 2014 Field Blank Overall Qualifiers

Analyte	# of FBs with Detection	Total # of FBs	% FBs with Detection	Qualification
Chloroform	3	6	50%	The chloroform results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U FB-I).

< – Less Than
 FB – Field Blank

– Number
 I – Indeterminate Bias

% – Percent
 U – Non-detect

4.5 EQUIPMENT BLANKS

Disposable equipment was used for sample collection. Therefore, an equipment blank was not required. Further action was not necessary.

Department of Defense (DoD) 2010. Quality Systems Manual for Environmental Laboratories, Version 4.2. December.

Environmental Protection Agency (EPA) 2004. Contract Laboratory Program National Functional Guidelines for Superfund Inorganic Methods Data Review. October.

Environmental Protection Agency (EPA) 2008. Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review. June.

URS Group, Inc. (URS) 2014. Final Interim Measures Work Plan – Appendix A Sampling and Analysis Plan/Quality Assurance Project Plan: Former Septic System Site TU904. September.

URS Group, Inc. (URS) 2014. Final Interim Measures Work Plan – Appendix A Sampling and Analysis Plan/Quality Assurance Project Plan: Group 2 Former Underground Storage Sites: AOC-UST-889 (TU515). September.

URS Group, Inc. (URS) 2014. Final Interim Measures Work Plan – Appendix A Sampling and Analysis Plan/Quality Assurance Project Plan: Group 3 Former Underground Storage Tank Site: AOC-UST-221 (TU503), AOC-UST-298 (TU508), AOC-UST-901 (TU506) and AOC-UST-7003 (TU518). August.

Appendix A
Individual Data Review Summaries and Qualified Data Sheets

Appendix A
Individual Data Review Summaries and Qualified Data Sheets

**Holloman AFB
Groundwater Monitoring
Data Review Summary**

Data Package Number: L729012
 Sampling Event Dates: October 20-21, 2014
 Sample-specific Parameter Review/ Laboratory Performance Parameters: Yes
 Full Validation (e.g., result recalculation): Yes
 Data Reviewer: Katie Abbott, URS Project Chemist
 Date Completed: January 14, 2015
 Peer Reviewer: Sheri Fling, URS Project Quality Assurance Manager (QAM)

The table below summarizes the data package and sample identifications discussed in this data review.

Field Identification	Sample Type	Lab Identification	Matrix	Analyses						
				GRO	VOCs	PAHs	DRO/ORO	SVOCs	Total Metals	pH
L729012										
TU503-SB08-NS01	SA	L729012-01	Soil	X	X	X	X	X	X	X
TU503-SB08-NS02	SA	L729012-02	Soil	X	X	X	X	X	X	X
TU503-TRIPBLANK01-NT01	TB	L729012-03	Water	X	X	---	---	---	---	---
TU503-SB09-NS01	SA	L729012-04	Soil	X	X	X	X	X	X	X
TU503-SB09-NS02	SA	L729012-05	Soil	X	X	X	X	X	X	X
TU503-SB10-NS01	SA	L729012-06	Soil	X	X	X	X	X	X	X
TU503-SB10-NS02	SA	L729012-07	Soil	X	X	X	X	X	X	X

Sample Type: SA – Sample TB – Trip Blank
 X^m - Matrix Spike/Matrix Spike Duplicate

Analyses:
 DRO/ORO - Diesel and Oil Range Organics (8015)
 GRO – Gasoline Range Organics (8015D)
 TDS – Total Dissolved Solids (SM2540C)
 Total/ Metals – Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Manganese, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc, Mercury (6010B/7470A)
 PAHs – Polynuclear Aromatic Hydrocarbons (8270C SIM)
 SIM – Selective Ion Monitoring
 SVOCs – Semivolatile Organic Compounds (8270C)
 VOCs – Volatile Organic Compounds (8260B)

The data review was conducted in accordance with the Final Interim Measures Work Plan – Appendix A, Sampling and Analysis Plan/Quality Assurance Project Plan: Former Septic System Site TU904 (URS, September 2014); Group 2 Former Underground Storage Sites: AOC-UST-889 (TU515) (URS, September 2014); and Group 3 Former Underground Storage Tank Sites: AOC-UST-221 (TU503), AOC-UST-298 (TU508), AOC-UST-901 (TU506) and AOC-UST-7003 (TU518) (URS, August 2014); data validation standard operating procedure (SOP) 14;

Department of Defense (DoD) Quality Systems Manual version 4.2 (DoD, 2010); and method requirements.

General Overall Assessment:

- Data are usable without qualification.
- Data are usable with qualification (noted below).
- Some or all data are unusable for any purpose (detailed below).

Case Narrative Comments: Any laboratory case narrative comments concerning data qualification were addressed in the table below.

Trace level detects, reported between the method detection limit (MDL) and the reporting limit (LOQ), have been qualified as estimated (F SQL-I). All other occurrences of data qualification are covered in the following table.

Review Parameter	Criteria Met?	Comment
Chain of Custody & Sample Receipt	Yes	The samples were received by ESC Lab Sciences in good condition and were consistent with the accompanying chain of custody (COC). The cooler temperatures upon receipt were within the recommended ≤6 degrees Celsius (°C) temperature range.
Reporting	Yes	<p>During review of a representative data package selected for full validation, it was noted that improper reference spectra were displayed in the printed version of the data package for Method 8260B. Due to a LIMS limitation, the data package reference spectra were not consistently representative of the actual spectra for the analytes detected. Because the laboratory data review involves the use of NBS reference spectra and not the reference spectra taken from the instrument calibration, the analyst was not seeing the improper alignment of spectra noted in the data package during his/her review at the instrument. The laboratory revised and reissued the data package with correct reference spectral data, consistent with method requirements, and no results were changed. Therefore, no further action is necessary as a result of this validation finding.</p> <p>Method 8270C Semivolatile Organic Compounds (SVOCs)</p> <p>The results for 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene are not reported by Method 8270C SVOCs but are reported by Method 8260B volatile organic compounds (VOCs). As the detection limits (DLs), limits of detection (LODs), and limits of quantitation (LOQs) are lower by Method 8260B, further action was not necessary.</p> <p>The laboratory noted 4-methylphenol cannot be reported as 3 & 4-methylphenol coelute during the analysis; therefore, the analytes are reported together and 3&4-methylphenol on the data sheets and in the electronic database.</p>
Holding Times	Yes	All samples were analyzed within the method required holding time.
Laboratory Blanks <ul style="list-style-type: none"> • Method Blank • Initial/Continuing Calibration Blank 	No	With the exception listed in Table 1, target analytes were not detected within the method or calibration blanks.

Review Parameter	Criteria Met?	Comment
<p>Matrix Quality Control</p> <ul style="list-style-type: none"> Matrix Spike/ Matrix Spike Duplicate None in this package Laboratory Duplicate TU503-SB09-NS01 (pH) 	Yes	<p>Matrix Spike/ Matrix Spike Duplicate (MS/MSD)</p> <p>The frequency of MS/MSDs met the QAPP requirement of one per twenty samples.</p> <p>An MS/MSD was not performed on a sample from this data package.</p> <p>Consistent with standard operating procedure (SOP) 14, when MS/MSD issues accounted for less than 35% of the MS/MSD analyses conducted, applicable data qualification was limited to qualification of the parent sample of the affected analyte. When >35% of the MS/MSD results did not meet criteria, evaluation was extended to all associated samples. See Section 4.1 of the data validation report for overall qualifiers resulting from the MS/MSD evaluation.</p> <p>Laboratory Duplicate</p> <p>The comparison between results of the laboratory duplicate pair met the criteria listed below.</p> <ul style="list-style-type: none"> When both the sample and duplicate values are >5x the LOQ acceptable sampling and analytical precision is indicated by an RPD between the results of ≤20% for water samples (≤35% for soil samples). Where the result for one or both analytes of the laboratory duplicate pair is <5xLOQ, satisfactory precision is indicated if the absolute difference between the field duplicate results is <1xLOQ for water samples (<2xLOQ for soil samples).
<p>Metals Only</p> <ul style="list-style-type: none"> Serial Dilution None in this package Post Digestion Spike None in this package 	NA	<p>Serial Dilution (Metals Only)</p> <p>A serial dilution was not reported in association with the sample in this data package.</p> <p>Post Digestion Spike (PDS) (Metals Only)</p> <p>A post digestion spike was not reported in association with the sample in this data package.</p>
<p>Method Quality Control</p> <ul style="list-style-type: none"> Surrogates (VOCs, SVOCs, PAHs, GRO, DRO/ORO) 	Yes	<p>The surrogate recoveries were within the laboratory specified acceptance criteria.</p> <p>The surrogate recoveries for several SVOC and diesel range organics (DRO)/oil range organics (ORO) samples could not be evaluated as they were diluted beyond the laboratory's ability to quantitate surrogate recoveries. Further action was not necessary.</p>
<p>Field Quality Control</p> <ul style="list-style-type: none"> Trip Blank TU503-TRIPBLANK01-NT01 (GRO, VOCs) Field Duplicate None in this package Equipment Blank None in this package Field Blank None in this package 	Yes	<p>Trip Blank</p> <p>Target analytes were not detected in the trip blank.</p> <p>Field Duplicate</p> <p>The frequency of field duplicates met the QAPP requirement of one per twenty samples.</p> <p>A field duplicate was not submitted with the data package.</p> <p>Consistent with SOP 14, when field duplicate issues accounted for less than 35% of the field duplicate analyses conducted, applicable data qualification was limited to qualification of the parent sample for the affected analyte.</p>

Review Parameter	Criteria Met?	Comment
		<p>When >35% of the field duplicate results did not meet criteria, evaluation was extended to all associated samples. See Section 4.3 of the data validation report for overall qualifiers resulting from the field duplicate evaluation.</p> <p>Equipment Blank</p> <p>As dedicated equipment was used to collect these samples, an equipment blank was not submitted for this sampling event. Further action was not necessary.</p> <p>Field Blank</p> <p>The frequency of field blanks met the QAPP requirement of one per twenty samples.</p> <p>A field blank was not submitted with this data package. See Section 4.4 of the data validation report for overall qualifiers resulting from the field blank evaluation.</p>
LODs met?	No	Due to dilutions, several VOC and SVOC results for samples TU503-SB09-NS02 and TU503-SB10-NS02 were reported as non-detect at elevated LODs. See Section 3.7 of the validation report for further discussion.
Other Parameters	Yes	<p>Naphthalene (8260B and 8270C-PAHs) and hexachloro-1,3-butadiene and 1,2,4-trichlorobenzene (8260B and 8270C) were analyzed by multiple methods. Results were selected for reporting using the following criteria:</p> <ul style="list-style-type: none"> • If both results were non-detect, the non-detect result with the lower DL was selected. • If both results were reported as detected, the higher detected result was selected for reporting. • If one result was reported as non-detect and the other result was reported as detected, the detected result was selected for reporting.
Laboratory Performance Review		
Initial Calibration	Yes	<p>Methods 8260B VOCs & 8270C SVOCs</p> <p>A minimum relative response factor (RRF) of 0.05 was used for the system performance check compounds (SPCCs) and all SPCCs met this criterion. The percent relative standard deviations (%RSDs) over the initial calibration RRFs for all calibration check compounds (CCCs) satisfied the method requirement of <30%. For all other target compounds, a requirement of 15% was used. The %RSD values for all target analytes in the calibration were less than 15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)</p> <p>The %RSD values for all target analytes in the calibration were less than 20%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8015D Gasoline Range Organics (GRO)/DRO/ORO</p> <p>The relationship between instrument response and concentration was established with a blank and at least five standards for the entire carbon range of C10-C40. The %RSD over the initial calibrations curve satisfied the method requirement of <15%. Therefore, the initial calibration met method acceptance criteria.</p>

Review Parameter	Criteria Met?	Comment
		<p>Methods 6010B (Inductively Coupled Plasma [ICP] Metals)</p> <p>The initial calibrations (ICALs) were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with a blank and at least one standard. The calibrations were verified with the analysis of an initial calibration verification (ICV) standard. All metals were recovered within the method acceptance range of 90-110%.</p> <p>Method 7470A (Mercury)</p> <p>The ICALs were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with five standards. The correlation coefficient was >0.995. The calibration was verified with the analysis of an ICV standard. The analytes were recovered within the acceptance range of 90-110%. Response and linearity criteria were met and data qualification on the basis of initial calibration was not necessary.</p>
Tuning (as applicable to the method)	Yes	<p>Methods 8260B VOCs/ 8270C SVOCs</p> <p>A satisfactory tuning event was conducted at the beginning of every 12 hours of sample analysis. No errors in calculation of percent relative abundances were found and all were within the required acceptance ranges. Data qualification on the basis of instrument tuning was not necessary.</p> <p>Method 8270C PAHs</p> <p>Per the footnote under EPA Method 8270C, Table 3 (DFTTP Key Ions and Abundance Criteria), alternate tuning criteria may be used, (e.g., CLP, Method 525, or manufacturers' instructions), provided that method performance is not adversely affected. For PAHs, the tuning criteria selected were those presented in Method 525, where the base peak is 442 instead of 198. As all tuning criteria were met and the data are not considered to be adversely affected; no further action was considered necessary.</p>
Initial Calibration Verification/Continuing Calibration Verification	No	<p>Method 8260B VOCs</p> <p>The percent differences (%Ds) for all CCCs in the ICVs and continuing calibrations (CCALs) were less than 20%, satisfying method requirements, and other target analytes satisfied the %D criterion of 20%.</p> <p>Methods 8270C SVOCs/8270C PAHs</p> <p>With the exceptions listed in Table 2, the %D values for all target analytes in the calibration were less than 20%.</p> <p>Method 8015D GRO/DRO/ORO</p> <p>The %Ds for all target compounds in the ICVs and CCALs were less than 15%. Data qualification was not necessary.</p> <p>Methods 6010B (ICP Metals) & 7470A (Mercury)</p> <p>Calibration verification analyses were conducted at the proper frequency. All metals were recovered within the DOD QSM 4.2 low level acceptance range of 80-120% and the method medium/high acceptance range of 90-110%.</p>

Review Parameter	Criteria Met?	Comment
Interference Check Standard (Metals Only)	No	<p>The interference check standard (ICS) AB solutions were analyzed at the proper frequency. The target analytes were recovered within the acceptance range of 80-120% in the ICS A solution. With the exceptions listed in Table 3, interferent elements were not present in the samples at concentrations greater than those in the ICSs.</p> <p>The interferent elements aluminum, calcium, iron, and magnesium were present in most samples in this data package at concentrations greater than or equal to those in the ICSs. As such, these samples were evaluated for positive and negative biases suggested by the ICS A. Data qualification was issued if the absolute value of the ICS A result was greater than the DL and it suggested a positive or negative bias which accounted for more than 25% of associated sample results or LODs. (Note: The ICS A solution only contains the interferent elements aluminum, calcium, iron, and magnesium so any positive or negative result for other analytes is inferred to be a bias potentially caused by one or more of the interferent elements present). Table 3 summarizes the resultant data qualification on the basis of the ICS results.</p>
Internal Standard (VOCs/SVOCs/PAHs/Metals (6020))	Yes	Recoveries for the internal standards in field samples were within the applicable acceptance limits. Therefore, data qualification based on internal standards was not necessary.
Laboratory Control Sample/ Laboratory Control Sample Duplicate	No	<p>One laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) per method per analytical batch was prepared and analyzed. With the exceptions listed in Table 4, all of the LCS recoveries and LCS/LCSD RPDs were within the QAPP acceptance limits. These results are indicative of an acceptable level of accuracy and precision with respect to the analytical method.</p> <p>Method 8015 DRO/ORO</p> <p>The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the method could not be assessed for ORO.</p>
Target Compound Identification	Yes	<p>Methods 8260C VOCs/ 8270C SVOCs/8270C PAHs</p> <p>The quantitation sheets and total ion chromatograms were reviewed to assure that compounds reported as identified meet the criteria contained in the method. The mass spectra were reviewed for compounds reported as identified to check that the reported mass spectral data meet the mass spectral identification criteria contained in the analytical method. No errors in compound identification were found and data qualification was not necessary.</p> <p>During review of a representative data package selected for full validation, it was noted that improper reference spectra were displayed in the printed version of the data package for Method 8260B. Due to a LIMS limitation, the data package reference spectra were not consistently representative of the actual spectra for the analytes detected. Because the laboratory data review involves the use of NBS reference spectra and not the reference spectra taken from the instrument calibration, the analyst was not seeing the improper alignment of spectra noted in the data package during his/her review at the instrument. The laboratory revised and reissued the data package with correct reference spectral data, consistent with method requirements, and no results were changed. Therefore, no further action is necessary as a result of this validation finding.</p>

Review Parameter	Criteria Met?	Comment
		Methods 8015D (GRO/DRO/ORO), 6010B (ICP Metals), &7470A (Mercury) The instrument printouts were reviewed. Results obtained for QC check samples (calibration standards and laboratory control samples) indicate that instrument signals reported were due to the target analytes. Reported signal intensities agreed with reported concentrations for all samples. No errors in compound identification were found and data qualification was not necessary.
Transcription Errors	Yes	Transcription errors were not found in this data package. Data qualification was not necessary.
Recalculation	Yes	Calculation or sample quantitation errors were not found in this data package. Data qualification was not necessary.
Package Completeness	Yes	The results are usable as qualified for the project objective. The data are 100% complete.

> - Greater Than

< - Less Than

≤ - Less Than or Equal to

°C – Degrees Celsius

% - Percent

%Ds – Percent Differences

%RSD – Percent Relative Standard Deviation

CCALs – Continuing Calibrations

CCBs – Continuing Calibration Blanks

CCCs – Calibration Check Compounds

CLP – Contract Laboratory Program

COC – Chain of Custody

COD – Coefficient of Determination

DFTPP - Decafluorotriphenylphosphine

DLs – Detection Limits

DRO – Diesel Range Organics

GRO – Gasoline Range Organics

ICAL – Initial Calibration

ICB – Initial Calibration Blank

ICP – Inductively Coupled Plasma

ICS – Interference Check Standard

ICV – Initial Calibration Verification

LCS – Laboratory Control Sample

LCSD – Laboratory Control Sample Duplicate

LOD – Limit of Detection

LOQ – Limit of Quantitation

MS/MSD – Matrix Spike/ Matrix Spike Duplicate

ORO – Oil Range Organics

PAHs – Polynuclear Aromatic Hydrocarbons

PDS – Post Digestion Spike

QAPP – Quality Assurance Project Plan

RPDs – Relative Percent Differences

RRF – Relative Response Factor

SOP – Standard Operating Procedure

SPCCs – System Performance Check Compounds

SVOCs – Semivolatile Organic Compounds

VOCs – Volatile Organic Compounds

Table 1: Blank Outliers and Resultant Data Qualification

Associated Samples	Analyte	Concentration	Qualification
Total Metals			
MB Batch WG750258 TU503-SB08-NS01 TU503-SB08-NS02 TU503-SB09-NS01 TU503-SB09-NS02 TU503-SB10-NS01 TU503-SB10-NS02	Aluminum	6.28 mg/Kg	None. The associated results were reported at concentrations >5x the concentration of the blank contamination.
	Zinc	1.41 mg/Kg	
PAHs			
MB Batch WG750213 TU503-SB08-NS01 TU503-SB08-NS02 TU503-SB09-NS01 TU503-SB09-NS02 TU503-SB10-NS01 TU503-SB10-NS02	Naphthalene	0.000933 mg/Kg	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).

> - Greater Than

MB – Method Blank

< - Less Than

PAHs – Polynuclear Aromatic Hydrocarbons

I – Indeterminate Bias

U – Non-detect

Table 2: Initial/Continuing Calibration Verification Outliers and Resultant Data Qualification

Associated Samples	Analyte	%D (Limit)	Data Qualification
SVOCs			
TU503-SB08-NS01 TU503-SB08-NS02 TU503-SB09-NS01 TU503-SB09-NS02 TU503-SB10-NS01 TU503-SB10-NS02	n-Nitrosodimethylamine	-26.4 (±20)	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ CCAL-L).

± - Plus or minus
L - Low Bias

%D - Percent Difference
SVOCs - Semivolatile Organic Compounds

CCAL - Continuing Calibration
UJ - Estimated

Table 3: ICS Outliers and Resultant Data Qualification

Interferent Element	Analyte	ICS A (µg/L)	MDL (µg/L)	Qualified Samples	Qualification
Aluminum, Calcium, Iron, Magnesium	Cadmium	-0.9	0.7	TU503-SB08-NS01	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ/J ICS-L).
	Selenium	-7.6	7.4	TU503-SB08-NS02	
				TU503-SB09-NS01	
			TU503-SB09-NS02		
			TU503-SB10-NS01		
			TU503-SB10-NS02		
	Nickel	-16.5	4.9	TU503-SB08-NS02	
				TU503-SB09-NS01	
				TU503-SB09-NS02	
				TU503-SB10-NS01	
				TU503-SB10-NS02	

µg/L - Micrograms per Liter
MDL - Method Detection Limit

ICS - Interference Check Standard
UJ/J - Estimated

L - Low Bias

Table 4: LCS Recovery Outliers and Resultant Data Qualification

Associated Samples	Analyte	%R (Limits)	RPD (Limits)	Qualification
Metals				
LCS WG750258 TU503-SB08-NS01 TU503-SB08-NS02 TU503-SB09-NS01 TU503-SB09-NS02 TU503-SB10-NS01 TU503-SB10-NS02	Aluminum	123/119 (80-120)	3 (50)	As the potential bias was considered to be high, the associated detected aluminum results for all samples were qualified as estimated (J LCS-H).
LCS WG750210 TU503-SB08-NS01 TU503-SB08-NS02 TU503-SB09-NS01 TU503-SB09-NS02 TU503-SB10-NS01 TU503-SB10-NS02	Mercury	125/104 (80-120)	18 (50)	As the potential bias was considered to be high and the associated sample results were reported as non-detect, data qualification was not considered necessary.

%R - Percent Recoveries

J - Estimated

H - High Bias

LCS - Laboratory Control Sample

Bold indicates a recovery outside of acceptance limits.



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729012-01

Sample ID : TU503-SB08-NS01

Site ID :

Collected By :
Collection Date : 10/20/14 10:10

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	8.2				su		9045D	10/24/14	1
Total Solids	TSOLIDS	86.6	.0333			%		2540 G-2	10/25/14	1
Mercury	7439-97-6	U	.0032	0.012	0.023	mg/kg		7471	10/23/14	1
Aluminum	7429-90-5	13000	4	5.8	12.	mg/kg	B	6010B	10/27/14	1
Antimony	7440-36-0	U	.87	1.2	2.3	mg/kg		6010B	10/27/14	1
Arsenic	7440-38-2	2.3	.75	1.2	2.3	mg/kg	J	6010B	10/27/14	1
Barium	7440-39-3	83.	.2	0.29	0.58	mg/kg		6010B	10/27/14	1
Beryllium	7440-41-7	0.24	.081	0.12	0.23	mg/kg		6010B	10/27/14	1
Cadmium	7440-43-9	U	.081	0.29	0.58	mg/kg		6010B	10/27/14	1
Chromium	7440-47-3	13.	.16	0.58	1.2	mg/kg		6010B	10/27/14	1
Cobalt	7440-48-4	5.1	.26	0.58	1.2	mg/kg		6010B	10/27/14	1
Copper	7440-50-8	7.2	.61	1.2	2.3	mg/kg		6010B	10/27/14	1
Lead	7439-92-1	6.8	.22	0.29	0.58	mg/kg		6010B	10/27/14	1
Manganese	7439-96-5	240	.14	0.58	1.2	mg/kg		6010B	10/27/14	1
Nickel	7440-02-0	11.	.56	1.2	2.3	mg/kg		6010B	10/27/14	1
Selenium	7782-49-2	U	.85	1.2	2.3	mg/kg		6010B	10/27/14	1
Silver	7440-22-4	U	.32	0.58	1.2	mg/kg		6010B	10/27/14	1
Thallium	7440-28-0	U	.75	1.2	2.3	mg/kg		6010B	10/27/14	1
Vanadium	7440-62-2	17.	.28	1.2	2.3	mg/kg		6010B	10/27/14	1
Zinc	7440-66-6	33.	.68	2.9	5.8	mg/kg		6010B	10/27/14	1
TPH (GC/FID) Low Fraction	8006-61-9	U	.025	0.058	0.12	mg/kg		8015D/GR	10/29/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	97.9				% Rec.		8015D/GR	10/29/14	1
Volatile Organics										
Acetone	67-64-1	0.054	.012	0.029	0.058	mg/kg	J	8260B	10/29/14	1
Benzene	71-43-2	U	.00031	0.00058	0.0012	mg/kg		8260B	10/29/14	1
Bromobenzene	108-86-1	U	.00032	0.00058	0.0012	mg/kg		8260B	10/29/14	1
Bromochloromethane	74-97-5	U	.00045	0.00058	0.0012	mg/kg		8260B	10/29/14	1
Bromodichloromethane	75-27-4	U	.00029	0.00058	0.0012	mg/kg		8260B	10/29/14	1
Bromoform	75-25-2	U	.00048	0.00058	0.0012	mg/kg		8260B	10/29/14	1
Bromomethane	74-83-9	U	.0015	0.0029	0.0058	mg/kg		8260B	10/29/14	1
n-Butylbenzene	104-51-8	U	.0003	0.00058	0.0012	mg/kg		8260B	10/29/14	1
sec-Butylbenzene	135-98-8	U	.00023	0.00058	0.0012	mg/kg		8260B	10/29/14	1
tert-Butylbenzene	98-06-6	U	.00024	0.00058	0.0012	mg/kg		8260B	10/29/14	1
Carbon Disulfide	75-15-0	U	.00032	0.00058	0.0012	mg/kg		8260B	10/29/14	1
Carbon tetrachloride	56-23-5	U	.00038	0.00058	0.0012	mg/kg		8260B	10/29/14	1
Chlorobenzene	108-90-7	U	.00024	0.00058	0.0012	mg/kg		8260B	10/29/14	1
Chlorodibromomethane	124-48-1	U	.00043	0.00058	0.0012	mg/kg		8260B	10/29/14	1
Chloroethane	75-00-3	U	.0011	0.0029	0.0058	mg/kg		8260B	10/29/14	1
Chloroform	67-66-3	U	.00026	0.0029	0.0058	mg/kg		8260B	10/29/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/14/14 18:33 Revised: 11/18/14 10:59

L729012-01 (PH) - 8.2@19.0c

KA/mky



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729012-01

Sample ID : TU503-SB08-NS01

Site ID :

Collected By :
Collection Date : 10/20/14 10:10

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00044	0.00058	0.0029	mg/kg	8260B	10/29/14	1	
2-Chlorotoluene	95-49-8	U	.00035	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
4-Chlorotoluene	106-43-4	U	.00028	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0012	0.0029	0.0058	mg/kg	8260B	10/29/14	1	
1,2-Dibromoethane	106-93-4	U	.00039	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
Dibromomethane	74-95-3	U	.00044	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
1,2-Dichlorobenzene	95-50-1	U	.00035	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
1,3-Dichlorobenzene	541-73-1	U	.00028	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
1,4-Dichlorobenzene	106-46-7	U	.00026	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
Dichlorodifluoromethane	75-71-8	U	.00082	0.0029	0.0058	mg/kg	8260B	10/29/14	1	
1,1-Dichloroethane	75-34-3	U	.00023	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
1,2-Dichloroethane	107-06-2	U	.0003	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
1,1-Dichloroethene	75-35-4	U	.00035	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
cis-1,2-Dichloroethene	156-59-2	U	.00028	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
trans-1,2-Dichloroethene	156-60-5	U	.0003	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
1,2-Dichloropropane	78-87-5	U	.00042	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
1,1-Dichloropropene	563-58-6	U	.00037	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
1,3-Dichloropropane	142-28-9	U	.00024	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
cis-1,3-Dichloropropene	10061-01-5	U	.0003	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
trans-1,3-Dichloropropene	10061-02-6	U	.00031	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
2,2-Dichloropropane	594-20-7	U	.00032	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
Ethylbenzene	100-41-4	U	.00035	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
Hexachloro-1,3-butadiene	87-68-3	U	.00039	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
2-Hexanone	591-78-6	U	.0044	0.0058	0.012	mg/kg	8260B	10/29/14	1	
Isopropylbenzene	98-82-8	U	.00028	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
p-Isopropyltoluene	99-87-6	U	.00023	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
2-Butanone (MEK) F SOL-I	78-93-3	0.0085	.0054	0.0058	0.012	mg/kg	J	8260B	10/29/14	1
Methylene Chloride	75-09-2	U	.0012	0.0029	0.0058	mg/kg	8260B	10/29/14	1	
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0022	0.0058	0.012	mg/kg	8260B	10/29/14	1	
Methyl tert-butyl ether	1634-04-4	U	.00024	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
Naphthalene	91-20-3	U	.0012	0.0029	0.0058	mg/kg	8260B	10/29/14	1	
n-Propylbenzene	103-65-1	U	.00024	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
Styrene	100-42-5	U	.00026	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
1,1,1,2-Tetrachloroethane	630-20-6	U	.0003	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
1,1,2,2-Tetrachloroethane	79-34-5	U	.00042	0.00087	0.0012	mg/kg	8260B	10/29/14	1	
Tetrachloroethene	127-18-4	U	.00032	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
Toluene	108-88-3	U	.0005	0.0029	0.0058	mg/kg	8260B	10/29/14	1	
1,2,3-Trichlorobenzene	87-61-6	U	.00036	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
1,2,4-Trichlorobenzene	120-82-1	U	.00045	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
1,1,1-Trichloroethane	71-55-6	U	.00033	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
1,1,2-Trichloroethane	79-00-5	U	.00032	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
Trichloroethene	79-01-6	U	.00032	0.00058	0.0012	mg/kg	8260B	10/29/14	1	
Trichlorofluoromethane	75-69-4	U	.00044	0.0029	0.0058	mg/kg	8260B	10/29/14	1	
1,2,3-Trichloropropane	96-18-4	U	.00085	0.0012	0.0029	mg/kg	8260B	10/29/14	1	
1,2,4-Trimethylbenzene	95-63-6	U	.00024	0.00058	0.0012	mg/kg	8260B	10/29/14	1	

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/14/14 18:33 Revised: 11/18/14 10:59

L729012-01 (PH) - 8.2@19.0c

CA-1/14/14



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB08-NS01
Collected By :
Collection Date : 10/20/14 10:10

ESC Sample # : L729012-01

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00039	0.00058	0.0012	mg/kg		8260B	10/29/14	1
m&p-Xylene	1330-20-7	U	.00083	0.0012	0.0023	mg/kg		8260B	10/29/14	1
Vinyl chloride	75-01-4	U	.00033	0.00058	0.0012	mg/kg		8260B	10/29/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00031	0.00058	0.0012	mg/kg		8260B	10/29/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	96.1				% Rec.		8260B	10/29/14	1
Dibromofluoromethane	1868-53-7	103.				% Rec.		8260B	10/29/14	1
4-Bromofluorobenzene	460-00-4	91.6				% Rec.		8260B	10/29/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		2.0	1.8	2.3	4.6	mg/kg	J	8015	10/28/14	1
C28-C40 Oil Range		2.6	.31	2.3	4.6	mg/kg	J	8015	10/28/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	57.8				% Rec.		8015	10/28/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00069	0.0023	0.0069	mg/kg		8270C-SI	10/25/14	1
Acenaphthene	83-32-9	U	.00069	0.0023	0.0069	mg/kg		8270C-SI	10/25/14	1
Acenaphthylene	208-96-8	U	.00069	0.0023	0.0069	mg/kg		8270C-SI	10/25/14	1
Benzo(a)anthracene	56-55-3	U	.00069	0.0023	0.0069	mg/kg		8270C-SI	10/25/14	1
Benzo(a)pyrene	50-32-8	U	.00069	0.0023	0.0069	mg/kg		8270C-SI	10/25/14	1
Benzo(b)fluoranthene	205-99-2	U	.00069	0.0023	0.0069	mg/kg		8270C-SI	10/25/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00069	0.0023	0.0069	mg/kg		8270C-SI	10/25/14	1
Benzo(k)fluoranthene	207-08-9	U	.00069	0.0023	0.0069	mg/kg		8270C-SI	10/25/14	1
Chrysene	218-01-9	U	.00069	0.0023	0.0069	mg/kg		8270C-SI	10/25/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00069	0.0023	0.0069	mg/kg		8270C-SI	10/25/14	1
Fluoranthene	206-44-0	U	.00069	0.0023	0.0069	mg/kg		8270C-SI	10/25/14	1
Fluorene	86-73-7	U	.00069	0.0023	0.0069	mg/kg		8270C-SI	10/25/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00069	0.0023	0.0069	mg/kg		8270C-SI	10/25/14	1
Naphthalene	91-20-3	0.0018	.00069	0.0023	0.0069	mg/kg	J	8270C-SI	10/25/14	1
Phenanthrene	85-01-8	U	.00069	0.0023	0.0069	mg/kg		8270C-SI	10/25/14	1
Pyrene	129-00-0	U	.00069	0.0023	0.0069	mg/kg		8270C-SI	10/25/14	1
2-Methylnaphthalene	91-57-6	U	.00074	0.0069	0.023	mg/kg		8270C-SI	10/25/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	82.3				% Rec.		8270C-SI	10/25/14	1
Nitrobenzene-d5	4165-60-0	78.2				% Rec.		8270C-SI	10/25/14	1
2-Fluorobiphenyl	321-60-8	81.5				% Rec.		8270C-SI	10/25/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.0089	0.19	0.38	mg/kg		8270C	10/27/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.01	0.19	0.38	mg/kg		8270C	10/27/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.0088	0.19	0.38	mg/kg		8270C	10/27/14	1
Benzyl Alcohol	100-51-6	U	.0087	0.19	0.38	mg/kg		8270C	10/27/14	1
Benzoic acid	65-85-0	U	.123	1.9	3.8	mg/kg		8270C	10/27/14	1
Carbazole	86-74-8	U	.006	0.19	0.38	mg/kg		8270C	10/27/14	1

Results listed are dry weight basis.

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L729012-01 (PH) - 8.2@19.0c

DNR: DO NOT REPORT

BA/ML/A
BRS 9/26/15
11 of 1741



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729012-01

Sample ID : TU503-SB08-NS01

Site ID :

Collected By :
Collection Date : 10/20/14 10:10

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.006	0.19	0.38	mg/kg		8270C	10/27/14	1
4-Bromophenyl-phenylether	101-55-3	U	.013	0.19	0.38	mg/kg		8270C	10/27/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0073	0.19	0.38	mg/kg		8270C	10/27/14	1
2-Chloronaphthalene	91-58-7	U	.0074	0.19	0.38	mg/kg		8270C	10/27/14	1
3,3-Dichlorobenzidine	91-94-1	U	.091	0.19	0.38	mg/kg		8270C	10/27/14	1
2,4-Dinitrotoluene	121-14-2	U	.007	0.19	0.38	mg/kg		8270C	10/27/14	1
2,6-Dinitrotoluene	606-20-2	U	.0085	0.19	0.38	mg/kg		8270C	10/27/14	1
Hexachlorobenzene	118-74-1	U	.0099	0.19	0.38	mg/kg		8270C	10/27/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.012	0.19	0.38	mg/kg		8270C	10/27/14	1
Hexachloroethane	67-72-1	U	.015	0.19	0.38	mg/kg		8270C	10/27/14	1
Isophorone	78-59-1	U	.006	0.19	0.38	mg/kg		8270C	10/27/14	1
Nitrobenzene	98-95-3	U	.0081	0.19	0.38	mg/kg		8270C	10/27/14	1
n-Nitrosodimethylamine	62-75-9	U	.075	0.19	0.38	mg/kg		8270C	10/27/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0068	0.19	0.38	mg/kg		8270C	10/27/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.01	0.19	0.38	mg/kg		8270C	10/27/14	1
Benzylbutyl phthalate	85-68-7	U	.012	0.19	0.38	mg/kg	J3	8270C	10/27/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.014	0.19	0.38	mg/kg		8270C	10/27/14	1
Di-n-butyl phthalate	84-74-2	U	.013	0.19	0.38	mg/kg		8270C	10/27/14	1
Diethyl phthalate	84-66-2	U	.008	0.19	0.38	mg/kg		8270C	10/27/14	1
Dimethyl phthalate	131-11-3	U	.0062	0.19	0.38	mg/kg		8270C	10/27/14	1
Di-n-octyl phthalate	117-84-0	U	.01	0.19	0.38	mg/kg		8270C	10/27/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.01	0.19	0.38	mg/kg		8270C	10/27/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0055	0.19	0.38	mg/kg		8270C	10/27/14	1
2-Chlorophenol	95-57-8	U	.0096	0.19	0.38	mg/kg		8270C	10/27/14	1
2,4-Dichlorophenol	120-83-2	U	.0087	0.19	0.38	mg/kg		8270C	10/27/14	1
2,4-Dimethylphenol	105-67-9	U	.054	0.19	0.38	mg/kg		8270C	10/27/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.14	0.19	0.38	mg/kg		8270C	10/27/14	1
2,4-Dinitrophenol	51-28-5	U	.11	0.19	0.38	mg/kg		8270C	10/27/14	1
2-Methylphenol	95-48-7	U	.011	0.19	0.38	mg/kg		8270C	10/27/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.009	0.19	0.38	mg/kg		8270C	10/27/14	1
2-Nitrophenol	88-75-5	U	.015	0.19	0.38	mg/kg		8270C	10/27/14	1
4-Nitrophenol	100-02-7	U	.06	0.19	0.38	mg/kg		8270C	10/27/14	1
4-Chloroaniline	106-47-8	U	.004	0.19	0.38	mg/kg		8270C	10/27/14	1
2-Nitroaniline	88-74-4	U	.0088	0.19	0.38	mg/kg		8270C	10/27/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0016	0.19	0.38	mg/kg		8270C	10/27/14	1
3-Nitroaniline	99-09-2	U	.0098	0.19	0.38	mg/kg		8270C	10/27/14	1
4-Nitroaniline	100-01-6	U	.0074	0.19	0.38	mg/kg		8270C	10/27/14	1
Pentachlorophenol	87-86-5	U	.055	0.19	0.38	mg/kg		8270C	10/27/14	1
Phenol	108-95-2	U	.0081	0.19	0.38	mg/kg		8270C	10/27/14	1
2,4,5-Trichlorophenol	95-95-4	U	.012	0.19	0.38	mg/kg		8270C	10/27/14	1
2,4,6-Trichlorophenol	88-06-2	U	.009	0.19	0.38	mg/kg		8270C	10/27/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	62.4				% Rec.		8270C	10/27/14	1
Phenol-d5	4165-62-2	62.9				% Rec.		8270C	10/27/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

Note:

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Reported: 11/14/14 18:33 Revised: 11/18/14 10:59

L729012-01 (PH) - 8.2@19.0c

DNA = do not report

*K.A. Hultig
BWS 2/17/15*



12065 Lebanon Rd.
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(615) 758-5858
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Fax (615) 758-5859
Tax I.D. 62-0814289
Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB08-NS01
Collected By :
Collection Date : 10/20/14 10:10

ESC Sample # : L729012-01
Site ID :
Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	60.2				% Rec.	8270C	10/27/14	1
2-Fluorobiphenyl	321-60-8	68.3				% Rec.	8270C	10/27/14	1
2,4,6-Tribromophenol	118-79-6	70.7				% Rec.	8270C	10/27/14	1
p-Terphenyl-d14	1718-51-0	61.2				% Rec.	8270C	10/27/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/14/14 18:33 Revised: 11/18/14 10:59

L729012-01 (PH) - 8.2@19.0c

CA 1/14/15



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB

ESC Sample # : L729012-02

Sample ID : TU503-SB08-NS02

Site ID :

Collected By :
 Collection Date : 10/20/14 10:15

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	8.3				su		9045D	10/24/14	1
Total Solids	TSOLIDS	76.3	.0333			%		2540 G-2	10/25/14	1
Mercury	7439-97-6	U	.0037	0.013	0.026	mg/kg		7471	10/23/14	1
Aluminum	7429-90-5	2900	4.6	6.6	13.	mg/kg	B	6010B	10/27/14	1
Antimony	7440-36-0	U	.98	1.3	2.6	mg/kg		6010B	10/27/14	1
Arsenic	7440-38-2	U	.85	1.3	2.6	mg/kg		6010B	10/27/14	1
Barium	7440-39-3	29.	.22	0.33	0.66	mg/kg		6010B	10/27/14	1
Beryllium	7440-41-7	U	.092	0.13	0.26	mg/kg		6010B	10/27/14	1
Cadmium	7440-43-9	U	.092	0.33	0.66	mg/kg		6010B	10/27/14	1
Chromium	7440-47-3	3.1	.18	0.66	1.3	mg/kg		6010B	10/27/14	1
Cobalt	7440-48-4	1.2	.3	0.66	1.3	mg/kg	J	6010B	10/27/14	1
Copper	7440-50-8	U	.69	1.3	2.6	mg/kg		6010B	10/27/14	1
Lead	7439-92-1	1.6	.25	0.33	0.66	mg/kg		6010B	10/27/14	1
Manganese	7439-96-5	55.	.16	0.66	1.3	mg/kg		6010B	10/27/14	1
Nickel	7440-02-0	2.4	.64	1.3	2.6	mg/kg	J	6010B	10/27/14	1
Selenium	7782-49-2	U	.97	1.3	2.6	mg/kg		6010B	10/27/14	1
Silver	7440-22-4	U	.37	0.66	1.3	mg/kg		6010B	10/27/14	1
Thallium	7440-28-0	U	.85	1.3	2.6	mg/kg		6010B	10/27/14	1
Vanadium	7440-62-2	7.1	.31	1.3	2.6	mg/kg		6010B	10/27/14	1
Zinc	7440-66-6	10.	.77	3.3	6.6	mg/kg		6010B	10/27/14	1
TPH (GC/FID) Low Fraction	8006-61-9	0.082	.029	0.066	0.13	mg/kg	J	8015D/GR	10/29/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	98.2				% Rec.		8015D/GR	10/29/14	1
Volatile Organics										
Acetone	67-64-1	0.022	.013	0.033	0.066	mg/kg	J	8260B	10/29/14	1
Benzene	71-43-2	0.0035	.00035	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Bromobenzene	108-86-1	U	.00037	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Bromochloromethane	74-97-5	U	.00051	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Bromodichloromethane	75-27-4	U	.00033	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Bromoform	75-25-2	U	.00055	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Bromomethane	74-83-9	U	.0017	0.0033	0.0066	mg/kg		8260B	10/29/14	1
n-Butylbenzene	104-51-8	U	.00034	0.00066	0.0013	mg/kg		8260B	10/29/14	1
sec-Butylbenzene	135-98-8	U	.00026	0.00066	0.0013	mg/kg		8260B	10/29/14	1
tert-Butylbenzene	98-06-6	U	.00028	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Carbon Disulfide	75-15-0	0.0068	.00037	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Carbon tetrachloride	56-23-5	U	.00043	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Chlorobenzene	108-90-7	U	.00028	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Chlorodibromomethane	124-48-1	U	.00048	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Chloroethane	75-00-3	U	.0012	0.0033	0.0066	mg/kg		8260B	10/29/14	1
Chloroform	67-66-3	U	.0003	0.0033	0.0066	mg/kg		8260B	10/29/14	1

Results listed are dry weight basis.

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Reported: 11/14/14 18:33 Revised: 11/18/14 10:59

L729012-02 (PH) - 8.3@19.0c

KA 11/18/14
 BMS 2/19/15
 14 of 1741



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729012-02

Sample ID : TU503-SB08-NS02

Site ID :

Collected By :
Collection Date : 10/20/14 10:15

Project # : 23446543.0055AA

Table with columns: Parameter, CAS#, Result, DL, LOD, LOQ, Units, Qual, Method, Date, Dil. Contains list of chemical compounds and their analysis results.

Results listed are dry weight basis.

U = Not Detected at the LOD

Note:

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L729012-02 (PH) - 8.3@19.0c

Handwritten signature/initials



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB08-NS02
Collected By :
Collection Date : 10/20/14 10:15

ESC Sample # : L729012-02
Site ID :
Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00044	0.00066	0.0013	mg/kg		8260B	10/29/14	1
m&p-Xylene <i>F SOL-I</i>	1330-20-7	0.0013	.00094	0.0013	0.0026	mg/kg	J	8260B	10/29/14	1
Vinyl chloride	75-01-4	U	.00038	0.00066	0.0013	mg/kg		8260B	10/29/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00035	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	95.6					% Rec.	8260B	10/29/14	1
Dibromofluoromethane	1868-53-7	102.					% Rec.	8260B	10/29/14	1
4-Bromofluorobenzene	460-00-4	93.8					% Rec.	8260B	10/29/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.1	2.6	5.2	mg/kg		8015	10/28/14	1
C28-C40 Oil Range		U	.35	2.6	5.2	mg/kg		8015	10/28/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	56.9					% Rec.	8015	10/28/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Acenaphthene	83-32-9	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Acenaphthylene	208-96-8	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Benzo(a)anthracene	56-55-3	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Benzo(a)pyrene	50-32-8	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Benzo(b)fluoranthene <i>NS-L</i>	205-99-2	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Benzo(k)fluoranthene	207-08-9	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Chrysene	218-01-9	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Fluoranthene	206-44-0	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Fluorene	86-73-7	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Naphthalene <i>U NS-I DNR</i>	91-20-3	0.0011	.00079	0.0026	0.0079	mg/kg	J	8270C-SI	10/25/14	1
Phenanthrene	85-01-8	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Pyrene	129-00-0	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
2-Methylnaphthalene	91-57-6	U	.00084	0.0079	0.026	mg/kg		8270C-SI	10/25/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	90.1					% Rec.	8270C-SI	10/25/14	1
Nitrobenzene-d5	4165-60-0	83.6					% Rec.	8270C-SI	10/25/14	1
2-Fluorobiphenyl	321-60-8	87.5					% Rec.	8270C-SI	10/25/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	.01	0.22	0.44	mg/kg		8270C	10/27/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.012	0.22	0.44	mg/kg		8270C	10/27/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.01	0.22	0.44	mg/kg		8270C	10/27/14	1
Benzy Alcohol	100-51-6	U	.0098	0.22	0.44	mg/kg		8270C	10/27/14	1
Benzoic acid	65-85-0	U	.16	2.2	4.4	mg/kg		8270C	10/27/14	1
Carbazole	86-74-8	U	.0068	0.22	0.44	mg/kg		8270C	10/27/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/14/14 18:33 Revised: 11/18/14 10:59

L729012-02 (PH) - 8.3@19.0c

DNR: DO NOT REPORT

*KA 11/14/15
Bns 9/2/15
16 of 1741*



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB08-NS02
Collected By :
Collection Date : 10/20/14 10:15

ESC Sample # : L729012-02

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0068	0.22	0.44	mg/kg		8270C	10/27/14	1
4-Bromophenyl-phenylether	101-55-3	U	.014	0.22	0.44	mg/kg		8270C	10/27/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0082	0.22	0.44	mg/kg		8270C	10/27/14	1
2-Chloronaphthalene	91-58-7	U	.0084	0.22	0.43	mg/kg		8270C	10/27/14	1
3,3-Dichlorobenzidine	91-94-1	U	.1	0.22	0.44	mg/kg		8270C	10/27/14	1
2,4-Dinitrotoluene	121-14-2	U	.008	0.22	0.44	mg/kg		8270C	10/27/14	1
2,6-Dinitrotoluene	606-20-2	U	.0097	0.22	0.44	mg/kg		8270C	10/27/14	1
Hexachlorobenzene	118-74-1	U	.011	0.22	0.44	mg/kg		8270C	10/27/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.013	0.22	0.44	mg/kg		8270C	10/27/14	1
Hexachloroethane	67-72-1	U	.017	0.22	0.44	mg/kg		8270C	10/27/14	1
Isophorone	78-59-1	U	.0068	0.22	0.44	mg/kg		8270C	10/27/14	1
Nitrobenzene	98-95-3	U	.0092	0.22	0.44	mg/kg		8270C	10/27/14	1
n-Nitrosodimethylamine	62-75-9	U	.085	0.22	0.44	mg/kg		8270C	10/27/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0077	0.22	0.44	mg/kg		8270C	10/27/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.012	0.22	0.44	mg/kg		8270C	10/27/14	1
Benzylbutyl phthalate	85-68-7	U	.013	0.22	0.44	mg/kg	J3	8270C	10/27/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.016	0.22	0.44	mg/kg		8270C	10/27/14	1
Di-n-butyl phthalate	84-74-2	U	.014	0.22	0.44	mg/kg		8270C	10/27/14	1
Diethyl phthalate	84-66-2	U	.009	0.22	0.44	mg/kg		8270C	10/27/14	1
Dimethyl phthalate	131-11-3	U	.0071	0.22	0.44	mg/kg		8270C	10/27/14	1
Di-n-octyl phthalate	117-84-0	U	.012	0.22	0.44	mg/kg		8270C	10/27/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.012	0.22	0.44	mg/kg		8270C	10/27/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0063	0.22	0.44	mg/kg		8270C	10/27/14	1
2-Chlorophenol	95-57-8	U	.011	0.22	0.44	mg/kg		8270C	10/27/14	1
2,4-Dichlorophenol	120-83-2	U	.0098	0.22	0.44	mg/kg		8270C	10/27/14	1
2,4-Dimethylphenol	105-67-9	U	.062	0.22	0.44	mg/kg		8270C	10/27/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.16	0.22	0.44	mg/kg		8270C	10/27/14	1
2,4-Dinitrophenol	51-28-5	U	.13	0.22	0.44	mg/kg		8270C	10/27/14	1
2-Methylphenol	95-48-7	U	.013	0.22	0.44	mg/kg		8270C	10/27/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.01	0.22	0.44	mg/kg		8270C	10/27/14	1
2-Nitrophenol	88-75-5	U	.017	0.22	0.44	mg/kg		8270C	10/27/14	1
4-Nitrophenol	100-02-7	U	.068	0.22	0.44	mg/kg		8270C	10/27/14	1
4-Chloroaniline	106-47-8	U	.0046	0.22	0.44	mg/kg		8270C	10/27/14	1
2-Nitroaniline	88-74-4	U	.01	0.22	0.44	mg/kg		8270C	10/27/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0018	0.22	0.44	mg/kg		8270C	10/27/14	1
3-Nitroaniline	99-09-2	U	.011	0.22	0.44	mg/kg		8270C	10/27/14	1
4-Nitroaniline	100-01-6	U	.0084	0.22	0.44	mg/kg		8270C	10/27/14	1
Pentachlorophenol	87-86-5	U	.063	0.22	0.44	mg/kg		8270C	10/27/14	1
Phenol	108-95-2	U	.0092	0.22	0.44	mg/kg		8270C	10/27/14	1
2,4,5-Trichlorophenol	95-95-4	U	.013	0.22	0.44	mg/kg		8270C	10/27/14	1
2,4,6-Trichlorophenol	88-06-2	U	.01	0.22	0.44	mg/kg		8270C	10/27/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	62.3				% Rec.		8270C	10/27/14	1
Phenol-d5	4165-62-2	61.9				% Rec.		8270C	10/27/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/14/14 18:33 Revised: 11/18/14 10:59

L729012-02 (PH) - 8.3@19.0c

DNR = do not report

*LA 1/14/15
BMS 2/17/15
17 of 1741*



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 Fax (615) 758-5859
 Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB08-NS02
 Collected By :
 Collection Date : 10/20/14 10:15

ESC Sample # : L729012-02
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	60.5				% Rec.		8270C	10/27/14	1
2-Fluorobiphenyl	321-60-8	64.4				% Rec.		8270C	10/27/14	1
2,4,6-Tribromophenol	118-79-6	72.2				% Rec.		8270C	10/27/14	1
p-Terphenyl-d14	1718-51-0	59.8				% Rec.		8270C	10/27/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/14/14 18:33 Revised: 11/18/14 10:59

L729012-02 (PH) - 8.3@19.0c

Handwritten signature/initials: KA 1/14/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-TRIPBLANK01-NT01
Collected By :
Collection Date : 10/21/14 14:00

ESC Sample # : L729012-03

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/23/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	95.1				% Rec.		8015D/G	10/23/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	10/29/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	10/29/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	10/29/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	10/29/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	10/29/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	10/29/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	10/29/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	10/29/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	10/29/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	10/29/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	10/29/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l	J4	8260B	10/29/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	10/29/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	10/29/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	10/29/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	10/29/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	10/29/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	10/29/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	10/29/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	10/29/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	10/29/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	10/29/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	10/29/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	10/29/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	10/29/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	10/29/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	10/29/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	10/29/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	10/29/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	10/29/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	10/29/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	10/29/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l	J4	8260B	10/29/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	10/29/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	10/29/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	10/29/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	10/29/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	10/29/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	10/29/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	10/29/14	1

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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-TRIPBLANK01-NT01
 Collected By :
 Collection Date : 10/21/14 14:00

ESC Sample # : L729012-03
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	10/29/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	10/29/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	10/29/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	10/29/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	10/29/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	10/29/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	10/29/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	10/29/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	10/29/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	10/29/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	10/29/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	10/29/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	10/29/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	10/29/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	10/29/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l	J4	8260B	10/29/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	10/29/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	10/29/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	10/29/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	10/29/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	10/29/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	10/29/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	10/29/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	10/29/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	10/29/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	102.				% Rec.		8260B	10/29/14	1
Dibromofluoromethane	1868-53-7	100.				% Rec.		8260B	10/29/14	1
4-Bromofluorobenzene	460-00-4	98.5				% Rec.		8260B	10/29/14	1

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CA/Julis



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 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB

ESC Sample # : L729012-04

Sample ID : TU503-SB09-NS01

Site ID :

Collected By :
 Collection Date : 10/20/14 13:50

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	5.1				su		9045D	10/24/14	1
Total Solids	TSOLIDS	76.9	.0333			%		2540 G-2	10/25/14	1
Mercury	7439-97-6	U	.0036	0.013	0.026	mg/kg		7471	10/23/14	1
Aluminum	7429-90-5	2900	4.6	6.5	13.	mg/kg	B	6010B	10/27/14	1
Antimony	7440-36-0	U	.98	1.3	2.6	mg/kg		6010B	10/27/14	1
Arsenic	7440-38-2	1.1	.84	1.3	2.6	mg/kg	J	6010B	10/27/14	1
Barium	7440-39-3	31.	.22	0.33	0.65	mg/kg		6010B	10/27/14	1
Beryllium	7440-41-7	U	.091	0.13	0.26	mg/kg		6010B	10/27/14	1
Cadmium	7440-43-9	U	.091	0.33	0.65	mg/kg		6010B	10/27/14	1
Chromium	7440-47-3	3.2	.18	0.65	1.3	mg/kg		6010B	10/27/14	1
Cobalt	7440-48-4	0.87	.3	0.65	1.3	mg/kg	J	6010B	10/27/14	1
Copper	7440-50-8	U	.69	1.3	2.6	mg/kg		6010B	10/27/14	1
Lead	7439-92-1	2.2	.25	0.33	0.65	mg/kg		6010B	10/27/14	1
Manganese	7439-96-5	17.	.16	0.65	1.3	mg/kg		6010B	10/27/14	1
Nickel	7440-02-0	1.6	.64	1.3	2.6	mg/kg	J	6010B	10/27/14	1
Selenium	7782-49-2	U	.96	1.3	2.6	mg/kg		6010B	10/27/14	1
Silver	7440-22-4	U	.36	0.65	1.3	mg/kg		6010B	10/27/14	1
Thallium	7440-28-0	U	.84	1.3	2.6	mg/kg		6010B	10/27/14	1
Vanadium	7440-62-2	12.	.31	1.3	2.6	mg/kg		6010B	10/27/14	1
Zinc	7440-66-6	13.	.77	3.3	6.5	mg/kg		6010B	10/27/14	1
TPH (GC/FID) Low Fraction	8006-61-9	U	.029	0.065	0.13	mg/kg		8015D/GR	10/29/14	1
Surrogate Recovery (70-130)										
a,a,a-Trifluorotoluene (FID)	98-08-8	97.6				% Rec.		8015D/GR	10/29/14	1
Volatile Organics										
Acetone	67-64-1	U	.013	0.033	0.065	mg/kg		8260B	10/29/14	1
Benzene	71-43-2	U	.00035	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Bromobenzene	108-86-1	U	.00036	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Bromochloromethane	74-97-5	U	.00051	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Bromodichloromethane	75-27-4	U	.00032	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Bromoform	75-25-2	U	.00055	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Bromomethane	74-83-9	U	.0017	0.0033	0.0065	mg/kg		8260B	10/29/14	1
n-Butylbenzene	104-51-8	U	.00034	0.00065	0.0013	mg/kg		8260B	10/29/14	1
sec-Butylbenzene	135-98-8	U	.00026	0.00065	0.0013	mg/kg		8260B	10/29/14	1
tert-Butylbenzene	98-06-6	U	.00027	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Carbon Disulfide	75-15-0	U	.00036	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Carbon tetrachloride	56-23-5	U	.00043	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Chlorobenzene	108-90-7	U	.00027	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Chlorodibromomethane	124-48-1	U	.00048	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Chloroethane	75-00-3	U	.0012	0.0033	0.0065	mg/kg		8260B	10/29/14	1
Chloroform	67-66-3	U	.0003	0.0033	0.0065	mg/kg		8260B	10/29/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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L729012-04 (PH) - 5.1@22.2c

CA 11/14/15



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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB09-NS01
 Collected By :
 Collection Date : 10/20/14 13:50

ESC Sample # : L729012-04
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00049	0.00065	0.0032	mg/kg	8260B	10/29/14	1	
2-Chlorotoluene	95-49-8	U	.00039	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
4-Chlorotoluene	106-43-4	U	.00031	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0013	0.0033	0.0065	mg/kg	8260B	10/29/14	1	
1,2-Dibromoethane	106-93-4	U	.00044	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
Dibromomethane	74-95-3	U	.00049	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
1,2-Dichlorobenzene	95-50-1	U	.00039	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
1,3-Dichlorobenzene	541-73-1	U	.00031	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
1,4-Dichlorobenzene	106-46-7	U	.0003	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
Dichlorodifluoromethane	75-71-8	U	.00092	0.0033	0.0065	mg/kg	8260B	10/29/14	1	
1,1-Dichloroethane	75-34-3	U	.00026	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
1,2-Dichloroethane	107-06-2	U	.00034	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
1,1-Dichloroethene	75-35-4	U	.00039	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
cis-1,2-Dichloroethene	156-59-2	U	.00031	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
trans-1,2-Dichloroethene	156-60-5	U	.00034	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
1,2-Dichloropropane	78-87-5	U	.00047	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
1,1-Dichloropropene	563-58-6	U	.00042	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
1,3-Dichloropropene	142-28-9	U	.00027	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
cis-1,3-Dichloropropene	10061-01-5	U	.00034	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
trans-1,3-Dichloropropene	10061-02-6	U	.00035	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
2,2-Dichloropropane	594-20-7	U	.00036	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
Ethylbenzene	100-41-4	U	.00039	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
Hexachloro-1,3-butadiene	87-68-3	U	.00044	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
2-Hexanone	591-78-6	U	.0049	0.0065	0.013	mg/kg	8260B	10/29/14	1	
Isopropylbenzene	98-82-8	U	.00031	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
p-Isopropyltoluene	99-87-6	U	.00026	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
2-Butanone (MEK)	78-93-3	U	.0061	0.0065	0.013	mg/kg	8260B	10/29/14	1	
Methylene Chloride	75-09-2	U	.0013	0.0033	0.0065	mg/kg	8260B	10/29/14	1	
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0025	0.0065	0.013	mg/kg	8260B	10/29/14	1	
Methyl tert-butyl ether	1634-04-4	U	.00027	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
Naphthalene	91-20-3	U	.0013	0.0033	0.0065	mg/kg	8260B	10/29/14	1	
n-Propylbenzene	103-65-1	U	.00027	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
Styrene	100-42-5	U	.0003	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
1,1,1,2-Tetrachloroethane	630-20-6	U	.00034	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
1,1,2,2-Tetrachloroethane	79-34-5	U	.00047	0.00098	0.0013	mg/kg	8260B	10/29/14	1	
Tetrachloroethene	127-18-4	U	.00036	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
Toluene	108-88-3	U	.00056	0.0033	0.0065	mg/kg	8260B	10/29/14	1	
1,2,3-Trichlorobenzene	87-61-6	U	.0004	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
1,2,4-Trichlorobenzene	120-82-1	U	.00051	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
1,1,1-Trichloroethane	71-55-6	U	.00037	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
1,1,2-Trichloroethane	79-00-5	U	.00036	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
Trichloroethene	79-01-6	U	.00036	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
Trichlorofluoromethane	75-69-4	U	.00049	0.0033	0.0065	mg/kg	8260B	10/29/14	1	
1,2,3-Trichloropropane	96-18-4	U	.00096	0.0013	0.0032	mg/kg	8260B	10/29/14	1	
1,2,4-Trimethylbenzene	95-63-6	U	.00027	0.00065	0.0013	mg/kg	8260B	10/29/14	1	

Results listed are dry weight basis.

U = Not Detected at the LOD

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L729012-04 (PH) - 5.1@22.2c

KA 11/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB09-NS01
Collected By :
Collection Date : 10/20/14 13:50

ESC Sample # : L729012-04

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00044	0.00065	0.0013	mg/kg		8260B	10/29/14	1
m&p-Xylene	1330-20-7	U	.00094	0.0013	0.0026	mg/kg		8260B	10/29/14	1
Vinyl chloride	75-01-4	U	.00038	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00035	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	98.3				% Rec.		8260B	10/29/14	1
Dibromofluoromethane	1868-53-7	105.				% Rec.		8260B	10/29/14	1
4-Bromofluorobenzene	460-00-4	93.4				% Rec.		8260B	10/29/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.1	2.6	5.2	mg/kg		8015	10/28/14	1
C28-C40 Oil Range		U	.35	2.6	5.2	mg/kg		8015	10/28/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	61.0				% Rec.		8015	10/28/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Acenaphthene	83-32-9	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Acenaphthylene	208-96-8	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Benzo(a)anthracene	56-55-3	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Benzo(a)pyrene	50-32-8	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Benzo(b)fluoranthene	205-99-2	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Benzo(k)fluoranthene	207-08-9	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Chrysene	218-01-9	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Fluoranthene	206-44-0	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Fluorene	86-73-7	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Naphthalene	91-20-3	0.0014	.00078	0.0026	0.0026	mg/kg		8270C-SI	10/25/14	1
Phenanthrene	85-01-8	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Pyrene	129-00-0	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
2-Methylnaphthalene	91-57-6	U	.00083	0.0078	0.026	mg/kg		8270C-SI	10/25/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	89.0				% Rec.		8270C-SI	10/25/14	1
Nitrobenzene-d5	4165-60-0	83.0				% Rec.		8270C-SI	10/25/14	1
2-Fluorobiphenyl	321-60-8	87.8				% Rec.		8270C-SI	10/25/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.01	0.22	0.43	mg/kg		8270C	10/27/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.012	0.22	0.43	mg/kg		8270C	10/27/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.0099	0.22	0.43	mg/kg		8270C	10/27/14	1
Benzyl Alcohol	100-51-6	U	.0098	0.22	0.43	mg/kg		8270C	10/27/14	1
Benzoic acid	65-85-0	U	.16	2.2	4.3	mg/kg		8270C	10/27/14	1
Carbazole	86-74-8	U	.0068	0.22	0.43	mg/kg		8270C	10/27/14	1

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Reported: 11/14/14 18:33 Revised: 11/18/14 10:59

L729012-04 (PH) - 5.1@22.2c

DNR: Do NOT Report

BA/MLIS

BA/MLIS 9/2/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729012-04

Sample ID : TU503-SB09-NS01

Site ID :

Collected By :
Collection Date : 10/20/14 13:50

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0068	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
4-Bromophenyl-phenylether	101-55-3	U	.014	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0082	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
2-Chloronaphthalene	91-58-7	U	.0083	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
3,3-Dichlorobenzidine	91-94-1	U	.1	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
2,4-Dinitrotoluene	121-14-2	U	.0079	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
2,6-Dinitrotoluene	606-20-2	U	.0096	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
Hexachlorobenzene	118-74-1	U	.011	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.013	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
Hexachloroethane	67-72-1	U	.017	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
Isophorone	78-59-1	U	.0068	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
Nitrobenzene	98-95-3	U	.0091	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
n-Nitrosodimethylamine	62-75-9	U	.084	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0077	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.012	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
Benzylbutyl phthalate	85-68-7	U	.013	0.22	0.43	mg/kg	J3	8270C	10/27/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.016	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
Di-n-butyl phthalate	84-74-2	U	.014	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
Diethyl phthalate	84-66-2	U	.009	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
Dimethyl phthalate	131-11-3	U	.007	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
Di-n-octyl phthalate	117-84-0	U	.012	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.011	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0062	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
2-Chlorophenol	95-57-8	U	.011	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
2,4-Dichlorophenol	120-83-2	U	.0098	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
2,4-Dimethylphenol	105-67-9	U	.061	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.16	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
2,4-Dinitrophenol	51-28-5	U	.13	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
2-Methylphenol	95-48-7	U	.013	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.01	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
2-Nitrophenol	88-75-5	U	.017	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
4-Nitrophenol	100-02-7	U	.068	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
4-Chloroaniline	106-47-8	U	.0046	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
2-Nitroaniline	88-74-4	U	.0099	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0018	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
3-Nitroaniline	99-09-2	U	.011	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
4-Nitroaniline	100-01-6	U	.0083	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
Pentachlorophenol	87-86-5	U	.062	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
Phenol	108-95-2	U	.0091	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
2,4,5-Trichlorophenol	95-95-4	U	.013	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
2,4,6-Trichlorophenol	88-06-2	U	.01	0.22	0.43	mg/kg	8270C	8270C	10/27/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	60.2				% Rec.	8270C	8270C	10/27/14	1
Phenol-d5	4165-62-2	59.1				% Rec.	8270C	8270C	10/27/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/14/14 18:33 Revised: 11/18/14 10:59

L729012-04 (PH) - 5.1@22.2c

DNR = do not report

*CA 11/11/15
BWS 2/17/15
24 of 1741*



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 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB09-NS01
 Collected By :
 Collection Date : 10/20/14 13:50

ESC Sample # : L729012-04
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	59.7				% Rec.		8270C	10/27/14	1
2-Fluorobiphenyl	321-60-8	66.1				% Rec.		8270C	10/27/14	1
2,4,6-Tribromophenol	118-79-6	69.5				% Rec.		8270C	10/27/14	1
p-Terphenyl-d14	1718-51-0	56.0				% Rec.		8270C	10/27/14	1

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L729012-04 (PH) - 5.1@22.2c

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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729012-05

Sample ID : TU503-SB09-NS02

Site ID :

Collected By :
Collection Date : 10/20/14 13:55

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	5.6				su		9045D	10/24/14	1
Total Solids	TSOLIDS	72.5	.0333			%		2540 G-2	10/25/14	1
Mercury	7439-97-6	U	.0039	0.014	0.028	mg/kg		7471	10/23/14	1
Aluminum	7429-90-5	3600	4.8	6.9	14.	mg/kg	B	6010B	10/27/14	1
Antimony	7440-36-0	U	1	1.4	2.8	mg/kg		6010B	10/27/14	1
Arsenic	7440-38-2	1.0	.9	1.4	2.8	mg/kg	J	6010B	10/27/14	1
Barium	7440-39-3	28.	.23	0.34	0.69	mg/kg		6010B	10/27/14	1
Beryllium	7440-41-7	U	.096	0.14	0.28	mg/kg		6010B	10/27/14	1
Cadmium	7440-43-9	U	.096	0.34	0.69	mg/kg		6010B	10/27/14	1
Chromium	7440-47-3	4.3	.19	0.69	1.4	mg/kg		6010B	10/27/14	1
Cobalt	7440-48-4	1.4	.32	0.69	1.4	mg/kg		6010B	10/27/14	1
Copper	7440-50-8	U	.73	1.4	2.8	mg/kg		6010B	10/27/14	1
Lead	7439-92-1	1.9	.26	0.34	0.69	mg/kg		6010B	10/27/14	1
Manganese	7439-96-5	59.	.16	0.69	1.4	mg/kg		6010B	10/27/14	1
Nickel	7440-02-0	2.6	.68	1.4	2.8	mg/kg	J	6010B	10/27/14	1
Selenium	7782-49-2	U	1	1.4	2.8	mg/kg		6010B	10/27/14	1
Silver	7440-22-4	U	.39	0.69	1.4	mg/kg		6010B	10/27/14	1
Thallium	7440-28-0	U	.9	1.4	2.8	mg/kg		6010B	10/27/14	1
Vanadium	7440-62-2	7.9	.33	1.4	2.8	mg/kg		6010B	10/27/14	1
Zinc	7440-66-6	10.	.81	3.4	6.9	mg/kg		6010B	10/27/14	1
TPH (GC/FID) Low Fraction	8006-61-9	73.	.59	1.4	2.7	mg/kg		8015D/GR	10/29/14	19.75
Surrogate Recovery (70-130)										
a,a,a-Trifluorotoluene (FID)	98-08-8	101.				% Rec.		8015D/GR	10/29/14	19.75
Volatile Organics										
Acetone	67-64-1	U	1.1	2.8	5.5	mg/kg		8260B	10/29/14	80
Benzene	71-43-2	U	.03	0.055	0.11	mg/kg		8260B	10/29/14	80
Bromobenzene	108-86-1	U	.032	0.055	0.11	mg/kg		8260B	10/29/14	80
Bromochloromethane	74-97-5	U	.043	0.055	0.11	mg/kg		8260B	10/29/14	80
Bromodichloromethane	75-27-4	U	.028	0.055	0.11	mg/kg		8260B	10/29/14	80
Bromoform	75-25-2	U	.047	0.055	0.11	mg/kg		8260B	10/29/14	80
Bromomethane	74-83-9	U	.15	0.28	0.55	mg/kg		8260B	10/29/14	80
n-Butylbenzene	104-51-8	1.1	.029	0.055	0.11	mg/kg		8260B	10/29/14	80
sec-Butylbenzene	135-98-8	0.63	.022	0.055	0.11	mg/kg		8260B	10/29/14	80
tert-Butylbenzene	98-06-6	U	.022	0.055	0.11	mg/kg		8260B	10/29/14	80
Carbon Disulfide	75-15-0	0.043	.03	0.055	0.11	mg/kg	J	8260B	10/29/14	80
Carbon tetrachloride	56-23-5	U	.036	0.055	0.11	mg/kg		8260B	10/29/14	80
Chlorobenzene	108-90-7	U	.023	0.055	0.11	mg/kg		8260B	10/29/14	80
Chlorodibromomethane	124-48-1	U	.041	0.055	0.11	mg/kg		8260B	10/29/14	80
Chloroethane	75-00-3	U	.1	0.28	0.55	mg/kg		8260B	10/29/14	80
Chloroform	67-66-3	U	.025	0.28	0.55	mg/kg		8260B	10/29/14	80

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L729012-05 (SV8270BNA) - Diluted due to matrix

L729012-05 (PH) - 5.6@22.1c

Handwritten signature and date:
K.A. Miller
BMS 11/18/15
26 of 1741



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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB09-NS02
 Collected By :
 Collection Date : 10/20/14 13:55

ESC Sample # : L729012-05
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.041	0.055	0.28	mg/kg		8260B	10/29/14	80
2-Chlorotoluene	95-49-8	U	.033	0.055	0.11	mg/kg		8260B	10/29/14	80
4-Chlorotoluene	106-43-4	U	.026	0.055	0.11	mg/kg		8260B	10/29/14	80
1,2-Dibromo-3-Chloropropane	96-12-8	U	.12	0.28	0.55	mg/kg		8260B	10/29/14	80
1,2-Dibromoethane	106-93-4	U	.037	0.055	0.11	mg/kg		8260B	10/29/14	80
Dibromomethane	74-95-3	U	.041	0.055	0.11	mg/kg		8260B	10/29/14	80
1,2-Dichlorobenzene	95-50-1	U	.033	0.055	0.11	mg/kg		8260B	10/29/14	80
1,3-Dichlorobenzene	541-73-1	U	.026	0.055	0.11	mg/kg		8260B	10/29/14	80
1,4-Dichlorobenzene	106-46-7	U	.025	0.055	0.11	mg/kg		8260B	10/29/14	80
Dichlorodifluoromethane	75-71-8	U	.079	0.28	0.55	mg/kg		8260B	10/29/14	80
1,1-Dichloroethane	75-34-3	U	.022	0.055	0.11	mg/kg		8260B	10/29/14	80
1,2-Dichloroethane	107-06-2	U	.029	0.055	0.11	mg/kg		8260B	10/29/14	80
1,1-Dichloroethene	75-35-4	U	.033	0.055	0.11	mg/kg		8260B	10/29/14	80
cis-1,2-Dichloroethene	156-59-2	U	.026	0.055	0.11	mg/kg		8260B	10/29/14	80
trans-1,2-Dichloroethene	156-60-5	U	.029	0.055	0.11	mg/kg		8260B	10/29/14	80
1,2-Dichloropropane	78-87-5	U	.04	0.055	0.11	mg/kg		8260B	10/29/14	80
1,1-Dichloropropene	563-58-6	U	.034	0.055	0.11	mg/kg		8260B	10/29/14	80
1,3-Dichloropropane	142-28-9	U	.022	0.055	0.11	mg/kg		8260B	10/29/14	80
cis-1,3-Dichloropropene	10061-01-5	U	.029	0.055	0.11	mg/kg		8260B	10/29/14	80
trans-1,3-Dichloropropene	10061-02-6	U	.029	0.055	0.11	mg/kg		8260B	10/29/14	80
2,2-Dichloropropane	594-20-7	U	.03	0.055	0.11	mg/kg		8260B	10/29/14	80
Ethylbenzene <i>F SOL-I</i>	100-41-4	0.098	.033	0.055	0.11	mg/kg	J	8260B	10/29/14	80
Hexachloro-1,3-butadiene	87-68-3	U	.037	0.055	0.11	mg/kg		8260B	10/29/14	80
2-Hexanone	591-78-6	U	.41	0.55	1.1	mg/kg		8260B	10/29/14	80
Isopropylbenzene	98-82-8	0.16	.026	0.055	0.11	mg/kg		8260B	10/29/14	80
p-Isopropyltoluene	99-87-6	0.84	.022	0.055	0.11	mg/kg		8260B	10/29/14	80
2-Butanone (MEK)	78-93-3	U	.51	0.55	1.1	mg/kg		8260B	10/29/14	80
Methylene Chloride <i>F SOL-I</i>	75-09-2	0.12	.11	0.28	0.55	mg/kg	J	8260B	10/29/14	80
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.21	0.55	1.1	mg/kg		8260B	10/29/14	80
Methyl tert-butyl ether	1634-04-4	U	.023	0.055	0.11	mg/kg		8260B	10/29/14	80
Napthalene	91-20-3	9.5	.11	0.28	0.55	mg/kg		8260B	10/29/14	80
n-Propylbenzene	103-65-1	0.40	.022	0.055	0.11	mg/kg		8260B	10/29/14	80
Styrene	100-42-5	U	.026	0.055	0.11	mg/kg		8260B	10/29/14	80
1,1,1,2-Tetrachloroethane	630-20-6	U	.029	0.055	0.11	mg/kg		8260B	10/29/14	80
1,1,2,2-Tetrachloroethane	79-34-5	U	.04	0.083	0.11	mg/kg		8260B	10/29/14	80
Tetrachloroethene	127-18-4	U	.03	0.055	0.11	mg/kg		8260B	10/29/14	80
Toluene	108-88-3	U	.048	0.28	0.55	mg/kg		8260B	10/29/14	80
1,2,3-Trichlorobenzene	87-61-6	U	.033	0.055	0.11	mg/kg		8260B	10/29/14	80
1,2,4-Trichlorobenzene	120-82-1	U	.043	0.055	0.11	mg/kg		8260B	10/29/14	80
1,1,1-Trichloroethane	71-55-6	U	.032	0.055	0.11	mg/kg		8260B	10/29/14	80
1,1,2-Trichloroethane	79-00-5	U	.03	0.055	0.11	mg/kg		8260B	10/29/14	80
Trichloroethene	79-01-6	U	.03	0.055	0.11	mg/kg		8260B	10/29/14	80
Trichlorofluoromethane	75-69-4	U	.041	0.28	0.55	mg/kg		8260B	10/29/14	80
1,2,3-Trichloropropane	96-18-4	U	.081	0.11	0.28	mg/kg		8260B	10/29/14	80
1,2,4-Trimethylbenzene	95-63-6	1.3	.023	0.055	0.11	mg/kg		8260B	10/29/14	80

Results listed are dry weight basis.

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Reported: 11/14/14 18:33 Revised: 11/18/14 10:59

L729012-05 (SV8270BNA) - Diluted due to matrix

L729012-05 (PH) - 5.6@22.1c

KA 1/14/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB09-NS02
Collected By :
Collection Date : 10/20/14 13:55

ESC Sample # : L729012-05

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
<i>FSOL-I</i> o-Xylene	95-47-6	0.052	.037	0.055	0.11	mg/kg	J	8260B	10/29/14	80
m&p-Xylene	1330-20-7	U	.08	0.11	0.22	mg/kg		8260B	10/29/14	80
Vinyl chloride	75-01-4	U	.032	0.055	0.11	mg/kg		8260B	10/29/14	80
1,3,5-Trimethylbenzene	108-67-8	0.80	.029	0.055	0.11	mg/kg		8260B	10/29/14	80
Surrogate Recovery										
Toluene-d8	2037-26-5	97.8				% Rec.		8260B	10/29/14	80
Dibromofluoromethane	1868-53-7	95.6				% Rec.		8260B	10/29/14	80
4-Bromofluorobenzene	460-00-4	105.				% Rec.		8260B	10/29/14	80
Diesel and Oil Ranges										
C10-C28 Diesel Range		7200	44	55.	110	mg/kg		8015	10/28/14	20
C28-C40 Oil Range		32.	.37	2.8	5.5	mg/kg		8015	10/28/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	0.00				% Rec.	J7	8015	10/28/14	20
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	1.0	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Acenaphthene	83-32-9	1.6	.016	0.055	0.16	mg/kg		8270C-SI	10/27/14	20
Acenaphthylene	208-96-8	0.32	.016	0.055	0.16	mg/kg		8270C-SI	10/27/14	20
Benzo (a) anthracene	56-55-3	0.14	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Benzo (a) pyrene	50-32-8	0.073	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Benzo (b) fluoranthene <i>NS-L</i>	205-99-2	0.087	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Benzo (g,h,i) perylene	191-24-2	0.023	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Benzo (k) fluoranthene	207-08-9	0.025	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Chrysene	218-01-9	0.099	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Dibenz (a,h) anthracene <i>FSOL-I</i>	53-70-3	0.0077	.00083	0.0028	0.0083	mg/kg	J	8270C-SI	10/25/14	1
Fluoranthene	206-44-0	0.28	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Fluorene	86-73-7	2.6	.016	0.055	0.16	mg/kg		8270C-SI	10/27/14	20
Indeno (1,2,3-cd) pyrene	193-39-5	0.023	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Naphthalene <i>DNR</i>	91-20-3	5.5	.016	0.17	0.55	mg/kg		8270C-SI	10/27/14	20
Phenanthrene	85-01-8	4.3	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Pyrene	129-00-0	0.40	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
2-Methylnaphthalene	91-57-6	8.6	.018	0.17	0.55	mg/kg		8270C-SI	10/27/14	20
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	80.8				% Rec.		8270C-SI	10/25/14	1
Nitrobenzene-d5	4165-60-0	2280				% Rec.	J7	8270C-SI	10/27/14	20
2-Fluorobiphenyl	321-60-8	92.3				% Rec.	J7	8270C-SI	10/27/14	20
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.11	2.3	4.6	mg/kg		8270C	10/27/14	10
Bis(2-chloroethyl) ether	111-44-4	U	.12	2.3	4.6	mg/kg		8270C	10/27/14	10
Bis(2-chloroisopropyl) ether	108-60-1	U	.1	2.3	4.6	mg/kg		8270C	10/27/14	10
Benzyl Alcohol	100-51-6	U	.1	2.3	4.6	mg/kg		8270C	10/27/14	10
Benzoic acid	65-85-0	U	1.6	23.	46	mg/kg		8270C	10/27/14	10
Carbazole	86-74-8	U	.072	2.3	4.6	mg/kg		8270C	10/27/14	10

Results listed are dry weight basis.

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Reported: 11/14/14 18:33 Revised: 11/18/14 10:59

L729012-05 (SV8270BNA) - Diluted due to matrix

L729012-05 (PH) - 5.6@22.1c

DNR: DO NOT REPORT

CA 11/11/15
DMS 9/2/15
28 of 1741



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB09-NS02
Collected By :
Collection Date : 10/20/14 13:55

ESC Sample # : L729012-05

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.072	2.3	4.6	mg/kg		8270C	10/27/14	10
4-Bromophenyl-phenylether	101-55-3	U	.15	2.3	4.6	mg/kg		8270C	10/27/14	10
4-Chlorophenyl-phenylether	7005-72-3	U	.087	2.3	4.6	mg/kg		8270C	10/27/14	10
2-Chloronaphthalene	91-58-7	U	.088	2.3	4.6	mg/kg		8270C	10/27/14	10
3,3-Dichlorobenzidine	91-94-1	U	1.1	2.3	4.6	mg/kg		8270C	10/27/14	10
2,4-Dinitrotoluene	121-14-2	U	.084	2.3	4.6	mg/kg		8270C	10/27/14	10
2,6-Dinitrotoluene	606-20-2	U	.1	2.3	4.6	mg/kg		8270C	10/27/14	10
Hexachlorobenzene	118-74-1	U	.12	2.3	4.6	mg/kg		8270C	10/27/14	10
Hexachloro-1,3-butadiene	87-68-3	U	.14	2.3	4.6	mg/kg		8270C	10/27/14	10
Hexachloroethane	67-72-1	U	.18	2.3	4.6	mg/kg		8270C	10/27/14	10
Isophorone	78-59-1	U	.072	2.3	4.6	mg/kg		8270C	10/27/14	10
Nitrobenzene	98-95-3	U	.096	2.3	4.6	mg/kg		8270C	10/27/14	10
n-Nitrosodimethylamine	62-75-9	U	.9	2.3	4.6	mg/kg		8270C	10/27/14	10
n-Nitrosodiphenylamine	86-30-6	U	.081	2.3	4.6	mg/kg		8270C	10/27/14	10
n-Nitrosodi-n-propylamine	621-64-7	U	.12	2.3	4.6	mg/kg		8270C	10/27/14	10
Benzylbutyl phthalate	85-68-7	U	.14	2.3	4.6	mg/kg	J3	8270C	10/27/14	10
Bis(2-ethylhexyl)phthalate	117-81-7	U	.16	2.3	4.6	mg/kg		8270C	10/27/14	10
Di-n-butyl phthalate	84-74-2	U	.15	2.3	4.6	mg/kg		8270C	10/27/14	10
Diethyl phthalate	84-66-2	U	.095	2.3	4.6	mg/kg		8270C	10/27/14	10
Dimethyl phthalate	131-11-3	U	.074	2.3	4.6	mg/kg		8270C	10/27/14	10
Di-n-octyl phthalate	117-84-0	U	.12	2.3	4.6	mg/kg		8270C	10/27/14	10
1,2,4-Trichlorobenzene	120-82-1	U	.12	2.3	4.6	mg/kg		8270C	10/27/14	10
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.066	2.3	4.6	mg/kg		8270C	10/27/14	10
2-Chlorophenol	95-57-8	U	.11	2.3	4.6	mg/kg		8270C	10/27/14	10
2,4-Dichlorophenol	120-83-2	U	.1	2.3	4.6	mg/kg		8270C	10/27/14	10
2,4-Dimethylphenol	105-67-9	U	.65	2.3	4.6	mg/kg		8270C	10/27/14	10
4,6-Dinitro-2-methylphenol	534-52-1	U	1.6	2.3	4.6	mg/kg		8270C	10/27/14	10
2,4-Dinitrophenol	51-28-5	U	1.4	2.3	4.6	mg/kg		8270C	10/27/14	10
2-Methylphenol	95-48-7	U	.14	2.3	4.6	mg/kg		8270C	10/27/14	10
3&4-Methyl Phenol	3&4-Methyl	U	.11	2.3	4.6	mg/kg		8270C	10/27/14	10
2-Nitrophenol	88-75-5	U	.18	2.3	4.6	mg/kg		8270C	10/27/14	10
4-Nitrophenol	100-02-7	U	.72	2.3	4.6	mg/kg		8270C	10/27/14	10
4-Chloroaniline	106-47-8	U	.048	2.3	4.6	mg/kg		8270C	10/27/14	10
2-Nitroaniline	88-74-4	U	.1	2.3	4.6	mg/kg		8270C	10/27/14	10
1,2-Diphenylhydrazine	103-33-3	U	.019	2.3	4.6	mg/kg		8270C	10/27/14	10
3-Nitroaniline	99-09-2	U	.12	2.3	4.6	mg/kg		8270C	10/27/14	10
4-Nitroaniline	100-01-6	U	.088	2.3	4.6	mg/kg		8270C	10/27/14	10
Pentachlorophenol	87-86-5	U	.66	2.3	4.6	mg/kg		8270C	10/27/14	10
Phenol	108-95-2	U	.096	2.3	4.6	mg/kg		8270C	10/27/14	10
2,4,5-Trichlorophenol	95-95-4	U	.14	2.3	4.6	mg/kg		8270C	10/27/14	10
2,4,6-Trichlorophenol	88-06-2	U	.11	2.3	4.6	mg/kg		8270C	10/27/14	10
Surrogate Recovery										
2-Fluorophenol	367-12-4	60.5				% Rec.		8270C	10/27/14	10
Phenol-d5	4165-62-2	59.6				% Rec.		8270C	10/27/14	10

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L729012-05 (SV8270BNA) - Diluted due to matrix

L729012-05 (PH) - 5.6@22.1c

DNR: do not report

KA 1/14/15

BAW 2/17/15



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 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB09-NS02
 Collected By :
 Collection Date : 10/20/14 13:55

ESC Sample # : L729012-05
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	33.0				% Rec.		8270C	10/27/14	10
2-Fluorobiphenyl	321-60-8	64.4				% Rec.		8270C	10/27/14	10
2,4,6-Tribromophenol	118-79-6	57.7				% Rec.		8270C	10/27/14	10
p-Terphenyl-d14	1718-51-0	54.2				% Rec.		8270C	10/27/14	10

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L729012-05 (SV8270BNA) - Diluted due to matrix

L729012-05 (PH) - 5.6@22.1c

CA/11/11/15



YOUR LAB OF CHOICE

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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729012-06

Sample ID : TU503-SB10-NS01

Site ID :

Collected By :
Collection Date : 10/20/14 14:45

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	5.7				su		9045D	10/24/14	1
Total Solids	TSOLIDS	73.6	.0333			%		2540 G-2	10/25/14	1
Mercury	7439-97-6	U	.0038	0.014	0.027	mg/kg		7471	10/23/14	1
Aluminum	7429-90-5	3800	4.8	6.8	14.	mg/kg	B	6010B	10/27/14	1
Antimony	7440-36-0	U	.1	1.4	2.7	mg/kg		6010B	10/27/14	1
Arsenic	7440-38-2	1.5	.88	1.4	2.7	mg/kg	J	6010B	10/27/14	1
Barium	7440-39-3	33.	.23	0.34	0.68	mg/kg		6010B	10/27/14	1
Beryllium	7440-41-7	U	.095	0.14	0.27	mg/kg		6010B	10/27/14	1
Cadmium	7440-43-9	U	.095	0.34	0.68	mg/kg		6010B	10/27/14	1
Chromium	7440-47-3	4.5	.19	0.68	1.4	mg/kg		6010B	10/27/14	1
Cobalt	7440-48-4	1.6	.31	0.68	1.4	mg/kg		6010B	10/27/14	1
Copper	7440-50-8	U	.72	1.4	2.7	mg/kg		6010B	10/27/14	1
Lead	7439-92-1	2.0	.26	0.34	0.68	mg/kg		6010B	10/27/14	1
Manganese	7439-96-5	28.	.16	0.68	1.4	mg/kg		6010B	10/27/14	1
Nickel	7440-02-0	3.7	.66	1.4	2.7	mg/kg		6010B	10/27/14	1
Selenium	7782-49-2	U	.1	1.4	2.7	mg/kg		6010B	10/27/14	1
Silver	7440-22-4	U	.38	0.68	1.4	mg/kg		6010B	10/27/14	1
Thallium	7440-28-0	U	.88	1.4	2.7	mg/kg		6010B	10/27/14	1
Vanadium	7440-62-2	14.	.33	1.4	2.7	mg/kg		6010B	10/27/14	1
Zinc	7440-66-6	11.	.8	3.4	6.8	mg/kg		6010B	10/27/14	1
TPH (GC/FID) Low Fraction	8006-61-9	U	.03	0.068	0.14	mg/kg		8015D/GR	10/29/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	101.				% Rec.		8015D/GR	10/29/14	1
Volatile Organics										
Acetone	67-64-1	0.023	.014	0.034	0.068	mg/kg	J	8260B	10/29/14	1
Benzene	71-43-2	U	.00037	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Bromobenzene	108-86-1	U	.00038	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Bromochloromethane	74-97-5	U	.00053	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Bromodichloromethane	75-27-4	U	.00034	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Bromoform	75-25-2	U	.00057	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Bromomethane	74-83-9	U	.0018	0.0034	0.0068	mg/kg		8260B	10/29/14	1
n-Butylbenzene	104-51-8	U	.00035	0.00068	0.0014	mg/kg		8260B	10/29/14	1
sec-Butylbenzene	135-98-8	U	.00027	0.00068	0.0014	mg/kg		8260B	10/29/14	1
tert-Butylbenzene	98-06-6	U	.00028	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Carbon Disulfide	75-15-0	U	.00038	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Carbon tetrachloride	56-23-5	U	.00045	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Chlorobenzene	108-90-7	U	.00028	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Chlorodibromomethane	124-48-1	U	.0005	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Chloroethane	75-00-3	U	.0013	0.0034	0.0068	mg/kg		8260B	10/29/14	1
Chloroform	67-66-3	U	.00031	0.0034	0.0068	mg/kg		8260B	10/29/14	1

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Reported: 11/14/14 18:33 Revised: 11/18/14 11:00

L729012-06 (PH) - 5.7@21.7c

CA 11/18/15
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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729012-06

Sample ID : TU503-SB10-NS01

Site ID :

Collected By :
Collection Date : 10/20/14 14:45

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00052	0.00068	0.0034	mg/kg		8260B	10/29/14	1
2-Chlorotoluene	95-49-8	U	.00041	0.00068	0.0014	mg/kg		8260B	10/29/14	1
4-Chlorotoluene	106-43-4	U	.00033	0.00068	0.0014	mg/kg		8260B	10/29/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0014	0.0034	0.0068	mg/kg		8260B	10/29/14	1
1,2-Dibromoethane	106-93-4	U	.00046	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Dibromomethane	74-95-3	U	.00052	0.00068	0.0014	mg/kg		8260B	10/29/14	1
1,2-Dichlorobenzene	95-50-1	U	.00041	0.00068	0.0014	mg/kg		8260B	10/29/14	1
1,3-Dichlorobenzene	541-73-1	U	.00033	0.00068	0.0014	mg/kg		8260B	10/29/14	1
1,4-Dichlorobenzene	106-46-7	U	.00031	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Dichlorodifluoromethane	75-71-8	U	.00096	0.0034	0.0068	mg/kg		8260B	10/29/14	1
1,1-Dichloroethane	75-34-3	U	.00027	0.00068	0.0014	mg/kg		8260B	10/29/14	1
1,2-Dichloroethane	107-06-2	U	.00035	0.00068	0.0014	mg/kg		8260B	10/29/14	1
1,1-Dichloroethene	75-35-4	U	.00041	0.00068	0.0014	mg/kg		8260B	10/29/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00033	0.00068	0.0014	mg/kg		8260B	10/29/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00035	0.00068	0.0014	mg/kg		8260B	10/29/14	1
1,2-Dichloropropane	78-87-5	U	.00049	0.00068	0.0014	mg/kg		8260B	10/29/14	1
1,1-Dichloropropene	563-58-6	U	.00043	0.00068	0.0014	mg/kg		8260B	10/29/14	1
1,3-Dichloropropane	142-28-9	U	.00028	0.00068	0.0014	mg/kg		8260B	10/29/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00035	0.00068	0.0014	mg/kg		8260B	10/29/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00037	0.00068	0.0014	mg/kg		8260B	10/29/14	1
2,2-Dichloropropane	594-20-7	U	.00038	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Ethylbenzene	100-41-4	U	.00041	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00046	0.00068	0.0014	mg/kg		8260B	10/29/14	1
2-Hexanone	591-78-6	U	.0052	0.0068	0.014	mg/kg		8260B	10/29/14	1
Isopropylbenzene	98-82-8	U	.00033	0.00068	0.0014	mg/kg		8260B	10/29/14	1
p-Isopropyltoluene	99-87-6	U	.00027	0.00068	0.0014	mg/kg		8260B	10/29/14	1
2-Butanone (MEK)	78-93-3	U	.0064	0.0068	0.014	mg/kg		8260B	10/29/14	1
Methylene Chloride	75-09-2	U	.0014	0.0034	0.0068	mg/kg		8260B	10/29/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0026	0.0068	0.014	mg/kg		8260B	10/29/14	1
Methyl tert-butyl ether	1634-04-4	U	.00028	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Naphthalene <i>FSOL-I</i>	91-20-3	0.0052	.0014	0.0034	0.0068	mg/kg	J	8260B	10/29/14	1
n-Propylbenzene	103-65-1	U	.00028	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Styrene	100-42-5	U	.00031	0.00068	0.0014	mg/kg		8260B	10/29/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00035	0.00068	0.0014	mg/kg		8260B	10/29/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00049	0.0010	0.0014	mg/kg		8260B	10/29/14	1
Tetrachloroethene	127-18-4	U	.00038	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Toluene	108-88-3	U	.00058	0.0034	0.0068	mg/kg		8260B	10/29/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00042	0.00068	0.0014	mg/kg		8260B	10/29/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00053	0.00068	0.0014	mg/kg		8260B	10/29/14	1
1,1,1-Trichloroethane	71-55-6	U	.00039	0.00068	0.0014	mg/kg		8260B	10/29/14	1
1,1,2-Trichloroethane	79-00-5	U	.00038	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Trichloroethene	79-01-6	U	.00038	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Trichlorofluoromethane	75-69-4	U	.00052	0.0034	0.0068	mg/kg		8260B	10/29/14	1
1,2,3-Trichloropropane	96-18-4	U	.001	0.0014	0.0034	mg/kg		8260B	10/29/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.00028	0.00068	0.0014	mg/kg		8260B	10/29/14	1

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L729012-06 (PH) - 5.7@21.7c

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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB10-NS01
Collected By :
Collection Date : 10/20/14 14:45

ESC Sample # : L729012-06

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00046	0.00068	0.0014	mg/kg		8260B	10/29/14	1
m&p-Xylene	1330-20-7	U	.00098	0.0014	0.0027	mg/kg		8260B	10/29/14	1
Vinyl chloride	75-01-4	U	.00039	0.00068	0.0014	mg/kg		8260B	10/29/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00037	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	98.4				% Rec.		8260B	10/29/14	1
Dibromofluoromethane	1868-53-7	102.				% Rec.		8260B	10/29/14	1
4-Bromofluorobenzene	460-00-4	92.0				% Rec.		8260B	10/29/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.2	2.7	5.4	mg/kg		8015	10/28/14	1
C28-C40 Oil Range		U	.37	2.7	5.4	mg/kg		8015	10/28/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	65.9				% Rec.		8015	10/28/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	10/25/14	1
Acenaphthene	83-32-9	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	10/25/14	1
Acenaphthylene	208-96-8	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	10/25/14	1
Benzo(a)anthracene	56-55-3	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	10/25/14	1
Benzo(a)pyrene	50-32-8	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	10/25/14	1
Benzo(b)fluoranthene	205-99-2	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	10/25/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	10/25/14	1
Benzo(k)fluoranthene	207-08-9	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	10/25/14	1
Chrysene	218-01-9	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	10/25/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	10/25/14	1
Fluoranthene	206-44-0	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	10/25/14	1
Fluorene	86-73-7	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	10/25/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	10/25/14	1
Naphthalene	91-20-3	0.0012	.00082	0.0027	0.0027	mg/kg	J	8270C-SI	10/25/14	1
Phenanthrene	85-01-8	0.00083	.00082	0.0027	0.0082	mg/kg	J	8270C-SI	10/25/14	1
Pyrene	129-00-0	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	10/25/14	1
2-Methylnaphthalene	91-57-6	U	.00087	0.0082	0.027	mg/kg		8270C-SI	10/25/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	80.6				% Rec.		8270C-SI	10/25/14	1
Nitrobenzene-d5	4165-60-0	76.4				% Rec.		8270C-SI	10/25/14	1
2-Fluorobiphenyl	321-60-8	77.2				% Rec.		8270C-SI	10/25/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.01	0.23	0.45	mg/kg		8270C	10/27/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.012	0.23	0.45	mg/kg		8270C	10/27/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.01	0.23	0.45	mg/kg		8270C	10/27/14	1
Benzy Alcohol	100-51-6	U	.01	0.23	0.45	mg/kg		8270C	10/27/14	1
Benzoic acid	65-85-0	U	.16	2.3	4.5	mg/kg		8270C	10/27/14	1
Carbazole	86-74-8	U	.0071	0.23	0.45	mg/kg		8270C	10/27/14	1

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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB10-NS01
Collected By :
Collection Date : 10/20/14 14:45

ESC Sample # : L729012-06

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0071	0.23	0.45	mg/kg		8270C	10/27/14	1
4-Bromophenyl-phenylether	101-55-3	U	.015	0.23	0.45	mg/kg		8270C	10/27/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0086	0.23	0.45	mg/kg		8270C	10/27/14	1
2-Chloronaphthalene	91-58-7	U	.0087	0.23	0.45	mg/kg		8270C	10/27/14	1
3,3-Dichlorobenzidine	91-94-1	U	.11	0.23	0.45	mg/kg		8270C	10/27/14	1
2,4-Dinitrotoluene	121-14-2	U	.0083	0.23	0.45	mg/kg		8270C	10/27/14	1
2,6-Dinitrotoluene	606-20-2	U	.01	0.23	0.45	mg/kg		8270C	10/27/14	1
Hexachlorobenzene	118-74-1	U	.012	0.23	0.45	mg/kg		8270C	10/27/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.014	0.23	0.45	mg/kg		8270C	10/27/14	1
Hexachloroethane	67-72-1	U	.018	0.23	0.45	mg/kg		8270C	10/27/14	1
Isophorone	78-59-1	U	.0071	0.23	0.45	mg/kg		8270C	10/27/14	1
Nitrobenzene	98-95-3	U	.0095	0.23	0.45	mg/kg		8270C	10/27/14	1
n-Nitrosodimethylamine	62-75-9	U	.088	0.23	0.45	mg/kg		8270C	10/27/14	1
n-Nitrosodiphenylamine	86-30-6	U	.008	0.23	0.45	mg/kg		8270C	10/27/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.012	0.23	0.45	mg/kg		8270C	10/27/14	1
Benzylbutyl phthalate	85-68-7	U	.014	0.23	0.45	mg/kg	J3	8270C	10/27/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.016	0.23	0.45	mg/kg		8270C	10/27/14	1
Di-n-butyl phthalate	84-74-2	U	.015	0.23	0.45	mg/kg		8270C	10/27/14	1
Diethyl phthalate	84-66-2	U	.0094	0.23	0.45	mg/kg		8270C	10/27/14	1
Dimethyl phthalate	131-11-3	U	.0073	0.23	0.45	mg/kg		8270C	10/27/14	1
Di-n-octyl phthalate	117-84-0	U	.012	0.23	0.45	mg/kg		8270C	10/27/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.012	0.23	0.45	mg/kg		8270C	10/27/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0065	0.23	0.45	mg/kg		8270C	10/27/14	1
2-Chlorophenol	95-57-8	U	.011	0.23	0.45	mg/kg		8270C	10/27/14	1
2,4-Dichlorophenol	120-83-2	U	.01	0.23	0.45	mg/kg		8270C	10/27/14	1
2,4-Dimethylphenol	105-67-9	U	.064	0.23	0.45	mg/kg		8270C	10/27/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.16	0.23	0.45	mg/kg		8270C	10/27/14	1
2,4-Dinitrophenol	51-28-5	U	.13	0.23	0.45	mg/kg		8270C	10/27/14	1
2-Methylphenol	95-48-7	U	.013	0.23	0.45	mg/kg		8270C	10/27/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.01	0.23	0.45	mg/kg		8270C	10/27/14	1
2-Nitrophenol	88-75-5	U	.018	0.23	0.45	mg/kg		8270C	10/27/14	1
4-Nitrophenol	100-02-7	U	.071	0.23	0.45	mg/kg		8270C	10/27/14	1
4-Chloroaniline	106-47-8	U	.0048	0.23	0.45	mg/kg		8270C	10/27/14	1
2-Nitroaniline	88-74-4	U	.01	0.23	0.45	mg/kg		8270C	10/27/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0019	0.23	0.45	mg/kg		8270C	10/27/14	1
3-Nitroaniline	99-09-2	U	.012	0.23	0.45	mg/kg		8270C	10/27/14	1
4-Nitroaniline	100-01-6	U	.0087	0.23	0.45	mg/kg		8270C	10/27/14	1
Pentachlorophenol	87-86-5	U	.065	0.23	0.45	mg/kg		8270C	10/27/14	1
Phenol	108-95-2	U	.0095	0.23	0.45	mg/kg		8270C	10/27/14	1
2,4,5-Trichlorophenol	95-95-4	U	.014	0.23	0.45	mg/kg		8270C	10/27/14	1
2,4,6-Trichlorophenol	88-06-2	U	.01	0.23	0.45	mg/kg		8270C	10/27/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	57.9				% Rec.		8270C	10/27/14	1
Phenol-d5	4165-62-2	57.3				% Rec.		8270C	10/27/14	1

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DNR = do not report

KA 11/14/15
BMS 2/15/15
34 of 1741



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB10-NS01
 Collected By :
 Collection Date : 10/20/14 14:45

ESC Sample # : L729012-06
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	54.5				% Rec.	8270C	10/27/14	1
2-Fluorobiphenyl	321-60-8	61.6				% Rec.	8270C	10/27/14	1
2,4,6-Tribromophenol	118-79-6	66.2				% Rec.	8270C	10/27/14	1
p-Terphenyl-d14	1718-51-0	53.4				% Rec.	8270C	10/27/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/14/14 18:33 Revised: 11/18/14 11:00

L729012-06 (PH) - 5.7@21.7c

KA-1/14/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729012-07

Sample ID : TU503-SB10-NS02

Site ID :

Collected By :
Collection Date : 10/20/14 14:50

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	5.9				su		9045D	10/24/14	1
Total Solids	TSOLIDS	70.6	.0333			%		2540 G-2	10/25/14	1
Mercury	7439-97-6	U	.004	0.014	0.028	mg/kg		7471	10/23/14	1
Aluminum	7429-90-5	7400	5	7.1	14.	mg/kg	B	6010B	10/27/14	1
Antimony	7440-36-0	U	1.1	1.4	2.8	mg/kg		6010B	10/27/14	1
Arsenic	7440-38-2	U	.92	1.4	2.8	mg/kg		6010B	10/27/14	1
Barium	7440-39-3	30.	.24	0.35	0.71	mg/kg		6010B	10/27/14	1
Beryllium	7440-41-7	0.24	.099	0.14	0.28	mg/kg	J	6010B	10/27/14	1
Cadmium	7440-43-9	U	.099	0.35	0.71	mg/kg		6010B	10/27/14	1
Chromium	7440-47-3	7.9	.2	0.71	1.4	mg/kg		6010B	10/27/14	1
Cobalt	7440-48-4	3.1	.32	0.71	1.4	mg/kg		6010B	10/27/14	1
Copper	7440-50-8	U	.75	1.4	2.8	mg/kg		6010B	10/27/14	1
Lead	7439-92-1	1.8	.27	0.35	0.71	mg/kg		6010B	10/27/14	1
Manganese	7439-96-5	59.	.17	0.71	1.4	mg/kg		6010B	10/27/14	1
Nickel	7440-02-0	4.7	.69	1.4	2.8	mg/kg		6010B	10/27/14	1
Selenium	7782-49-2	U	1	1.4	2.8	mg/kg		6010B	10/27/14	1
Silver	7440-22-4	U	.4	0.71	1.4	mg/kg		6010B	10/27/14	1
Thallium	7440-28-0	U	.92	1.4	2.8	mg/kg		6010B	10/27/14	1
Vanadium	7440-62-2	21.	.34	1.4	2.8	mg/kg		6010B	10/27/14	1
Zinc	7440-66-6	18.	.84	3.5	7.1	mg/kg		6010B	10/27/14	1
TPH (GC/FID) Low Fraction	8006-61-9	32.	.62	1.5	2.9	mg/kg		8015D/GR	10/29/14	20.5
Surrogate Recovery (70-130)										
a,a,a-Trifluorotoluene (FID)	98-08-8	100.				% Rec.		8015D/GR	10/29/14	20.5
Volatile Organics										
Acetone	67-64-1	U	.28	0.69	1.4	mg/kg		8260B	10/29/14	19.5
Benzene	71-43-2	U	.0075	0.014	0.028	mg/kg		8260B	10/29/14	19.5
Bromobenzene	108-86-1	U	.0078	0.014	0.028	mg/kg		8260B	10/29/14	19.5
Bromochloromethane	74-97-5	U	.011	0.014	0.028	mg/kg		8260B	10/29/14	19.5
Bromodichloromethane	75-27-4	U	.0071	0.014	0.028	mg/kg		8260B	10/29/14	19.5
Bromoform	75-25-2	U	.012	0.014	0.028	mg/kg		8260B	10/29/14	19.5
Bromomethane	74-83-9	U	.037	0.069	0.14	mg/kg		8260B	10/29/14	19.5
n-Butylbenzene	104-51-8	0.55	.0071	0.014	0.028	mg/kg		8260B	10/29/14	19.5
sec-Butylbenzene	135-98-8	0.89	.0055	0.014	0.028	mg/kg		8260B	10/29/14	19.5
tert-Butylbenzene	98-06-6	0.017	.0057	0.014	0.028	mg/kg	J	8260B	10/29/14	19.5
Carbon Disulfide	75-15-0	U	.0078	0.014	0.028	mg/kg		8260B	10/29/14	19.5
Carbon tetrachloride	56-23-5	U	.0091	0.014	0.028	mg/kg		8260B	10/29/14	19.5
Chlorobenzene	108-90-7	U	.0058	0.014	0.028	mg/kg		8260B	10/29/14	19.5
Chlorodibromomethane	124-48-1	U	.01	0.014	0.028	mg/kg		8260B	10/29/14	19.5
Chloroethane	75-00-3	U	.025	0.069	0.14	mg/kg		8260B	10/29/14	19.5
Chloroform	67-66-3	U	.0064	0.069	0.14	mg/kg		8260B	10/29/14	19.5

Results listed are dry weight basis.

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Reported: 11/14/14 18:33 Revised: 11/18/14 11:00

L729012-07 (SV8270BNA) - Diluted due to matrix

L729012-07 (PH) - 5.9@21.8c

11/14/15
36 of 1741
BMS 2/19/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729012-07

Sample ID : TU503-SB10-NS02

Site ID :

Collected By :
Collection Date : 10/20/14 14:50

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.01	0.014	0.069	mg/kg		8260B	10/29/14	19.5
2-Chlorotoluene	95-49-8	U	.0084	0.014	0.028	mg/kg		8260B	10/29/14	19.5
4-Chlorotoluene	106-43-4	U	.0066	0.014	0.028	mg/kg		8260B	10/29/14	19.5
1,2-Dibromo-3-Chloropropane	96-12-8	U	.028	0.069	0.14	mg/kg		8260B	10/29/14	19.5
1,2-Dibromoethane	106-93-4	U	.0095	0.014	0.028	mg/kg		8260B	10/29/14	19.5
Dibromomethane	74-95-3	U	.01	0.014	0.028	mg/kg		8260B	10/29/14	19.5
1,2-Dichlorobenzene	95-50-1	U	.0084	0.014	0.028	mg/kg		8260B	10/29/14	19.5
1,3-Dichlorobenzene	541-73-1	U	.0066	0.014	0.028	mg/kg		8260B	10/29/14	19.5
1,4-Dichlorobenzene	106-46-7	U	.0062	0.014	0.028	mg/kg		8260B	10/29/14	19.5
Dichlorodifluoromethane	75-71-8	U	.02	0.069	0.14	mg/kg		8260B	10/29/14	19.5
1,1-Dichloroethane	75-34-3	U	.0055	0.014	0.028	mg/kg		8260B	10/29/14	19.5
1,2-Dichloroethane	107-06-2	U	.0074	0.014	0.028	mg/kg		8260B	10/29/14	19.5
1,1-Dichloroethene	75-35-4	U	.0084	0.014	0.028	mg/kg		8260B	10/29/14	19.5
cis-1,2-Dichloroethene	156-59-2	U	.0065	0.014	0.028	mg/kg		8260B	10/29/14	19.5
trans-1,2-Dichloroethene	156-60-5	U	.0072	0.014	0.028	mg/kg		8260B	10/29/14	19.5
1,2-Dichloropropane	78-87-5	U	.0099	0.014	0.028	mg/kg		8260B	10/29/14	19.5
1,1-Dichloropropene	563-58-6	U	.0088	0.014	0.028	mg/kg		8260B	10/29/14	19.5
1,3-Dichloropropene	142-28-9	U	.0057	0.014	0.028	mg/kg		8260B	10/29/14	19.5
cis-1,3-Dichloropropene	10061-01-5	U	.0072	0.014	0.028	mg/kg		8260B	10/29/14	19.5
trans-1,3-Dichloropropene	10061-02-6	U	.0074	0.014	0.028	mg/kg		8260B	10/29/14	19.5
2,2-Dichloropropane	594-20-7	U	.0076	0.014	0.028	mg/kg		8260B	10/29/14	19.5
Ethylbenzene <i>F SOL-I</i>	100-41-4	0.020	.0082	0.014	0.028	mg/kg	J	8260B	10/29/14	19.5
Hexachloro-1,3-butadiene	87-68-3	U	.0095	0.014	0.028	mg/kg		8260B	10/29/14	19.5
2-Hexanone	591-78-6	U	.1	0.14	0.28	mg/kg		8260B	10/29/14	19.5
Isopropylbenzene	98-82-8	0.16	.0066	0.014	0.028	mg/kg		8260B	10/29/14	19.5
p-Isopropyltoluene	99-87-6	U	.0057	0.014	0.028	mg/kg		8260B	10/29/14	19.5
2-Butanone (MEK)	78-93-3	U	.13	0.14	0.28	mg/kg		8260B	10/29/14	19.5
Methylene Chloride <i>F SOL-I</i>	75-09-2	0.028	.028	0.069	0.14	mg/kg	J	8260B	10/29/14	19.5
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.052	0.14	0.28	mg/kg		8260B	10/29/14	19.5
Methyl tert-butyl ether	1634-04-4	U	.0058	0.014	0.028	mg/kg		8260B	10/29/14	19.5
Naphthalene <i>DNR</i>	91-20-3	U	.028	0.069	0.14	mg/kg		8260B	10/29/14	19.5
n-Propylbenzene	103-65-1	0.18	.0057	0.014	0.028	mg/kg		8260B	10/29/14	19.5
Styrene	100-42-5	U	.0065	0.014	0.028	mg/kg		8260B	10/29/14	19.5
1,1,1,2-Tetrachloroethane	630-20-6	U	.0072	0.014	0.028	mg/kg		8260B	10/29/14	19.5
1,1,2,2-Tetrachloroethane	79-34-5	U	.01	0.021	0.028	mg/kg		8260B	10/29/14	19.5
Tetrachloroethene	127-18-4	U	.0076	0.014	0.028	mg/kg		8260B	10/29/14	19.5
Toluene	108-88-3	U	.012	0.069	0.14	mg/kg		8260B	10/29/14	19.5
1,2,3-Trichlorobenzene	87-61-6	U	.0085	0.014	0.028	mg/kg		8260B	10/29/14	19.5
1,2,4-Trichlorobenzene	120-82-1	U	.011	0.014	0.028	mg/kg		8260B	10/29/14	19.5
1,1,1-Trichloroethane	71-55-6	U	.0079	0.014	0.028	mg/kg		8260B	10/29/14	19.5
1,1,2-Trichloroethane	79-00-5	U	.0076	0.014	0.028	mg/kg		8260B	10/29/14	19.5
Trichloroethene	79-01-6	U	.0076	0.014	0.028	mg/kg		8260B	10/29/14	19.5
Trichlorofluoromethane	75-69-4	U	.01	0.069	0.14	mg/kg		8260B	10/29/14	19.5
1,2,3-Trichloropropane	96-18-4	U	.02	0.028	0.069	mg/kg		8260B	10/29/14	19.5
1,2,4-Trimethylbenzene <i>F SOL-I</i>	95-63-6	0.023	.0058	0.014	0.028	mg/kg	J	8260B	10/29/14	19.5

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Reported: 11/14/14 18:33 Revised: 11/18/14 11:00

L729012-07 (SV8270BNA) - Diluted due to matrix

L729012-07 (PH) - 5.9@21.8c

DNR: Do Not Report

KA 11/14/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB10-NS02
Collected By :
Collection Date : 10/20/14 14:50

ESC Sample # : L729012-07
Site ID :
Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
<i>f SOL-I</i> o-Xylene	95-47-6	0.010	.0093	0.014	0.028	mg/kg	J	8260B	10/29/14	19.5
m&p-Xylene	1330-20-7	U	.02	0.028	0.055	mg/kg		8260B	10/29/14	19.5
Vinyl chloride	75-01-4	U	.0081	0.014	0.028	mg/kg		8260B	10/29/14	19.5
1,3,5-Trimethylbenzene	108-67-8	U	.0074	0.014	0.028	mg/kg		8260B	10/29/14	19.5
Surrogate Recovery										
Toluene-d8	2037-26-5	100.				% Rec.		8260B	10/29/14	19.5
Dibromofluoromethane	1868-53-7	92.3				% Rec.		8260B	10/29/14	19.5
4-Bromofluorobenzene	460-00-4	156.				% Rec.	J1	8260B	10/29/14	19.5
Diesel and Oil Ranges										
C10-C28 Diesel Range		12000	230	280	570	mg/kg		8015	10/29/14	100
C28-C40 Oil Range		85.	.38	2.8	5.7	mg/kg		8015	10/28/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	0.00				% Rec.	J7	8015	10/29/14	100
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	1.2	.017	0.057	0.17	mg/kg		8270C-SI	10/27/14	20
Acenaphthene	83-32-9	3.1	.017	0.057	0.17	mg/kg		8270C-SI	10/27/14	20
Acenaphthylene	208-96-8	0.72	.017	0.057	0.17	mg/kg		8270C-SI	10/27/14	20
Benzo(a)anthracene	56-55-3	0.59	.017	0.057	0.17	mg/kg		8270C-SI	10/27/14	20
Benzo(a)pyrene	50-32-8	0.31	.017	0.057	0.17	mg/kg		8270C-SI	10/27/14	20
Benzo(b)fluoranthene	205-99-2	0.34	.017	0.057	0.17	mg/kg		8270C-SI	10/27/14	20
Benzo(g,h,i)perylene	191-24-2	0.095	.017	0.057	0.17	mg/kg	J	8270C-SI	10/27/14	20
Benzo(k)fluoranthene	207-08-9	0.13	.017	0.057	0.17	mg/kg	J	8270C-SI	10/27/14	20
Chrysene	218-01-9	0.45	.017	0.057	0.17	mg/kg		8270C-SI	10/27/14	20
Dibenz(a,h)anthracene	53-70-3	0.030	.017	0.057	0.17	mg/kg	J	8270C-SI	10/27/14	20
Fluoranthene	206-44-0	1.7	.017	0.057	0.17	mg/kg		8270C-SI	10/27/14	20
Fluorene	86-73-7	5.8	.017	0.057	0.17	mg/kg		8270C-SI	10/27/14	20
Indeno(1,2,3-cd)pyrene	193-39-5	0.092	.017	0.057	0.17	mg/kg	J	8270C-SI	10/27/14	20
Naphthalene	91-20-3	0.99	.017	0.17	0.57	mg/kg		8270C-SI	10/27/14	20
Phenanthrene	85-01-8	12.	.017	0.057	0.17	mg/kg		8270C-SI	10/27/14	20
Pyrene	129-00-0	1.8	.017	0.057	0.17	mg/kg		8270C-SI	10/27/14	20
2-Methylnaphthalene	91-57-6	0.058	.018	0.17	0.57	mg/kg	J	8270C-SI	10/27/14	20
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	88.2				% Rec.		8270C-SI	10/27/14	20
Nitrobenzene-d5	4165-60-0	3490				% Rec.	J1	8270C-SI	10/27/14	20
2-Fluorobiphenyl	321-60-8	115.				% Rec.		8270C-SI	10/27/14	20
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.11	2.4	4.7	mg/kg		8270C	10/27/14	10
Bis(2-chloroethyl)ether	111-44-4	U	.13	2.4	4.7	mg/kg		8270C	10/27/14	10
Bis(2-chloroisopropyl)ether	108-60-1	U	.11	2.4	4.7	mg/kg		8270C	10/27/14	10
Benzyl Alcohol	100-51-6	U	.11	2.4	4.7	mg/kg		8270C	10/27/14	10
Benzoic acid	65-85-0	U	1.7	24.	47	mg/kg		8270C	10/27/14	10
Carbazole	86-74-8	U	.074	2.4	4.7	mg/kg		8270C	10/27/14	10

Results listed are dry weight basis.

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L729012-07 (SV8270BNA) - Diluted due to matrix

L729012-07 (PH) - 5.9@21.8c

KA/11/15

BMS 1/2/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729012-07

Sample ID : TU503-SB10-NS02

Site ID :

Collected By :
Collection Date : 10/20/14 14:50

Project # : 23446543.0055AA

Table with columns: Parameter, CAS#, Result, DL, LOD, LOQ, Units, Qual, Method, Date, Dil. Includes rows for various chemical compounds like Dibenzofuran, Chlorophenol, and Phenol, with handwritten annotations 'DNR' and 'J3'.

Results listed are dry weight basis.

U = Not Detected at the LOD

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L729012-07 (SV8270BNA) - Diluted due to matrix

L729012-07 (PH) - 5.9@21.8c

DNR = do not report

Handwritten signatures and dates: KA 1/14/15, BWS 2/17/15, 39 of 1741



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB10-NS02
 Collected By :
 Collection Date : 10/20/14 14:50

ESC Sample # : L729012-07
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	67.4				% Rec.		8270C	10/27/14	10
2-Fluorobiphenyl	321-60-8	54.9				% Rec.		8270C	10/27/14	10
2,4,6-Tribromophenol	118-79-6	53.5				% Rec.		8270C	10/27/14	10
p-Terphenyl-d14	1718-51-0	49.7				% Rec.		8270C	10/27/14	10

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L729012-07 (SV8270BNA) - Diluted due to matrix

L729012-07 (PH) - 5.9@21.8c

CA 11/18/15

**Holloman AFB
Groundwater Monitoring
Data Review Summary**

Data Package Number: L729021
 Sampling Event Dates: October 20-21, 2014
 Sample-specific Parameter Review/Laboratory Performance Parameters: Yes
 Full Validation (e.g. result recalculation): No
 Data Reviewer: Katie Abbott, URS Project Chemist
 Date Completed: January 16, 2015
 Peer Reviewer: Sheri Fling, URS Project Quality Assurance Manager (QAM)

The table below summarizes the data package and sample identifications discussed in this data review.

Field Identification	Sample Type	Lab Identification	Matrix	Analyses						
				GRO	VOCs	PAHs	DRO/ORO	SVOCs	Total Metals	pH
L729021										
TU503-SB02-NS02	SA	L729021-01	Soil	X	X	X	X	X	X	X
TU503-SB02-NS01	SA	L729021-02	Soil	X ^m	X					
TU503-TRIPBLANK02-NT01	TB	L729021-03	Water	X	X	---	---	---	---	---

Sample Type: SA – Sample TB – Trip Blank
 X^m - Matrix Spike/Matrix Spike Duplicate

Analyses: Analyses:
 DRO/ORO - Diesel and Oil Range Organics (8015)
 GRO – Gasoline Range Organics (8015D)
 TDS – Total Dissolved Solids (SM2540C)
 Total/ Metals – Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Manganese, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc, Mercury (6010B/7470A)
 PAH – Polynuclear Aromatic Hydrocarbons (8270C SIM)
 SIM – Selective Ion Monitoring
 SVOCs – Semivolatile Organic Compounds (8270C)
 VOCs – Volatile Organic Compounds (8260B)

The data review was conducted in accordance with the Final Interim Measures Work Plan – Appendix A, Sampling and Analysis Plan/Quality Assurance Project Plan: Former Septic System Site TU904 (URS, September 2014); Group 2 Former Underground Storage Sites: AOC-UST-889 (TU515) (URS, September 2014); and Group 3 Former Underground Storage Tank Sites: AOC-UST-221 (TU503), AOC-UST-298 (TU508), AOC-UST-901 (TU506) and AOC-UST-7003 (TU518) (URS, August 2014); data validation standard operating procedure (SOP) 14; Department of Defense (DoD) Quality Systems Manual version 4.2 (DoD, 2010); and method requirements.

General Overall Assessment:

- Data are usable without qualification.
- Data are usable with qualification (noted below).
- Some or all data are unusable for any purpose (detailed below).

Case Narrative Comments: Any laboratory case narrative comments concerning data qualification were addressed in the table below.

Trace level detects, reported between the method detection limit (MDL) and the reporting limit (LOQ), have been qualified as estimated (F SQL-I). All other occurrences of data qualification are covered in the following table.

Review Parameter	Criteria Met?	Comment
Chain of Custody & Sample Receipt	Yes	The samples were received by ESC Lab Sciences in good condition and were consistent with the accompanying chain of custody (COC). The cooler temperatures upon receipt were within the recommended ≤ 6 degrees Celsius ($^{\circ}\text{C}$) temperature range.
Reporting	Yes	<p>During review of a representative data package selected for full validation, it was noted that improper reference spectra were displayed in the printed version of the data package for Method 8260B. Due to a LIMS limitation, the data package reference spectra were not consistently representative of the actual spectra for the analytes detected. Because the laboratory data review involves the use of NBS reference spectra and not the reference spectra taken from the instrument calibration, the analyst was not seeing the improper alignment of spectra noted in the data package during his/her review at the instrument. The laboratory revised and reissued the data package with correct reference spectral data, consistent with method requirements, and no results were changed. Therefore, no further action is necessary as a result of this validation finding.</p> <p>Method 8270C Semivolatile Organic Compounds (SVOCs)</p> <p>The results for 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene are not reported by Method 8270C SVOCs but are reported by Method 8260B volatile organic compounds (VOCs). As the detection limits (DLs), limits of detection (LODs), and limits of quantitation (LOQs) are lower by Method 8260B, further action was not necessary.</p> <p>The laboratory noted 4-methylphenol cannot be reported as 3 & 4-methylphenol coelute during the analysis; therefore, the analytes are reported together and 3&4-methylphenol on the data sheets and in the electronic database.</p>
Holding Times	Yes	All samples were analyzed within the method required holding time.
Laboratory Blanks <ul style="list-style-type: none"> Method Blank Initial/Continuing Calibration Blank 	No	With the exception listed in Table 1, target analytes were not detected within the method or calibration blanks.
Matrix Quality Control <ul style="list-style-type: none"> Matrix Spike/ Matrix Spike Duplicate TU503-SB02-NS01 (Metals, GRO, VOCs, DRO, SVOCs, PAHs) Laboratory Duplicate None in this package	No	<p>Matrix Spike/ Matrix Spike Duplicate (MS/MSD)</p> <p>The frequency of MS/MSDs met the quality assurance project plan (QAPP) requirement of one per twenty samples.</p> <p>With the exceptions listed in Table 2, the MS/MSD recoveries and relative percent differences (RPDs) met quality control criteria.</p> <p>The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the sample matrix could not be assessed for oil range organics (ORO).</p> <p>Results in the native sample greater than four times the concentration of the spike added during digestions/extractions are not considered to be a</p>

Review Parameter	Criteria Met?	Comment
		<p>representative measure of accuracy. Further action with respect to spike recovery evaluation or qualification of data was not considered necessary.</p> <p>Consistent with standard operating procedure (SOP) 14, when MS/MSD issues accounted for less than 35% of the MS/MSD analyses conducted, applicable data qualification was limited to qualification of the parent sample of the affected analyte. When >35% of the MS/MSD results did not meet criteria, evaluation was extended to all associated samples. See Section 4.1 of the data validation report for overall qualifiers resulting from the MS/MSD evaluation.</p> <p>Laboratory Duplicate</p> <p>A laboratory duplicate was not performed on a sample from this data package.</p>
<p>Metals Only</p> <ul style="list-style-type: none"> • Serial Dilution TU503-SB02-NS01 (Metals) • Post Digestion Spike TU503-SB02-NS01 (6010 Metals) 	No	<p>Serial Dilution (Metals Only)</p> <p>Consistent with the method, only the results that were greater than 50 times their respective DLs were appropriate for comparing to the serial dilution evaluation criterion. All percent differences (%Ds) between the original sample results and the results obtained from the sample-diluted 1:5 were ≤10%.</p> <p>Post Digestion Spike (PDS) (Metals Only)</p> <p>With the exceptions listed in Table 3, all PDS recoveries were within the acceptance limits.</p>
<p>Method Quality Control</p> <ul style="list-style-type: none"> • Surrogates (VOCs, SVOCs, PAHs, GRO, DRO/ORO) 	Yes	<p>The surrogate recoveries were within the laboratory specified acceptance criteria.</p>
<p>Field Quality Control</p> <ul style="list-style-type: none"> • Trip Blank TU503-TRIPBLANK02-NT01 (GRO, VOCs) • Field Duplicate None in this package • Equipment Blank None in this package • Field Blank None in this package 	Yes	<p>Trip Blank</p> <p>Target analytes were not detected in the trip blank.</p> <p>Field Duplicate</p> <p>The frequency of field duplicates met the QAPP requirement of one per twenty samples.</p> <p>A field duplicate was not submitted with the data package.</p> <p>Consistent with SOP 14, when field duplicate issues accounted for less than 35% of the field duplicate analyses conducted, applicable data qualification was limited to qualification of the parent sample for the affected analyte. When >35% of the field duplicate results did not meet criteria, evaluation was extended to all associated samples. See Section 4.3 of the data validation report for overall qualifiers resulting from the field duplicate evaluation.</p> <p>Equipment Blank</p> <p>As dedicated equipment was used to collect these samples, an equipment blank was not submitted for this sampling event. Further action was not necessary.</p> <p>Field Blank</p> <p>The frequency of field blanks met the QAPP requirement of one per twenty samples.</p>

Review Parameter	Criteria Met?	Comment
		A field blank was not submitted with this data package. See Section 4.4 of the data validation report for overall qualifiers resulting from the field blank evaluation.
LODs met?	Yes	No results were reported as non-detect at elevated LODs.
Other Parameters	Yes	<p>Naphthalene (8260B and 8270C-PAHs) and hexachloro-1,3-butadiene and 1,2,4-trichlorobenzene (8260B and 8270C) were analyzed by multiple methods. Results were selected for reporting using the following criteria:</p> <ul style="list-style-type: none"> • If both results were non-detect, the non-detect result with the lower DL was selected. • If both results were reported as detected, the higher detected result was selected for reporting. • If one result was reported as non-detect and the other result was reported as detected, the detected result was selected for reporting.
Initial Calibration	Yes	<p>Methods 8260B VOCs & 8270C SVOCs</p> <p>A minimum relative response factor (RRF) of 0.05 was used for the system performance check compounds (SPCCs) and all SPCCs met this criterion. The percent relative standard deviations (%RSDs) over the initial calibration RRFs for all calibration check compounds (CCCs) satisfied the method requirement of <30%. For all other target compounds, a requirement of 15% was used. The %RSD values for all target analytes in the calibration were less than 15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)</p> <p>The %RSD values for all target analytes in the calibration were less than 20%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8015D Gasoline Range Organics (GRO)/Diesel Range Organics (DRO)/ORO</p> <p>The relationship between instrument response and concentration was established with a blank and at least five standards for the entire carbon range of C10-C40. The %RSD over the initial calibrations curve satisfied the method requirement of <15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Methods 6010B (Inductively Coupled Plasma [ICP] Metals)</p> <p>The initial calibrations (ICALs) were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with a blank and at least one standard. The calibrations were verified with the analysis of an initial calibration verification (ICV) standard. All metals were recovered within the method acceptance range of 90-110%.</p> <p>Method 7470A (Mercury)</p> <p>The ICALs were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with five standards. The correlation coefficient was >0.995. The calibration was verified with the analysis of an ICV standard. The analytes were recovered within the acceptance range of 90-110%.</p>

Review Parameter	Criteria Met?	Comment
		Response and linearity criteria were met and data qualification on the basis of initial calibration was not necessary.
Initial Calibration Verification/Continuing Calibration Verification	No	<p>Method 8260B VOCs</p> <p>With the exception listed in Table 4, the percent differences (%Ds) for all CCCs in the ICVs and continuing calibrations (CCALs) were less than 20%, satisfying method requirements, and other target analytes satisfied the %D criterion of 20%.</p> <p>Methods 8270C PAHs/SVOCs</p> <p>The %D values for all target analytes in the calibration were less than 20%. Therefore, the ICVs and CCALs met method acceptance criteria.</p> <p>Method 8015D GRO/DRO/ORO</p> <p>The %Ds for all target compounds in the ICVs and CCALs were less than 15%. Data qualification was not necessary.</p> <p>Methods 6010B (ICP Metals) & 7470A (Mercury)</p> <p>Calibration verification analyses were conducted at the proper frequency. All metals were recovered within the DOD QSM 4.2 low level acceptance range of 80-120% and the method medium/high acceptance range of 90-110%.</p>
Interference Check Standard (Metals Only)	No	<p>The interference check standard (ICS) AB solutions were analyzed at the proper frequency. The target analytes were recovered within the acceptance range of 80-120% in the ICS A solution. With the exceptions listed in Table 4, interferent elements were not present in the samples at concentrations greater than those in the ICSs.</p> <p>The interferent elements aluminum, calcium, iron, and magnesium were present in most samples in this data package at concentrations greater than or equal to those in the ICSs. As such, these samples were evaluated for positive and negative biases suggested by the ICS A. Data qualification was issued if the absolute value of the ICS A result was greater than the DL and it suggested a positive or negative bias which accounted for more than 25% of associated sample results or LODs. (Note: The ICS A solution only contains the interferent elements aluminum, calcium, iron, and magnesium so any positive or negative result for other analytes is inferred to be a bias potentially caused by one or more of the interferent elements present). Table 4 summarizes the resultant data qualification on the basis of the ICS results.</p>
Internal Standard (VOCs/SVOCs/PAHs/Metals (6020))	Yes	Recoveries for the internal standards in field samples were within the applicable acceptance limits. Therefore, data qualification based on internal standards was not necessary.
Laboratory Control Sample/ Laboratory Control Sample Duplicate	No	One laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) per method per analytical batch was prepared and analyzed. With the exceptions listed in Table 6, all of the LCS recoveries and LCS/LCSD RPDs were within the QAPP acceptance limits. These results are indicative of an acceptable level of accuracy and precision with respect to the analytical method.

Review Parameter	Criteria Met?	Comment
		Method 8015 DRO/ORO The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the method could not be assessed for ORO.
Package Completeness	Yes	The results are usable as qualified for the project objective. The data are 100% complete.

> - Greater Than
 < - Less Than
 ≤ - Less Than or Equal to
 °C – Degrees Celsius
 % - Percent

%Ds – Percent Differences
 %RSD – Percent Relative Standard Deviation
 CCALs – Continuing Calibrations
 CCCs – Calibration Check Compounds
 COC – Chain of Custody
 COD – Coefficient of Determination
 DLs – Detection Limits
 DRO – Diesel Range Organics
 GRO – Gasoline Range Organics
 ICAL – Initial Calibration
 ICP – Inductively Coupled Plasma
 ICS – Interference Check Standard

ICV – Initial Calibration Verification
 LCS – Laboratory Control Sample
 LCSD – Laboratory Control Sample Duplicate
 LOD – Limit of Detection
 LOQ – Limit of Quantitation
 MS/MSD – Matrix Spike/ Matrix Spike Duplicate
 ORO – Oil Range Organics
 PAHs – Polynuclear Aromatic Hydrocarbons
 PDS – Post Digestion Spike
 QAPP – Quality Assurance Project Plan
 RPDs – Relative Percent Differences
 RRF – Relative Response Factor
 SOP – Standard Operating Procedure
 SPCCs – System Performance Check Compounds
 SVOCs – Semivolatile Organic Compounds
 VOCs – Volatile Organic Compounds

Table 1: Blank Outliers and Resultant Data Qualification

Associated Samples	Analyte	Concentration	Qualification
Total Metals			
MB Batch WG750258 TU503-SB02-NS02 TU503-SB02-NS01	Aluminum	6.28 mg/Kg	None. The associated results were reported at concentrations >5x the concentration of the blank contamination.
	Zinc	1.41 mg/Kg	The associated zinc result for sample TU503-SB02-NS01 was reported at a concentration <5x the concentration of the blank contamination and was qualified as non-detect (U MB-I).
PAHs			
MB Batch WG750213 TU503-SB02-NS02 TU503-SB02-NS01	Naphthalene	0.000933 mg/Kg	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).

> - Greater Than
 MB – Method Blank

< - Less Than
 PAHs – Polynuclear Aromatic Hydrocarbons

I – Indeterminate Bias
 U – Non-detect

Table 2: Post-Digestion Spike Outliers and Resultant Data Qualification

Associated Samples	Analyte	%R (Limits)	Qualification
Total Metals			
TU503-SB02-NS01	Selenium	126 (75-125)	As the potential bias was considered to be high, and the associated selenium result was reported as non-detect, data qualification was not considered necessary.

%R – Percent Recovery
Bold indicates a recovery or RPD outside of acceptance limit

PDS – Post Digestion Spike

Table 3: Initial/Continuing Calibration Verification Outliers and Resultant Data Qualification

Associated Samples	Analyte	%D (Limit)	Data Qualification
SVOCs			
TU503-SB02-NS02 TU503-SB02-NS01	n-Nitrosodimethylamine	-26.4 (±20)	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ CCAL-L).

± - Plus or minus
L – Low Bias

%D – Percent Difference
SVOCs – Semivolatile Organic Compounds

CCAL – Continuing Calibration
UJ - Estimated

Table 4: ICS Outliers and Resultant Data Qualification

Interferent Element	Analyte	ICS A (µg/L)	MDL (µg/L)	Qualified Samples	Qualification
Aluminum, Calcium, Iron, Magnesium	Cadmium	-0.9	0.7	TU503-SB02-NS02 TU503-SB02-NS01	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ/J ICS-L).
	Nickel	-10.8	4.9		
	Selenium	-7.6	7.4		As the potential bias was considered to be high, the associated detected lead results were qualified as estimated (J ICS-H).
	Lead	29.9	1.9		

µg/L – Micrograms per Liter
L – Low Bias

H – High Bias
MDL – Method Detection Limit

ICS – Interference Check Standard
UJ/J - Estimated

Table 5: LCS Recovery Outliers and Resultant Data Qualification

Associated Samples	Analyte	%R (Limits)	RPD (Limits)	Qualification
Metals				
LCS WG750258 TU503-SB02-NS02 TU503-SB02-NS01	Aluminum	123/119 (80-120)	3 (50)	As the potential bias was considered to be high, the associated detected aluminum results for all samples were qualified as estimated (J LCS-H).
LCS WG750210 TU503-SB02-NS02 TU503-SB02-NS01	Mercury	125/104 (80-120)	18 (50)	As the potential bias was considered to be high and the associated sample results were reported as non-detect, data qualification was not considered necessary.

%R – Percent Recoveries

J – Estimated

H – High Bias

LCS – Laboratory Control Sample

Bold indicates a recovery outside of acceptance limits.



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB02-NS02
Collected By :
Collection Date : 10/20/14 15:40

ESC Sample # : L729021-01

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.0				su		9045D	10/24/14	1
Total Solids	TSOLIDS	75.0	.0333			%		2540 G-2	10/26/14	1
Mercury	7439-97-6	U	.0037	0.013	0.027	mg/kg		7471	10/23/14	1
Aluminum	7429-90-5	3300	4.7	6.7	13.	mg/kg	B	6010B	10/27/14	1
Antimony	7440-36-0	U	.1	1.3	2.7	mg/kg		6010B	10/27/14	1
Arsenic	7440-38-2	1.0	.87	1.3	2.7	mg/kg	J	6010B	10/27/14	1
Barium	7440-39-3	29.	.23	0.33	0.67	mg/kg		6010B	10/27/14	1
Beryllium	7440-41-7	U	.093	0.13	0.27	mg/kg		6010B	10/27/14	1
Cadmium	7440-43-9	U	.093	0.33	0.67	mg/kg		6010B	10/27/14	1
Chromium	7440-47-3	3.7	.19	0.67	1.3	mg/kg		6010B	10/27/14	1
Cobalt	7440-48-4	1.3	.31	0.67	1.3	mg/kg		6010B	10/27/14	1
Copper	7440-50-8	U	.71	1.3	2.7	mg/kg		6010B	10/27/14	1
Lead	7439-92-1	1.9	.25	0.33	0.67	mg/kg		6010B	10/27/14	1
Manganese	7439-96-5	45.	.16	0.67	1.3	mg/kg		6010B	10/27/14	1
Nickel	7440-02-0	2.5	.65	1.3	2.7	mg/kg	J	6010B	10/27/14	1
Selenium	7782-49-2	U	.99	1.3	2.7	mg/kg		6010B	10/27/14	1
Silver	7440-22-4	U	.37	0.67	1.3	mg/kg		6010B	10/27/14	1
Thallium	7440-28-0	U	.87	1.3	2.7	mg/kg		6010B	10/27/14	1
Vanadium	7440-62-2	7.9	.32	1.3	2.7	mg/kg		6010B	10/27/14	1
Zinc	7440-66-6	9.6	.79	3.3	6.7	mg/kg		6010B	10/27/14	1
TPH (GC/FID) Low Fraction	8006-61-9	U	.029	0.067	0.13	mg/kg		8015D/GR	10/29/14	1
Surrogate Recovery (70-130) a, a, a-Trifluorotoluene (FID)	98-08-8	101.				% Rec.		8015D/GR	10/29/14	1
Volatile Organics										
Acetone	67-64-1	0.021	.013	0.033	0.067	mg/kg	J	8260B	10/29/14	1
Benzene	71-43-2	0.0028	.00036	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Bromobenzene	108-86-1	U	.00037	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Bromochloromethane	74-97-5	U	.00052	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Bromodichloromethane	75-27-4	U	.00033	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Bromoform	75-25-2	U	.00056	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Bromomethane	74-83-9	U	.0017	0.0033	0.0067	mg/kg		8260B	10/29/14	1
n-Butylbenzene	104-51-8	U	.00035	0.00067	0.0013	mg/kg		8260B	10/29/14	1
sec-Butylbenzene	135-98-8	U	.00027	0.00067	0.0013	mg/kg		8260B	10/29/14	1
tert-Butylbenzene	98-06-6	U	.00028	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Carbon Disulfide	75-15-0	U	.00037	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Carbon tetrachloride	56-23-5	U	.00044	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Chlorobenzene	108-90-7	U	.00028	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Chlorodibromomethane	124-48-1	U	.00049	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Chloroethane	75-00-3	U	.0013	0.0033	0.0067	mg/kg		8260B	10/29/14	1
Chloroform	67-66-3	U	.00031	0.0033	0.0067	mg/kg		8260B	10/29/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

Note:

This report shall not be reproduced, except in full, without the written approval from ESC.

The reported analytical results relate only to the sample submitted

Reported: 11/14/14 18:33 Revised: 12/03/14 13:50

L729021-01 (PH) - 6.0@21.2c

KA-1/16/14



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REPORT OF ANALYSIS

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December 03, 2014

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ESC Sample # : L729021-01

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00051	0.00067	0.0033	mg/kg		8260B	10/29/14	1
2-Chlorotoluene	95-49-8	U	.0004	0.00067	0.0013	mg/kg		8260B	10/29/14	1
4-Chlorotoluene	106-43-4	U	.00032	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0013	0.0033	0.0067	mg/kg		8260B	10/29/14	1
1,2-Dibromoethane	106-93-4	U	.00045	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Dibromomethane	74-95-3	U	.00051	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dichlorobenzene	95-50-1	U	.0004	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,3-Dichlorobenzene	541-73-1	U	.00032	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,4-Dichlorobenzene	106-46-7	U	.00031	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Dichlorodifluoromethane	75-71-8	U	.00095	0.0033	0.0067	mg/kg		8260B	10/29/14	1
1,1-Dichloroethane	75-34-3	U	.00027	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dichloroethane	107-06-2	U	.00035	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,1-Dichloroethene	75-35-4	U	.0004	0.00067	0.0013	mg/kg		8260B	10/29/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00032	0.00067	0.0013	mg/kg		8260B	10/29/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00035	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dichloropropane	78-87-5	U	.00048	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,1-Dichloropropene	563-58-6	U	.00043	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,3-Dichloropropane	142-28-9	U	.00028	0.00067	0.0013	mg/kg		8260B	10/29/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00035	0.00067	0.0013	mg/kg		8260B	10/29/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00036	0.00067	0.0013	mg/kg		8260B	10/29/14	1
2,2-Dichloropropane	594-20-7	U	.00037	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Ethylbenzene <i>F SOL-I</i>	100-41-4	0.00053	.0004	0.00067	0.0013	mg/kg	J	8260B	10/29/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00045	0.00067	0.0013	mg/kg		8260B	10/29/14	1
2-Hexanone	591-78-6	U	.0051	0.0067	0.013	mg/kg		8260B	10/29/14	1
Isopropylbenzene	98-82-8	U	.00032	0.00067	0.0013	mg/kg		8260B	10/29/14	1
p-Isopropyltoluene	99-87-6	U	.00027	0.00067	0.0013	mg/kg		8260B	10/29/14	1
2-Butanone (MEK)	78-93-3	U	.0063	0.0067	0.013	mg/kg		8260B	10/29/14	1
Methylene Chloride	75-09-2	U	.0013	0.0033	0.0067	mg/kg		8260B	10/29/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0025	0.0067	0.013	mg/kg		8260B	10/29/14	1
Methyl tert-butyl ether	1634-04-4	U	.00028	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Naphthalene	91-20-3	U	.0013	0.0033	0.0067	mg/kg		8260B	10/29/14	1
n-Propylbenzene	103-65-1	U	.00028	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Styrene	100-42-5	U	.00031	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00035	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00048	0.0010	0.0013	mg/kg		8260B	10/29/14	1
Tetrachloroethene	127-18-4	U	.00037	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Toluene <i>F SOL-I</i>	108-88-3	0.0027	.00057	0.0033	0.0067	mg/kg	J	8260B	10/29/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00041	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00052	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,1,1-Trichloroethane	71-55-6	U	.00038	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,1,2-Trichloroethane	79-00-5	U	.00037	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Trichloroethene	79-01-6	U	.00037	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Trichlorofluoromethane	75-69-4	U	.00051	0.0033	0.0067	mg/kg		8260B	10/29/14	1
1,2,3-Trichloropropane	96-18-4	U	.00099	0.0013	0.0033	mg/kg		8260B	10/29/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.00028	0.00067	0.0013	mg/kg		8260B	10/29/14	1

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Reported: 11/14/14 18:33 Revised: 12/03/14 13:50

L729021-01 (PH) - 6.0@21.2c

KA-116/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB02-NS02
 Collected By :
 Collection Date : 10/20/14 15:40

ESC Sample # : L729021-01

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00045	0.00067	0.0013	mg/kg		8260B	10/29/14	1
m&p-Xylene	1330-20-7	U	.00096	0.0013	0.0027	mg/kg		8260B	10/29/14	1
Vinyl chloride	75-01-4	U	.00039	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00036	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	96.2				% Rec.		8260B	10/29/14	1
Dibromofluoromethane	1868-53-7	99.3				% Rec.		8260B	10/29/14	1
4-Bromofluorobenzene	460-00-4	96.2				% Rec.		8260B	10/29/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.1	2.7	5.3	mg/kg		8015	10/28/14	1
C28-C40 Oil Range		U	.36	2.7	5.3	mg/kg		8015	10/28/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	60.1				% Rec.		8015	10/28/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
Acenaphthene	83-32-9	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
Acenaphthylene	208-96-8	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
Benzo(a)anthracene	56-55-3	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
Benzo(a)pyrene	50-32-8	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
Benzo(b)fluoranthene	205-99-2	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
Benzo(g,h,i)perylene	191-24-2	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
Benzo(k)fluoranthene	207-08-9	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
Chrysene	218-01-9	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
Dibenz(a,h)anthracene	53-70-3	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
Fluoranthene	206-44-0	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
Fluorene	86-73-7	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
Naphthalene	91-20-3	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
Phenanthrene	85-01-8	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
Pyrene	129-00-0	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
2-Methylnaphthalene	91-57-6	U	.00085	0.0080	0.027	mg/kg		8270C-SI	10/25/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	85.2				% Rec.		8270C-SI	10/25/14	1
Nitrobenzene-d5	4165-60-0	81.8				% Rec.		8270C-SI	10/25/14	1
2-Fluorobiphenyl	321-60-8	82.3				% Rec.		8270C-SI	10/25/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	.01	0.22	0.44	mg/kg		8270C	10/27/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.012	0.22	0.44	mg/kg		8270C	10/27/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.01	0.22	0.44	mg/kg		8270C	10/27/14	1
Benzy Alcohol	100-51-6	U	.01	0.22	0.44	mg/kg		8270C	10/27/14	1
Benzoic acid	65-85-0	U	.16	2.2	4.4	mg/kg		8270C	10/27/14	1
Carbazole	86-74-8	U	.0069	0.22	0.44	mg/kg		8270C	10/27/14	1

Results listed are dry weight basis.

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L729021-01 (PH) - 6.0@21.2c

DNR: DO NOT REPORT

*KA-116119
 BRS 9/11/15*



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB02-NS02
Collected By :
Collection Date : 10/20/14 15:40

ESC Sample # : L729021-01

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0069	0.22	0.44	mg/kg	8270C	10/27/14	1
4-Bromophenyl-phenylether	101-55-3	U	.015	0.22	0.44	mg/kg	8270C	10/27/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0084	0.22	0.44	mg/kg	8270C	10/27/14	1
2-Chloronaphthalene	91-58-7	U	.0085	0.22	0.44	mg/kg	8270C	10/27/14	1
3,3-Dichlorobenzidine	91-94-1	U	.1	0.22	0.44	mg/kg	8270C	10/27/14	1
2,4-Dinitrotoluene	121-14-2	U	.0081	0.22	0.44	mg/kg	8270C	10/27/14	1
2,6-Dinitrotoluene	606-20-2	U	.0099	0.22	0.44	mg/kg	8270C	10/27/14	1
Hexachlorobenzene	118-74-1	U	.011	0.22	0.44	mg/kg	8270C	10/27/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.013	0.22	0.44	mg/kg	8270C	10/27/14	1
Hexachloroethane	67-72-1	U	.017	0.22	0.44	mg/kg	8270C	10/27/14	1
Isophorone	78-59-1	U	.0069	0.22	0.44	mg/kg	8270C	10/27/14	1
Nitrobenzene	98-95-3	U	.0093	0.22	0.44	mg/kg	8270C	10/27/14	1
n-Nitrosodimethylamine	62-75-9	U	.087	0.22	0.44	mg/kg	8270C	10/27/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0079	0.22	0.44	mg/kg	8270C	10/27/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.012	0.22	0.44	mg/kg	8270C	10/27/14	1
Benzylbutyl phthalate	85-68-7	U	.013	0.22	0.44	mg/kg	J3 8270C	10/27/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.016	0.22	0.44	mg/kg	8270C	10/27/14	1
Di-n-butyl phthalate	84-74-2	U	.015	0.22	0.44	mg/kg	8270C	10/27/14	1
Diethyl phthalate	84-66-2	U	.0092	0.22	0.44	mg/kg	8270C	10/27/14	1
Dimethyl phthalate	131-11-3	U	.0072	0.22	0.44	mg/kg	8270C	10/27/14	1
Di-n-octyl phthalate	117-84-0	U	.012	0.22	0.44	mg/kg	8270C	10/27/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.012	0.22	0.44	mg/kg	8270C	10/27/14	1
Acid Extractables									
4-Chloro-3-methylphenol	59-50-7	U	.0064	0.22	0.44	mg/kg	8270C	10/27/14	1
2-Chlorophenol	95-57-8	U	.011	0.22	0.44	mg/kg	8270C	10/27/14	1
2,4-Dichlorophenol	120-83-2	U	.01	0.22	0.44	mg/kg	8270C	10/27/14	1
2,4-Dimethylphenol	105-67-9	U	.063	0.22	0.44	mg/kg	8270C	10/27/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.16	0.22	0.44	mg/kg	8270C	10/27/14	1
2,4-Dinitrophenol	51-28-5	U	.13	0.22	0.44	mg/kg	8270C	10/27/14	1
2-Methylphenol	95-48-7	U	.013	0.22	0.44	mg/kg	8270C	10/27/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.01	0.22	0.44	mg/kg	8270C	10/27/14	1
2-Nitrophenol	88-75-5	U	.017	0.22	0.44	mg/kg	8270C	10/27/14	1
4-Nitrophenol	100-02-7	U	.069	0.22	0.44	mg/kg	8270C	10/27/14	1
4-Chloroaniline	106-47-8	U	.0047	0.22	0.44	mg/kg	8270C	10/27/14	1
2-Nitroaniline	88-74-4	U	.01	0.22	0.44	mg/kg	8270C	10/27/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0019	0.22	0.44	mg/kg	8270C	10/27/14	1
3-Nitroaniline	99-09-2	U	.011	0.22	0.44	mg/kg	8270C	10/27/14	1
4-Nitroaniline	100-01-6	U	.0085	0.22	0.44	mg/kg	8270C	10/27/14	1
Pentachlorophenol	87-86-5	U	.064	0.22	0.44	mg/kg	8270C	10/27/14	1
Phenol	108-95-2	U	.0093	0.22	0.44	mg/kg	8270C	10/27/14	1
2,4,5-Trichlorophenol	95-95-4	U	.013	0.22	0.44	mg/kg	8270C	10/27/14	1
2,4,6-Trichlorophenol	88-06-2	U	.01	0.22	0.44	mg/kg	8270C	10/27/14	1
Surrogate Recovery									
2-Fluorophenol	367-12-4	59.4				% Rec.	8270C	10/27/14	1
Phenol-d5	4165-62-2	58.3				% Rec.	8270C	10/27/14	1

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L729021-01 (PH) - 6.0@21.2c

DNR = Do Not Report

*KA-Melley
BW 2/17/15
11 of 1440*



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 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB02-NS02
 Collected By :
 Collection Date : 10/20/14 15:40

ESC Sample # : L729021-01
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	57.9				% Rec.		8270C	10/27/14	1
2-Fluorobiphenyl	321-60-8	67.2				% Rec.		8270C	10/27/14	1
2,4,6-Tribromophenol	118-79-6	72.4				% Rec.		8270C	10/27/14	1
p-Terphenyl-d14	1718-51-0	56.6				% Rec.		8270C	10/27/14	1

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KA-116/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729021-02

Sample ID : TU503-SB02-NS01

Site ID :

Collected By :
Collection Date : 10/20/14 15:30

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.0				su		9045D	10/24/14	1
Total Solids	TSOLIDS	75.6	.0333			%		2540 G-2	10/26/14	1
Mercury	7439-97-6	U	.0037	0.013	0.026	mg/kg		7471	10/23/14	1
Aluminum	7429-90-5	990	4.6	6.6	13.	mg/kg	BV	6010B	10/27/14	1
Antimony	7440-36-0	U	.99	1.3	2.6	mg/kg		6010B	10/27/14	1
Arsenic	7440-38-2	U	.86	1.3	2.6	mg/kg		6010B	10/27/14	1
Barium	7440-39-3	14.	.22	0.33	0.66	mg/kg		6010B	10/27/14	1
Beryllium	7440-41-7	U	.092	0.13	0.26	mg/kg		6010B	10/27/14	1
Cadmium	7440-43-9	U	.092	0.33	0.66	mg/kg		6010B	10/27/14	1
Chromium	7440-47-3	1.0	.18	0.66	1.3	mg/kg	JJ3	6010B	10/27/14	1
Cobalt	7440-48-4	0.73	.3	0.66	1.3	mg/kg	J	6010B	10/27/14	1
Copper	7440-50-8	U	.7	1.3	2.6	mg/kg		6010B	10/27/14	1
Lead	7439-92-1	0.73	.25	0.33	0.66	mg/kg		6010B	10/27/14	1
Manganese	7439-96-5	10.	.16	0.66	1.3	mg/kg		6010B	10/27/14	1
Nickel	7440-02-0	0.79	.65	1.3	2.6	mg/kg	J	6010B	10/27/14	1
Selenium	7782-49-2	U	.98	1.3	2.6	mg/kg		6010B	10/27/14	1
Silver	7440-22-4	U	.37	0.66	1.3	mg/kg		6010B	10/27/14	1
Thallium	7440-28-0	U	.86	1.3	2.6	mg/kg		6010B	10/27/14	1
Vanadium	7440-62-2	3.2	.32	1.3	2.6	mg/kg		6010B	10/27/14	1
Zinc	7440-66-6	3.6	.78	3.6	3.3-3.6	mg/kg	J	6010B	10/27/14	1
TPH (GC/FID) Low Fraction	8006-61-9	U	.029	0.066	0.13	mg/kg		8015D/GR	10/29/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	99.2				% Rec.		8015D/GR	10/29/14	1
Volatile Organics										
Acetone	67-64-1	U	.013	0.033	0.066	mg/kg		8260B	10/29/14	1
Benzene	71-43-2	U	.00036	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Bromobenzene	108-86-1	U	.00037	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Bromochloromethane	74-97-5	U	.00052	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Bromodichloromethane	75-27-4	U	.00033	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Bromoform	75-25-2	U	.00056	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Bromomethane	74-83-9	U	.0017	0.0033	0.0066	mg/kg		8260B	10/29/14	1
n-Butylbenzene	104-51-8	U	.00034	0.00066	0.0013	mg/kg		8260B	10/29/14	1
sec-Butylbenzene	135-98-8	U	.00026	0.00066	0.0013	mg/kg		8260B	10/29/14	1
tert-Butylbenzene	98-06-6	U	.00028	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Carbon Disulfide	75-15-0	U	.00037	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Carbon tetrachloride	56-23-5	U	.00044	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Chlorobenzene	108-90-7	U	.00028	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Chlorodibromomethane	124-48-1	U	.00049	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Chloroethane	75-00-3	U	.0012	0.0033	0.0066	mg/kg		8260B	10/29/14	1
Chloroform	67-66-3	U	.0003	0.0033	0.0066	mg/kg		8260B	10/29/14	1

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L729021-02 (PH) - 6.0@21.2c

KA 11/16/15
BMS 2/19/15



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REPORT OF ANALYSIS

Sheri Fling
URS
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Denver, CO 80237

December 03, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729021-02

Sample ID : TU503-SB02-NS01

Site ID :

Collected By :
Collection Date : 10/20/14 15:30

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.0005	0.00066	0.0033	mg/kg	8260B	10/29/14	1	
2-Chlorotoluene	95-49-8	U	.0004	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
4-Chlorotoluene	106-43-4	U	.00032	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0013	0.0033	0.0066	mg/kg	8260B	10/29/14	1	
1,2-Dibromoethane	106-93-4	U	.00045	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
Dibromomethane	74-95-3	U	.0005	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
1,2-Dichlorobenzene	95-50-1	U	.0004	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
1,3-Dichlorobenzene	541-73-1	U	.00032	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
1,4-Dichlorobenzene	106-46-7	U	.0003	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
Dichlorodifluoromethane	75-71-8	U	.00094	0.0033	0.0066	mg/kg	8260B	10/29/14	1	
1,1-Dichloroethane	75-34-3	U	.00026	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
1,2-Dichloroethane	107-06-2	U	.00034	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
1,1-Dichloroethene	75-35-4	U	.0004	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
cis-1,2-Dichloroethene	156-59-2	U	.00032	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
trans-1,2-Dichloroethene	156-60-5	U	.00034	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
1,2-Dichloropropane	78-87-5	U	.00048	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
1,1-Dichloropropene	563-58-6	U	.00042	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
1,3-Dichloropropane	142-28-9	U	.00028	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
cis-1,3-Dichloropropene	10061-01-5	U	.00034	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
trans-1,3-Dichloropropene	10061-02-6	U	.00036	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
2,2-Dichloropropane	594-20-7	U	.00037	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
Ethylbenzene	100-41-4	U	.0004	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
Hexachloro-1,3-butadiene	87-68-3	U	.00045	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
2-Hexanone	591-78-6	U	.005	0.0066	0.013	mg/kg	8260B	10/29/14	1	
Isopropylbenzene	98-82-8	U	.00032	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
p-Isopropyltoluene	99-87-6	U	.00026	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
2-Butanone (MEK)	78-93-3	U	.0062	0.0066	0.013	mg/kg	8260B	10/29/14	1	
Methylene Chloride <i>F SOL-I</i>	75-09-2	0.0013	.0013	0.0033	0.0066	mg/kg	J	8260B	10/29/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0025	0.0066	0.013	mg/kg	8260B	10/29/14	1	
Methyl tert-butyl ether	1634-04-4	U	.00028	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
Naphthalene	91-20-3	U	.0013	0.0033	0.0066	mg/kg	8260B	10/29/14	1	
n-Propylbenzene	103-65-1	U	.00028	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
Styrene	100-42-5	U	.0003	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
1,1,1,2-Tetrachloroethane	630-20-6	U	.00034	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
1,1,2,2-Tetrachloroethane	79-34-5	U	.00048	0.00099	0.0013	mg/kg	8260B	10/29/14	1	
Tetrachloroethene	127-18-4	U	.00037	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
Toluene	108-88-3	U	.00057	0.0033	0.0066	mg/kg	8260B	10/29/14	1	
1,2,3-Trichlorobenzene	87-61-6	U	.00041	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
1,2,4-Trichlorobenzene	120-82-1	U	.00052	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
1,1,1-Trichloroethane	71-55-6	U	.00038	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
1,1,2-Trichloroethane	79-00-5	U	.00037	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
Trichloroethene	79-01-6	U	.00037	0.00066	0.0013	mg/kg	8260B	10/29/14	1	
Trichlorofluoromethane	75-69-4	U	.0005	0.0033	0.0066	mg/kg	8260B	10/29/14	1	
1,2,3-Trichloropropane	96-18-4	U	.00098	0.0013	0.0033	mg/kg	8260B	10/29/14	1	
1,2,4-Trimethylbenzene	95-63-6	U	.00028	0.00066	0.0013	mg/kg	8260B	10/29/14	1	

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/14/14 18:33 Revised: 12/03/14 13:50

L729021-02 (PH) - 6.0@21.2c

KA/10/15



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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB02-NS01
Collected By :
Collection Date : 10/20/14 15:30

ESC Sample # : L729021-02

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00045	0.00066	0.0013	mg/kg		8260B	10/29/14	1
m&p-Xylene	1330-20-7	U	.00095	0.0013	0.0026	mg/kg		8260B	10/29/14	1
Vinyl chloride	75-01-4	U	.00038	0.00066	0.0013	mg/kg		8260B	10/29/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00036	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	99.3				% Rec.		8260B	10/29/14	1
Dibromofluoromethane	1868-53-7	100.				% Rec.		8260B	10/29/14	1
4-Bromofluorobenzene	460-00-4	94.8				% Rec.		8260B	10/29/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.1	2.6	5.3	mg/kg		8015	10/28/14	1
C28-C40 Oil Range		U	.36	2.6	5.3	mg/kg		8015	10/28/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	50.3				% Rec.		8015	10/28/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Acenaphthene	83-32-9	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Acenaphthylene	208-96-8	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Benzo(a)anthracene	56-55-3	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Benzo(a)pyrene	50-32-8	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Benzo(b)fluoranthene	205-99-2	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Benzo(k)fluoranthene	207-08-9	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Chrysene	218-01-9	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Fluoranthene	206-44-0	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Fluorene	86-73-7	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Naphthalene	91-20-3	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Phenanthrene	85-01-8	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Pyrene	129-00-0	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
2-Methylnaphthalene	91-57-6	U	.00085	0.0079	0.026	mg/kg		8270C-SI	10/25/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	91.6				% Rec.		8270C-SI	10/25/14	1
Nitrobenzene-d5	4165-60-0	89.0				% Rec.		8270C-SI	10/25/14	1
2-Fluorobiphenyl	321-60-8	90.1				% Rec.		8270C-SI	10/25/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.01	0.22	0.44	mg/kg		8270C	10/27/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.012	0.22	0.44	mg/kg		8270C	10/27/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.01	0.22	0.44	mg/kg		8270C	10/27/14	1
Benzyl Alcohol	100-51-6	U	.0099	0.22	0.44	mg/kg		8270C	10/27/14	1
Benzoic acid	65-85-0	U	.16	2.2	4.4	mg/kg		8270C	10/27/14	1
Carbazole	86-74-8	U	.0069	0.22	0.44	mg/kg		8270C	10/27/14	1

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Reported: 11/14/14 18:33 Revised: 12/03/14 13:50

L729021-02 (PH) - 6.0021.2c

DNR: DO NOT REPORT

KA 11/10/15
BMS 2/19/15

BMS 9/4/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB02-NS01
Collected By :
Collection Date : 10/20/14 15:30

ESC Sample # : L729021-02

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0069	0.22	0.44	mg/kg		8270C	10/27/14	1
4-Bromophenyl-phenylether	101-55-3	U	.014	0.22	0.44	mg/kg		8270C	10/27/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0083	0.22	0.44	mg/kg		8270C	10/27/14	1
2-Chloronaphthalene	91-58-7	U	.0085	0.22	0.44	mg/kg		8270C	10/27/14	1
3,3-Dichlorobenzidine	91-94-1	U	.1	0.22	0.44	mg/kg		8270C	10/27/14	1
2,4-Dinitrotoluene	121-14-2	U	.0081	0.22	0.44	mg/kg		8270C	10/27/14	1
2,6-Dinitrotoluene	606-20-2	U	.0098	0.22	0.44	mg/kg		8270C	10/27/14	1
Hexachlorobenzene	118-74-1	U	.011	0.22	0.44	mg/kg		8270C	10/27/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.013	0.22	0.44	mg/kg		8270C	10/27/14	1
Hexachloroethane	67-72-1	U	.017	0.22	0.44	mg/kg		8270C	10/27/14	1
Isophorone	78-59-1	U	.0069	0.22	0.44	mg/kg		8270C	10/27/14	1
Nitrobenzene	98-95-3	U	.0092	0.22	0.44	mg/kg		8270C	10/27/14	1
n-Nitrosodimethylamine	62-75-9	U	.086	0.22	0.44	mg/kg		8270C	10/27/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0078	0.22	0.44	mg/kg		8270C	10/27/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.012	0.22	0.44	mg/kg		8270C	10/27/14	1
Benzylbutyl phthalate	85-68-7	U	.013	0.22	0.44	mg/kg		8270C	10/27/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.016	0.22	0.44	mg/kg		8270C	10/27/14	1
Di-n-butyl phthalate	84-74-2	U	.014	0.22	0.44	mg/kg		8270C	10/27/14	1
Diethyl phthalate	84-66-2	U	.0091	0.22	0.44	mg/kg		8270C	10/27/14	1
Dimethyl phthalate	131-11-3	U	.0071	0.22	0.44	mg/kg		8270C	10/27/14	1
Di-n-octyl phthalate	117-84-0	U	.012	0.22	0.44	mg/kg		8270C	10/27/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.012	0.22	0.44	mg/kg		8270C	10/27/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0063	0.22	0.44	mg/kg		8270C	10/27/14	1
2-Chlorophenol	95-57-8	U	.011	0.22	0.44	mg/kg		8270C	10/27/14	1
2,4-Dichlorophenol	120-83-2	U	.0099	0.22	0.44	mg/kg		8270C	10/27/14	1
2,4-Dimethylphenol	105-67-9	U	.062	0.22	0.44	mg/kg		8270C	10/27/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.16	0.22	0.44	mg/kg		8270C	10/27/14	1
2,4-Dinitrophenol	51-28-5	U	.13	0.22	0.44	mg/kg		8270C	10/27/14	1
2-Methylphenol	95-48-7	U	.013	0.22	0.44	mg/kg		8270C	10/27/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.01	0.22	0.44	mg/kg		8270C	10/27/14	1
2-Nitrophenol	88-75-5	U	.017	0.22	0.44	mg/kg		8270C	10/27/14	1
4-Nitrophenol	100-02-7	U	.069	0.22	0.44	mg/kg		8270C	10/27/14	1
4-Chloroaniline	106-47-8	U	.0046	0.22	0.44	mg/kg		8270C	10/27/14	1
2-Nitroaniline	88-74-4	U	.01	0.22	0.44	mg/kg		8270C	10/27/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0018	0.22	0.44	mg/kg		8270C	10/27/14	1
3-Nitroaniline	99-09-2	U	.011	0.22	0.44	mg/kg		8270C	10/27/14	1
4-Nitroaniline	100-01-6	U	.0085	0.22	0.44	mg/kg		8270C	10/27/14	1
Pentachlorophenol	87-86-5	U	.063	0.22	0.44	mg/kg		8270C	10/27/14	1
Phenol	108-95-2	U	.0092	0.22	0.44	mg/kg		8270C	10/27/14	1
2,4,5-Trichlorophenol	95-95-4	U	.013	0.22	0.44	mg/kg		8270C	10/27/14	1
2,4,6-Trichlorophenol	88-06-2	U	.01	0.22	0.44	mg/kg		8270C	10/27/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	65.6				% Rec.		8270C	10/27/14	1
Phenol-d5	4165-62-2	62.8				% Rec.		8270C	10/27/14	1

Results listed are dry weight basis.

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L729021-02 (PH) - 6.0@21.2c

DNR = Do Not Report

*KA 11/16/15
BMS 2/17/15
16 of 1440*



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 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB02-NS01
 Collected By :
 Collection Date : 10/20/14 15:30

ESC Sample # : L729021-02
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	62.1				% Rec.		8270C	10/27/14	1
2-Fluorobiphenyl	321-60-8	67.2				% Rec.		8270C	10/27/14	1
2,4,6-Tribromophenol	118-79-6	70.9				% Rec.		8270C	10/27/14	1
p-Terphenyl-d14	1718-51-0	61.1				% Rec.		8270C	10/27/14	1

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 L729021-02 (PH) - 6.0@21.2c

KA 11/16/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-TRIPBLANK02-NT01
 Collected By :
 Collection Date : 10/21/14 14:00

ESC Sample # : L729021-03
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/23/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	94.9				% Rec.		8015D/G	10/23/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	10/28/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	10/28/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	10/28/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	10/28/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	10/28/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	10/28/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	10/28/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	10/28/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	10/28/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	10/28/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	10/28/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	10/28/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	10/28/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	10/28/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	10/28/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	10/28/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	10/28/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	10/28/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	10/28/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	10/28/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	10/28/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	10/28/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	10/28/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	10/28/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	10/28/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	10/28/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	10/28/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	10/28/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	10/28/14	1

U = Not Detected at the LOD

Note:

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KA-1/10/15



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-TRIPBLANK02-NT01
 Collected By :
 Collection Date : 10/21/14 14:00

ESC Sample # : L729021-03
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	10/28/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	10/28/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	10/28/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	10/28/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	10/28/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	10/28/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	10/28/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	10/28/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	10/28/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	10/28/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	10/28/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	10/28/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	10/28/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	10/28/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	10/28/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	10/28/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	10/28/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	10/28/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	10/28/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	10/28/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	10/28/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	98.5				% Rec.		8260B	10/28/14	1
Dibromofluoromethane	1868-53-7	97.0				% Rec.		8260B	10/28/14	1
4-Bromofluorobenzene	460-00-4	97.1				% Rec.		8260B	10/28/14	1

U = Not Detected at the LOD

Note:

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Reported: 11/14/14 18:33 Revised: 12/03/14 13:51

CA-116/15

**Holloman AFB
Groundwater Monitoring
Data Review Summary**

Data Package Number: L729024
 Sampling Event Dates: October 20-21, 2014
 Sample-specific Parameter Review/Laboratory Performance Parameters: Yes
 Full Validation (e.g. result recalculation): No
 Data Reviewer: Katie Abbott, URS Project Chemist
 Date Completed: January 16, 2015
 Peer Reviewer: Sheri Fling, URS Project Quality Assurance Manager (QAM)

The table below summarizes the data package and sample identifications discussed in this data review.

Field Identification	Sample Type	Lab Identification	Matrix	Analyses						
				GRO	VOCs	PAHs	DRO/ORO	SVOCs	Total Metals	pH
L729024										
TU503-SB04-NS01	SA	L729024-01	Soil	X	X	X	X	X	X ^m	X
TU503-SB04-NS02	SA	L729024-02	Soil	X	X	X	X	X	X	X
TU503-TRIPBLANK03-NT01	TB	L729024-03	Water	X	X	---	---	---	---	---
TU503-SB07-NS01	SA	L729024-04	Soil	X	X	X	X	X	X	X
TU503-SB07-NS02	SA	L729024-05	Soil	X	X	X	X	X	X	X

Sample Type: SA – Sample TB – Trip Blank
 X^m - Matrix Spike/Matrix Spike Duplicate

Analyses:
 DRO/ORO - Diesel and Oil Range Organics (8015)
 GRO – Gasoline Range Organics (8015D)
 TDS – Total Dissolved Solids (SM2540C)
 Total/ Metals – Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Manganese, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc, Mercury (6010B/7470A)
 PAH – Polynuclear Aromatic Hydrocarbons (8270C SIM)
 SIM – Selective Ion Monitoring
 SVOCs – Semivolatile Organic Compounds (8270C)
 VOCs – Volatile Organic Compounds (8260B)

The data review was conducted in accordance with the Final Interim Measures Work Plan – Appendix A, Sampling and Analysis Plan/Quality Assurance Project Plan: Former Septic System Site TU904 (URS, September 2014); Group 2 Former Underground Storage Sites: AOC-UST-889 (TU515) (URS, September 2014); and Group 3 Former Underground Storage Tank Sites: AOC-UST-221 (TU503), AOC-UST-298 (TU508), AOC-UST-901 (TU506) and AOC-UST-7003 (TU518) (URS, August 2014); data validation standard operating procedure (SOP) 14; Department of Defense (DoD) Quality Systems Manual version 4.2 (DoD, 2010); and method requirements.

General Overall Assessment:

- Data are usable without qualification.
- Data are usable with qualification (noted below).
- Some or all data are unusable for any purpose (detailed below).

Case Narrative Comments: Any laboratory case narrative comments concerning data qualification were addressed in the table below.

Trace level detects, reported between the method detection limit (MDL) and the reporting limit (LOQ), have been qualified as estimated (F SQL-I). All other occurrences of data qualification are covered in the following table.

Review Parameter	Criteria Met?	Comment
Chain of Custody & Sample Receipt	Yes	The samples were received by ESC Lab Sciences in good condition and were consistent with the accompanying chain of custody (COC). The cooler temperatures upon receipt were within the recommended ≤6 degrees Celsius (°C) temperature range.
Reporting	Yes	<p>During review of a representative data package selected for full validation, it was noted that improper reference spectra were displayed in the printed version of the data package for Method 8260B. Due to a LIMS limitation, the data package reference spectra were not consistently representative of the actual spectra for the analytes detected. Because the laboratory data review involves the use of NBS reference spectra and not the reference spectra taken from the instrument calibration, the analyst was not seeing the improper alignment of spectra noted in the data package during his/her review at the instrument. The laboratory revised and reissued the data package with correct reference spectral data, consistent with method requirements, and no results were changed. Therefore, no further action is necessary as a result of this validation finding.</p> <p>Method 8270C Semivolatile Organic Compounds (SVOCs)</p> <p>The results for 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene are not reported by Method 8270C SVOCs but are reported by Method 8260B volatile organic compounds (VOCs). As the detection limits (DLs), limits of detection (LODs), and limits of quantitation (LOQs) are lower by Method 8260B, further action was not necessary.</p> <p>The laboratory noted 4-methylphenol cannot be reported as 3 & 4-methylphenol coelute during the analysis; therefore, the analytes are reported together and 3&4-methylphenol on the data sheets and in the electronic database.</p>
Holding Times	Yes	All samples were analyzed within the method required holding time.
Laboratory Blanks <ul style="list-style-type: none"> • Method Blank • Initial/Continuing Calibration Blank 	No	With the exception listed in Table 1, target analytes were not detected within the method or calibration blanks.
Matrix Quality Control <ul style="list-style-type: none"> • Matrix Spike/ Matrix Spike Duplicate TU503-SB04-NS01 (6010 Metals) • Laboratory Duplicate TU503-SB04-NS01 (Total Solids) 	Yes	<p>Matrix Spike/ Matrix Spike Duplicate (MS/MSD)</p> <p>The frequency of MS/MSDs met the quality assurance project plan (QAPP) requirement of one per twenty samples.</p> <p>The MS/MSD recoveries and relative percent differences (RPDs) met quality control criteria.</p>

Review Parameter	Criteria Met?	Comment
		<p>Results in the native sample greater than four times the concentration of the spike added during digestions/extractions are not considered to be a representative measure of accuracy. Further action with respect to spike recovery evaluation or qualification of data was not considered necessary.</p> <p>Consistent with standard operating procedure (SOP) 14, when MS/MSD issues accounted for less than 35% of the MS/MSD analyses conducted, applicable data qualification was limited to qualification of the parent sample of the affected analyte. When >35% of the MS/MSD results did not meet criteria, evaluation was extended to all associated samples. See Section 4.1 of the data validation report for overall qualifiers resulting from the MS/MSD evaluation.</p> <p>Laboratory Duplicate</p> <p>The comparison between results of the laboratory duplicate pair met the criteria listed below.</p> <ul style="list-style-type: none"> • When both the sample and duplicate values are >5x the LOQ acceptable sampling and analytical precision is indicated by a relative percent difference (RPD) between the results of $\leq 20\%$ for water samples ($\leq 35\%$ for soil samples). • Where the result for one or both analytes of the laboratory duplicate pair is <5xLOQ, satisfactory precision is indicated if the absolute difference between the field duplicate results is <1xLOQ for water samples (<2xLOQ for soil samples).
<p>Metals Only</p> <ul style="list-style-type: none"> • Serial Dilution TU503-SB04-NS01 (6010 Metals) • Post Digestion Spike TU503-SB04-NS01 (6010 Metals) 	Yes	<p>Serial Dilution (Metals Only)</p> <p>Consistent with the method, only the results that were greater than 50 times their respective DLs were appropriate for comparing to the serial dilution evaluation criterion. All percent differences (%Ds) between the original sample results and the results obtained from the sample-diluted 1:5 were $\leq 10\%$.</p> <p>Post Digestion Spike (PDS) (Metals Only)</p> <p>All PDS recoveries were within the acceptance limits.</p>
<p>Method Quality Control</p> <ul style="list-style-type: none"> • Surrogates (VOCs, SVOCs, PAHs, GRO, DRO/ORO) 	Yes	<p>The surrogate recoveries were within the laboratory specified acceptance criteria.</p>
<p>Field Quality Control</p> <ul style="list-style-type: none"> • Trip Blank TU503-TRIPBLANK03-NT01 (GRO, VOCs) • Field Duplicate None in this package • Equipment Blank None in this package • Field Blank None in this package 	Yes	<p>Trip Blank</p> <p>Target analytes were not detected in the trip blank.</p> <p>Field Duplicate</p> <p>The frequency of field duplicates met the QAPP requirement of one per twenty samples.</p> <p>A field duplicate was not submitted with the data package.</p> <p>Consistent with SOP 14, when field duplicate issues accounted for less than 35% of the field duplicate analyses conducted, applicable data qualification was limited to qualification of the parent sample for the affected analyte. When >35% of the field duplicate results did not meet criteria, evaluation was extended to all associated samples. See Section 4.3 of the data validation report for overall qualifiers resulting from the field duplicate evaluation.</p>

Review Parameter	Criteria Met?	Comment
		<p>Equipment Blank</p> <p>As dedicated equipment was used to collect these samples, an equipment blank was not submitted for this sampling event. Further action was not necessary.</p> <p>Field Blank</p> <p>The frequency of field blanks met the QAPP requirement of one per twenty samples.</p> <p>A field blank was not submitted with this data package. See Section 4.4 of the data validation report for overall qualifiers resulting from the field blank evaluation.</p>
LODs met?	No	Due to dilutions, several 6010B metals results for all samples were reported as non-detect at elevated LODs. See Section 3.7 of the validation report for further discussion.
Other Parameters	Yes	<p>Naphthalene (8260B and 8270C-PAHs) and hexachloro-1,3-butadiene and 1,2,4-trichlorobenzene (8260B and 8270C) were analyzed by multiple methods. Results were selected for reporting using the following criteria:</p> <ul style="list-style-type: none"> • If both results were non-detect, the non-detect result with the lower DL was selected. • If both results were reported as detected, the higher detected result was selected for reporting. • If one result was reported as non-detect and the other result was reported as detected, the detected result was selected for reporting.
Initial Calibration	Yes	<p>Methods 8260B VOCs & 8270C SVOCs</p> <p>A minimum relative response factor (RRF) of 0.05 was used for the system performance check compounds (SPCCs) and all SPCCs met this criterion. The percent relative standard deviations (%RSDs) over the initial calibration RRFs for all calibration check compounds (CCCs) satisfied the method requirement of <30%. For all other target compounds, a requirement of 15% was used. The %RSD values for all target analytes in the calibration were less than 15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)</p> <p>The %RSD values for all target analytes in the calibration were less than 20%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8015D Gasoline Range Organics (GRO)/DRO/ORO</p> <p>The relationship between instrument response and concentration was established with a blank and at least five standards for the entire carbon range of C10-C40. The %RSD over the initial calibrations curve satisfied the method requirement of <15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Methods 6010B (Inductively Coupled Plasma [ICP] Metals)</p> <p>The initial calibrations (ICALs) were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with a blank and at least one standard. The calibrations were verified with the analysis of an initial</p>

Review Parameter	Criteria Met?	Comment
		<p>calibration verification (ICV) standard. All metals were recovered within the method acceptance range of 90-110%.</p> <p>Method 7470A (Mercury)</p> <p>The ICALs were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with five standards. The correlation coefficient was >0.995. The calibration was verified with the analysis of an ICV standard. The analytes were recovered within the acceptance range of 90-110%. Response and linearity criteria were met and data qualification on the basis of initial calibration was not necessary.</p>
Initial Calibration Verification/Continuing Calibration Verification	No	<p>Method 8260B VOCs</p> <p>The percent differences (%Ds) for all CCCs in the ICVs and continuing calibrations (CCALs) were less than 20%, satisfying method requirements, and other target analytes satisfied the %D criterion of 20%.</p> <p>Methods 8270C PAHs/SVOCs</p> <p>With the exceptions listed in Table 2, the %D values for all target analytes in the calibration were less than 20%.</p> <p>Method 8015D GRO/DRO/ORO</p> <p>The %Ds for all target compounds in the ICVs and CCALs were less than 15%. Data qualification was not necessary.</p> <p>Methods 6010B (ICP Metals) & 7470A (Mercury)</p> <p>Calibration verification analyses were conducted at the proper frequency. All metals were recovered within the DOD QSM 4.2 low level acceptance range of 80-120% and the method medium/high acceptance range of 90-110%.</p>
Interference Check Standard (Metals Only)	No	<p>The interference check standard (ICS) AB solutions were analyzed at the proper frequency. The target analytes were recovered within the acceptance range of 80-120% in the ICS A solution. With the exceptions listed in Table 3, interferent elements were not present in the samples at concentrations greater than those in the ICSs.</p> <p>The interferent elements aluminum, calcium, iron, and magnesium were present in most samples in this data package at concentrations greater than or equal to those in the ICSs. As such, these samples were evaluated for positive and negative biases suggested by the ICS A. Data qualification was issued if the absolute value of the ICS A result was greater than the DL and it suggested a positive or negative bias which accounted for more than 25% of associated sample results or LODs. (Note: The ICS A solution only contains the interferent elements aluminum, calcium, iron, and magnesium so any positive or negative result for other analytes is inferred to be a bias potentially caused by one or more of the interferent elements present). Table 3 summarizes the resultant data qualification on the basis of the ICS results.</p>
Internal Standard (VOCs/SVOCs/PAHs/Metals (6020))	Yes	<p>Recoveries for the internal standards in field samples were within the applicable acceptance limits. Therefore, data qualification based on internal standards was not necessary.</p>

Review Parameter	Criteria Met?	Comment
Laboratory Control Sample/ Laboratory Control Sample Duplicate	No	One laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) per method per analytical batch was prepared and analyzed. With the exceptions listed in Table 4, all of the LCS recoveries and LCS/LCSD RPDs were within the QAPP acceptance limits. These results are indicative of an acceptable level of accuracy and precision with respect to the analytical method. Method 8015 DRO/ORO The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the method could not be assessed for ORO.
Package Completeness	Yes	The results are usable as qualified for the project objective. The data are 100% complete.

> - Greater Than
 < - Less Than
 ≤ - Less Than or Equal to
 °C – Degrees Celsius
 % - Percent
 %Ds – Percent Differences
 %RSD – Percent Relative Standard Deviation
 CCALs – Continuing Calibrations
 CCBs – Continuing Calibration Blanks
 CCCs – Calibration Check Compounds
 COC – Chain of Custody
 COD – Coefficient of Determination
 DLs – Detection Limits
 DRO – Diesel Range Organics
 GRO – Gasoline Range Organics
 ICAL – Initial Calibration
 ICB – Initial Calibration Blank
 ICP – Inductively Coupled Plasma

ICS – Interference Check Standard
 ICV – Initial Calibration Verification
 LCS – Laboratory Control Sample
 LCSD – Laboratory Control Sample Duplicate
 LOD – Limit of Detection
 LOQ – Limit of Quantitation
 MDL – Method Detection Limit
 MS/MSD – Matrix Spike/ Matrix Spike Duplicate
 ORO – Oil Range Organics
 PAHs – Polynuclear Aromatic Hydrocarbons
 PDS – Post Digestion Spike
 QAPP – Quality Assurance Project Plan
 RPDs – Relative Percent Differences
 RRF – Relative Response Factor
 SOP – Standard Operating Procedure
 SPCCs – System Performance Check Compounds
 SVOCs – Semivolatile Organic Compounds
 VOCs – Volatile Organic Compounds

Table 1: Blank Outliers and Resultant Data Qualification

Associated Samples	Analyte	Concentration	Qualification
Total Metals			
MB Batch WG750261 TU503-SB04-NS01 TU503-SB04-NS02 TU503-SB07-NS01 TU503-SB07-NS02	Aluminum	4.64 mg/Kg	None. The associated results were reported at concentrations >5x the concentration of the blank contamination.
	Zinc	1.08 mg/Kg	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).
PAHs			
MB Batch WG750213 TU503-SB04-NS01 TU503-SB04-NS02 TU503-SB07-NS01 TU503-SB07-NS02	Naphthalene	0.000933 mg/Kg	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).

> - Greater Than
 MB – Method Blank

< - Less Than
 PAHs – Polynuclear Aromatic Hydrocarbons

I – Indeterminate Bias
 U – Non-detect

Table 2: Initial/Continuing Calibration Verification Outliers and Resultant Data Qualification

Associated Samples	Analyte	%D (Limit)	Data Qualification
SVOCs			
TU503-SB04-NS01 TU503-SB04-NS02 TU503-SB07-NS01 TU503-SB07-NS02	n-Nitrosodimethylamine	-26.4 (±20)	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ CCAL-L).

± - Plus or minus
L - Low Bias

%D - Percent Difference
SVOCs - Semivolatile Organic Compounds

CCAL - Continuing Calibration
UJ - Estimated

Table 3: ICS Outliers and Resultant Data Qualification

Interferent Element	Analyte	ICS A (µg/L)	MDL (µg/L)	Qualified Samples	Qualification
Aluminum, Calcium, Iron	Cadmium	-2.8	0.7	TU503-SB04-NS01	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ/J ICS-L).
	Lead	-33.5	1.9		
	Nickel	-16.5	4.9		
Aluminum, Calcium, Iron, Magnesium	Cadmium	-2.8	0.7	TU503-SB04-NS02	
	Lead	-33.5	1.9	TU503-SB07-NS01	
	Nickel	-16.5	4.9	TU503-SB07-NS02	

µg/L - Micrograms per Liter
MDL - Method Detection Limit

ICS - Interference Check Standard
UJ/J - Estimated

L - Low Bias

Table 4: LCS Recovery Outliers and Resultant Data Qualification

Associated Samples	Analyte	%R (Limits)	RPD (Limits)	Qualification
Metals				
LCS WG750261 TU503-SB04-NS01 TU503-SB04-NS02 TU503-SB07-NS01 TU503-SB07-NS02	Aluminum	133/131 (80-120)	3 (50)	As the potential bias was considered to be high, the associated detected aluminum results for all samples were qualified as estimated (J LCS-H).
LCS WG750208 TU503-SB04-NS01 TU503-SB04-NS02 TU503-SB07-NS01 TU503-SB07-NS02	Mercury	128/123 (80-120)	18 (50)	As the potential bias was considered to be high and the associated sample results were reported as non-detect, data qualification was not considered necessary.

%R - Percent Recoveries

J - Estimated

H - High Bias

LCS - Laboratory Control Sample

Bold indicates a recovery outside of acceptance limits.



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729024-01

Sample ID : TU503-SB04-NS01

Site ID :

Collected By :
Collection Date : 10/20/14 11:50

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.1				su		9045D	10/24/14	1
Total Solids	TSOLIDS	70.6	.0333			%		2540 G-2	10/26/14	1
Mercury	7439-97-6	U	.004	0.014	0.028	mg/kg		7471	10/23/14	1
Aluminum	7429-90-5	710	.25	35.	71.	mg/kg	O1J3	6010B	10/30/14	5
Antimony	7440-36-0	U	5.3	7.1	14.	mg/kg		6010B	10/30/14	5
Arsenic	7440-38-2	U	4.5	7.1	14.	mg/kg		6010B	10/30/14	5
Barium	7440-39-3	16.	1.2	1.8	3.5	mg/kg		6010B	10/30/14	5
Beryllium	7440-41-7	U	.5	0.71	1.4	mg/kg		6010B	10/30/14	5
Cadmium	7440-43-9	U	.5	1.8	3.5	mg/kg		6010B	10/30/14	5
Chromium	7440-47-3	U	.99	3.5	7.1	mg/kg		6010B	10/30/14	5
Cobalt	7440-48-4	U	1.7	3.5	7.1	mg/kg		6010B	10/30/14	5
Copper	7440-50-8	U	3.7	7.1	14.	mg/kg		6010B	10/30/14	5
Lead	7439-92-1	U	1.3	1.8	3.5	mg/kg		6010B	10/30/14	5
Manganese	7439-96-5	14.	.85	3.5	7.1	mg/kg		6010B	10/30/14	5
Nickel	7440-02-0	U	3.4	7.1	14.	mg/kg		6010B	10/30/14	5
Selenium	7782-49-2	U	5.2	7.1	14.	mg/kg		6010B	10/30/14	5
Silver	7440-22-4	U	2	3.5	7.1	mg/kg		6010B	10/30/14	5
Thallium	7440-28-0	U	4.5	7.1	14.	mg/kg		6010B	11/03/14	5
Vanadium	7440-62-2	2.0	1.7	7.1	14.	mg/kg	J	6010B	10/30/14	5
Zinc	7440-66-6	5.8 18	4.2 5.8	18.	35.	mg/kg	J	6010B	10/30/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.031	0.071	0.14	mg/kg		8015D/GR	10/24/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	98.6				% Rec.		8015D/GR	10/24/14	1
Volatile Organics										
Acetone	67-64-1	0.040	.014	0.035	0.071	mg/kg	J	8260B	10/29/14	1
Benzene	71-43-2	U	.00038	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Bromobenzene	108-86-1	U	.0004	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Bromochloromethane	74-97-5	U	.00055	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Bromodichloromethane	75-27-4	U	.00035	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Bromoform	75-25-2	U	.00059	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Bromomethane	74-83-9	U	.0018	0.0035	0.0071	mg/kg		8260B	10/29/14	1
n-Butylbenzene	104-51-8	U	.00037	0.00071	0.0014	mg/kg		8260B	10/29/14	1
sec-Butylbenzene	135-98-8	U	.00028	0.00071	0.0014	mg/kg		8260B	10/29/14	1
tert-Butylbenzene	98-06-6	U	.0003	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Carbon Disulfide	75-15-0	U	.0004	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Carbon tetrachloride	56-23-5	U	.00047	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Chlorobenzene	108-90-7	U	.0003	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Chlorodibromomethane	124-48-1	U	.00052	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Chloroethane	75-00-3	U	.0013	0.0035	0.0071	mg/kg		8260B	10/29/14	1
Chloroform	67-66-3	U	.00032	0.0035	0.0071	mg/kg		8260B	10/29/14	1

Results listed are dry weight basis.

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Reported: 11/14/14 18:34 Revised: 11/18/14 11:01

L729024-01 (ICP METALS) - Dilution due to matrix

L729024-01 (PH) - 6.1@21.1c

KA 11/16/15
BMS 2/16/15
8 of 1540



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 1-800-767-5859
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB04-NS01
 Collected By :
 Collection Date : 10/20/14 11:50

ESC Sample # : L729024-01

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00054	0.00071	0.0035	mg/kg		8260B	10/29/14	1
2-Chlorotoluene	95-49-8	U	.00042	0.00071	0.0014	mg/kg		8260B	10/29/14	1
4-Chlorotoluene	106-43-4	U	.00034	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0014	0.0035	0.0071	mg/kg		8260B	10/29/14	1
1,2-Dibromoethane	106-93-4	U	.00048	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Dibromomethane	74-95-3	U	.00054	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,2-Dichlorobenzene	95-50-1	U	.00042	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,3-Dichlorobenzene	541-73-1	U	.00034	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,4-Dichlorobenzene	106-46-7	U	.00032	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Dichlorodifluoromethane	75-71-8	U	.001	0.0035	0.0071	mg/kg		8260B	10/29/14	1
1,1-Dichloroethane	75-34-3	U	.00028	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,2-Dichloroethane	107-06-2	U	.00037	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,1-Dichloroethene	75-35-4	U	.00042	0.00071	0.0014	mg/kg		8260B	10/29/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00034	0.00071	0.0014	mg/kg		8260B	10/29/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00037	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,2-Dichloropropane	78-87-5	U	.00051	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,1-Dichloropropene	563-58-6	U	.00045	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,3-Dichloropropane	142-28-9	U	.0003	0.00071	0.0014	mg/kg		8260B	10/29/14	1
cis-1,3-Dichloropropane	10061-01-5	U	.00037	0.00071	0.0014	mg/kg		8260B	10/29/14	1
trans-1,3-Dichloropropane	10061-02-6	U	.00038	0.00071	0.0014	mg/kg		8260B	10/29/14	1
2,2-Dichloropropane	594-20-7	U	.0004	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Ethylbenzene	100-41-4	U	.00042	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00048	0.00071	0.0014	mg/kg		8260B	10/29/14	1
2-Hexanone	591-78-6	U	.0054	0.0071	0.014	mg/kg		8260B	10/29/14	1
Isopropylbenzene	98-82-8	U	.00034	0.00071	0.0014	mg/kg		8260B	10/29/14	1
p-Isopropyltoluene	99-87-6	U	.00028	0.00071	0.0014	mg/kg		8260B	10/29/14	1
2-Butanone (MEK) <i>FSOL-I</i>	78-93-3	0.0074	.0066	0.0071	0.014	mg/kg	J	8260B	10/29/14	1
Methylene Chloride	75-09-2	U	.0014	0.0035	0.0071	mg/kg		8260B	10/29/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0027	0.0071	0.014	mg/kg		8260B	10/29/14	1
Methyl tert-butyl ether	1634-04-4	U	.0003	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Naphthalene	91-20-3	U	.0014	0.0035	0.0071	mg/kg		8260B	10/29/14	1
n-Propylbenzene	103-65-1	U	.0003	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Styrene	100-42-5	U	.00032	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00037	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00051	0.0011	0.0014	mg/kg		8260B	10/29/14	1
Tetrachloroethene	127-18-4	U	.0004	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Toluene	108-88-3	U	.00061	0.0035	0.0071	mg/kg		8260B	10/29/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00044	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00055	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,1,1-Trichloroethane	71-55-6	U	.0004	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,1,2-Trichloroethane	79-00-5	U	.0004	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Trichloroethene	79-01-6	U	.0004	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Trichlorofluoromethane	75-69-4	U	.00054	0.0035	0.0071	mg/kg		8260B	10/29/14	1
1,2,3-Trichloropropane	96-18-4	U	.001	0.0014	0.0035	mg/kg		8260B	10/29/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.0003	0.00071	0.0014	mg/kg		8260B	10/29/14	1

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KA-11/16/15



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8181 E. Tufts Avenue
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November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB04-NS01
Collected By :
Collection Date : 10/20/14 11:50

ESC Sample # : L729024-01

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00048	0.00071	0.0014	mg/kg		8260B	10/29/14	1
m&p-Xylene	1330-20-7	U	.001	0.0014	0.0028	mg/kg		8260B	10/29/14	1
Vinyl chloride	75-01-4	U	.00041	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00038	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	98.0				% Rec.		8260B	10/29/14	1
Dibromofluoromethane	1868-53-7	98.0				% Rec.		8260B	10/29/14	1
4-Bromofluorobenzene	460-00-4	93.8				% Rec.		8260B	10/29/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.3	2.8	5.7	mg/kg		8015	10/30/14	1
C28-C40 Oil Range		U	.38	2.8	5.7	mg/kg		8015	10/30/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	68.0				% Rec.		8015	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Acenaphthene	83-32-9	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Acenaphthylene	208-96-8	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Benzo(a)anthracene	56-55-3	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Benzo(a)pyrene	50-32-8	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Benzo(b)fluoranthene	205-99-2	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Benzo(k)fluoranthene	207-08-9	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Chrysene	218-01-9	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Fluoranthene	206-44-0	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Fluorene	86-73-7	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Naphthalene	91-20-3	0.0018	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Phenanthrene	85-01-8	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Pyrene	129-00-0	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
2-Methylnaphthalene	91-57-6	U	.00091	0.0085	0.028	mg/kg		8270C-SI	10/25/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	84.9				% Rec.		8270C-SI	10/25/14	1
Nitrobenzene-d5	4165-60-0	85.0				% Rec.		8270C-SI	10/25/14	1
2-Fluorobiphenyl	321-60-8	85.4				% Rec.		8270C-SI	10/25/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.011	0.24	0.47	mg/kg		8270C	10/27/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.013	0.24	0.47	mg/kg		8270C	10/27/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.011	0.24	0.47	mg/kg		8270C	10/27/14	1
Benzyl Alcohol	100-51-6	U	.011	0.24	0.47	mg/kg		8270C	10/27/14	1
Benzoic acid	65-85-0	U	.17	2.4	4.7	mg/kg		8270C	10/27/14	1
Carbazole	86-74-8	U	.0074	0.24	0.47	mg/kg		8270C	10/27/14	1

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L729024-01 (ICP METALS) - Dilution due to matrix

L729024-01 (PH) - 6.1@21.1c

DNR: DO NOT REPORT

KAT 11/16/15

BRS 9/2/15



YOUR LAB OF CHOICE

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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729024-01

Sample ID : TU503-SB04-NS01

Site ID :

Collected By :
Collection Date : 10/20/14 11:50

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0074	0.24	0.47	mg/kg		8270C	10/27/14	1
4-Bromophenyl-phenylether	101-55-3	U	.016	0.24	0.47	mg/kg		8270C	10/27/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0089	0.24	0.47	mg/kg		8270C	10/27/14	1
2-Chloronaphthalene	91-58-7	U	.0091	0.24	0.47	mg/kg		8270C	10/27/14	1
3,3-Dichlorobenzidine	91-94-1	U	.11	0.24	0.47	mg/kg		8270C	10/27/14	1
2,4-Dinitrotoluene	121-14-2	U	.0086	0.24	0.47	mg/kg		8270C	10/27/14	1
2,6-Dinitrotoluene	606-20-2	U	.01	0.24	0.47	mg/kg		8270C	10/27/14	1
Hexachlorobenzene	118-74-1	U	.012	0.24	0.47	mg/kg		8270C	10/27/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.014	0.24	0.47	mg/kg		8270C	10/27/14	1
Hexachloroethane	67-72-1	U	.018	0.24	0.47	mg/kg		8270C	10/27/14	1
Isophorone	78-59-1	U	.0074	0.24	0.47	mg/kg		8270C	10/27/14	1
Nitrobenzene	98-95-3	U	.0098	0.24	0.47	mg/kg		8270C	10/27/14	1
n-Nitrosodimethylamine	62-75-9	U	.092	0.24	0.47	mg/kg		8270C	10/27/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0084	0.24	0.47	mg/kg		8270C	10/27/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.013	0.24	0.47	mg/kg		8270C	10/27/14	1
Benzylbutyl phthalate	85-68-7	U	.014	0.24	0.47	mg/kg	J3	8270C	10/27/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.017	0.24	0.47	mg/kg		8270C	10/27/14	1
Di-n-butyl phthalate	84-74-2	U	.016	0.24	0.47	mg/kg		8270C	10/27/14	1
Diethyl phthalate	84-66-2	U	.0098	0.24	0.47	mg/kg		8270C	10/27/14	1
Dimethyl phthalate	131-11-3	U	.0076	0.24	0.47	mg/kg		8270C	10/27/14	1
Di-n-octyl phthalate	117-84-0	U	.013	0.24	0.47	mg/kg		8270C	10/27/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.012	0.24	0.47	mg/kg		8270C	10/27/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0068	0.24	0.47	mg/kg		8270C	10/27/14	1
2-Chlorophenol	95-57-8	U	.012	0.24	0.47	mg/kg		8270C	10/27/14	1
2,4-Dichlorophenol	120-83-2	U	.011	0.24	0.47	mg/kg		8270C	10/27/14	1
2,4-Dimethylphenol	105-67-9	U	.066	0.24	0.47	mg/kg		8270C	10/27/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.17	0.24	0.47	mg/kg		8270C	10/27/14	1
2,4-Dinitrophenol	51-28-5	U	.14	0.24	0.47	mg/kg		8270C	10/27/14	1
2-Methylphenol	95-48-7	U	.014	0.24	0.47	mg/kg		8270C	10/27/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.011	0.24	0.47	mg/kg		8270C	10/27/14	1
2-Nitrophenol	88-75-5	U	.018	0.24	0.47	mg/kg		8270C	10/27/14	1
4-Nitrophenol	100-02-7	U	.074	0.24	0.47	mg/kg		8270C	10/27/14	1
4-Chloroaniline	106-47-8	U	.005	0.24	0.47	mg/kg		8270C	10/27/14	1
2-Nitroaniline	88-74-4	U	.011	0.24	0.47	mg/kg		8270C	10/27/14	1
1,2-Diphenylhydrazine	103-33-3	U	.002	0.24	0.47	mg/kg		8270C	10/27/14	1
3-Nitroaniline	99-09-2	U	.012	0.24	0.47	mg/kg		8270C	10/27/14	1
4-Nitroaniline	100-01-6	U	.0091	0.24	0.47	mg/kg		8270C	10/27/14	1
Pentachlorophenol	87-86-5	U	.068	0.24	0.47	mg/kg		8270C	10/27/14	1
Phenol	108-95-2	U	.009	0.24	0.47	mg/kg		8270C	10/27/14	1
2,4,5-Trichlorophenol	95-95-4	U	.014	0.24	0.47	mg/kg		8270C	10/27/14	1
2,4,6-Trichlorophenol	88-06-2	U	.011	0.24	0.47	mg/kg		8270C	10/27/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	61.8				% Rec.		8270C	10/27/14	1
Phenol-d5	4165-62-2	61.7				% Rec.		8270C	10/27/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

Note:

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The reported analytical results relate only to the sample submitted

Reported: 11/14/14 18:34 Revised: 11/18/14 11:01

L729024-01 (ICP METALS) - Dilution due to matrix

L729024-01 (PH) - 6.1@21.1c

DNR = Do Not Report

*KA 11/16/15
BMS 2/17/15
11 of 1540*



12065 Lebanon Rd.
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 Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB04-NS01
 Collected By :
 Collection Date : 10/20/14 11:50

ESC Sample # : L729024-01
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	60.4				% Rec.		8270C	10/27/14	1
2-Fluorobiphenyl	321-60-8	66.2				% Rec.		8270C	10/27/14	1
2,4,6-Tribromophenol	118-79-6	72.0				% Rec.		8270C	10/27/14	1
p-Terphenyl-d14	1718-51-0	55.9				% Rec.		8270C	10/27/14	1

Results listed are dry weight basis.
 U = Not Detected at the LOD

Note:

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Reported: 11/14/14 18:34 Revised: 11/18/14 11:01
 L729024-01 (ICP METALS) - Dilution due to matrix
 L729024-01 (PH) - 6.1@21.1c

KA-11/16/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB04-NS02
Collected By :
Collection Date : 10/20/14 11:55

ESC Sample # : L729024-02
Site ID :
Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.2				su		9045D	10/24/14	1
Total Solids	TSOLIDS	76.1	.0333			%		2540 G-2	10/26/14	1
Mercury	7439-97-6	U	.0037	0.013	0.026	mg/kg		7471	10/23/14	1
Aluminum	7429-90-5	3800	23	33.	66.	mg/kg		6010B	10/30/14	5
Antimony	7440-36-0	U	4.9	6.6	13.	mg/kg		6010B	10/30/14	5
Arsenic	7440-38-2	U	4.2	6.6	13.	mg/kg		6010B	10/30/14	5
Barium	7440-39-3	37.	1.1	1.6	3.3	mg/kg		6010B	10/30/14	5
Beryllium	7440-41-7	U	.46	0.66	1.3	mg/kg		6010B	10/30/14	5
Cadmium	7440-43-9	U	.46	1.6	3.3	mg/kg		6010B	10/30/14	5
Chromium	7440-47-3	3.9	.92	3.3	6.6	mg/kg	J	6010B	10/30/14	5
Cobalt	7440-48-4	1.6	1.6	3.3	6.6	mg/kg	J	6010B	10/30/14	5
Copper	7440-50-8	U	3.4	6.6	13.	mg/kg		6010B	10/30/14	5
Lead	7439-92-1	1.8	1.2	1.6	3.3	mg/kg	J	6010B	10/30/14	5
Manganese	7439-96-5	49.	.79	3.3	6.6	mg/kg	J	6010B	10/30/14	5
Nickel	7440-02-0	3.3	3.2	6.6	13.	mg/kg	J	6010B	10/30/14	5
Selenium	7782-49-2	U	4.9	6.6	13.	mg/kg		6010B	10/30/14	5
Silver	7440-22-4	U	1.8	3.3	6.6	mg/kg		6010B	10/30/14	5
Thallium	7440-28-0	U	4.2	6.6	13.	mg/kg		6010B	11/03/14	5
Vanadium	7440-62-2	7.4	1.6	6.6	13.	mg/kg	J	6010B	10/30/14	5
Zinc	7440-66-6	11.16	3.9	11	16.	mg/kg	J	6010B	10/30/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.029	0.066	0.13	mg/kg		8015D/GR	10/24/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	99.9				% Rec.		8015D/GR	10/24/14	1
Volatile Organics										
Acetone	67-64-1	0.030	.013	0.033	0.066	mg/kg	J	8260B	10/29/14	1
Benzene	71-43-2	0.0017	.00035	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Bromobenzene	108-86-1	U	.00037	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Bromochloromethane	74-97-5	U	.00051	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Bromodichloromethane	75-27-4	U	.00033	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Bromoform	75-25-2	U	.00055	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Bromomethane	74-83-9	U	.0017	0.0033	0.0066	mg/kg		8260B	10/29/14	1
n-Butylbenzene	104-51-8	U	.00034	0.00066	0.0013	mg/kg		8260B	10/29/14	1
sec-Butylbenzene	135-98-8	U	.00026	0.00066	0.0013	mg/kg		8260B	10/29/14	1
tert-Butylbenzene	98-06-6	U	.00028	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Carbon Disulfide	75-15-0	0.0013	.00037	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Carbon tetrachloride	56-23-5	U	.00043	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Chlorobenzene	108-90-7	U	.00028	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Chlorodibromomethane	124-48-1	U	.00049	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Chloroethane	75-00-3	U	.0012	0.0033	0.0066	mg/kg		8260B	10/29/14	1
Chloroform	67-66-3	U	.0003	0.0033	0.0066	mg/kg		8260B	10/29/14	1

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Reported: 11/14/14 18:34 Revised: 11/18/14 11:01
L729024-02 (ICP METALS) - Dilution due to matrix
L729024-02 (PH) - 6.2@21.0c

ICA 11/16/15
BMS 2/19/15
13 of 1540



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729024-02

Sample ID : TU503-SB04-NS02

Site ID :

Collected By :
Collection Date : 10/20/14 11:55

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.0005	0.00066	0.0033	mg/kg		8260B	10/29/14	1
2-Chlorotoluene	95-49-8	U	.00039	0.00066	0.0013	mg/kg		8260B	10/29/14	1
4-Chlorotoluene	106-43-4	U	.00032	0.00066	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0013	0.0033	0.0066	mg/kg		8260B	10/29/14	1
1,2-Dibromoethane	106-93-4	U	.00045	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Dibromomethane	74-95-3	U	.0005	0.00066	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dichlorobenzene	95-50-1	U	.00039	0.00066	0.0013	mg/kg		8260B	10/29/14	1
1,3-Dichlorobenzene	541-73-1	U	.00032	0.00066	0.0013	mg/kg		8260B	10/29/14	1
1,4-Dichlorobenzene	106-46-7	U	.0003	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Dichlorodifluoromethane	75-71-8	U	.00093	0.0033	0.0066	mg/kg		8260B	10/29/14	1
1,1-Dichloroethane	75-34-3	U	.00026	0.00066	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dichloroethane	107-06-2	U	.00034	0.00066	0.0013	mg/kg		8260B	10/29/14	1
1,1-Dichloroethene	75-35-4	U	.00039	0.00066	0.0013	mg/kg		8260B	10/29/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00032	0.00066	0.0013	mg/kg		8260B	10/29/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00034	0.00066	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dichloropropane	78-87-5	U	.00047	0.00066	0.0013	mg/kg		8260B	10/29/14	1
1,1-Dichloropropene	563-58-6	U	.00042	0.00066	0.0013	mg/kg		8260B	10/29/14	1
1,3-Dichloropropane	142-28-9	U	.00028	0.00066	0.0013	mg/kg		8260B	10/29/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00034	0.00066	0.0013	mg/kg		8260B	10/29/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00035	0.00066	0.0013	mg/kg		8260B	10/29/14	1
2,2-Dichloropropane	594-20-7	U	.00037	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Ethylbenzene	100-41-4	U	.00039	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00045	0.00066	0.0013	mg/kg		8260B	10/29/14	1
2-Hexanone	591-78-6	U	.005	0.0066	0.013	mg/kg		8260B	10/29/14	1
Isopropylbenzene	98-82-8	U	.00032	0.00066	0.0013	mg/kg		8260B	10/29/14	1
p-Isopropyltoluene	99-87-6	U	.00026	0.00066	0.0013	mg/kg		8260B	10/29/14	1
2-Butanone (MEK)	78-93-3	U	.0062	0.0066	0.013	mg/kg		8260B	10/29/14	1
Methylene Chloride	75-09-2	U	.0013	0.0033	0.0066	mg/kg		8260B	10/29/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0025	0.0066	0.013	mg/kg		8260B	10/29/14	1
Methyl tert-butyl ether	1634-04-4	U	.00028	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Naphthalene DNR	91-20-3	U	.0013	0.0033	0.0066	mg/kg		8260B	10/29/14	1
n-Propylbenzene	103-65-1	U	.00028	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Styrene	100-42-5	U	.0003	0.00066	0.0013	mg/kg		8260B	10/29/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00034	0.00066	0.0013	mg/kg		8260B	10/29/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00047	0.00099	0.0013	mg/kg		8260B	10/29/14	1
Tetrachloroethene	127-18-4	U	.00037	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Toluene sol-1	108-88-3	0.0017	.00056	0.0033	0.0066	mg/kg	J	8260B	10/29/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00041	0.00066	0.0013	mg/kg		8260B	10/29/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00051	0.00066	0.0013	mg/kg		8260B	10/29/14	1
1,1,1-Trichloroethane	71-55-6	U	.00038	0.00066	0.0013	mg/kg		8260B	10/29/14	1
1,1,2-Trichloroethane	79-00-5	U	.00037	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Trichloroethene	79-01-6	U	.00037	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Trichlorofluoromethane	75-69-4	U	.0005	0.0033	0.0066	mg/kg		8260B	10/29/14	1
1,2,3-Trichloropropane	96-18-4	U	.00097	0.0013	0.0033	mg/kg		8260B	10/29/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.00028	0.00066	0.0013	mg/kg		8260B	10/29/14	1

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Reported: 11/14/14 18:34 Revised: 11/18/14 11:01

L729024-02 (ICP METALS) - Dilution due to matrix

L729024-02 (PH) - 6.2@21.0c

DNR: Do Not Report

ICA 11/16/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB04-NS02
 Collected By :
 Collection Date : 10/20/14 11:55

ESC Sample # : L729024-02

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00045	0.00066	0.0013	mg/kg		8260B	10/29/14	1
m&p-Xylene	1330-20-7	U	.00095	0.0013	0.0026	mg/kg		8260B	10/29/14	1
Vinyl chloride	75-01-4	U	.00038	0.00066	0.0013	mg/kg		8260B	10/29/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00035	0.00066	0.0013	mg/kg		8260B	10/29/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	96.6				% Rec.		8260B	10/29/14	1
Dibromofluoromethane	1868-53-7	98.9				% Rec.		8260B	10/29/14	1
4-Bromofluorobenzene	460-00-4	93.8				% Rec.		8260B	10/29/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.1	2.6	5.2	mg/kg		8015	10/30/14	1
C28-C40 Oil Range		U	.35	2.6	5.2	mg/kg		8015	10/30/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	71.9				% Rec.		8015	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Acenaphthene	83-32-9	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Acenaphthylene	208-96-8	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Benzo (a) anthracene	56-55-3	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Benzo (a) pyrene	50-32-8	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Benzo (b) fluoranthene	205-99-2	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Benzo (g, h, i) perylene	191-24-2	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Benzo (k) fluoranthene	207-08-9	0.0011	.00079	0.0026	0.0079	mg/kg	J	8270C-SI	10/25/14	1
Chrysene	218-01-9	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Dibenz (a, h) anthracene	53-70-3	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Fluoranthene	206-44-0	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Fluorene	86-73-7	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Indeno (1,2,3-cd) pyrene	193-39-5	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Naphthalene	91-20-3	0.0093	.00079	0.0079	0.026	mg/kg	J	8270C-SI	10/25/14	1
Phenanthrene	85-01-8	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
Pyrene	129-00-0	U	.00079	0.0026	0.0079	mg/kg		8270C-SI	10/25/14	1
2-Methylnaphthalene	91-57-6	U	.00084	0.0079	0.026	mg/kg		8270C-SI	10/25/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	87.6				% Rec.		8270C-SI	10/25/14	1
Nitrobenzene-d5	4165-60-0	82.3				% Rec.		8270C-SI	10/25/14	1
2-Fluorobiphenyl	321-60-8	86.9				% Rec.		8270C-SI	10/25/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	.01	0.22	0.44	mg/kg		8270C	10/27/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.012	0.22	0.44	mg/kg		8270C	10/27/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.01	0.22	0.44	mg/kg		8270C	10/27/14	1
Benzyl Alcohol	100-51-6	U	.0098	0.22	0.44	mg/kg		8270C	10/27/14	1
Benzoic acid	65-85-0	U	.16	2.2	4.4	mg/kg		8270C	10/27/14	1
Carbazole	86-74-8	U	.0068	0.22	0.44	mg/kg		8270C	10/27/14	1

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Reported: 11/14/14 18:34 Revised: 11/18/14 11:01

L729024-02 (ICP METALS) - Dilution due to matrix

L729024-02 (PH) - 6.2@21.0c

KA/11/15
 BMS 9/2/15
 15 of 1540



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB04-NS02
Collected By :
Collection Date : 10/20/14 11:55

ESC Sample # : L729024-02

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0068	0.22	0.44	mg/kg		8270C	10/27/14	1
4-Bromophenyl-phenylether	101-55-3	U	.014	0.22	0.44	mg/kg		8270C	10/27/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0083	0.22	0.44	mg/kg		8270C	10/27/14	1
2-Chloronaphthalene	91-58-7	U	.0084	0.22	0.43	mg/kg		8270C	10/27/14	1
3,3-Dichlorobenzidine	91-94-1	U	.1	0.22	0.44	mg/kg		8270C	10/27/14	1
2,4-Dinitrotoluene	121-14-2	U	.008	0.22	0.44	mg/kg		8270C	10/27/14	1
2,6-Dinitrotoluene	606-20-2	U	.0097	0.22	0.44	mg/kg		8270C	10/27/14	1
Hexachlorobenzene	118-74-1	U	.011	0.22	0.44	mg/kg		8270C	10/27/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.013	0.22	0.44	mg/kg		8270C	10/27/14	1
Hexachloroethane	67-72-1	U	.017	0.22	0.44	mg/kg		8270C	10/27/14	1
Isophorone	78-59-1	U	.0068	0.22	0.44	mg/kg		8270C	10/27/14	1
Nitrobenzene	98-95-3	U	.009	0.22	0.44	mg/kg		8270C	10/27/14	1
n-Nitrosodimethylamine	62-75-9	U	.085	0.22	0.44	mg/kg		8270C	10/27/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0078	0.22	0.44	mg/kg		8270C	10/27/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.012	0.22	0.44	mg/kg		8270C	10/27/14	1
Benzylbutyl phthalate	85-68-7	U	.013	0.22	0.44	mg/kg	J3	8270C	10/27/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.016	0.22	0.44	mg/kg		8270C	10/27/14	1
Di-n-butyl phthalate	84-74-2	U	.014	0.22	0.44	mg/kg		8270C	10/27/14	1
Diethyl phthalate	84-66-2	U	.0091	0.22	0.44	mg/kg		8270C	10/27/14	1
Dimethyl phthalate	131-11-3	U	.0071	0.22	0.44	mg/kg		8270C	10/27/14	1
Di-n-octyl phthalate	117-84-0	U	.012	0.22	0.44	mg/kg		8270C	10/27/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.012	0.22	0.44	mg/kg		8270C	10/27/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0063	0.22	0.44	mg/kg		8270C	10/27/14	1
2-Chlorophenol	95-57-8	U	.011	0.22	0.44	mg/kg		8270C	10/27/14	1
2,4-Dichlorophenol	120-83-2	U	.0098	0.22	0.44	mg/kg		8270C	10/27/14	1
2,4-Dimethylphenol	105-67-9	U	.062	0.22	0.44	mg/kg		8270C	10/27/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.16	0.22	0.44	mg/kg		8270C	10/27/14	1
2,4-Dinitrophenol	51-28-5	U	.13	0.22	0.44	mg/kg		8270C	10/27/14	1
2-Methylphenol	95-48-7	U	.013	0.22	0.44	mg/kg		8270C	10/27/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.01	0.22	0.44	mg/kg		8270C	10/27/14	1
2-Nitrophenol	88-75-5	U	.017	0.22	0.44	mg/kg		8270C	10/27/14	1
4-Nitrophenol	100-02-7	U	.068	0.22	0.44	mg/kg		8270C	10/27/14	1
4-Chloroaniline	106-47-8	U	.0046	0.22	0.44	mg/kg		8270C	10/27/14	1
2-Nitroaniline	88-74-4	U	.01	0.22	0.44	mg/kg		8270C	10/27/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0018	0.22	0.44	mg/kg		8270C	10/27/14	1
3-Nitroaniline	99-09-2	U	.011	0.22	0.44	mg/kg		8270C	10/27/14	1
4-Nitroaniline	100-01-6	U	.0084	0.22	0.44	mg/kg		8270C	10/27/14	1
Pentachlorophenol	87-86-5	U	.063	0.22	0.44	mg/kg		8270C	10/27/14	1
Phenol	108-95-2	U	.009	0.22	0.44	mg/kg		8270C	10/27/14	1
2,4,5-Trichlorophenol	95-95-4	U	.013	0.22	0.44	mg/kg		8270C	10/27/14	1
2,4,6-Trichlorophenol	88-06-2	U	.01	0.22	0.44	mg/kg		8270C	10/27/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	58.9				% Rec.		8270C	10/27/14	1
Phenol-d5	4165-62-2	59.7				% Rec.		8270C	10/27/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

Note:

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Reported: 11/14/14 18:34 Revised: 11/18/14 11:01

L729024-02 (ICP METALS) - Dilution due to matrix

L729024-02 (PH) - 6.2@21.0c

DNR: do not report

*KA 11/16/15
BW 2/17/15
16 of 1540*



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 Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB04-NS02
 Collected By :
 Collection Date : 10/20/14 11:55

ESC Sample # : L729024-02
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	58.0				% Rec.		8270C	10/27/14	1
2-Fluorobiphenyl	321-60-8	65.3				% Rec.		8270C	10/27/14	1
2,4,6-Tribromophenol	118-79-6	68.0				% Rec.		8270C	10/27/14	1
p-Terphenyl-d14	1718-51-0	55.9				% Rec.		8270C	10/27/14	1

Results listed are dry weight basis.
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Reported: 11/14/14 18:34 Revised: 11/18/14 11:01
 L729024-02 (ICP METALS) - Dilution due to matrix
 L729024-02 (PH) - 6.2@21.0c

CA-116015



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-TRIPBLANK03-NT01
 Collected By :
 Collection Date : 10/21/14 14:00

ESC Sample # : L729024-03

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/23/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	95.0				% Rec.		8015D/G	10/23/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	10/28/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	10/28/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	10/28/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	10/28/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	10/28/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	10/28/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	10/28/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	10/28/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	10/28/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	10/28/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	10/28/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	10/28/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	10/28/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	10/28/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	10/28/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	10/28/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	10/28/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	10/28/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	10/28/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	10/28/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	10/28/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	10/28/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	10/28/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	10/28/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	10/28/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	10/28/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	10/28/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	10/28/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	10/28/14	1

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KA 11/16/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-TRIPBLANK03-NT01
 Collected By :
 Collection Date : 10/21/14 14:00

ESC Sample # : L729024-03

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	10/28/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	10/28/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	10/28/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	10/28/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	10/28/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	10/28/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	10/28/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	10/28/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	10/28/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	10/28/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	10/28/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	10/28/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	10/28/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	10/28/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	10/28/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	10/28/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	10/28/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	10/28/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	10/28/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	10/28/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	10/28/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	100.				% Rec.		8260B	10/28/14	1
Dibromofluoromethane	1868-53-7	95.9				% Rec.		8260B	10/28/14	1
4-Bromofluorobenzene	460-00-4	99.1				% Rec.		8260B	10/28/14	1

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KA-11/16/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB07-NS01
Collected By :
Collection Date : 10/20/14 10:45

ESC Sample # : L729024-04

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.3				su		9045D	10/24/14	1
Total Solids	TSOLIDS	72.3	.0333			%		2540 G-2	10/26/14	1
Mercury	7439-97-6	U	.0039	0.014	0.028	mg/kg		7471	10/23/14	1
Aluminum	7429-90-5	5000	24	35.	69.	mg/kg		6010B	10/30/14	5
Antimony	7440-36-0	U	5.2	6.9	14.	mg/kg		6010B	10/30/14	5
Arsenic	7440-38-2	U	4.4	6.9	14.	mg/kg		6010B	10/30/14	5
Barium	7440-39-3	40.	1.2	1.7	3.4	mg/kg		6010B	10/30/14	5
Beryllium	7440-41-7	U	.48	0.69	1.4	mg/kg		6010B	10/30/14	5
Cadmium	7440-43-9	U	.48	1.7	3.4	mg/kg		6010B	10/30/14	5
Chromium	7440-47-3	5.0	.97	3.5	6.9	mg/kg	J	6010B	10/30/14	5
Cobalt	7440-48-4	1.8	1.6	3.5	6.9	mg/kg	J	6010B	10/30/14	5
Copper	7440-50-8	U	3.6	6.9	14.	mg/kg		6010B	10/30/14	5
Lead	7439-92-1	2.1	1.3	1.7	3.4	mg/kg	J	6010B	10/30/14	5
Manganese	7439-96-5	59.	.83	3.5	6.9	mg/kg		6010B	10/30/14	5
Nickel	7440-02-0	3.4	3.3	6.9	14.	mg/kg	J	6010B	10/30/14	5
Selenium	7782-49-2	U	5.1	6.9	14.	mg/kg		6010B	10/30/14	5
Silver	7440-22-4	U	1.9	3.5	6.9	mg/kg		6010B	10/30/14	5
Thallium	7440-28-0	U	4.4	6.9	14.	mg/kg		6010B	11/03/14	5
Vanadium	7440-62-2	8.8	1.6	6.9	14.	mg/kg	J	6010B	10/30/14	5
Zinc	7440-66-6	17.13	4.13	17.	34.	mg/kg	J	6010B	10/30/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.03	0.069	0.14	mg/kg		8015D/GR	10/24/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	99.9				% Rec.		8015D/GR	10/24/14	1
Volatile Organics										
Acetone	67-64-1	0.040	.014	0.035	0.069	mg/kg	J	8260B	10/29/14	1
Benzene	71-43-2	0.0030	.00037	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Bromobenzene	108-86-1	U	.00039	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Bromochloromethane	74-97-5	U	.00054	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Bromodichloromethane	75-27-4	U	.00034	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Bromoform	75-25-2	U	.00058	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Bromomethane	74-83-9	U	.0018	0.0035	0.0069	mg/kg		8260B	10/29/14	1
n-Butylbenzene	104-51-8	U	.00036	0.00069	0.0014	mg/kg		8260B	10/29/14	1
sec-Butylbenzene	135-98-8	U	.00028	0.00069	0.0014	mg/kg		8260B	10/29/14	1
tert-Butylbenzene	98-06-6	U	.00029	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Carbon Disulfide	75-15-0	U	.00039	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Carbon tetrachloride	56-23-5	U	.00046	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Chlorobenzene	108-90-7	U	.00029	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Chlorodibromomethane	124-48-1	U	.00051	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Chloroethane	75-00-3	U	.0013	0.0035	0.0069	mg/kg		8260B	10/29/14	1
Chloroform	67-66-3	U	.00032	0.0035	0.0069	mg/kg		8260B	10/29/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

Note:

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Reported: 11/14/14 18:34 Revised: 11/18/14 11:01

L729024-04 (ICP METALS) - Dilution due to matrix

L729024-04 (PH) - 6.3@20.3c

KA-11/14/15
BMO 2/11/15
20 of 1540



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729024-04

Sample ID : TU503-SB07-NS01

Site ID :

Collected By :
Collection Date : 10/20/14 10:45

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00052	0.00069	0.0034	mg/kg		8260B	10/29/14	1
2-Chlorotoluene	95-49-8	U	.00041	0.00069	0.0014	mg/kg		8260B	10/29/14	1
4-Chlorotoluene	106-43-4	U	.00033	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0014	0.0035	0.0069	mg/kg		8260B	10/29/14	1
1,2-Dibromoethane	106-93-4	U	.00047	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Dibromomethane	74-95-3	U	.00052	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,2-Dichlorobenzene	95-50-1	U	.00041	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,3-Dichlorobenzene	541-73-1	U	.00033	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,4-Dichlorobenzene	106-46-7	U	.00032	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Dichlorodifluoromethane	75-71-8	U	.00098	0.0035	0.0069	mg/kg		8260B	10/29/14	1
1,1-Dichloroethane	75-34-3	U	.00028	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,2-Dichloroethane	107-06-2	U	.00036	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,1-Dichloroethene	75-35-4	U	.00041	0.00069	0.0014	mg/kg		8260B	10/29/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00033	0.00069	0.0014	mg/kg		8260B	10/29/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00036	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,2-Dichloropropane	78-87-5	U	.0005	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,1-Dichloropropene	563-58-6	U	.00044	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,3-Dichloropropane	142-28-9	U	.00029	0.00069	0.0014	mg/kg		8260B	10/29/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00036	0.00069	0.0014	mg/kg		8260B	10/29/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00037	0.00069	0.0014	mg/kg		8260B	10/29/14	1
2,2-Dichloropropane	594-20-7	U	.00039	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Ethylbenzene <i>F SOL-I</i>	100-41-4	0.00047	.00041	0.00069	0.0014	mg/kg	J	8260B	10/29/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00047	0.00069	0.0014	mg/kg		8260B	10/29/14	1
2-Hexanone	591-78-6	U	.0052	0.0069	0.014	mg/kg		8260B	10/29/14	1
Isopropylbenzene	98-82-8	U	.00033	0.00069	0.0014	mg/kg		8260B	10/29/14	1
p-Isopropyltoluene	99-87-6	U	.00028	0.00069	0.0014	mg/kg		8260B	10/29/14	1
2-Butanone (MEK) <i>F SOL-I</i>	78-93-3	0.0072	.0065	0.0069	0.014	mg/kg	J	8260B	10/29/14	1
Methylene Chloride	75-09-2	U	.0014	0.0035	0.0069	mg/kg		8260B	10/29/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0026	0.0069	0.014	mg/kg		8260B	10/29/14	1
Methyl tert-butyl ether	1634-04-4	U	.00029	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Naphthalene	91-20-3	U	.0014	0.0035	0.0069	mg/kg		8260B	10/29/14	1
n-Propylbenzene	103-65-1	U	.00029	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Styrene	100-42-5	U	.00032	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00036	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.0005	0.0010	0.0014	mg/kg		8260B	10/29/14	1
Tetrachloroethene	127-18-4	U	.00039	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Toluene <i>F SOL-I</i>	108-88-3	0.0028	.00059	0.0035	0.0069	mg/kg	J	8260B	10/29/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00043	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00054	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,1,1-Trichloroethane	71-55-6	U	.0004	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,1,2-Trichloroethane	79-00-5	U	.00039	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Trichloroethene	79-01-6	U	.00039	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Trichlorofluoromethane	75-69-4	U	.00052	0.0035	0.0069	mg/kg		8260B	10/29/14	1
1,2,3-Trichloropropane	96-18-4	U	.001	0.0014	0.0034	mg/kg		8260B	10/29/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.00029	0.00069	0.0014	mg/kg		8260B	10/29/14	1

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Reported: 11/14/14 18:34 Revised: 11/18/14 11:01

L729024-04 (ICP METALS) - Dilution due to matrix

L729024-04 (PH) - 6.3@20.3c

KA-11/16/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB07-NS01
Collected By :
Collection Date : 10/20/14 10:45

ESC Sample # : L729024-04

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00047	0.00069	0.0014	mg/kg		8260B	10/29/14	1
m&p-Xylene	1330-20-7	U	.001	0.0014	0.0028	mg/kg		8260B	10/29/14	1
Vinyl chloride	75-01-4	U	.0004	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00037	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	98.1				% Rec.		8260B	10/29/14	1
Dibromofluoromethane	1868-53-7	99.3				% Rec.		8260B	10/29/14	1
4-Bromofluorobenzene	460-00-4	91.6				% Rec.		8260B	10/29/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.2	2.8	5.5	mg/kg		8015	10/28/14	1
C28-C40 Oil Range		U	.37	2.8	5.5	mg/kg		8015	10/28/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	70.6				% Rec.		8015	10/28/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Acenaphthene	83-32-9	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Acenaphthylene	208-96-8	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Benzo(a)anthracene	56-55-3	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Benzo(a)pyrene	50-32-8	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Benzo(b)fluoranthene	205-99-2	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Benzo(k)fluoranthene	207-08-9	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Chrysene	218-01-9	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Fluoranthene	206-44-0	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Fluorene	86-73-7	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Naphthalene	91-20-3	0.0025	.00083	0.0028	0.0083	mg/kg	J	8270C-SI	10/25/14	1
Phenanthrene	85-01-8	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Pyrene	129-00-0	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
2-Methylnaphthalene	91-57-6	U	.00088	0.0083	0.028	mg/kg		8270C-SI	10/25/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	86.3				% Rec.		8270C-SI	10/25/14	1
Nitrobenzene-d5	4165-60-0	81.2				% Rec.		8270C-SI	10/25/14	1
2-Fluorobiphenyl	321-60-8	87.6				% Rec.		8270C-SI	10/25/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.011	0.23	0.46	mg/kg		8270C	10/27/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.012	0.23	0.46	mg/kg		8270C	10/27/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.01	0.23	0.46	mg/kg		8270C	10/27/14	1
Benzyl Alcohol	100-51-6	U	.01	0.23	0.46	mg/kg		8270C	10/27/14	1
Benzoic acid	65-85-0	U	.16	2.3	4.6	mg/kg		8270C	10/27/14	1
Carbazole	86-74-8	U	.0072	0.23	0.46	mg/kg		8270C	10/27/14	1

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Reported: 11/14/14 18:34 Revised: 11/18/14 11:01
L729024-04 (ICP METALS) - Dilution due to matrix
L729024-04 (PH) - 6.3@20.3c

DNR - DO NOT REPORT

*KA 11/16/15
BMS 9/2/15
22 of 1540*



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB07-NS01
 Collected By :
 Collection Date : 10/20/14 10:45

ESC Sample # : L729024-04
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0072	0.23	0.46	mg/kg		8270C	10/27/14	1
4-Bromophenyl-phenylether	101-55-3	U	.015	0.23	0.46	mg/kg		8270C	10/27/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0087	0.23	0.46	mg/kg		8270C	10/27/14	1
2-Chloronaphthalene	91-58-7	U	.0088	0.23	0.46	mg/kg		8270C	10/27/14	1
3,3-Dichlorobenzidine	91-94-1	U	.11	0.23	0.46	mg/kg		8270C	10/27/14	1
2,4-Dinitrotoluene	121-14-2	U	.0084	0.23	0.46	mg/kg		8270C	10/27/14	1
2,6-Dinitrotoluene	606-20-2	U	.01	0.23	0.46	mg/kg		8270C	10/27/14	1
Hexachlorobenzene	118-74-1	U	.012	0.23	0.46	mg/kg		8270C	10/27/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.014	0.23	0.46	mg/kg		8270C	10/27/14	1
Hexachloroethane	67-72-1	U	.018	0.23	0.46	mg/kg		8270C	10/27/14	1
Isophorone	78-59-1	U	.0072	0.23	0.46	mg/kg		8270C	10/27/14	1
Nitrobenzene	98-95-3	U	.009	0.23	0.46	mg/kg		8270C	10/27/14	1
n-Nitrosodimethylamine	62-75-9	U	.09	0.23	0.46	mg/kg		8270C	10/27/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0082	0.23	0.46	mg/kg		8270C	10/27/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.012	0.23	0.46	mg/kg		8270C	10/27/14	1
Benzylbutyl phthalate	85-68-7	U	.014	0.23	0.46	mg/kg	J3	8270C	10/27/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.016	0.23	0.46	mg/kg		8270C	10/27/14	1
Di-n-butyl phthalate	84-74-2	U	.015	0.23	0.46	mg/kg		8270C	10/27/14	1
Diethyl phthalate	84-66-2	U	.0095	0.23	0.46	mg/kg		8270C	10/27/14	1
Dimethyl phthalate	131-11-3	U	.0075	0.23	0.46	mg/kg		8270C	10/27/14	1
Di-n-octyl phthalate	117-84-0	U	.012	0.23	0.46	mg/kg		8270C	10/27/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.012	0.23	0.46	mg/kg		8270C	10/27/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0066	0.23	0.46	mg/kg		8270C	10/27/14	1
2-Chlorophenol	95-57-8	U	.011	0.23	0.46	mg/kg		8270C	10/27/14	1
2,4-Dichlorophenol	120-83-2	U	.01	0.23	0.46	mg/kg		8270C	10/27/14	1
2,4-Dimethylphenol	105-67-9	U	.065	0.23	0.46	mg/kg		8270C	10/27/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.16	0.23	0.46	mg/kg		8270C	10/27/14	1
2,4-Dinitrophenol	51-28-5	U	.14	0.23	0.46	mg/kg		8270C	10/27/14	1
2-Methylphenol	95-48-7	U	.014	0.23	0.46	mg/kg		8270C	10/27/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.011	0.23	0.46	mg/kg		8270C	10/27/14	1
2-Nitrophenol	88-75-5	U	.018	0.23	0.46	mg/kg		8270C	10/27/14	1
4-Nitrophenol	100-02-7	U	.072	0.23	0.46	mg/kg		8270C	10/27/14	1
4-Chloroaniline	106-47-8	U	.0048	0.23	0.46	mg/kg		8270C	10/27/14	1
2-Nitroaniline	88-74-4	U	.01	0.23	0.46	mg/kg		8270C	10/27/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0019	0.23	0.46	mg/kg		8270C	10/27/14	1
3-Nitroaniline	99-09-2	U	.012	0.23	0.46	mg/kg		8270C	10/27/14	1
4-Nitroaniline	100-01-6	U	.0088	0.23	0.46	mg/kg		8270C	10/27/14	1
Pentachlorophenol	87-86-5	U	.066	0.23	0.46	mg/kg		8270C	10/27/14	1
Phenol	108-95-2	U	.0097	0.23	0.46	mg/kg		8270C	10/27/14	1
2,4,5-Trichlorophenol	95-95-4	U	.014	0.23	0.46	mg/kg		8270C	10/27/14	1
2,4,6-Trichlorophenol	88-06-2	U	.011	0.23	0.46	mg/kg		8270C	10/27/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	67.5				% Rec.		8270C	10/27/14	1
Phenol-d5	4165-62-2	65.6				% Rec.		8270C	10/27/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/14/14 18:34 Revised: 11/18/14 11:01

L729024-04 (ICP METALS) - Dilution due to matrix

L729024-04 (PH) - 6.3@20.3c

DNR = do not report

*KA 11/16/15
 BMS 2/12/15
 23 of 1540*



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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB07-NS01
 Collected By :
 Collection Date : 10/20/14 10:45

ESC Sample # : L729024-04
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	64.0				% Rec.		8270C	10/27/14	1
2-Fluorobiphenyl	321-60-8	69.5				% Rec.		8270C	10/27/14	1
2,4,6-Tribromophenol	118-79-6	76.7				% Rec.		8270C	10/27/14	1
p-Terphenyl-d14	1718-51-0	59.8				% Rec.		8270C	10/27/14	1

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 Reported: 11/14/14 18:34 Revised: 11/18/14 11:01
 L729024-04 (ICP METALS) - Dilution due to matrix
 L729024-04 (PH) - 6.3@20.3c

KA 11/18/15



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REPORT OF ANALYSIS

November 18, 2014

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB07-NS02
Collected By :
Collection Date : 10/20/14 10:50

ESC Sample # : L729024-05

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.4				su		9045D	10/24/14	1
Total Solids	TSOLIDS	74.8	.0333			%		2540 G-2	10/26/14	1
Mercury	7439-97-6	U	.0037	0.013	0.027	mg/kg		7471	10/23/14	1
Aluminum	7429-90-5	8000	23	33.	67.	mg/kg		6010B	10/30/14	5
Antimony	7440-36-0	U	5	6.7	13.	mg/kg		6010B	10/30/14	5
Arsenic	7440-38-2	U	4.3	6.7	13.	mg/kg		6010B	10/30/14	5
Barium	7440-39-3	100	1.1	1.7	3.3	mg/kg		6010B	10/30/14	5
Beryllium	7440-41-7	U	.47	0.67	1.3	mg/kg		6010B	10/30/14	5
Cadmium	7440-43-9	U	.47	1.7	3.3	mg/kg		6010B	10/30/14	5
Chromium	7440-47-3	10.	.94	3.3	6.7	mg/kg		6010B	10/30/14	5
Cobalt	7440-48-4	3.6	1.6	3.3	6.7	mg/kg	J	6010B	10/30/14	5
Copper	7440-50-8	U	3.5	6.7	13.	mg/kg		6010B	10/30/14	5
Lead	7439-92-1	4.5	1.3	1.7	3.3	mg/kg		6010B	10/30/14	5
Manganese	7439-96-5	150	.8	3.3	6.7	mg/kg		6010B	10/30/14	5
Nickel	7440-02-0	8.2	3.2	6.7	13.	mg/kg	J	6010B	10/30/14	5
Selenium	7782-49-2	U	4.9	6.7	13.	mg/kg		6010B	10/30/14	5
Silver	7440-22-4	U	1.9	3.3	6.7	mg/kg		6010B	10/30/14	5
Thallium	7440-28-0	U	4.3	6.7	13.	mg/kg		6010B	11/03/14	5
Vanadium	7440-62-2	16.	1.6	6.7	13.	mg/kg		6010B	10/30/14	5
Zinc	7440-66-6	21.	4.21	17.21	33.	mg/kg	J	6010B	10/30/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.029	0.067	0.13	mg/kg		8015D/GR	10/24/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	100.				% Rec.		8015D/GR	10/24/14	1
Volatile Organics										
Acetone	67-64-1	0.032	.013	0.033	0.067	mg/kg	J	8260B	10/29/14	1
Benzene	71-43-2	0.0067	.00036	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Bromobenzene	108-86-1	U	.00037	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Bromochloromethane	74-97-5	U	.00052	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Bromodichloromethane	75-27-4	U	.00033	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Bromoform	75-25-2	U	.00056	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Bromomethane	74-83-9	U	.0017	0.0033	0.0067	mg/kg		8260B	10/29/14	1
n-Butylbenzene	104-51-8	U	.00035	0.00067	0.0013	mg/kg		8260B	10/29/14	1
sec-Butylbenzene	135-98-8	U	.00027	0.00067	0.0013	mg/kg		8260B	10/29/14	1
tert-Butylbenzene	98-06-6	U	.00028	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Carbon Disulfide	75-15-0	0.0035	.00037	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Carbon tetrachloride	56-23-5	U	.00044	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Chlorobenzene	108-90-7	U	.00028	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Chlorodibromomethane	124-48-1	U	.00049	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Chloroethane	75-00-3	U	.0013	0.0033	0.0067	mg/kg		8260B	10/29/14	1
Chloroform	67-66-3	U	.00031	0.0033	0.0067	mg/kg		8260B	10/29/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/14/14 18:34 Revised: 11/18/14 11:01

L729024-05 (PH) - 6.4@20.8c

L729024-05 (ICP METALS) - Dilution due to matrix

KA 11/16/15
BMS 11/19/15
25 of 1540



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB07-NS02
Collected By :
Collection Date : 10/20/14 10:50

ESC Sample # : L729024-05

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00051	0.00067	0.0033	mg/kg		8260B	10/29/14	1
2-Chlorotoluene	95-49-8	U	.0004	0.00067	0.0013	mg/kg		8260B	10/29/14	1
4-Chlorotoluene	106-43-4	U	.00032	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0013	0.0033	0.0067	mg/kg		8260B	10/29/14	1
1,2-Dibromoethane	106-93-4	U	.00045	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Dibromomethane	74-95-3	U	.00051	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dichlorobenzene	95-50-1	U	.0004	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,3-Dichlorobenzene	541-73-1	U	.00032	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,4-Dichlorobenzene	106-46-7	U	.00031	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Dichlorodifluoromethane	75-71-8	U	.00095	0.0033	0.0067	mg/kg		8260B	10/29/14	1
1,1-Dichloroethane	75-34-3	U	.00027	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dichloroethane	107-06-2	U	.00035	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,1-Dichloroethene	75-35-4	U	.0004	0.00067	0.0013	mg/kg		8260B	10/29/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00032	0.00067	0.0013	mg/kg		8260B	10/29/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00035	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dichloropropane	78-87-5	U	.00048	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,1-Dichloropropene	563-58-6	U	.00043	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,3-Dichloropropane	142-28-9	U	.00028	0.00067	0.0013	mg/kg		8260B	10/29/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00035	0.00067	0.0013	mg/kg		8260B	10/29/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00036	0.00067	0.0013	mg/kg		8260B	10/29/14	1
2,2-Dichloropropane	594-20-7	U	.00037	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Ethylbenzene <i>FSQ-I</i>	100-41-4	0.00094	.0004	0.00067	0.0013	mg/kg	J	8260B	10/29/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00045	0.00067	0.0013	mg/kg		8260B	10/29/14	1
2-Hexanone	591-78-6	U	.0051	0.0067	0.013	mg/kg		8260B	10/29/14	1
Isopropylbenzene	98-82-8	U	.00032	0.00067	0.0013	mg/kg		8260B	10/29/14	1
p-Isopropyltoluene	99-87-6	U	.00027	0.00067	0.0013	mg/kg		8260B	10/29/14	1
2-Butanone (MEK)	78-93-3	U	.0063	0.0067	0.013	mg/kg		8260B	10/29/14	1
Methylene Chloride	75-09-2	U	.0013	0.0033	0.0067	mg/kg		8260B	10/29/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0025	0.0067	0.013	mg/kg		8260B	10/29/14	1
Methyl tert-butyl ether	1634-04-4	U	.00028	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Naphthalene <i>FSQ-I</i>	91-20-3	0.0035	.0013	0.0033	0.0067	mg/kg	J	8260B	10/29/14	1
n-Propylbenzene	103-65-1	U	.00028	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Styrene	100-42-5	U	.00031	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00035	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00048	0.0010	0.0013	mg/kg		8260B	10/29/14	1
Tetrachloroethene	127-18-4	U	.00037	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Toluene <i>FSQ-I</i>	108-88-3	0.0055	.00057	0.0033	0.0067	mg/kg	J	8260B	10/29/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00041	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00052	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,1,1-Trichloroethane	71-55-6	U	.00038	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,1,2-Trichloroethane	79-00-5	U	.00037	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Trichloroethene	79-01-6	U	.00037	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Trichlorofluoromethane	75-69-4	U	.00051	0.0033	0.0067	mg/kg		8260B	10/29/14	1
1,2,3-Trichloropropane	96-18-4	U	.00099	0.0013	0.0033	mg/kg		8260B	10/29/14	1
1,2,4-Trimethylbenzene <i>FSQ-I</i>	95-63-6	0.00074	.00028	0.00067	0.0013	mg/kg	J	8260B	10/29/14	1

Results listed are dry weight basis.
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Reported: 11/14/14 18:34 Revised: 11/18/14 11:01
L729024-05 (PH) - 6.4@20.8c
L729024-05 (ICP METALS) - Dilution due to matrix

LA-116615



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB07-NS02
Collected By :
Collection Date : 10/20/14 10:50

ESC Sample # : L729024-05

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene <i>F SOL-I</i>	95-47-6	0.00072	.00045	0.00067	0.0013	mg/kg	J	8260B	10/29/14	1
m&p-Xylene <i>F SOL-I</i>	1330-20-7	0.0017	.00096	0.0013	0.0027	mg/kg	J	8260B	10/29/14	1
Vinyl chloride	75-01-4	U	.00039	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00036	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	97.6				% Rec.		8260B	10/29/14	1
Dibromofluoromethane	1868-53-7	102.				% Rec.		8260B	10/29/14	1
4-Bromofluorobenzene	460-00-4	92.4				% Rec.		8260B	10/29/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.1	2.7	5.3	mg/kg		8015	10/28/14	1
C28-C40 Oil Range		U	.36	2.7	5.3	mg/kg		8015	10/28/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	67.0				% Rec.		8015	10/28/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
Acenaphthene	83-32-9	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
Acenaphthylene	208-96-8	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
Benzo(a)anthracene	56-55-3	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
Benzo(a)pyrene	50-32-8	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
Benzo(b)fluoranthene <i>US MS L</i>	205-99-2	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
Benzo(g,h,i)perylene	191-24-2	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
Benzo(k)fluoranthene	207-08-9	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
Chrysene	218-01-9	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
Dibenz(a,h)anthracene	53-70-3	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
Fluoranthene	206-44-0	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
Fluorene	86-73-7	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
Naphthalene <i>US MS L DNR</i>	91-20-3	0.0027	.0008	0.0027	0.0080	mg/kg	J	8270C-SI	10/25/14	1
Phenanthrene	85-01-8	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
Pyrene	129-00-0	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	10/25/14	1
2-Methylnaphthalene	91-57-6	U	.00086	0.0080	0.027	mg/kg		8270C-SI	10/25/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	81.4				% Rec.		8270C-SI	10/25/14	1
Nitrobenzene-d5	4165-60-0	78.3				% Rec.		8270C-SI	10/25/14	1
2-Fluorobiphenyl	321-60-8	82.7				% Rec.		8270C-SI	10/25/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	.01	0.22	0.44	mg/kg		8270C	10/27/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.012	0.22	0.44	mg/kg		8270C	10/27/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.01	0.22	0.44	mg/kg		8270C	10/27/14	1
Benzyl Alcohol	100-51-6	U	.01	0.22	0.44	mg/kg		8270C	10/27/14	1
Benzoic acid	65-85-0	U	.16	2.2	4.4	mg/kg		8270C	10/27/14	1
Carbazole	86-74-8	U	.007	0.22	0.44	mg/kg		8270C	10/27/14	1

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Reported: 11/14/14 18:34 Revised: 11/18/14 11:01

L729024-05 (PH) - 6.4@20.8c

L729024-05 (ICP METALS) - Dilution due to matrix

DNR: Do Not Report

*KA 11/16/15
BMS 9/2/15
27 of 1540*



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB07-NS02
Collected By :
Collection Date : 10/20/14 10:50

ESC Sample # : L729024-05
Site ID :
Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual Method	Date	Dil.
Dibenzofuran	132-64-9	U	.007	0.22	0.44	mg/kg	8270C	10/27/14	1
4-Bromophenyl-phenylether	101-55-3	U	.015	0.22	0.44	mg/kg	8270C	10/27/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0084	0.22	0.44	mg/kg	8270C	10/27/14	1
2-Chloronaphthalene	91-58-7	U	.0086	0.22	0.44	mg/kg	8270C	10/27/14	1
3,3-Dichlorobenzidine	91-94-1	U	.1	0.22	0.44	mg/kg	8270C	10/27/14	1
2,4-Dinitrotoluene	121-14-2	U	.0082	0.22	0.44	mg/kg	8270C	10/27/14	1
2,6-Dinitrotoluene	606-20-2	U	.0099	0.22	0.44	mg/kg	8270C	10/27/14	1
Hexachlorobenzene	118-74-1	U	.011	0.22	0.44	mg/kg	8270C	10/27/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.013	0.22	0.44	mg/kg	8270C	10/27/14	1
Hexachloroethane	67-72-1	U	.017	0.22	0.44	mg/kg	8270C	10/27/14	1
Isophorone	78-59-1	U	.007	0.22	0.44	mg/kg	8270C	10/27/14	1
Nitrobenzene	98-95-3	U	.009	0.22	0.44	mg/kg	8270C	10/27/14	1
n-Nitrosodimethylamine	62-75-9	U	.087	0.22	0.44	mg/kg	8270C	10/27/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0079	0.22	0.44	mg/kg	8270C	10/27/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.012	0.22	0.44	mg/kg	8270C	10/27/14	1
Benzylbutyl phthalate	85-68-7	U	.013	0.22	0.44	mg/kg	J3 8270C	10/27/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.016	0.22	0.44	mg/kg	8270C	10/27/14	1
Di-n-butyl phthalate	84-74-2	U	.015	0.22	0.44	mg/kg	8270C	10/27/14	1
Diethyl phthalate	84-66-2	U	.0092	0.22	0.44	mg/kg	8270C	10/27/14	1
Dimethyl phthalate	131-11-3	U	.0072	0.22	0.44	mg/kg	8270C	10/27/14	1
Di-n-octyl phthalate	117-84-0	U	.012	0.22	0.44	mg/kg	8270C	10/27/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.012	0.22	0.44	mg/kg	8270C	10/27/14	1
Acid Extractables									
4-Chloro-3-methylphenol	59-50-7	U	.0064	0.22	0.44	mg/kg	8270C	10/27/14	1
2-Chlorophenol	95-57-8	U	.011	0.22	0.44	mg/kg	8270C	10/27/14	1
2,4-Dichlorophenol	120-83-2	U	.01	0.22	0.44	mg/kg	8270C	10/27/14	1
2,4-Dimethylphenol	105-67-9	U	.063	0.22	0.44	mg/kg	8270C	10/27/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.16	0.22	0.44	mg/kg	8270C	10/27/14	1
2,4-Dinitrophenol	51-28-5	U	.13	0.22	0.44	mg/kg	8270C	10/27/14	1
2-Methylphenol	95-48-7	U	.013	0.22	0.44	mg/kg	8270C	10/27/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.01	0.22	0.44	mg/kg	8270C	10/27/14	1
2-Nitrophenol	88-75-5	U	.017	0.22	0.44	mg/kg	8270C	10/27/14	1
4-Nitrophenol	100-02-7	U	.07	0.22	0.44	mg/kg	8270C	10/27/14	1
4-Chloroaniline	106-47-8	U	.0047	0.22	0.44	mg/kg	8270C	10/27/14	1
2-Nitroaniline	88-74-4	U	.01	0.22	0.44	mg/kg	8270C	10/27/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0019	0.22	0.44	mg/kg	8270C	10/27/14	1
3-Nitroaniline	99-09-2	U	.011	0.22	0.44	mg/kg	8270C	10/27/14	1
4-Nitroaniline	100-01-6	U	.0086	0.22	0.44	mg/kg	8270C	10/27/14	1
Pentachlorophenol	87-86-5	U	.064	0.22	0.44	mg/kg	8270C	10/27/14	1
Phenol	108-95-2	U	.009	0.22	0.44	mg/kg	8270C	10/27/14	1
2,4,5-Trichlorophenol	95-95-4	U	.013	0.22	0.44	mg/kg	8270C	10/27/14	1
2,4,6-Trichlorophenol	88-06-2	U	.01	0.22	0.44	mg/kg	8270C	10/27/14	1
Surrogate Recovery									
2-Fluorophenol	367-12-4	64.1				% Rec.	8270C	10/27/14	1
Phenol-d5	4165-62-2	62.6				% Rec.	8270C	10/27/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

Note:

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The reported analytical results relate only to the sample submitted

Reported: 11/14/14 18:34 Revised: 11/18/14 11:01

L729024-05 (PH) - 6.4@20.8c

L729024-05 (ICP METALS) - Dilution due to matrix

DNR = Do Not Report

*KA 11/18/15
BAJ 2/17/15
28 of 1540*



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB07-NS02
 Collected By :
 Collection Date : 10/20/14 10:50

ESC Sample # : L729024-05
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	61.7				% Rec.		8270C	10/27/14	1
2-Fluorobiphenyl	321-60-8	70.7				% Rec.		8270C	10/27/14	1
2,4,6-Tribromophenol	118-79-6	73.6				% Rec.		8270C	10/27/14	1
p-Terphenyl-d14	1718-51-0	65.7				% Rec.		8270C	10/27/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

Note:

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Reported: 11/14/14 18:34 Revised: 11/18/14 11:01

L729024-05 (PH) - 6.4@20.8c

L729024-05 (ICP METALS) - Dilution due to matrix

ICA 11/16/15

**Holloman AFB
Groundwater Monitoring
Data Review Summary**

Data Package Number: L729026
 Sampling Event Dates: October 20-21, 2014
 Sample-specific Parameter Review/ Laboratory Performance Parameters: Yes
 Full Validation (e.g., result recalculation): No
 Data Reviewer: Katie Abbott, URS Project Chemist
 Date Completed: January 14, 2015
 Peer Reviewer: Sheri Fling, URS Project Quality Assurance Manager (QAM)

The table below summarizes the data package and sample identifications discussed in this data review.

Field Identification	Sample Type	Lab Identification	Matrix	Analyses						
				GRO	VOCs	PAHs	DRO/ORO	SVOCs	Total Metals	pH
L729026										
TU503-SB01-DS01	FD	L729026-01	Soil	X	X	X	X	X	X	X
TU503-SB01-NS01	SA	L729026-02	Soil	X	X	X	X	X	X	X
TU503-SB01-NS02	SA	L729026-03	Soil	X	X	X	X	X	X	X
TU503-TRIPBLANK03-NT01	TB	L729026-04	Water	X	X	---	---	---	---	---
TU503-SB05-NS01	SA	L729026-05	Soil	X	X	X	X	X	X	X
TU503-SB05-NS02	SA	L729026-06	Soil	X	X	X	X	X	X	X

Sample Type: FD – Field Duplicate SA – Sample TB – Trip Blank
 X^m - Matrix Spike/Matrix Spike Duplicate

Analyses:
 DRO/ORO - Diesel and Oil Range Organics (8015)
 GRO – Gasoline Range Organics (8015D)
 TDS – Total Dissolved Solids (SM2540C)
 Total/ Metals – Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Manganese, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc, Mercury (6010B/7470A)
 PAH – Polynuclear Aromatic Hydrocarbons (8270C SIM)
 SIM – Selective Ion Monitoring
 SVOCs – Semivolatile Organic Compounds (8270C)
 VOCs – Volatile Organic Compounds (8260B)

The data review was conducted in accordance with the Final Interim Measures Work Plan – Appendix A, Sampling and Analysis Plan/Quality Assurance Project Plan: Former Septic System Site TU904 (URS, September 2014); Group 2 Former Underground Storage Sites: AOC-UST-889 (TU515) (URS, September 2014); and Group 3 Former Underground Storage Tank Sites: AOC-UST-221 (TU503), AOC-UST-298 (TU508), AOC-UST-901 (TU506) and AOC-UST-7003 (TU518) (URS, August 2014); data validation standard operating procedure (SOP) 14; Department of Defense (DoD) Quality Systems Manual version 4.2 (DoD, 2010); and method requirements.

General Overall Assessment:

- Data are usable without qualification.
- Data are usable with qualification (noted below).
- Some or all data are unusable for any purpose (detailed below).

Case Narrative Comments: Any laboratory case narrative comments concerning data qualification were addressed in the table below.

Trace level detects, reported between the method detection limit (MDL) and the reporting limit (LOQ), have been qualified as estimated (F SQL-I). All other occurrences of data qualification are covered in the following table.

Review Parameter	Criteria Met?	Comment
Chain of Custody & Sample Receipt	Yes	The samples were received by ESC Lab Sciences in good condition and were consistent with the accompanying chain of custody (COC). The cooler temperatures upon receipt were within the recommended ≤6 degrees Celsius (°C) temperature range.
Reporting	Yes	<p>During review of a representative data package selected for full validation, it was noted that improper reference spectra were displayed in the printed version of the data package for Method 8260B. Due to a LIMS limitation, the data package reference spectra were not consistently representative of the actual spectra for the analytes detected. Because the laboratory data review involves the use of NBS reference spectra and not the reference spectra taken from the instrument calibration, the analyst was not seeing the improper alignment of spectra noted in the data package during his/her review at the instrument. The laboratory revised and reissued the data package with correct reference spectral data, consistent with method requirements, and no results were changed. Therefore, no further action is necessary as a result of this validation finding.</p> <p>Method 8270C Semivolatile Organic Compounds (SVOCs)</p> <p>The results for 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene are not reported by Method 8270C SVOCs but are reported by Method 8260B volatile organic compounds (VOCs). As the detection limits (DLs), limits of detection (LODs), and limits of quantitation (LOQs) are lower by Method 8260B, further action was not necessary.</p> <p>The laboratory noted 4-methylphenol cannot be reported as 3 & 4-methylphenol coelute during the analysis; therefore, the analytes are reported together and 3&4-methylphenol on the data sheets and in the electronic database.</p>
Holding Times	Yes	All samples were analyzed within the method required holding time.
Laboratory Blanks <ul style="list-style-type: none"> • Method Blank • Initial/Continuing Calibration Blank 	No	With the exception listed in Table 1, target analytes were not detected within the method or calibration blanks.
Matrix Quality Control <ul style="list-style-type: none"> • Matrix Spike/ Matrix Spike Duplicate None in this package • Laboratory Duplicate None in this package 	NA	<p>Matrix Spike/ Matrix Spike Duplicate (MS/MSD)</p> <p>The frequency of MS/MSDs met the quality assurance project plan (QAPP) requirement of one per twenty samples.</p> <p>An MS/MSD was not performed on a sample from this data package.</p>

Review Parameter	Criteria Met?	Comment
		<p>Consistent with standard operating procedure (SOP) 14, when MS/MSD issues accounted for less than 35% of the MS/MSD analyses conducted, applicable data qualification was limited to qualification of the parent sample of the affected analyte. When >35% of the MS/MSD results did not meet criteria, evaluation was extended to all associated samples. See Section 4.1 of the data validation report for overall qualifiers resulting from the MS/MSD evaluation.</p> <p>Laboratory Duplicate</p> <p>A method duplicate was not performed on a sample from this data package.</p>
<p>Metals Only</p> <ul style="list-style-type: none"> • Serial Dilution None in this package • Post Digestion Spike None in this package 	NA	<p>Serial Dilution (Metals Only)</p> <p>A serial dilution was not reported in association with the sample in this data package.</p> <p>Post Digestion Spike (PDS) (Metals Only)</p> <p>A post digestion spike was not reported in association with the sample in this data package.</p>
<p>Method Quality Control</p> <ul style="list-style-type: none"> • Surrogates (VOCs, SVOCs, PAHs, GRO, DRO/ORO) 	Yes	<p>The surrogate recoveries were within the laboratory specified acceptance criteria.</p>
<p>Field Quality Control</p> <ul style="list-style-type: none"> • Trip Blank TU503-TRIPBLANK04-NT01 (GRO, VOCs) • Field Duplicate TU503-SB01-NS01/TU503-SB01-DS01 • Equipment Blank None in this package • Field Blank None in this package 	No	<p>Trip Blank</p> <p>Target analytes were not detected in the trip blank.</p> <p>Field Duplicate</p> <p>The frequency of field duplicates met the QAPP requirement of one per twenty samples.</p> <p>With the exceptions listed in Table 2, the comparison between results of the field duplicate pair met the criteria listed below.</p> <ul style="list-style-type: none"> • When both the sample and duplicate values are >5x the LOQ acceptable sampling and analytical precision is indicated by an RPD between the results of ≤30% for water samples (≤50% for soil samples). • Where the result for one or both analytes of the field duplicate pair is <5xLOQ, satisfactory precision is indicated if the absolute difference between the field duplicate results is <2xLOQ for water samples (<3.5xLOQ for soil samples). <p>Consistent with SOP 14, when field duplicate issues accounted for less than 35% of the field duplicate analyses conducted, applicable data qualification was limited to qualification of the parent sample for the affected analyte. When >35% of the field duplicate results did not meet criteria, evaluation was extended to all associated samples. See Section 4.3 of the data validation report for overall qualifiers resulting from the field duplicate evaluation.</p> <p>Equipment Blank</p> <p>As dedicated equipment was used to collect these samples, an equipment blank was not submitted for this sampling event. Further action was not necessary.</p>

Review Parameter	Criteria Met?	Comment
		<p>Field Blank</p> <p>The frequency of field blanks met the QAPP requirement of one per twenty samples.</p> <p>A field blank was not submitted with this data package. See Section 4.4 of the data validation report for overall qualifiers resulting from the field blank evaluation.</p>
LODs met?	No	Due to dilutions, several 6010B metals results for all samples were reported as non-detect at elevated LODs. See Section 3.7 of the validation report for further discussion.
Other Parameters	Yes	<p>Naphthalene (8260B and 8270C-PAHs) and hexachloro-1,3-butadiene and 1,2,4-trichlorobenzene (8260B and 8270C) were analyzed by multiple methods. Results were selected for reporting using the following criteria:</p> <ul style="list-style-type: none"> • If both results were non-detect, the non-detect result with the lower DL was selected. • If both results were reported as detected, the higher detected result was selected for reporting. • If one result was reported as non-detect and the other result was reported as detected, the detected result was selected for reporting.
Initial Calibration	Yes	<p>Methods 8260B VOCs & 8270C SVOCs</p> <p>A minimum relative response factor (RRF) of 0.05 was used for the system performance check compounds (SPCCs) and all SPCCs met this criterion. The percent relative standard deviations (%RSDs) over the initial calibration RRFs for all calibration check compounds (CCCs) satisfied the method requirement of <30%. For all other target compounds, a requirement of 15% was used. The %RSD values for all target analytes in the calibration were less than 15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)</p> <p>The %RSD values for all target analytes in the calibration were less than 20%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8015D Gasoline Range Organics (GRO)/DRO/ORO</p> <p>The relationship between instrument response and concentration was established with a blank and at least five standards for the entire carbon range of C10-C40. The %RSD over the initial calibrations curve satisfied the method requirement of <15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Methods 6010B (Inductively Coupled Plasma [ICP] Metals)</p> <p>The initial calibrations (ICALs) were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with a blank and at least one standard. The calibrations were verified with the analysis of an initial calibration verification (ICV) standard. All metals were recovered within the method acceptance range of 90-110%.</p>

Review Parameter	Criteria Met?	Comment
		<p>Method 7470A (Mercury)</p> <p>The ICALs were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with five standards. The correlation coefficient was >0.995. The calibration was verified with the analysis of an ICV standard. The analytes were recovered within the acceptance range of 90-110%. Response and linearity criteria were met and data qualification on the basis of initial calibration was not necessary.</p>
Initial Calibration Verification/Continuing Calibration Verification	No	<p>Method 8260B VOCs</p> <p>The percent differences (%Ds) for all CCCs in the ICVs and continuing calibrations (CCALs) were less than 20%, satisfying method requirements, and other target analytes satisfied the %D criterion of 20%.</p> <p>Methods 8270C PAHs/SVOCs</p> <p>With the exceptions listed in Table 3, the %D values for all target analytes in the calibration were less than 20%.</p> <p>Method 8015D GRO/DRO/ORO</p> <p>The %Ds for all target compounds in the ICVs and CCALs were less than 15%. Data qualification was not necessary.</p> <p>Methods 6010B (ICP Metals) & 7470A (Mercury)</p> <p>Calibration verification analyses were conducted at the proper frequency. All metals were recovered within the DOD QSM 4.2 low level acceptance range of 80-120% and the method medium/high acceptance range of 90-110%.</p>
Interference Check Standard (Metals Only)	No	<p>The interference check standard (ICS) AB solutions were analyzed at the proper frequency. The target analytes were recovered within the acceptance range of 90-10% in the ICS AB solution. With the exceptions listed in Table 4, interferent elements were not present in the samples at concentrations greater than those in the ICSs.</p> <p>The interferent elements aluminum, calcium, iron, and magnesium were present in most samples in this data package at concentrations greater than or equal to those in the ICSs. As such, these samples were evaluated for positive and negative biases suggested by the ICS A. Data qualification was issued if the absolute value of the ICS A result was greater than the DL and it suggested a positive or negative bias which accounted for more than 25% of associated sample results or LODs. (Note: The ICS A solution only contains the interferent elements aluminum, calcium, iron, and magnesium so any positive or negative result for other analytes is inferred to be a bias potentially caused by one or more of the interferent elements present). Table 4 summarizes the resultant data qualification on the basis of the ICS results.</p>
Internal Standard (VOCs/SVOCs/PAHs/Metals (6020))	Yes	<p>All recoveries for the internal standards in field samples were within the applicable acceptance limits. Therefore, data qualification based on internal standards was not necessary.</p>

Review Parameter	Criteria Met?	Comment
Laboratory Control Sample/ Laboratory Control Sample Duplicate	No	One laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) per method per analytical batch was prepared and analyzed. With the exceptions listed in Table 5, all of the LCS recoveries and LCS/LCSD RPDs were within the laboratory determined acceptance limits. These results are indicative of an acceptable level of accuracy and precision with respect to the analytical method. Method 8015 DRO/ORO The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the method could not be assessed for ORO.
Package Completeness	Yes	The results are usable as qualified for the project objective. The data are 100% complete.

> - Greater Than

< - Less Than

≤ - Less Than or Equal to

°C – Degrees Celsius

% - Percent

%Ds – Percent Differences

%RSD – Percent Relative Standard Deviation

CCALs – Continuing Calibrations

CCBs – Continuing Calibration Blanks

CCCs – Calibration Check Compounds

COC – Chain of Custody

COD – Coefficient of Determination

DLs – Detection Limits

DRO – Diesel Range Organics

GRO – Gasoline Range Organics

ICAL – Initial Calibration

ICB – Initial Calibration Blank

ICP – Inductively Coupled Plasma

ICS – Interference Check Standard

ICV – Initial Calibration Verification

LCS – Laboratory Control Sample

LCSD – Laboratory Control Sample Duplicate

LOD – Limit of Detection

LOQ – Limit of Quantitation

MDL – Method Detection Limit

MS/MSD – Matrix Spike/ Matrix Spike Duplicate

ORO – Oil Range Organics

PAHs – Polynuclear Aromatic Hydrocarbons

PDS – Post Digestion Spike

QAPP – Quality Assurance Project Plan

RPDs – Relative Percent Differences

RRF – Relative Response Factor

SOP – Standard Operating Procedure

SPCCs – System Performance Check Compounds

SVOCs – Semivolatile Organic Compounds

VOCs – Volatile Organic Compounds

Table 1: Blank Outliers and Resultant Data Qualification

Associated Samples	Analyte	Concentration	Qualification
Total Metals			
MB Batch WG750261 TU503-SB01-DS01 TU503-SB01-NS01 TU503-SB01-NS02 TU503-SB05-NS01 TU503-SB05-NS02	Aluminum	4.64 mg/Kg	None. The associated results were reported at concentrations >5x the concentration of the blank contamination.
	Zinc	1.08 mg/Kg	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).
PAHs			
MB Batch WG750213 TU503-SB01-DS01 TU503-SB01-NS01 TU503-SB01-NS02 TU503-SB05-NS01 TU503-SB05-NS02	Naphthalene	0.000933 mg/Kg	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).

> - Greater Than

MB – Method Blank

< - Less Than

PAHs – Polynuclear Aromatic Hydrocarbons

I – Indeterminate Bias

U – Non-detect

Table 2: Field Duplicate Outliners and Resultant Data Qualification

Field Duplicate Pair	Analyte	Parent Result (mg/Kg)	FD Result (mg/Kg)	Criteria not Met	Qualification
Total Metals					
TU503-SB01-NS01/ TU503-SB01-DS01	Aluminum	3100	6000	RPD > 50%	As the RPD between the field duplicate pair results exceeded 50%, the associated results were qualified as estimated (J FD-I).
	Barium	26	46		
	Manganese	35	77		

% - Percent
I - Indeterminate Bias
LOQ - Limit of Quantitation

> - Greater Than
J - Estimated
RPD - Relative Percent Difference

FD - Field Duplicate
mg/Kg - Milligrams per Kilogram

Table 3: Initial/Continuing Calibration Verification Outliers and Resultant Data Qualification

Associated Samples	Analyte	%D (Limit)	Data Qualification
SVOCs			
TU503-SB01-DS01 TU503-SB01-NS01 TU503-SB01-NS02 TU503-SB05-NS01 TU503-SB05-NS02	n-Nitrosodimethylamine	-26.4 (±20)	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ CCAL-L).

± - Plus or minus
L - Low Bias

%D - Percent Difference
SVOCs - Semivolatile Organic Compounds

CCAL - Continuing Calibration
UJ - Estimated

Table 4: ICS Outliers and Resultant Data Qualification

Interferent Element	Analyte	ICS A (µg/L)	MDL (µg/L)	Qualified Samples	Qualification
Aluminum, Calcium, Iron, Magnesium	Cadmium	-2.8	0.7	TU503-SB01-DS01 TU503-SB01-NS01 TU503-SB01-NS02 TU503-SB05-NS01 TU503-SB05-NS02	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ/J ICS-L).
	Lead	-33.5	1.9		
	Nickel	-16.5	4.9		

µg/L - Micrograms per Liter
MDL - Method Detection Limit

ICS - Interference Check Standard
UJ/J - Estimated

L - Low Bias

Table 5: LCS Recovery Outliers and Resultant Data Qualification

Associated Samples	Analyte	%R (Limits)	RPD (Limits)	Qualification
Metals				
LCS WG750261 TU503-SB01-DS01 TU503-SB01-NS01 TU503-SB01-NS02 TU503-SB05-NS01 TU503-SB05-NS02	Aluminum	133/131 (80-120)	3 (50)	As the potential bias was considered to be high, the associated detected aluminum results for all samples were qualified as estimated (J LCS-H).
LCS WG750208 TU503-SB01-DS01 TU503-SB01-NS01 TU503-SB01-NS02 TU503-SB05-NS01 TU503-SB05-NS02	Mercury	128/123 (80-120)	18 (50)	As the potential bias was considered to be high and the associated sample results were reported as non-detect, data qualification was not considered necessary.

%R – Percent Recoveries

J – Estimated

H – High Bias

LCS – Laboratory Control Sample

Bold indicates a recovery outside of acceptance limits.



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB01-DS01
 Collected By :
 Collection Date : 10/20/14 16:40

ESC Sample # : L729026-01
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.4				su		9045D	10/24/14	1
Total Solids	TSOLIDS	77.6	.0333			%		2540 G-2	10/26/14	1
Mercury	7439-97-6	U	.0036	0.013	0.026	mg/kg		7471	10/23/14	1
Aluminum	7429-90-5	6000	23	32.	64.	mg/kg		6010B	10/30/14	5
Antimony	7440-36-0	U	4.8	6.4	13.	mg/kg		6010B	10/30/14	5
Arsenic	7440-38-2	U	4.1	6.4	13.	mg/kg		6010B	10/30/14	5
Barium	7440-39-3	46.	1.1	1.6	3.2	mg/kg		6010B	10/30/14	5
Beryllium	7440-41-7	U	.45	0.64	1.3	mg/kg		6010B	10/30/14	5
Cadmium	7440-43-9	U	.45	1.6	3.2	mg/kg		6010B	10/30/14	5
Chromium	7440-47-3	6.0	.9	3.2	6.4	mg/kg	J	6010B	10/30/14	5
Cobalt	7440-48-4	2.3	1.5	3.2	6.4	mg/kg	J	6010B	10/30/14	5
Copper	7440-50-8	U	3.4	6.4	13.	mg/kg		6010B	10/30/14	5
Lead	7439-92-1	2.6	1.2	1.6	3.2	mg/kg	J	6010B	10/30/14	5
Manganese	7439-96-5	77.	.77	3.2	6.4	mg/kg		6010B	10/30/14	5
Nickel	7440-02-0	4.5	3.1	6.4	13.	mg/kg	J	6010B	10/30/14	5
Selenium	7782-49-2	U	4.8	6.4	13.	mg/kg		6010B	10/30/14	5
Silver	7440-22-4	U	1.8	3.2	6.4	mg/kg		6010B	10/30/14	5
Thallium	7440-28-0	U	4.1	6.4	13.	mg/kg		6010B	11/04/14	5
Vanadium	7440-62-2	15.	1.5	6.4	13.	mg/kg		6010B	10/30/14	5
Zinc	7440-66-6	15. 15	1.5 3.9	6.4	16.	mg/kg	J	6010B	10/30/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.032	0.075	0.15	mg/kg		8015D/GR	10/24/14	1.16
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	98.7				% Rec.		8015D/GR	10/24/14	1.16
Volatile Organics										
Acetone	67-64-1	0.036	.014	0.035	0.070	mg/kg	J	8260B	10/29/14	1.08
Benzene	71-43-2	0.0023	.00037	0.00070	0.0014	mg/kg		8260B	10/29/14	1.08
Bromobenzene	108-86-1	U	.0004	0.00070	0.0014	mg/kg		8260B	10/29/14	1.08
Bromochloromethane	74-97-5	U	.00054	0.00070	0.0014	mg/kg		8260B	10/29/14	1.08
Bromodichloromethane	75-27-4	U	.00035	0.00070	0.0014	mg/kg		8260B	10/29/14	1.08
Bromoform	75-25-2	U	.00059	0.00070	0.0014	mg/kg		8260B	10/29/14	1.08
Bromomethane	74-83-9	U	.0018	0.0035	0.0070	mg/kg		8260B	10/29/14	1.08
n-Butylbenzene	104-51-8	U	.00036	0.00070	0.0014	mg/kg		8260B	10/29/14	1.08
sec-Butylbenzene	135-98-8	U	.00028	0.00070	0.0014	mg/kg		8260B	10/29/14	1.08
tert-Butylbenzene	98-06-6	U	.00028	0.00070	0.0014	mg/kg		8260B	10/29/14	1.08
Carbon Disulfide	75-15-0	U	.00039	0.00070	0.0014	mg/kg		8260B	10/29/14	1.08
Carbon tetrachloride	56-23-5	U	.00045	0.00070	0.0014	mg/kg		8260B	10/29/14	1.08
Chlorobenzene	108-90-7	U	.0003	0.00070	0.0014	mg/kg		8260B	10/29/14	1.08
Chlorodibromomethane	124-48-1	U	.00052	0.00070	0.0014	mg/kg		8260B	10/29/14	1.08
Chloroethane	75-00-3	U	.0013	0.0035	0.0070	mg/kg		8260B	10/29/14	1.08
Chloroform	67-66-3	U	.00032	0.0035	0.0070	mg/kg		8260B	10/29/14	1.08

Results listed are dry weight basis.
 U = Not Detected at the LOD

Note:

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Reported: 11/14/14 18:35 Revised: 11/18/14 11:01
 L729026-01 (ICP METALS) - Dilution due to matrix
 L729026-01 (PH) - 6.4@20.5c

KA-107 11/16/15



YOUR LAB OF CHOICE

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Mt. Juliet, TN 37122
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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB01-DS01
Collected By :
Collection Date : 10/20/14 16:40

ESC Sample # : L729026-01
Site ID :
Project # : 23446543.0055AA

Table with columns: Parameter, CAS#, Result, DL, LOD, LOQ, Units, Qual, Method, Date, Dil. Lists various chemical compounds and their detection results.

Results listed are dry weight basis.
U = Not Detected at the LOD

Note:

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L729026-01 (ICP METALS) - Dilution due to matrix
L729026-01 (PH) - 6.4@20.5c

Handwritten signature/initials: KA 1/16/15



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ESC Sample # : L729026-01

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00048	0.00070	0.0014	mg/kg		8260B	10/29/14	1.08
m&p-Xylene	1330-20-7	U	.001	0.0014	0.0028	mg/kg		8260B	10/29/14	1.08
Vinyl chloride	75-01-4	U	.0004	0.00070	0.0014	mg/kg		8260B	10/29/14	1.08
1,3,5-Trimethylbenzene	108-67-8	U	.00037	0.00070	0.0014	mg/kg		8260B	10/29/14	1.08
Surrogate Recovery										
Toluene-d8	2037-26-5	96.4				% Rec.		8260B	10/29/14	1.08
Dibromofluoromethane	1868-53-7	101.				% Rec.		8260B	10/29/14	1.08
4-Bromofluorobenzene	460-00-4	94.3				% Rec.		8260B	10/29/14	1.08
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.1	2.6	5.2	mg/kg		8015	10/28/14	1
C28-C40 Oil Range		U	.35	2.6	5.2	mg/kg		8015	10/28/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	68.5				% Rec.		8015	10/28/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Acenaphthene	83-32-9	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Acenaphthylene	208-96-8	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Benzo(a)anthracene	56-55-3	0.0013	.00077	0.0026	0.0077	mg/kg	J	8270C-SI	10/25/14	1
Benzo(a)pyrene	50-32-8	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Benzo(b)fluoranthene	205-99-2	0.0010	.00077	0.0026	0.0077	mg/kg	J	8270C-SI	10/25/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Benzo(k)fluoranthene	207-08-9	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Chrysene	218-01-9	0.00080	.00077	0.0026	0.0077	mg/kg	J	8270C-SI	10/25/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Fluoranthene	206-44-0	0.00082	.00077	0.0026	0.0077	mg/kg	J	8270C-SI	10/25/14	1
Fluorene	86-73-7	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Naphthalene	91-20-3	0.0026	.00077	0.0026	0.0077	mg/kg	J	8270C-SI	10/25/14	1
Phenanthrene	85-01-8	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Pyrene	129-00-0	0.00077	.00077	0.0026	0.0077	mg/kg	J	8270C-SI	10/25/14	1
2-Methylnaphthalene	91-57-6	U	.00082	0.0077	0.026	mg/kg		8270C-SI	10/25/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	82.4				% Rec.		8270C-SI	10/25/14	1
Nitrobenzene-d5	4165-60-0	77.1				% Rec.		8270C-SI	10/25/14	1
2-Fluorobiphenyl	321-60-8	82.3				% Rec.		8270C-SI	10/25/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.0099	0.22	0.43	mg/kg		8270C	10/27/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.012	0.22	0.43	mg/kg		8270C	10/27/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.0098	0.22	0.43	mg/kg		8270C	10/27/14	1
Benzyl Alcohol	100-51-6	U	.0097	0.22	0.43	mg/kg		8270C	10/27/14	1
Benzoic acid	65-85-0	U	.15	2.2	4.3	mg/kg		8270C	10/27/14	1
Carbazole	86-74-8	U	.0067	0.22	0.43	mg/kg		8270C	10/27/14	1

Results listed are dry weight basis.
U = Not Detected at the LOD

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Reported: 11/14/14 18:35 Revised: 11/18/14 11:01

L729026-01 (ICP METALS) - Dilution due to matrix

L729026-01 (PH) - 6.4@20.5c

DNR: DO NOT REPORT

KA 11/6/15

BNS 9/2/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB01-DS01
Collected By :
Collection Date : 10/20/14 16:40

ESC Sample # : L729026-01

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0067	0.22	0.43	mg/kg		8270C	10/27/14	1
4-Bromophenyl-phenylether	101-55-3	U	.014	0.22	0.43	mg/kg		8270C	10/27/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0081	0.22	0.43	mg/kg		8270C	10/27/14	1
2-Chloronaphthalene	91-58-7	U	.0082	0.22	0.43	mg/kg		8270C	10/27/14	1
3,3-Dichlorobenzidine	91-94-1	U	.1	0.22	0.43	mg/kg		8270C	10/27/14	1
2,4-Dinitrotoluene	121-14-2	U	.0079	0.22	0.43	mg/kg		8270C	10/27/14	1
2,6-Dinitrotoluene	606-20-2	U	.0095	0.22	0.43	mg/kg		8270C	10/27/14	1
Hexachlorobenzene	118-74-1	U	.011	0.22	0.43	mg/kg		8270C	10/27/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.013	0.22	0.43	mg/kg		8270C	10/27/14	1
Hexachloroethane	67-72-1	U	.017	0.22	0.43	mg/kg		8270C	10/27/14	1
Isophorone	78-59-1	U	.0067	0.22	0.43	mg/kg		8270C	10/27/14	1
Nitrobenzene	98-95-3	U	.009	0.22	0.43	mg/kg		8270C	10/27/14	1
n-Nitrosodimethylamine	62-75-9	U	.084	0.22	0.43	mg/kg		8270C	10/27/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0076	0.22	0.43	mg/kg		8270C	10/27/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.012	0.22	0.43	mg/kg		8270C	10/27/14	1
Benzylbutyl phthalate	85-68-7	U	.013	0.22	0.43	mg/kg	J3	8270C	10/27/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.015	0.22	0.43	mg/kg		8270C	10/27/14	1
Di-n-butyl phthalate	84-74-2	U	.014	0.22	0.43	mg/kg		8270C	10/27/14	1
Diethyl phthalate	84-66-2	U	.0089	0.22	0.43	mg/kg		8270C	10/27/14	1
Dimethyl phthalate	131-11-3	U	.007	0.22	0.43	mg/kg		8270C	10/27/14	1
Di-n-octyl phthalate	117-84-0	U	.012	0.22	0.43	mg/kg		8270C	10/27/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.011	0.22	0.43	mg/kg		8270C	10/27/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0062	0.22	0.43	mg/kg		8270C	10/27/14	1
2-Chlorophenol	95-57-8	U	.011	0.22	0.43	mg/kg		8270C	10/27/14	1
2,4-Dichlorophenol	120-83-2	U	.0096	0.22	0.43	mg/kg		8270C	10/27/14	1
2,4-Dimethylphenol	105-67-9	U	.06	0.22	0.43	mg/kg		8270C	10/27/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.15	0.22	0.43	mg/kg		8270C	10/27/14	1
2,4-Dinitrophenol	51-28-5	U	.13	0.22	0.43	mg/kg		8270C	10/27/14	1
2-Methylphenol	95-48-7	U	.013	0.22	0.43	mg/kg		8270C	10/27/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.01	0.22	0.43	mg/kg		8270C	10/27/14	1
2-Nitrophenol	88-75-5	U	.017	0.22	0.43	mg/kg		8270C	10/27/14	1
4-Nitrophenol	100-02-7	U	.067	0.22	0.43	mg/kg		8270C	10/27/14	1
4-Chloroaniline	106-47-8	U	.0045	0.22	0.43	mg/kg		8270C	10/27/14	1
2-Nitroaniline	88-74-4	U	.0097	0.22	0.43	mg/kg		8270C	10/27/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0018	0.22	0.43	mg/kg		8270C	10/27/14	1
3-Nitroaniline	99-09-2	U	.011	0.22	0.43	mg/kg		8270C	10/27/14	1
4-Nitroaniline	100-01-6	U	.0082	0.22	0.43	mg/kg		8270C	10/27/14	1
Pentachlorophenol	87-86-5	U	.062	0.22	0.43	mg/kg		8270C	10/27/14	1
Phenol	108-95-2	U	.009	0.22	0.43	mg/kg		8270C	10/27/14	1
2,4,5-Trichlorophenol	95-95-4	U	.013	0.22	0.43	mg/kg		8270C	10/27/14	1
2,4,6-Trichlorophenol	88-06-2	U	.01	0.22	0.43	mg/kg		8270C	10/27/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	59.1				% Rec.		8270C	10/27/14	1
Phenol-d5	4165-62-2	58.1				% Rec.		8270C	10/27/14	1

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L729026-01 (ICP METALS) - Dilution due to matrix

L729026-01 (PH) - 6.4@20.5c

DNR = Do Not Report

KA 11/16/15

BMS 2/17/15



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 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB01-DS01
 Collected By :
 Collection Date : 10/20/14 16:40

ESC Sample # : L729026-01
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	54.1				% Rec.		8270C	10/27/14	1
2-Fluorobiphenyl	321-60-8	63.6				% Rec.		8270C	10/27/14	1
2,4,6-Tribromophenol	118-79-6	69.1				% Rec.		8270C	10/27/14	1
p-Terphenyl-d14	1718-51-0	58.6				% Rec.		8270C	10/27/14	1

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L729026-01 (ICP METALS) - Dilution due to matrix

L729026-01 (PH) - 6.4@20.5c

KA 1/16/15



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Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB01-NS01
Collected By :
Collection Date : 10/20/14 16:40

ESC Sample # : L729026-02

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.4				su		9045D	10/24/14	1
Total Solids	TSOLIDS	77.6	.0333			%		2540 G-2	10/26/14	1
Mercury	7439-97-6	U	.0036	0.013	0.026	mg/kg		7471	10/23/14	1
Aluminum <i>3 FD, ICS-KPH</i>	7429-90-5	3100	23	32.	64.	mg/kg		6010B	10/30/14	5
Antimony	7440-36-0	U	4.8	6.4	13.	mg/kg		6010B	10/30/14	5
Arsenic	7440-38-2	U	4.1	6.4	13.	mg/kg		6010B	10/30/14	5
Barium <i>3 FD-I</i>	7440-39-3	26.	1.1	1.6	3.2	mg/kg		6010B	10/30/14	5
Beryllium	7440-41-7	U	.45	0.64	1.3	mg/kg		6010B	10/30/14	5
Cadmium <i>UJ ICS-L</i>	7440-43-9	U	.45	1.6	3.2	mg/kg		6010B	10/30/14	5
Chromium <i>F SOL-I</i>	7440-47-3	3.1	.9	3.2	6.4	mg/kg	J	6010B	10/30/14	5
Cobalt	7440-48-4	U	1.5	3.2	6.4	mg/kg		6010B	10/30/14	5
Copper	7440-50-8	U	3.4	6.4	13.	mg/kg		6010B	10/30/14	5
Lead <i>F SOL-I, FJ SOL ICS-L</i>	7439-92-1	1.3	1.2	1.6	3.2	mg/kg	J	6010B	10/30/14	5
Manganese <i>3 FD-I</i>	7439-96-5	35.	.77	3.2	6.4	mg/kg		6010B	10/30/14	5
Nickel <i>UJ ICS-L</i>	7440-02-0	U	3.1	6.4	13.	mg/kg		6010B	10/30/14	5
Selenium	7782-49-2	U	4.8	6.4	13.	mg/kg		6010B	10/30/14	5
Silver <i>UJ MS-L</i>	7440-22-4	U	1.8	3.2	6.4	mg/kg		6010B	10/30/14	5
Thallium	7440-28-0	U	4.1	6.4	13.	mg/kg		6010B	11/04/14	5
Vanadium <i>F SOL-I</i>	7440-62-2	9.0	1.5	6.4	13.	mg/kg	J	6010B	10/30/14	5
Zinc <i>U MB-I</i>	7440-66-6	9.1 16	3.9 9.1	16.	32.	mg/kg	J	6010B	10/30/14	5
TPH (GC/FID) Low Fraction <i>UJ MS-L</i>	8006-61-9	U	.028	0.064	0.13	mg/kg		8015D/GR	10/24/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	98.5				% Rec.		8015D/GR	10/24/14	1
Volatile Organics										
Acetone <i>F SOL-I</i>	67-64-1	0.037	.013	0.032	0.064	mg/kg	J	8260B	10/29/14	1
Benzene	71-43-2	0.0018	.00035	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Bromobenzene	108-86-1	U	.00036	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Bromochloromethane	74-97-5	U	.0005	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Bromodichloromethane	75-27-4	U	.00032	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Bromoform	75-25-2	U	.00054	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Bromomethane	74-83-9	U	.0017	0.0032	0.0064	mg/kg		8260B	10/29/14	1
n-Butylbenzene	104-51-8	U	.00034	0.00064	0.0013	mg/kg		8260B	10/29/14	1
sec-Butylbenzene	135-98-8	U	.00026	0.00064	0.0013	mg/kg		8260B	10/29/14	1
tert-Butylbenzene	98-06-6	U	.00027	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Carbon Disulfide	75-15-0	U	.00036	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Carbon tetrachloride	56-23-5	U	.00042	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Chlorobenzene	108-90-7	U	.00027	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Chlorodibromomethane	124-48-1	U	.00048	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Chloroethane	75-00-3	U	.0012	0.0032	0.0064	mg/kg		8260B	10/29/14	1
Chloroform	67-66-3	U	.0003	0.0032	0.0064	mg/kg		8260B	10/29/14	1

Results listed are dry weight basis.

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Reported: 11/14/14 18:35 Revised: 11/18/14 11:01

L729026-02 (PH) - 6.4@20.4c

L729026-02 (ICP METALS) - Dilution due to matrix

VA-11/16/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB01-NS01
Collected By :
Collection Date : 10/20/14 16:40

ESC Sample # : L729026-02

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00049	0.00064	0.0032	mg/kg		8260B	10/29/14	1
2-Chlorotoluene	95-49-8	U	.00039	0.00064	0.0013	mg/kg		8260B	10/29/14	1
4-Chlorotoluene	106-43-4	U	.00031	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0013	0.0032	0.0064	mg/kg		8260B	10/29/14	1
1,2-Dibromoethane	106-93-4	U	.00044	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Dibromomethane	74-95-3	U	.00049	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dichlorobenzene	95-50-1	U	.00039	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,3-Dichlorobenzene	541-73-1	U	.00031	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,4-Dichlorobenzene	106-46-7	U	.0003	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Dichlorodifluoromethane	75-71-8	U	.00091	0.0032	0.0064	mg/kg		8260B	10/29/14	1
1,1-Dichloroethane	75-34-3	U	.00026	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dichloroethane	107-06-2	U	.00034	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,1-Dichloroethene	75-35-4	U	.00039	0.00064	0.0013	mg/kg		8260B	10/29/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00031	0.00064	0.0013	mg/kg		8260B	10/29/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00034	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dichloropropane	78-87-5	U	.00046	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,1-Dichloropropene	563-58-6	U	.00041	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,3-Dichloropropane	142-28-9	U	.00027	0.00064	0.0013	mg/kg		8260B	10/29/14	1
cis-1,3-Dichloropropane	10061-01-5	U	.00034	0.00064	0.0013	mg/kg		8260B	10/29/14	1
trans-1,3-Dichloropropane	10061-02-6	U	.00035	0.00064	0.0013	mg/kg		8260B	10/29/14	1
2,2-Dichloropropane	594-20-7	U	.00036	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Ethylbenzene	100-41-4	U	.00039	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00044	0.00064	0.0013	mg/kg		8260B	10/29/14	1
2-Hexanone	591-78-6	U	.0049	0.0064	0.013	mg/kg		8260B	10/29/14	1
Isopropylbenzene	98-82-8	U	.00031	0.00064	0.0013	mg/kg		8260B	10/29/14	1
p-Isopropyltoluene	99-87-6	U	.00026	0.00064	0.0013	mg/kg		8260B	10/29/14	1
2-Butanone (MEK)	78-93-3	U	.006	0.0064	0.013	mg/kg		8260B	10/29/14	1
Methylene Chloride	75-09-2	U	.0013	0.0032	0.0064	mg/kg		8260B	10/29/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0024	0.0064	0.013	mg/kg		8260B	10/29/14	1
Methyl tert-butyl ether	1634-04-4	U	.00027	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Naphthalene	91-20-3	U	.0013	0.0032	0.0064	mg/kg		8260B	10/29/14	1
n-Propylbenzene	103-65-1	U	.00027	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Styrene	100-42-5	U	.0003	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00034	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00046	0.00097	0.0013	mg/kg		8260B	10/29/14	1
Tetrachloroethene	127-18-4	U	.00036	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Toluene F SOL-I	108-88-3	0.0017	.00055	0.0032	0.0064	mg/kg	J	8260B	10/29/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.0004	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.0005	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,1,1-Trichloroethane	71-55-6	U	.00037	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,1,2-Trichloroethane	79-00-5	U	.00036	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Trichloroethene	79-01-6	U	.00036	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Trichlorofluoromethane	75-69-4	U	.00049	0.0032	0.0064	mg/kg		8260B	10/29/14	1
1,2,3-Trichloropropane	96-18-4	U	.00095	0.0013	0.0032	mg/kg		8260B	10/29/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.00027	0.00064	0.0013	mg/kg		8260B	10/29/14	1

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Reported: 11/14/14 18:35 Revised: 11/18/14 11:01

L729026-02 (PH) - 6.4@20.4c

L729026-02 (ICP METALS) - Dilution due to matrix

KA-116/15



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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB01-NS01
Collected By :
Collection Date : 10/20/14 16:40

ESC Sample # : L729026-02

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00044	0.00064	0.0013	mg/kg		8260B	10/29/14	1
m&p-Xylene	1330-20-7	U	.00093	0.0013	0.0026	mg/kg		8260B	10/29/14	1
Vinyl chloride	75-01-4	U	.00037	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00035	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	95.8				% Rec.		8260B	10/29/14	1
Dibromofluoromethane	1868-53-7	102.				% Rec.		8260B	10/29/14	1
4-Bromofluorobenzene	460-00-4	91.9				% Rec.		8260B	10/29/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.1	2.6	5.2	mg/kg		8015	10/28/14	1
C28-C40 Oil Range		U	.35	2.6	5.2	mg/kg		8015	10/28/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	65.2				% Rec.		8015	10/28/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Acenaphthene	83-32-9	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Acenaphthylene	208-96-8	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Benzo(a)anthracene	56-55-3	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Benzo(a)pyrene	50-32-8	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Benzo(b)fluoranthene	205-99-2	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Benzo(k)fluoranthene	207-08-9	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Chrysene	218-01-9	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Fluoranthene	206-44-0	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Fluorene	86-73-7	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Naphthalene	91-20-3	0.0013	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Phenanthrene	85-01-8	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Pyrene	129-00-0	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
2-Methylnaphthalene	91-57-6	U	.00082	0.0077	0.026	mg/kg		8270C-SI	10/25/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	87.9				% Rec.		8270C-SI	10/25/14	1
Nitrobenzene-d5	4165-60-0	84.4				% Rec.		8270C-SI	10/25/14	1
2-Fluorobiphenyl	321-60-8	87.6				% Rec.		8270C-SI	10/25/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.0099	0.22	0.43	mg/kg		8270C	10/27/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.012	0.22	0.43	mg/kg		8270C	10/27/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.0098	0.22	0.43	mg/kg		8270C	10/27/14	1
Benzyl Alcohol	100-51-6	U	.0097	0.22	0.43	mg/kg		8270C	10/27/14	1
Benzoic acid	65-85-0	U	.15	2.2	4.3	mg/kg		8270C	10/27/14	1
Carbazole	86-74-8	U	.0067	0.22	0.43	mg/kg		8270C	10/27/14	1

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Reported: 11/14/14 18:35 Revised: 11/18/14 11:01

L729026-02 (PH) - 6.4@20.4c

L729026-02 (ICP METALS) - Dilution due to matrix

DNR: DO NOT REPORT



12065 Lebanon Rd.
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(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB01-NS01
Collected By :
Collection Date : 10/20/14 16:40

ESC Sample # : L729026-02

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0067	0.22	0.43	mg/kg		8270C	10/27/14	1
4-Bromophenyl-phenylether	101-55-3	U	.014	0.22	0.43	mg/kg		8270C	10/27/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0081	0.22	0.43	mg/kg		8270C	10/27/14	1
2-Chloronaphthalene	91-58-7	U	.0082	0.22	0.43	mg/kg		8270C	10/27/14	1
3,3-Dichlorobenzidine	91-94-1	U	.1	0.22	0.43	mg/kg		8270C	10/27/14	1
2,4-Dinitrotoluene	121-14-2	U	.0079	0.22	0.43	mg/kg		8270C	10/27/14	1
2,6-Dinitrotoluene	606-20-2	U	.0095	0.22	0.43	mg/kg		8270C	10/27/14	1
Hexachlorobenzene	118-74-1	U	.011	0.22	0.43	mg/kg		8270C	10/27/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.013	0.22	0.43	mg/kg		8270C	10/27/14	1
Hexachloroethane	67-72-1	U	.017	0.22	0.43	mg/kg		8270C	10/27/14	1
Isophorone	78-59-1	U	.0067	0.22	0.43	mg/kg		8270C	10/27/14	1
Nitrobenzene	98-95-3	U	.009	0.22	0.43	mg/kg		8270C	10/27/14	1
n-Nitrosodimethylamine	62-75-9	U	.084	0.22	0.43	mg/kg		8270C	10/27/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0076	0.22	0.43	mg/kg		8270C	10/27/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.012	0.22	0.43	mg/kg		8270C	10/27/14	1
Benzylbutyl phthalate	85-68-7	U	.013	0.22	0.43	mg/kg	J3	8270C	10/27/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.015	0.22	0.43	mg/kg		8270C	10/27/14	1
Di-n-butyl phthalate	84-74-2	U	.014	0.22	0.43	mg/kg		8270C	10/27/14	1
Diethyl phthalate	84-66-2	U	.0089	0.22	0.43	mg/kg		8270C	10/27/14	1
Dimethyl phthalate	131-11-3	U	.007	0.22	0.43	mg/kg		8270C	10/27/14	1
Di-n-octyl phthalate	117-84-0	U	.012	0.22	0.43	mg/kg		8270C	10/27/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.011	0.22	0.43	mg/kg		8270C	10/27/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0062	0.22	0.43	mg/kg		8270C	10/27/14	1
2-Chlorophenol	95-57-8	U	.011	0.22	0.43	mg/kg		8270C	10/27/14	1
2,4-Dichlorophenol	120-83-2	U	.0096	0.22	0.43	mg/kg		8270C	10/27/14	1
2,4-Dimethylphenol	105-67-9	U	.06	0.22	0.43	mg/kg		8270C	10/27/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.15	0.22	0.43	mg/kg		8270C	10/27/14	1
2,4-Dinitrophenol	51-28-5	U	.13	0.22	0.43	mg/kg		8270C	10/27/14	1
2-Methylphenol	95-48-7	U	.013	0.22	0.43	mg/kg		8270C	10/27/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.01	0.22	0.43	mg/kg		8270C	10/27/14	1
2-Nitrophenol	88-75-5	U	.017	0.22	0.43	mg/kg		8270C	10/27/14	1
4-Nitrophenol	100-02-7	U	.067	0.22	0.43	mg/kg		8270C	10/27/14	1
4-Chloroaniline	106-47-8	U	.0045	0.22	0.43	mg/kg		8270C	10/27/14	1
2-Nitroaniline	88-74-4	U	.0097	0.22	0.43	mg/kg		8270C	10/27/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0018	0.22	0.43	mg/kg		8270C	10/27/14	1
3-Nitroaniline	99-09-2	U	.011	0.22	0.43	mg/kg		8270C	10/27/14	1
4-Nitroaniline	100-01-6	U	.0082	0.22	0.43	mg/kg		8270C	10/27/14	1
Pentachlorophenol	87-86-5	U	.062	0.22	0.43	mg/kg		8270C	10/27/14	1
Phenol	108-95-2	U	.009	0.22	0.43	mg/kg		8270C	10/27/14	1
2,4,5-Trichlorophenol	95-95-4	U	.013	0.22	0.43	mg/kg		8270C	10/27/14	1
2,4,6-Trichlorophenol	88-06-2	U	.01	0.22	0.43	mg/kg		8270C	10/27/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	60.5				% Rec.		8270C	10/27/14	1
Phenol-d5	4165-62-2	60.6				% Rec.		8270C	10/27/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/14/14 18:35 Revised: 11/18/14 11:01

L729026-02 (PH) - 6.4@20.4c

L729026-02 (ICP METALS) - Dilution due to matrix

DNR = do not report

*KA 11/16/15
BWS 2/17/15
16 of 1609*



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 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB01-NS01
 Collected By :
 Collection Date : 10/20/14 16:40

ESC Sample # : L729026-02
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	59.4				% Rec.		8270C	10/27/14	1
2-Fluorobiphenyl	321-60-8	67.5				% Rec.		8270C	10/27/14	1
2,4,6-Tribromophenol	118-79-6	73.4				% Rec.		8270C	10/27/14	1
p-Terphenyl-d14	1718-51-0	58.9				% Rec.		8270C	10/27/14	1

Results listed are dry weight basis.

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Reported: 11/14/14 18:35 Revised: 11/18/14 11:01

L729026-02 (PH) - 6.4@20.4c

L729026-02 (ICP METALS) - Dilution due to matrix

KA-11/16/14



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB01-NS02
Collected By :
Collection Date : 10/20/14 16:50

ESC Sample # : L729026-03
Site ID :
Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.4				su		9045D	10/24/14	1
Total Solids	TSOLIDS	76.5	.0333			%		2540 G-2	10/26/14	1
Mercury	7439-97-6	U	.0037	0.013	0.026	mg/kg		7471	10/23/14	1
Aluminum	7429-90-5	3800	23	33.	65.	mg/kg		6010B	10/30/14	5
Antimony	7440-36-0	U	4	6.5	13.	mg/kg		6010B	10/30/14	5
Arsenic	7440-38-2	U	4.2	6.5	13.	mg/kg		6010B	10/30/14	5
Barium	7440-39-3	37.	1.1	1.6	3.3	mg/kg		6010B	10/30/14	5
Beryllium	7440-41-7	U	.46	0.65	1.3	mg/kg		6010B	10/30/14	5
Cadmium	7440-43-9	U	.46	1.6	3.3	mg/kg		6010B	10/30/14	5
Chromium	7440-47-3	3.9	.92	3.3	6.5	mg/kg	J	6010B	10/30/14	5
Cobalt	7440-48-4	U	1.6	3.3	6.5	mg/kg		6010B	10/30/14	5
Copper	7440-50-8	U	3.4	6.5	13.	mg/kg		6010B	10/30/14	5
Lead	7439-92-1	2.6	1.2	1.6	3.3	mg/kg	J	6010B	10/30/14	5
Manganese	7439-96-5	48.	.78	3.3	6.5	mg/kg		6010B	10/30/14	5
Nickel	7440-02-0	U	3.1	6.5	13.	mg/kg		6010B	10/30/14	5
Selenium	7782-49-2	U	4.8	6.5	13.	mg/kg		6010B	10/30/14	5
Silver	7440-22-4	U	1.8	3.3	6.5	mg/kg		6010B	10/30/14	5
Thallium	7440-28-0	U	4.2	6.5	13.	mg/kg		6010B	11/04/14	5
Vanadium	7440-62-2	5.5	1.6	6.5	13.	mg/kg	J	6010B	10/30/14	5
Zinc	7440-66-6	11.16	3.9	11	16.	mg/kg	J	6010B	10/30/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.029	0.065	0.13	mg/kg		8015D/GR	10/24/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	100.				% Rec.		8015D/GR	10/24/14	1
Volatile Organics										
Acetone	67-64-1	0.024	.013	0.033	0.065	mg/kg	J	8260B	10/29/14	1
Benzene	71-43-2	0.0040	.00035	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Bromobenzene	108-86-1	U	.00037	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Bromochloromethane	74-97-5	U	.00051	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Bromodichloromethane	75-27-4	U	.00033	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Bromoform	75-25-2	U	.00055	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Bromomethane	74-83-9	U	.0017	0.0033	0.0065	mg/kg		8260B	10/29/14	1
n-Butylbenzene	104-51-8	U	.00034	0.00065	0.0013	mg/kg		8260B	10/29/14	1
sec-Butylbenzene	135-98-8	U	.00026	0.00065	0.0013	mg/kg		8260B	10/29/14	1
tert-Butylbenzene	98-06-6	U	.00027	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Carbon Disulfide	75-15-0	U	.00037	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Carbon tetrachloride	56-23-5	U	.00043	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Chlorobenzene	108-90-7	U	.00027	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Chlorodibromomethane	124-48-1	U	.00048	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Chloroethane	75-00-3	U	.0012	0.0033	0.0065	mg/kg		8260B	10/29/14	1
Chloroform	67-66-3	U	.0003	0.0033	0.0065	mg/kg		8260B	10/29/14	1

Results listed are dry weight basis.
U = Not Detected at the LOD

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Reported: 11/14/14 18:35 Revised: 11/18/14 11:01

L729026-03 (ICP METALS) - Dilution due to matrix

L729026-03 (PH) - 6.4@20.4c

KA-11/16/15



12065 Lebanon Rd.
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB01-NS02
Collected By :
Collection Date : 10/20/14 16:50

ESC Sample # : L729026-03
Site ID :
Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.0005	0.00065	0.0033	mg/kg		8260B	10/29/14	1
2-Chlorotoluene	95-49-8	U	.00039	0.00065	0.0013	mg/kg		8260B	10/29/14	1
4-Chlorotoluene	106-43-4	U	.00031	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0013	0.0033	0.0065	mg/kg		8260B	10/29/14	1
1,2-Dibromoethane	106-93-4	U	.00044	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Dibromomethane	74-95-3	U	.0005	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dichlorobenzene	95-50-1	U	.00039	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,3-Dichlorobenzene	541-73-1	U	.00031	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,4-Dichlorobenzene	106-46-7	U	.0003	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Dichlorodifluoromethane	75-71-8	U	.00093	0.0033	0.0065	mg/kg		8260B	10/29/14	1
1,1-Dichloroethane	75-34-3	U	.00026	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dichloroethane	107-06-2	U	.00034	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,1-Dichloroethene	75-35-4	U	.00039	0.00065	0.0013	mg/kg		8260B	10/29/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00031	0.00065	0.0013	mg/kg		8260B	10/29/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00034	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dichloropropane	78-87-5	U	.00047	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,1-Dichloropropene	563-58-6	U	.00042	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,3-Dichloropropane	142-28-9	U	.00027	0.00065	0.0013	mg/kg		8260B	10/29/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00034	0.00065	0.0013	mg/kg		8260B	10/29/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00035	0.00065	0.0013	mg/kg		8260B	10/29/14	1
2,2-Dichloropropane	594-20-7	U	.00037	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Ethylbenzene F SOL-I	100-41-4	0.00085	.00039	0.00065	0.0013	mg/kg	J	8260B	10/29/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00044	0.00065	0.0013	mg/kg		8260B	10/29/14	1
2-Hexanone	591-78-6	U	.005	0.0065	0.013	mg/kg		8260B	10/29/14	1
Isopropylbenzene	98-82-8	U	.00031	0.00065	0.0013	mg/kg		8260B	10/29/14	1
p-Isopropyltoluene	99-87-6	U	.00026	0.00065	0.0013	mg/kg		8260B	10/29/14	1
2-Butanone (MEK)	78-93-3	U	.0061	0.0065	0.013	mg/kg		8260B	10/29/14	1
Methylene Chloride	75-09-2	U	.0013	0.0033	0.0065	mg/kg		8260B	10/29/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0025	0.0065	0.013	mg/kg		8260B	10/29/14	1
Methyl tert-butyl ether	1634-04-4	U	.00027	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Naphthalene DNR	91-20-3	U	.0013	0.0033	0.0065	mg/kg		8260B	10/29/14	1
n-Propylbenzene	103-65-1	U	.00027	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Styrene	100-42-5	U	.0003	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00034	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00047	0.00098	0.0013	mg/kg		8260B	10/29/14	1
Tetrachloroethene	127-18-4	U	.00037	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Toluene F SOL-I	108-88-3	0.0038	.00056	0.0033	0.0065	mg/kg	J	8260B	10/29/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.0004	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00051	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,1,1-Trichloroethane	71-55-6	U	.00037	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,1,2-Trichloroethane	79-00-5	U	.00037	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Trichloroethene	79-01-6	U	.00037	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Trichlorofluoromethane	75-69-4	U	.0005	0.0033	0.0065	mg/kg		8260B	10/29/14	1
1,2,3-Trichloropropane	96-18-4	U	.00097	0.0013	0.0033	mg/kg		8260B	10/29/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.00027	0.00065	0.0013	mg/kg		8260B	10/29/14	1

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Reported: 11/14/14 18:35 Revised: 11/18/14 11:01

L729026-03 (ICP METALS) - Dilution due to matrix

L729026-03 (PH) - 6.4@20.4c

DNR: DO NOT REPORT

KA 11/16/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB01-NS02
Collected By :
Collection Date : 10/20/14 16:50

ESC Sample # : L729026-03

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene <i>F SOL-I</i>	95-47-6	0.00054	.00044	0.00065	0.0013	mg/kg	J	8260B	10/29/14	1
m&p-Xylene <i>F SOL-I</i>	1330-20-7	0.0013	.00094	0.0013	0.0026	mg/kg	J	8260B	10/29/14	1
Vinyl chloride	75-01-4	U	.00038	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00035	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	96.2				% Rec.		8260B	10/29/14	1
Dibromofluoromethane	1868-53-7	98.9				% Rec.		8260B	10/29/14	1
4-Bromofluorobenzene	460-00-4	96.8				% Rec.		8260B	10/29/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.1	2.6	5.2	mg/kg		8015	10/28/14	1
C28-C40 Oil Range		U	.35	2.6	5.2	mg/kg		8015	10/28/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	63.0				% Rec.		8015	10/28/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Acenaphthene	83-32-9	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Acenaphthylene	208-96-8	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Benzo (a) anthracene	56-55-3	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Benzo (a) pyrene	50-32-8	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Benzo (b) fluoranthene <i>MS</i>	205-99-2	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Benzo (g, h, i) perylene	191-24-2	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Benzo (k) fluoranthene	207-08-9	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Chrysene	218-01-9	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Dibenz (a, h) anthracene	53-70-3	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Fluoranthene	206-44-0	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Fluorene	86-73-7	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Indeno (1,2,3-cd) pyrene	193-39-5	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Naphthalene <i>F SOL-I</i>	91-20-3	0.0063	.00078	0.0078	0.026	mg/kg	J	8270C-SI	10/25/14	1
Phenanthrene <i>F SOL-I</i>	85-01-8	0.00099	.00078	0.0026	0.0078	mg/kg	J	8270C-SI	10/25/14	1
Pyrene	129-00-0	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
2-Methylnaphthalene	91-57-6	U	.00084	0.0078	0.026	mg/kg		8270C-SI	10/25/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	85.1				% Rec.		8270C-SI	10/25/14	1
Nitrobenzene-d5	4165-60-0	82.2				% Rec.		8270C-SI	10/25/14	1
2-Fluorobiphenyl	321-60-8	86.9				% Rec.		8270C-SI	10/25/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.01	0.22	0.44	mg/kg		8270C	10/27/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.012	0.22	0.44	mg/kg		8270C	10/27/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.0099	0.22	0.44	mg/kg		8270C	10/27/14	1
Benzyl Alcohol	100-51-6	U	.0098	0.22	0.44	mg/kg		8270C	10/27/14	1
Benzoic acid	65-85-0	U	.16	2.2	4.4	mg/kg		8270C	10/27/14	1
Carbazole	86-74-8	U	.0068	0.22	0.44	mg/kg		8270C	10/27/14	1

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Reported: 11/14/14 18:35 Revised: 11/18/14 11:01
L729026-03 (ICP METALS) - Dilution due to matrix
L729026-03 (PH) - 6.4@20.4c

KA 11/16/15
BMS 9/2/15
20 of 1609



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB01-NS02
Collected By :
Collection Date : 10/20/14 16:50

ESC Sample # : L729026-03

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0068	0.22	0.44	mg/kg		8270C	10/27/14	1
4-Bromophenyl-phenylether	101-55-3	U	.014	0.22	0.44	mg/kg		8270C	10/27/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0082	0.22	0.44	mg/kg		8270C	10/27/14	1
2-Chloronaphthalene	91-58-7	U	.0084	0.22	0.44	mg/kg		8270C	10/27/14	1
3,3-Dichlorobenzidine	91-94-1	U	.1	0.22	0.44	mg/kg		8270C	10/27/14	1
2,4-Dinitrotoluene	121-14-2	U	.008	0.22	0.44	mg/kg		8270C	10/27/14	1
2,6-Dinitrotoluene	606-20-2	U	.0096	0.22	0.44	mg/kg		8270C	10/27/14	1
Hexachlorobenzene	118-74-1	U	.011	0.22	0.44	mg/kg		8270C	10/27/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.013	0.22	0.44	mg/kg		8270C	10/27/14	1
Hexachloroethane	67-72-1	U	.017	0.22	0.44	mg/kg		8270C	10/27/14	1
Isophorone	78-59-1	U	.0068	0.22	0.44	mg/kg		8270C	10/27/14	1
Nitrobenzene	98-95-3	U	.0091	0.22	0.44	mg/kg		8270C	10/27/14	1
n-Nitrosodimethylamine	62-75-9	U	.085	0.22	0.44	mg/kg		8270C	10/27/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0077	0.22	0.44	mg/kg		8270C	10/27/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.012	0.22	0.44	mg/kg		8270C	10/27/14	1
Benzylbutyl phthalate	85-68-7	U	.013	0.22	0.44	mg/kg	J3	8270C	10/27/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.016	0.22	0.44	mg/kg		8270C	10/27/14	1
Di-n-butyl phthalate	84-74-2	U	.014	0.22	0.44	mg/kg		8270C	10/27/14	1
Diethyl phthalate	84-66-2	U	.009	0.22	0.44	mg/kg		8270C	10/27/14	1
Dimethyl phthalate	131-11-3	U	.007	0.22	0.44	mg/kg		8270C	10/27/14	1
Di-n-octyl phthalate	117-84-0	U	.012	0.22	0.44	mg/kg		8270C	10/27/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.012	0.22	0.44	mg/kg		8270C	10/27/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0063	0.22	0.44	mg/kg		8270C	10/27/14	1
2-Chlorophenol	95-57-8	U	.011	0.22	0.44	mg/kg		8270C	10/27/14	1
2,4-Dichlorophenol	120-83-2	U	.0098	0.22	0.44	mg/kg		8270C	10/27/14	1
2,4-Dimethylphenol	105-67-9	U	.061	0.22	0.44	mg/kg		8270C	10/27/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.16	0.22	0.44	mg/kg		8270C	10/27/14	1
2,4-Dinitrophenol	51-28-5	U	.13	0.22	0.44	mg/kg		8270C	10/27/14	1
2-Methylphenol	95-48-7	U	.013	0.22	0.44	mg/kg		8270C	10/27/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.01	0.22	0.44	mg/kg		8270C	10/27/14	1
2-Nitrophenol	88-75-5	U	.017	0.22	0.44	mg/kg		8270C	10/27/14	1
4-Nitrophenol	100-02-7	U	.068	0.22	0.44	mg/kg		8270C	10/27/14	1
4-Chloroaniline	106-47-8	U	.0046	0.22	0.44	mg/kg		8270C	10/27/14	1
2-Nitroaniline	88-74-4	U	.0099	0.22	0.44	mg/kg		8270C	10/27/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0018	0.22	0.44	mg/kg		8270C	10/27/14	1
3-Nitroaniline	99-09-2	U	.011	0.22	0.44	mg/kg		8270C	10/27/14	1
4-Nitroaniline	100-01-6	U	.0084	0.22	0.44	mg/kg		8270C	10/27/14	1
Pentachlorophenol	87-86-5	U	.063	0.22	0.44	mg/kg		8270C	10/27/14	1
Phenol	108-95-2	U	.0091	0.22	0.44	mg/kg		8270C	10/27/14	1
2,4,5-Trichlorophenol	95-95-4	U	.013	0.22	0.44	mg/kg		8270C	10/27/14	1
2,4,6-Trichlorophenol	88-06-2	U	.01	0.22	0.44	mg/kg		8270C	10/27/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	56.8				% Rec.		8270C	10/27/14	1
Phenol-d5	4165-62-2	55.2				% Rec.		8270C	10/27/14	1

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Reported: 11/14/14 18:35 Revised: 11/18/14 11:01

L729026-03 (ICP METALS) - Dilution due to matrix

L729026-03 (PH) - 6.4@20.4c

DNR = Do Not Report



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 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB01-NS02
 Collected By :
 Collection Date : 10/20/14 16:50

ESC Sample # : L729026-03
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	53.0				% Rec.		8270C	10/27/14	1
2-Fluorobiphenyl	321-60-8	59.4				% Rec.		8270C	10/27/14	1
2,4,6-Tribromophenol	118-79-6	63.7				% Rec.		8270C	10/27/14	1
p-Terphenyl-d14	1718-51-0	51.0				% Rec.		8270C	10/27/14	1

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L729026-03 (PH) - 6.4@20.4c

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-TRIPBLANK04-NT01
 Collected By :
 Collection Date : 10/21/14 14:00

ESC Sample # : L729026-04

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/24/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	94.7				% Rec.		8015D/G	10/24/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	10/28/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	10/28/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	10/28/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	10/28/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	10/28/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	10/28/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	10/28/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	10/28/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	10/28/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	10/28/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	10/28/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	10/28/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	10/28/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	10/28/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	10/28/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	10/28/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	10/28/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	10/28/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	10/28/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	10/28/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	10/28/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	10/28/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	10/28/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	10/28/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	10/28/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	10/28/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	10/28/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	10/28/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	10/28/14	1

U = Not Detected at the LOD

Note:

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Reported: 11/14/14 18:35 Revised: 11/18/14 11:02

KA 1/16/15



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REPORT OF ANALYSIS

Sheri Fling
 URS
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 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-TRIPBLANK04-NT01
 Collected By :
 Collection Date : 10/21/14 14:00

ESC Sample # : L729026-04

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	10/28/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	10/28/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	10/28/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	10/28/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	10/28/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	10/28/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	10/28/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	10/28/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	10/28/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	10/28/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	10/28/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	10/28/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	10/28/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	10/28/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	10/28/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	10/28/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	10/28/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	10/28/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	10/28/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	10/28/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	10/28/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	101.				% Rec.		8260B	10/28/14	1
Dibromofluoromethane	1868-53-7	98.5				% Rec.		8260B	10/28/14	1
4-Bromofluorobenzene	460-00-4	95.7				% Rec.		8260B	10/28/14	1

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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729026-05

Sample ID : TU503-SB05-NS01

Site ID :

Collected By :
Collection Date : 10/20/14 12:50

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.5				su		9045D	10/24/14	1
Total Solids	TSOLIDS	76.8	.0333			%		2540 G-2	10/26/14	1
Mercury	7439-97-6	U	.0036	0.013	0.026	mg/kg		7471	10/23/14	1
Aluminum	7429-90-5	3200	.23	33.	65.	mg/kg		6010B	10/30/14	5
Antimony	7440-36-0	U	4.9	6.5	13.	mg/kg		6010B	10/30/14	5
Arsenic	7440-38-2	U	4.2	6.5	13.	mg/kg		6010B	10/30/14	5
Barium	7440-39-3	30.	1.1	1.6	3.2	mg/kg		6010B	10/30/14	5
Beryllium	7440-41-7	U	.46	0.65	1.3	mg/kg		6010B	10/30/14	5
Cadmium	7440-43-9	U	.46	1.6	3.2	mg/kg		6010B	10/30/14	5
Chromium	7440-47-3	3.4	.91	3.3	6.5	mg/kg	J	6010B	10/30/14	5
Cobalt	7440-48-4	1.8	1.6	3.3	6.5	mg/kg	J	6010B	10/30/14	5
Copper	7440-50-8	U	3.4	6.5	13.	mg/kg		6010B	10/30/14	5
Lead	7439-92-1	1.6	1.2	1.6	3.2	mg/kg	J	6010B	10/30/14	5
Manganese	7439-96-5	39.	.78	3.3	6.5	mg/kg		6010B	10/30/14	5
Nickel	7440-02-0	4.3	3.1	6.5	13.	mg/kg	J	6010B	10/30/14	5
Selenium	7782-49-2	U	4.8	6.5	13.	mg/kg		6010B	10/30/14	5
Silver	7440-22-4	U	1.8	3.3	6.5	mg/kg		6010B	10/30/14	5
Thallium	7440-28-0	U	4.2	6.5	13.	mg/kg		6010B	11/04/14	5
Vanadium	7440-62-2	9.6	1.6	6.5	13.	mg/kg	J	6010B	10/30/14	5
Zinc	7440-66-6	13.16	3.9	16.	32.	mg/kg	J	6010B	10/30/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.029	0.065	0.13	mg/kg		8015D/GR	10/29/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	99.1				% Rec.		8015D/GR	10/29/14	1
Volatile Organics										
Acetone	67-64-1	0.057	.013	0.033	0.065	mg/kg	J	8260B	10/29/14	1
Benzene	71-43-2	U	.00035	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Bromobenzene	108-86-1	U	.00036	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Bromochloromethane	74-97-5	U	.00051	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Bromodichloromethane	75-27-4	U	.00032	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Bromoform	75-25-2	U	.00055	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Bromomethane	74-83-9	U	.0017	0.0033	0.0065	mg/kg		8260B	10/29/14	1
n-Butylbenzene	104-51-8	U	.00034	0.00065	0.0013	mg/kg		8260B	10/29/14	1
sec-Butylbenzene	135-98-8	U	.00026	0.00065	0.0013	mg/kg		8260B	10/29/14	1
tert-Butylbenzene	98-06-6	U	.00027	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Carbon Disulfide	75-15-0	U	.00036	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Carbon tetrachloride	56-23-5	U	.00043	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Chlorobenzene	108-90-7	U	.00027	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Chlorodibromomethane	124-48-1	U	.00048	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Chloroethane	75-00-3	U	.0012	0.0033	0.0065	mg/kg		8260B	10/29/14	1
Chloroform	67-66-3	U	.0003	0.0033	0.0065	mg/kg		8260B	10/29/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/14/14 18:35 Revised: 11/18/14 11:02

L729026-05 (ICP METALS) - Dilution due to matrix

L729026-05 (PH) - 6.5@20.4c

KA-Hicks

BMS 2/20/15 25 of 1609



YOUR LAB OF CHOICE

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REPORT OF ANALYSIS

Sheri Fling
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Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729026-05

Sample ID : TU503-SB05-NS01

Site ID :

Collected By :
Collection Date : 10/20/14 12:50

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00049	0.00065	0.0032	mg/kg		8260B	10/29/14	1
2-Chlorotoluene	95-49-8	U	.00039	0.00065	0.0013	mg/kg		8260B	10/29/14	1
4-Chlorotoluene	106-43-4	U	.00031	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0013	0.0033	0.0065	mg/kg		8260B	10/29/14	1
1,2-Dibromoethane	106-93-4	U	.00044	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Dibromomethane	74-95-3	U	.00049	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dichlorobenzene	95-50-1	U	.00039	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,3-Dichlorobenzene	541-73-1	U	.00031	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,4-Dichlorobenzene	106-46-7	U	.0003	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Dichlorodifluoromethane	75-71-8	U	.00092	0.0033	0.0065	mg/kg		8260B	10/29/14	1
1,1-Dichloroethane	75-34-3	U	.00026	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dichloroethane	107-06-2	U	.00034	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,1-Dichloroethene	75-35-4	U	.00039	0.00065	0.0013	mg/kg		8260B	10/29/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00031	0.00065	0.0013	mg/kg		8260B	10/29/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00034	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dichloropropane	78-87-5	U	.00047	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,1-Dichloropropene	563-58-6	U	.00042	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,3-Dichloropropane	142-28-9	U	.00027	0.00065	0.0013	mg/kg		8260B	10/29/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00034	0.00065	0.0013	mg/kg		8260B	10/29/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00035	0.00065	0.0013	mg/kg		8260B	10/29/14	1
2,2-Dichloropropane	594-20-7	U	.00036	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Ethylbenzene	100-41-4	U	.00039	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00044	0.00065	0.0013	mg/kg		8260B	10/29/14	1
2-Hexanone	591-78-6	U	.0049	0.0065	0.013	mg/kg		8260B	10/29/14	1
Isopropylbenzene	98-82-8	U	.00031	0.00065	0.0013	mg/kg		8260B	10/29/14	1
p-Isopropyltoluene	99-87-6	U	.00026	0.00065	0.0013	mg/kg		8260B	10/29/14	1
2-Butanone (MEK) FSOL-I	78-93-3	0.0092	.0061	0.0065	0.013	mg/kg	J	8260B	10/29/14	1
Methylene Chloride	75-09-2	U	.0013	0.0033	0.0065	mg/kg		8260B	10/29/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0025	0.0065	0.013	mg/kg		8260B	10/29/14	1
Methyl tert-butyl ether	1634-04-4	U	.00027	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Naphthalene DNR	91-20-3	U	.0013	0.0033	0.0065	mg/kg		8260B	10/29/14	1
n-Propylbenzene	103-65-1	U	.00027	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Styrene	100-42-5	U	.0003	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00034	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00047	0.00098	0.0013	mg/kg		8260B	10/29/14	1
Tetrachloroethene	127-18-4	U	.00036	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Toluene	108-88-3	U	.00056	0.0033	0.0065	mg/kg		8260B	10/29/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.0004	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00051	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,1,1-Trichloroethane	71-55-6	U	.00037	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,1,2-Trichloroethane	79-00-5	U	.00036	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Trichloroethene	79-01-6	U	.00036	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Trichlorofluoromethane	75-69-4	U	.00049	0.0033	0.0065	mg/kg		8260B	10/29/14	1
1,2,3-Trichloropropane	96-18-4	U	.00096	0.0013	0.0032	mg/kg		8260B	10/29/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.00027	0.00065	0.0013	mg/kg		8260B	10/29/14	1

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Reported: 11/14/14 18:35 Revised: 11/18/14 11:02

L729026-05 (ICP METALS) - Dilution due to matrix

L729026-05 (PH) - 6.5@20.4c

DNR: DO NOT REPORT

KA-11/16/15



YOUR LAB OF CHOICE

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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB05-NS01
Collected By :
Collection Date : 10/20/14 12:50

ESC Sample # : L729026-05
Site ID :
Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00044	0.00065	0.0013	mg/kg		8260B	10/29/14	1
m&p-Xylene	1330-20-7	U	.00094	0.0013	0.0026	mg/kg		8260B	10/29/14	1
Vinyl chloride	75-01-4	U	.00038	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00035	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	94.5				% Rec.		8260B	10/29/14	1
Dibromofluoromethane	1868-53-7	100.				% Rec.		8260B	10/29/14	1
4-Bromofluorobenzene	460-00-4	93.9				% Rec.		8260B	10/29/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.1	2.6	5.2	mg/kg		8015	10/28/14	1
C28-C40 Oil Range		U	.35	2.6	5.2	mg/kg		8015	10/28/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	64.9				% Rec.		8015	10/28/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Acenaphthene	83-32-9	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Acenaphthylene	208-96-8	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Benzo(a)anthracene	56-55-3	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Benzo(a)pyrene	50-32-8	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Benzo(b)fluoranthene	205-99-2	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Benzo(k)fluoranthene	207-08-9	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Chrysene	218-01-9	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Fluoranthene	206-44-0	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Fluorene	86-73-7	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Naphthalene	91-20-3	0.0012	0.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Phenanthrene	85-01-8	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Pyrene	129-00-0	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
2-Methylnaphthalene	91-57-6	U	.00083	0.0078	0.026	mg/kg		8270C-SI	10/25/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	83.8				% Rec.		8270C-SI	10/25/14	1
Nitrobenzene-d5	4165-60-0	79.6				% Rec.		8270C-SI	10/25/14	1
2-Fluorobiphenyl	321-60-8	86.1				% Rec.		8270C-SI	10/25/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.01	0.22	0.43	mg/kg		8270C	10/27/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.012	0.22	0.43	mg/kg		8270C	10/27/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.0099	0.22	0.43	mg/kg		8270C	10/27/14	1
Benzyl Alcohol	100-51-6	U	.0098	0.22	0.43	mg/kg		8270C	10/27/14	1
Benzoic acid	65-85-0	U	.16	2.2	4.3	mg/kg		8270C	10/27/14	1
Carbazole	86-74-8	U	.0068	0.22	0.43	mg/kg		8270C	10/27/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

Note:

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Reported: 11/14/14 18:35 Revised: 11/18/14 11:02

L729026-05 (ICP METALS) - Dilution due to matrix

L729026-05 (PH) - 6.5@20.4c

KA-116/15
BMS 9/2/15
27 of 1609



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB05-NS01
Collected By :
Collection Date : 10/20/14 12:50

ESC Sample # : L729026-05
Site ID :
Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0068	0.22	0.43	mg/kg		8270C	10/27/14	1
4-Bromophenyl-phenylether	101-55-3	U	.014	0.22	0.43	mg/kg		8270C	10/27/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0082	0.22	0.43	mg/kg		8270C	10/27/14	1
2-Chloronaphthalene	91-58-7	U	.0083	0.22	0.43	mg/kg		8270C	10/27/14	1
3,3-Dichlorobenzidine	91-94-1	U	.1	0.22	0.43	mg/kg		8270C	10/27/14	1
2,4-Dinitrotoluene	121-14-2	U	.0079	0.22	0.43	mg/kg		8270C	10/27/14	1
2,6-Dinitrotoluene	606-20-2	U	.0096	0.22	0.43	mg/kg		8270C	10/27/14	1
Hexachlorobenzene	118-74-1	U	.011	0.22	0.43	mg/kg		8270C	10/27/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.013	0.22	0.43	mg/kg		8270C	10/27/14	1
Hexachloroethane	67-72-1	U	.017	0.22	0.43	mg/kg		8270C	10/27/14	1
Isophorone	78-59-1	U	.0068	0.22	0.43	mg/kg		8270C	10/27/14	1
Nitrobenzene	98-95-3	U	.009	0.22	0.43	mg/kg		8270C	10/27/14	1
n-Nitrosodimethylamine	62-75-9	U	.085	0.22	0.43	mg/kg		8270C	10/27/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0077	0.22	0.43	mg/kg		8270C	10/27/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.012	0.22	0.43	mg/kg		8270C	10/27/14	1
Benzylbutyl phthalate	85-68-7	U	.013	0.22	0.43	mg/kg	J3	8270C	10/27/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.016	0.22	0.43	mg/kg		8270C	10/27/14	1
Di-n-butyl phthalate	84-74-2	U	.014	0.22	0.43	mg/kg		8270C	10/27/14	1
Diethyl phthalate	84-66-2	U	.009	0.22	0.43	mg/kg		8270C	10/27/14	1
Dimethyl phthalate	131-11-3	U	.007	0.22	0.43	mg/kg		8270C	10/27/14	1
Di-n-octyl phthalate	117-84-0	U	.012	0.22	0.43	mg/kg		8270C	10/27/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.011	0.22	0.43	mg/kg		8270C	10/27/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0062	0.22	0.43	mg/kg		8270C	10/27/14	1
2-Chlorophenol	95-57-8	U	.011	0.22	0.43	mg/kg		8270C	10/27/14	1
2,4-Dichlorophenol	120-83-2	U	.0097	0.22	0.43	mg/kg		8270C	10/27/14	1
2,4-Dimethylphenol	105-67-9	U	.061	0.22	0.43	mg/kg		8270C	10/27/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.16	0.22	0.43	mg/kg		8270C	10/27/14	1
2,4-Dinitrophenol	51-28-5	U	.13	0.22	0.43	mg/kg		8270C	10/27/14	1
2-Methylphenol	95-48-7	U	.013	0.22	0.43	mg/kg		8270C	10/27/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.01	0.22	0.43	mg/kg		8270C	10/27/14	1
2-Nitrophenol	88-75-5	U	.017	0.22	0.43	mg/kg		8270C	10/27/14	1
4-Nitrophenol	100-02-7	U	.068	0.22	0.43	mg/kg		8270C	10/27/14	1
4-Chloroaniline	106-47-8	U	.0046	0.22	0.43	mg/kg		8270C	10/27/14	1
2-Nitroaniline	88-74-4	U	.0097	0.22	0.43	mg/kg		8270C	10/27/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0018	0.22	0.43	mg/kg		8270C	10/27/14	1
3-Nitroaniline	99-09-2	U	.011	0.22	0.43	mg/kg		8270C	10/27/14	1
4-Nitroaniline	100-01-6	U	.0083	0.22	0.43	mg/kg		8270C	10/27/14	1
Pentachlorophenol	87-86-5	U	.062	0.22	0.43	mg/kg		8270C	10/27/14	1
Phenol	108-95-2	U	.009	0.22	0.43	mg/kg		8270C	10/27/14	1
2,4,5-Trichlorophenol	95-95-4	U	.013	0.22	0.43	mg/kg		8270C	10/27/14	1
2,4,6-Trichlorophenol	88-06-2	U	.01	0.22	0.43	mg/kg		8270C	10/27/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	59.8				% Rec.		8270C	10/27/14	1
Phenol-d5	4165-62-2	58.0				% Rec.		8270C	10/27/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/14/14 18:35 Revised: 11/18/14 11:02

L729026-05 (ICP METALS) - Dilution due to matrix

L729026-05 (PH) - 6.5@20.4c

DNR = do not report

*KA:llolis
BAS 2/17/15
28 of 1609*



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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB05-NS01
 Collected By :
 Collection Date : 10/20/14 12:50

ESC Sample # : L729026-05
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	56.8				% Rec.		8270C	10/27/14	1
2-Fluorobiphenyl	321-60-8	65.5				% Rec.		8270C	10/27/14	1
2,4,6-Tribromophenol	118-79-6	68.5				% Rec.		8270C	10/27/14	1
p-Terphenyl-d14	1718-51-0	57.0				% Rec.		8270C	10/27/14	1

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Reported: 11/14/14 18:35 Revised: 11/18/14 11:02

L729026-05 (ICP METALS) - Dilution due to matrix

L729026-05 (PH) - 6.5@20.4c

KA 11/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB05-NS02
Collected By :
Collection Date : 10/20/14 12:55

ESC Sample # : L729026-06
Site ID :
Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.5				su		9045D	10/24/14	1
Total Solids	TSOLIDS	78.0	.0333			%		2540 G-2	10/26/14	1
Mercury	7439-97-6	U	.0036	0.013	0.026	mg/kg		7471	10/23/14	1
Aluminum	7429-90-5	4600	22	32.	64.	mg/kg		6010B	10/30/14	5
Antimony	7440-36-0	U	4.8	6.4	13.	mg/kg		6010B	10/30/14	5
Arsenic	7440-38-2	U	4.1	6.4	13.	mg/kg		6010B	10/30/14	5
Barium	7440-39-3	40.	1.1	1.6	3.2	mg/kg		6010B	10/30/14	5
Beryllium	7440-41-7	U	.45	0.64	1.3	mg/kg		6010B	10/30/14	5
Cadmium	7440-43-9	U	.45	1.6	3.2	mg/kg		6010B	10/30/14	5
Chromium	7440-47-3	4.9	.9	3.2	6.4	mg/kg	J	6010B	10/30/14	5
Cobalt	7440-48-4	1.8	1.5	3.2	6.4	mg/kg	J	6010B	10/30/14	5
Copper	7440-50-8	U	3.3	6.4	13.	mg/kg		6010B	10/30/14	5
Lead	7439-92-1	2.2	1.2	1.6	3.2	mg/kg	J	6010B	10/30/14	5
Manganese	7439-96-5	62.	.77	3.2	6.4	mg/kg		6010B	10/30/14	5
Nickel	7440-02-0	3.6	3.1	6.4	13.	mg/kg	J	6010B	10/30/14	5
Selenium	7782-49-2	U	4.7	6.4	13.	mg/kg		6010B	10/30/14	5
Silver	7440-22-4	U	1.8	3.2	6.4	mg/kg		6010B	10/30/14	5
Thallium	7440-28-0	U	4.1	6.4	13.	mg/kg		6010B	11/04/14	5
Vanadium	7440-62-2	9.6	1.5	6.4	13.	mg/kg	J	6010B	10/30/14	5
Zinc	7440-66-6	14.16	3.814	16.	32.	mg/kg	J	6010B	10/30/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.028	0.064	0.13	mg/kg		8015D/GR	10/28/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	100.				% Rec.		8015D/GR	10/28/14	1
Volatile Organics										
Acetone	67-64-1	0.023	.013	0.032	0.064	mg/kg	J	8260B	10/29/14	1
Benzene	71-43-2	0.0027	.00035	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Bromobenzene	108-86-1	U	.00036	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Bromochloromethane	74-97-5	U	.0005	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Bromodichloromethane	75-27-4	U	.00032	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Bromoform	75-25-2	U	.00054	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Bromomethane	74-83-9	U	.0017	0.0032	0.0064	mg/kg		8260B	10/29/14	1
n-Butylbenzene	104-51-8	U	.00033	0.00064	0.0013	mg/kg		8260B	10/29/14	1
sec-Butylbenzene	135-98-8	U	.00026	0.00064	0.0013	mg/kg		8260B	10/29/14	1
tert-Butylbenzene	98-06-6	U	.00027	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Carbon Disulfide	75-15-0	0.00041	.00036	0.00064	0.0013	mg/kg	J	8260B	10/29/14	1
Carbon tetrachloride	56-23-5	U	.00042	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Chlorobenzene	108-90-7	U	.00027	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Chlorodibromomethane	124-48-1	U	.00047	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Chloroethane	75-00-3	U	.0012	0.0032	0.0064	mg/kg		8260B	10/29/14	1
Chloroform	67-66-3	U	.00029	0.0032	0.0064	mg/kg		8260B	10/29/14	1

Results listed are dry weight basis.
U = Not Detected at the LOD

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Reported: 11/14/14 18:35 Revised: 11/18/14 11:02

L729026-06 (PH) - 6.5@20.1c

L729026-06 (ICP METALS) - Dilution due to matrix

KA 11/16/15
BMS 2/22/15
30 of 1609



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729026-06

Sample ID : TU503-SB05-NS02

Site ID :

Collected By :
Collection Date : 10/20/14 12:55

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00049	0.00064	0.0032	mg/kg		8260B	10/29/14	1
2-Chlorotoluene	95-49-8	U	.00038	0.00064	0.0013	mg/kg		8260B	10/29/14	1
4-Chlorotoluene	106-43-4	U	.00031	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0013	0.0032	0.0064	mg/kg		8260B	10/29/14	1
1,2-Dibromoethane	106-93-4	U	.00044	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Dibromomethane	74-95-3	U	.00049	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dichlorobenzene	95-50-1	U	.00038	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,3-Dichlorobenzene	541-73-1	U	.00031	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,4-Dichlorobenzene	106-46-7	U	.00029	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Dichlorodifluoromethane	75-71-8	U	.00091	0.0032	0.0064	mg/kg		8260B	10/29/14	1
1,1-Dichloroethane	75-34-3	U	.00026	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dichloroethane	107-06-2	U	.00033	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,1-Dichloroethene	75-35-4	U	.00038	0.00064	0.0013	mg/kg		8260B	10/29/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00031	0.00064	0.0013	mg/kg		8260B	10/29/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00033	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dichloropropane	78-87-5	U	.00046	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,1-Dichloropropene	563-58-6	U	.00041	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,3-Dichloropropane	142-28-9	U	.00027	0.00064	0.0013	mg/kg		8260B	10/29/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00033	0.00064	0.0013	mg/kg		8260B	10/29/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00035	0.00064	0.0013	mg/kg		8260B	10/29/14	1
2,2-Dichloropropane	594-20-7	U	.00036	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Ethylbenzene FSQI-I	100-41-4	0.00050	.00038	0.00064	0.0013	mg/kg	J	8260B	10/29/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00044	0.00064	0.0013	mg/kg		8260B	10/29/14	1
2-Hexanone	591-78-6	U	.0049	0.0064	0.013	mg/kg		8260B	10/29/14	1
Isopropylbenzene	98-82-8	U	.00031	0.00064	0.0013	mg/kg		8260B	10/29/14	1
p-Isopropyltoluene	99-87-6	U	.00026	0.00064	0.0013	mg/kg		8260B	10/29/14	1
2-Butanone (MEK)	78-93-3	U	.006	0.0064	0.013	mg/kg		8260B	10/29/14	1
Methylene Chloride	75-09-2	U	.0013	0.0032	0.0064	mg/kg		8260B	10/29/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0024	0.0064	0.013	mg/kg		8260B	10/29/14	1
Methyl tert-butyl ether	1634-04-4	U	.00027	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Naphthalene DNR	91-20-3	U	.0013	0.0032	0.0064	mg/kg		8260B	10/29/14	1
n-Propylbenzene	103-65-1	U	.00027	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Styrene	100-42-5	U	.00029	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00033	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00046	0.00096	0.0013	mg/kg		8260B	10/29/14	1
Tetrachloroethene	127-18-4	U	.00036	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Toluene FSQI-I	108-88-3	0.0027	.00055	0.0032	0.0064	mg/kg	J	8260B	10/29/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.0004	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.0005	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,1,1-Trichloroethane	71-55-6	U	.00037	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,1,2-Trichloroethane	79-00-5	U	.00036	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Trichloroethene	79-01-6	U	.00036	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Trichlorofluoromethane	75-69-4	U	.00049	0.0032	0.0064	mg/kg		8260B	10/29/14	1
1,2,3-Trichloropropane	96-18-4	U	.00095	0.0013	0.0032	mg/kg		8260B	10/29/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.00027	0.00064	0.0013	mg/kg		8260B	10/29/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/14/14 18:35 Revised: 11/18/14 11:02

L729026-06 (PH) - 6.5@20.1c

L729026-06 (ICP METALS) - Dilution due to matrix

DNR: DO NOT REPORT

KA 11/16/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB05-NS02
Collected By :
Collection Date : 10/20/14 12:55

ESC Sample # : L729026-06

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00044	0.00064	0.0013	mg/kg		8260B	10/29/14	1
m&p-Xylene	1330-20-7	U	.00092	0.0013	0.0026	mg/kg		8260B	10/29/14	1
Vinyl chloride	75-01-4	U	.00037	0.00064	0.0013	mg/kg		8260B	10/29/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00035	0.00064	0.0013	mg/kg		8260B	10/29/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	97.2				% Rec.		8260B	10/29/14	1
Dibromofluoromethane	1868-53-7	99.8				% Rec.		8260B	10/29/14	1
4-Bromofluorobenzene	460-00-4	94.1				% Rec.		8260B	10/29/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2	2.6	5.1	mg/kg		8015	10/28/14	1
C28-C40 Oil Range		U	.35	2.6	5.1	mg/kg		8015	10/28/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	60.2				% Rec.		8015	10/28/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Acenaphthene	83-32-9	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Acenaphthylene	208-96-8	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Benzo(a)anthracene	56-55-3	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Benzo(a)pyrene	50-32-8	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Benzo(b)fluoranthene	205-99-2	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Benzo(k)fluoranthene	207-08-9	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Chrysene	218-01-9	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Fluoranthene	206-44-0	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Fluorene	86-73-7	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Naphthalene	91-20-3	0.0086	.00077	0.0077	0.026	mg/kg	J	8270C-SI	10/25/14	1
Phenanthrene	85-01-8	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
Pyrene	129-00-0	U	.00077	0.0026	0.0077	mg/kg		8270C-SI	10/25/14	1
2-Methylnaphthalene	91-57-6	U	.00082	0.0077	0.026	mg/kg		8270C-SI	10/25/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	77.6				% Rec.		8270C-SI	10/25/14	1
Nitrobenzene-d5	4165-60-0	79.4				% Rec.		8270C-SI	10/25/14	1
2-Fluorobiphenyl	321-60-8	83.8				% Rec.		8270C-SI	10/25/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.0099	0.21	0.43	mg/kg		8270C	10/27/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.011	0.21	0.43	mg/kg		8270C	10/27/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.0097	0.21	0.43	mg/kg		8270C	10/27/14	1
Benzyl Alcohol	100-51-6	U	.0096	0.21	0.43	mg/kg		8270C	10/27/14	1
Benzoic acid	65-85-0	U	.15	2.1	4.3	mg/kg		8270C	10/27/14	1
Carbazole	86-74-8	U	.0067	0.21	0.43	mg/kg		8270C	10/27/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/14/14 18:35 Revised: 11/18/14 11:02

L729026-06 (PH) - 6.5@20.1c

L729026-06 (ICP METALS) - Dilution due to matrix

CA-116/115
BMS 9/2/15
32 of 1609



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB05-NS02
Collected By :
Collection Date : 10/20/14 12:55

ESC Sample # : L729026-06

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0067	0.21	0.43	mg/kg		8270C	10/27/14	1
4-Bromophenyl-phenylether	101-55-3	U	.014	0.21	0.43	mg/kg		8270C	10/27/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0081	0.21	0.43	mg/kg		8270C	10/27/14	1
2-Chloronaphthalene	91-58-7	U	.0082	0.21	0.43	mg/kg		8270C	10/27/14	1
3,3-Dichlorobenzidine	91-94-1	U	.1	0.21	0.43	mg/kg		8270C	10/27/14	1
2,4-Dinitrotoluene	121-14-2	U	.0078	0.21	0.43	mg/kg		8270C	10/27/14	1
2,6-Dinitrotoluene	606-20-2	U	.0094	0.21	0.43	mg/kg		8270C	10/27/14	1
Hexachlorobenzene	118-74-1	U	.011	0.21	0.43	mg/kg		8270C	10/27/14	1
Hexachloro-1,3-butadiene	87-69-3	U	.013	0.21	0.43	mg/kg		8270C	10/27/14	1
Hexachloroethane	67-72-1	U	.017	0.21	0.43	mg/kg		8270C	10/27/14	1
Isophorone	78-59-1	U	.0067	0.21	0.43	mg/kg		8270C	10/27/14	1
Nitrobenzene	98-95-3	U	.0089	0.21	0.43	mg/kg		8270C	10/27/14	1
n-Nitrosodimethylamine	62-75-9	U	.083	0.21	0.43	mg/kg		8270C	10/27/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0076	0.21	0.43	mg/kg		8270C	10/27/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.012	0.21	0.43	mg/kg		8270C	10/27/14	1
Benzylbutyl phthalate	85-68-7	U	.013	0.21	0.43	mg/kg	J3	8270C	10/27/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.015	0.21	0.43	mg/kg		8270C	10/27/14	1
Di-n-butyl phthalate	84-74-2	U	.014	0.21	0.43	mg/kg		8270C	10/27/14	1
Diethyl phthalate	84-66-2	U	.0088	0.21	0.43	mg/kg		8270C	10/27/14	1
Dimethyl phthalate	131-11-3	U	.0069	0.21	0.43	mg/kg		8270C	10/27/14	1
Di-n-octyl phthalate	117-84-0	U	.012	0.21	0.43	mg/kg		8270C	10/27/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.011	0.21	0.43	mg/kg		8270C	10/27/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0062	0.21	0.43	mg/kg		8270C	10/27/14	1
2-Chlorophenol	95-57-8	U	.011	0.21	0.43	mg/kg		8270C	10/27/14	1
2,4-Dichlorophenol	120-83-2	U	.0096	0.21	0.43	mg/kg		8270C	10/27/14	1
2,4-Dimethylphenol	105-67-9	U	.06	0.21	0.43	mg/kg		8270C	10/27/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.15	0.21	0.43	mg/kg		8270C	10/27/14	1
2,4-Dinitrophenol	51-28-5	U	.12	0.21	0.43	mg/kg		8270C	10/27/14	1
2-Methylphenol	95-48-7	U	.013	0.21	0.43	mg/kg		8270C	10/27/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.01	0.21	0.43	mg/kg		8270C	10/27/14	1
2-Nitrophenol	88-75-5	U	.017	0.21	0.43	mg/kg		8270C	10/27/14	1
4-Nitrophenol	100-02-7	U	.067	0.21	0.43	mg/kg		8270C	10/27/14	1
4-Chloroaniline	106-47-8	U	.0045	0.21	0.43	mg/kg		8270C	10/27/14	1
2-Nitroaniline	88-74-4	U	.0097	0.21	0.43	mg/kg		8270C	10/27/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0018	0.21	0.43	mg/kg		8270C	10/27/14	1
3-Nitroaniline	99-09-2	U	.011	0.21	0.43	mg/kg		8270C	10/27/14	1
4-Nitroaniline	100-01-6	U	.0082	0.21	0.43	mg/kg		8270C	10/27/14	1
Pentachlorophenol	87-86-5	U	.061	0.21	0.43	mg/kg		8270C	10/27/14	1
Phenol	108-95-2	U	.0089	0.21	0.43	mg/kg		8270C	10/27/14	1
2,4,5-Trichlorophenol	95-95-4	U	.013	0.21	0.43	mg/kg		8270C	10/27/14	1
2,4,6-Trichlorophenol	88-06-2	U	.01	0.21	0.43	mg/kg		8270C	10/27/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	58.3				% Rec.		8270C	10/27/14	1
Phenol-d5	4165-62-2	57.1				% Rec.		8270C	10/27/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/14/14 18:35 Revised: 11/18/14 11:02

L729026-06 (PH) - 6.5@20.1c

L729026-06 (ICP METALS) - Dilution due to matrix

ONR = do not report

*KA 1/16/15
BMS 2/17/15
33 of 1609*



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB05-NS02
 Collected By :
 Collection Date : 10/20/14 12:55

ESC Sample # : L729026-06
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	56.8				% Rec.		8270C	10/27/14	1
2-Fluorobiphenyl	321-60-8	65.6				% Rec.		8270C	10/27/14	1
2,4,6-Tribromophenol	118-79-6	67.7				% Rec.		8270C	10/27/14	1
p-Terphenyl-d14	1718-51-0	57.7				% Rec.		8270C	10/27/14	1

Results listed are dry weight basis.
 U = Not Detected at the LOD

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Reported: 11/14/14 18:35 Revised: 11/18/14 11:02
 L729026-06 (PH) - 6.5@20.1c
 L729026-06 (ICP METALS) - Dilution due to matrix

KA-1/16/15

**Holloman AFB
Groundwater Monitoring
Data Review Summary**

Data Package Number: L729030
 Sampling Event Dates: October 21, 2014
 Sample-specific Parameter Review/ Laboratory Performance Parameters: Yes
 Full Validation (e.g., result recalculation): No
 Data Reviewer: Katie Abbott, URS Project Chemist
 Date Completed: January 28, 2015
 Peer Reviewer: Sheri Fling, URS Project Quality Assurance Manager (QAM)

The table below summarizes the data package and sample identifications discussed in this data review.

Field Identification	Sample Type	Lab Identification	Matrix	Analyses						
				GRO	VOCs	PAHs	DRO/ORO	SVOCs	Total Metals	pH
L729030										
TU503-SB03-NS01	SA	L729030-01	Soil	X	X	X	X	X	X	X
TU503-SB03-NS02	SA	L729030-02	Soil	X	X	X	X	X	X	X
TU503-TRIPBLANK05-NT01	TB	L729030-03	Water	X	X	---	---	---	---	---
TU503-SB06-NS01	SA	L729030-04	Soil	X	X	X	X	X	X	X
TU503-SB06-NS02	SA	L729030-05	Soil	X	X	X	X ^m	X	X	X

Sample Type: SA – Sample TB – Trip Blank
 X^m - Matrix Spike/Matrix Spike Duplicate

Analyses:
 DRO/ORO - Diesel and Oil Range Organics (8015)
 GRO – Gasoline Range Organics (8015D)
 TDS – Total Dissolved Solids (SM2540C)
 Total/ Metals – Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Manganese, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc, Mercury (6010B/7470A)
 PAH – Polynuclear Aromatic Hydrocarbons (8270C SIM)
 SIM – Selective Ion Monitoring
 SVOCs – Semivolatile Organic Compounds (8270C)
 VOCs – Volatile Organic Compounds (8260B)

The data review was conducted in accordance with the Final Interim Measures Work Plan – Appendix A, Sampling and Analysis Plan/Quality Assurance Project Plan: Former Septic System Site TU904 (URS, September 2014); Group 2 Former Underground Storage Sites: AOC-UST-889 (TU515) (URS, September 2014); and Group 3 Former Underground Storage Tank Sites: AOC-UST-221 (TU503), AOC-UST-298 (TU508), AOC-UST-901 (TU506) and AOC-UST-7003 (TU518) (URS, August 2014); data validation standard operating procedure (SOP) 14; Department of Defense (DoD) Quality Systems Manual version 4.2 (DoD, 2010); and method requirements.

General Overall Assessment:

- Data are usable without qualification.
- Data are usable with qualification (noted below).
- Some or all data are unusable for any purpose (detailed below).

Case Narrative Comments: Any laboratory case narrative comments concerning data qualification were addressed in the table below.

Trace level detects, reported between the method detection limit (MDL) and the reporting limit (LOQ), have been qualified as estimated (F SQL-I). All other occurrences of data qualification are covered in the following table.

Review Parameter	Criteria Met?	Comment
Chain of Custody & Sample Receipt	Yes	The samples were received by ESC Lab Sciences in good condition and were consistent with the accompanying chain of custody (COC). The cooler temperatures upon receipt were within the recommended ≤6 degrees Celsius (°C) temperature range.
Reporting	Yes	<p>During review of a representative data package selected for full validation, it was noted that improper reference spectra were displayed in the printed version of the data package for Method 8260B. Due to a LIMS limitation, the data package reference spectra were not consistently representative of the actual spectra for the analytes detected. Because the laboratory data review involves the use of NBS reference spectra and not the reference spectra taken from the instrument calibration, the analyst was not seeing the improper alignment of spectra noted in the data package during his/her review at the instrument. The laboratory revised and reissued the data package with correct reference spectral data, consistent with method requirements, and no results were changed. Therefore, no further action is necessary as a result of this validation finding.</p> <p>Method 8270C Semivolatile Organic Compounds (SVOCs)</p> <p>The results for 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene are not reported by Method 8270C SVOCs but are reported by Method 8260B volatile organic compounds (VOCs). As the detection limits (DLs), limits of detection (LODs), and limits of quantitation (LOQs) are lower by Method 8260B, further action was not necessary.</p> <p>The laboratory noted 4-methylphenol cannot be reported as 3 & 4-methylphenol coelute during the analysis; therefore, the analytes are reported together and 3&4-methylphenol on the data sheets and in the electronic database.</p>
Holding Times	Yes	All samples were analyzed within the method required holding time.
Laboratory Blanks <ul style="list-style-type: none"> • Method Blank • Initial/Continuing Calibration Blank 	No	With the exception listed in Table 1, target analytes were not detected within the method or calibration blanks.
Matrix Quality Control <ul style="list-style-type: none"> • Matrix Spike/ Matrix Spike Duplicate TU503-SB06-NS02 (DRO) • Laboratory Duplicate TU503-SB06-NS02 (Total Solids, pH) 	Yes	<p>Matrix Spike/ Matrix Spike Duplicate (MS/MSD)</p> <p>The frequency of MS/MSDs met the quality assurance project plan (QAPP) requirement of one per twenty samples.</p> <p>With the exceptions listed in Table 2, the MS/MSD recoveries and relative percent differences (RPDs) met quality control criteria.</p>

Review Parameter	Criteria Met?	Comment
		<p>The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the sample matrix could not be assessed for oil range organics (ORO).</p> <p>Results in the native sample greater than four times the concentration of the spike added during digestions/extractions are not considered to be a representative measure of accuracy. Further action with respect to spike recovery evaluation or qualification of data was not considered necessary.</p> <p>Consistent with standard operating procedure (SOP) 14, when MS/MSD issues accounted for less than 35% of the MS/MSD analyses conducted, applicable data qualification was limited to qualification of the parent sample of the affected analyte. When >35% of the MS/MSD results did not meet criteria, evaluation was extended to all associated samples. See Section 4.1 of the data validation report for overall qualifiers resulting from the MS/MSD evaluation.</p> <p>Laboratory Duplicate</p> <p>The comparison between results of the laboratory duplicate pair met the criteria listed below.</p> <ul style="list-style-type: none"> • When both the sample and duplicate values are >5x the LOQ acceptable sampling and analytical precision is indicated by a relative percent difference (RPD) between the results of ≤20% for water samples (≤35% for soil samples). • Where the result for one or both analytes of the laboratory duplicate pair is <5xLOQ, satisfactory precision is indicated if the absolute difference between the laboratory duplicate results is <1xLOQ for water samples (<2xLOQ for soil samples).
<p>Metals Only</p> <ul style="list-style-type: none"> • Serial Dilution None in this package • Post Digestion Spike None in this package 	NA	<p>Serial Dilution (Metals Only)</p> <p>A serial dilution was not reported in association with the sample in this data package.</p> <p>Post Digestion Spike (PDS) (Metals Only)</p> <p>A post digestion spike was not reported in association with the sample in this data package.</p>
<p>Method Quality Control</p> <ul style="list-style-type: none"> • Surrogates (VOCs, SVOCs, PAHs, GRO, DRO/ORO) 	No	<p>With the exception listed in Table 3, the surrogate recoveries were within the laboratory specified acceptance criteria.</p> <p>The surrogate recoveries for SVOCs on sample TU503-SB03-NS02 could not be evaluated as they were diluted beyond the laboratory's ability to quantitate surrogate recoveries. Further action was not necessary.</p>
<p>Field Quality Control</p> <ul style="list-style-type: none"> • Trip Blank TU503-TRIPBLANK05-NT01 (GRO, VOCs) • Field Duplicate None in this package • Equipment Blank None in this package • Field Blank None in this package 	No	<p>Trip Blank</p> <p>With the exception listed in Table 4, target analytes were not detected in the trip blank.</p> <p>Field Duplicate</p> <p>The frequency of field duplicates met the QAPP requirement of one per twenty samples.</p> <p>A field duplicate was not submitted with the data package.</p>

Review Parameter	Criteria Met?	Comment
		<p>Consistent with SOP 14, when field duplicate issues accounted for less than 35% of the field duplicate analyses conducted, applicable data qualification was limited to qualification of the parent sample for the affected analyte. When >35% of the field duplicate results did not meet criteria, evaluation was extended to all associated samples. See Section 4.3 of the data validation report for overall qualifiers resulting from the field duplicate evaluation.</p> <p>Equipment Blank</p> <p>As dedicated equipment was used to collect these samples, an equipment blank was not submitted for this sampling event. Further action was not necessary.</p> <p>Field Blank</p> <p>The frequency of field blanks met the QAPP requirement of one per twenty samples.</p> <p>A field blank was not submitted with this data package. See Section 4.4 of the data validation report for overall qualifiers resulting from the field blank evaluation.</p>
LODs met?	No	<p>Due to dilutions, several 6010B metals results for all samples and several VOCs and SVOCs for sample TU503-SB03-NS02 were reported as non-detect at elevated LODs. See Section 3.7 of the validation report for further discussion.</p>
Other Parameters	Yes	<p>Naphthalene (8260B and 8270C-PAHs) and hexachloro-1,3-butadiene and 1,2,4-trichlorobenzene (8260B and 8270C) were analyzed by multiple methods. Results were selected for reporting using the following criteria:</p> <ul style="list-style-type: none"> • If both results were non-detect, the non-detect result with the lower DL was selected. • If both results were reported as detected, the higher detected result was selected for reporting. • If one result was reported as non-detect and the other result was reported as detected, the detected result was selected for reporting.
Initial Calibration	Yes	<p>Methods 8260B VOCs & 8270C SVOCs</p> <p>A minimum relative response factor (RRF) of 0.05 was used for the system performance check compounds (SPCCs) and all SPCCs met this criterion. The percent relative standard deviations (%RSDs) over the initial calibration RRFs for all calibration check compounds (CCCs) satisfied the method requirement of <30%. For all other target compounds, a requirement of 15% was used. The %RSD values for all target analytes in the calibration were less than 15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)</p> <p>The %RSD values for all target analytes in the calibration were less than 20%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8015D Gasoline Range Organics (GRO)/DRO/ORO</p> <p>The relationship between instrument response and concentration was established with a blank and at least five standards for the entire carbon</p>

Review Parameter	Criteria Met?	Comment
		<p>range of C10-C40. The %RSD over the initial calibrations curve satisfied the method requirement of <15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Methods 6010B (Inductively Coupled Plasma [ICP] Metals)</p> <p>The initial calibrations (ICALs) were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with a blank and at least one standard. The calibrations were verified with the analysis of an initial calibration verification (ICV) standard. All metals were recovered within the method acceptance range of 90-110%.</p> <p>Method 7470A (Mercury)</p> <p>The ICALs were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with five standards. The correlation coefficient was >0.995. The calibration was verified with the analysis of an ICV standard. The analytes were recovered within the acceptance range of 90-110%. Response and linearity criteria were met and data qualification on the basis of initial calibration was not necessary.</p>
Initial Calibration Verification/Continuing Calibration Verification	No	<p>Method 8260B VOCs</p> <p>The percent differences (%Ds) for all CCCs in the ICVs and continuing calibrations (CCALs) were less than 20%, satisfying method requirements, and other target analytes satisfied the %D criterion of 20%.</p> <p>Methods 8270C PAHs/SVOCs</p> <p>With the exceptions listed in Table 5, the %D values for all target analytes in the calibration were less than 20%.</p> <p>Method 8015D GRO/DRO/ORO</p> <p>The %Ds for all target compounds in the ICVs and CCALs were less than 15%. Data qualification was not necessary.</p> <p>Methods 6010B (ICP Metals) & 7470A (Mercury)</p> <p>Calibration verification analyses were conducted at the proper frequency. All metals were recovered within the DOD QSM 4.2 low level acceptance range of 80-120% and the method medium/high acceptance range of 90-110%.</p>
Interference Check Standard (Metals Only)	No	<p>The interference check standard (ICS) AB solutions were analyzed at the proper frequency. The target analytes were recovered within the acceptance range of 90-10% in the ICS AB solution. With the exceptions listed in Table 6, interferent elements were not present in the samples at concentrations greater than those in the ICSs.</p> <p>The interferent elements aluminum, calcium, iron, and magnesium were present in most samples in this data package at concentrations greater than or equal to those in the ICSs. As such, these samples were evaluated for positive and negative biases suggested by the ICS A. Data qualification was issued if the absolute value of the ICS A result was greater than the DL and it suggested a positive or negative bias which accounted for more than 25% of associated sample results or LODs. (Note: The ICS A solution only contains the interferent elements aluminum, calcium, iron, and</p>

Review Parameter	Criteria Met?	Comment
		magnesium so any positive or negative result for other analytes is inferred to be a bias potentially caused by one or more of the interferent elements present). Table 6 summarizes the resultant data qualification on the basis of the ICS results.
Internal Standard (VOCs/SVOCs/PAHs/Metals (6020))	Yes	Recoveries for the internal standards in field samples were within the applicable acceptance limits. Therefore, data qualification based on internal standards was not necessary.
Laboratory Control Sample/ Laboratory Control Sample Duplicate	No	One laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) per method per analytical batch was prepared and analyzed. With the exceptions listed in Table 7, all of the LCS recoveries and LCS/LCSD RPDs were within the QAPP acceptance limits. These results are indicative of an acceptable level of accuracy and precision with respect to the analytical method. Method 8015 DRO/ORO The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the method could not be assessed for ORO.
Package Completeness	Yes	The results are usable as qualified for the project objective. The data are 100% complete.

< - Less Than
 ≤ - Less Than or Equal to
 °C – Degrees Celsius
 % - Percent
 %Ds – Percent Differences
 %RSD – Percent Relative Standard Deviation
 CCALs – Continuing Calibrations
 CCBs – Continuing Calibration Blanks
 CCCs – Calibration Check Compounds
 COC – Chain of Custody
 COD – Coefficient of Determination
 DLs – Detection Limits
 DRO – Diesel Range Organics
 GRO – Gasoline Range Organics
 ICAL – Initial Calibration
 ICB – Initial Calibration Blank
 ICP – Inductively Coupled Plasma

ICS – Interference Check Standard
 ICV – Initial Calibration Verification
 LCS – Laboratory Control Sample
 LCSD – Laboratory Control Sample Duplicate
 LOD – Limit of Detection
 LOQ – Limit of Quantitation
 MS/MSD – Matrix Spike/ Matrix Spike Duplicate
 ORO – Oil Range Organics
 PAHs – Polynuclear Aromatic Hydrocarbons
 PDS – Post Digestion Spike
 QAPP – Quality Assurance Project Plan
 RPDs – Relative Percent Differences
 RRF – Relative Response Factor
 SOP – Standard Operating Procedure
 SPCCs – System Performance Check Compounds
 SVOCs – Semivolatile Organic Compounds
 VOCs – Volatile Organic Compounds

Table 1: Blank Outliers and Resultant Data Qualification

Associated Samples	Analyte	Concentration	Qualification
Total Metals			
MB Batch WG750261 TU503-SB03-NS01 TU503-SB03-NS02 TU503-SB06-NS01 TU503-SB06-NS02	Aluminum	4.64 mg/Kg	None. The associated results were reported at concentrations >5x the concentration of the blank contamination.
	Zinc	1.08 mg/Kg	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).

Associated Samples	Analyte	Concentration	Qualification
PAHs			
MB Batch WG750214 TU503-SB03-NS01 TU503-SB03-NS02 TU503-SB06-NS01 TU503-SB06-NS02	Naphthalene	0.000605 mg/Kg	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).
> - Greater Than MB – Method Blank	< - Less Than PAHs – Polyaromatic Hydrocarbons		I – Indeterminate Bias U – Non-detect

Table 2: MS/MSD Recovery and RPD Outliers and Resultant Data Qualification

Associated Sample	Analyte	%R (Limits)	RPD (Limit)	Qualification
DRO				
TU503-SB06-NS02	DRO	57.6/63.5 (61-145)	9.71 (30)	As the potential bias was considered to be low, the associated results for sample TU503-SB06-NS02 were qualified as estimated (UJ MS-L).
%R – Percent Recoveries MS/MSD – Matrix Spike Matrix Spike Duplicate Bold indicates a recovery or RPD outside of acceptance limit	DRO – Diesel Range Organics RPD – Relative Percent Difference		L – Low Bias UJ/J - Estimated	

Table 3: Surrogate Recovery Outliers and Resultant Data Qualification

Sample	Surrogate	%R (Limits)	Qualification
DRO/ORO			
TU503-SB03-NS02	o-Terphenyl	45.5 (50-150)	As the potential bias was considered to be low, the associated DRO and ORO results were qualified as estimated (J SUR-L).
%R - Percent Recovery L – Low Bias Bold indicates a recovery outside of acceptance limits.	DRO – Diesel Range Organics ORO – Oil Range Organics		J – Estimated SUR – Surrogate

Table 4: Trip Blank Outliers and Resultant Data Qualification

Associated Samples	Analyte	Concentration	Qualification
TU503-TRIPBLANK05-NT01 TU503-SB03-NS01 TU503-SB03-NS02 TU503-SB06-NS01 TU503-SB06-NS02	Acetone	11 µg/L*	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U TB-I).
µg/L – Micrograms Per Liter TB – Trip Blank	< - Less Than U – Non-detect		I – Indeterminate Bias
* Concentrations reported in µg/L. To determine equivalent soil value in mg/kg, multiply by the preparation factor and divided by the percent solids.			

Table 5: Initial/Continuing Calibration Verification Outliers and Resultant Data Qualification

Associated Samples	Analyte	%D (Limit)	Data Qualification
SVOCs			
TU503-SB03-NS01 TU503-SB06-NS01 TU503-SB06-NS02	3&4-Methyl Phenol	-51.8 (±20)	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ/J CCAL-L).
TU503-SB03-NS02		-55.4 (±20)	

± - Plus or minus
L - Low Bias

%D - Percent Difference
SVOCs - Semivolatile Organic Compounds

CCAL - Continuing Calibration
UJ/J - Estimated

Table 6: ICS Outliers and Resultant Data Qualification

Interferent Element	Analyte	ICS A (µg/L)	MDL (µg/L)	Qualified Samples	Qualification
Aluminum, Calcium, Iron, Magnesium	Cadmium	-2.8	0.7	TU503-SB03-NS01	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ/J ICS-L).
	Lead	-33.5	1.9	TU503-SB03-NS02	
	Manganese	-5.9	1.2	TU503-SB06-NS01 TU503-SB06-NS02	
	Nickel	-16.5	4.9	TU503-SB03-NS01 TU503-SB03-NS02 TU503-SB06-NS01	

µg/L - Micrograms per Liter
MDL - Method Detection Limit

ICS - Interference Check Standard
UJ/J - Estimated

L - Low Bias

Table 7: LCS Recovery Outliers and Resultant Data Qualification

Associated Samples	Analyte	%R (Limits)	RPD (Limits)	Qualification
Metals				
LCS WG750261 TU503-SB03-NS01 TU503-SB03-NS02 TU503-SB06-NS01 TU503-SB06-NS02	Aluminum	133/131 (80-120)	3 (50)	As the potential bias was considered to be high, the associated detected aluminum results for all samples were qualified as estimated (J LCS-H).
LCS WG750208 TU503-SB03-NS01 TU503-SB03-NS02 TU503-SB06-NS01 TU503-SB06-NS02	Mercury	128/123 (80-120)	18 (50)	As the potential bias was considered to be high and the associated sample results were reported as non-detect, data qualification was not considered necessary.

%R - Percent Recoveries

J - Estimated

H - High Bias

LCS - Laboratory Control Sample

Bold indicates a recovery outside of acceptance limits.



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB03-NS01
Collected By :
Collection Date : 10/21/14 11:30

ESC Sample # : L729030-01
Site ID :
Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.6				su		9045D	10/24/14	1
Total Solids	TSOLIDS	77.2	.0333			%		2540 G-2	10/26/14	1
Mercury	7439-97-6	U	.0036	0.013	0.026	mg/kg		7471	10/23/14	1
Aluminum	7429-90-5	4300	23	32.	65.	mg/kg		6010B	10/30/14	5
Antimony	7440-36-0	U	4.9	6.5	13.	mg/kg		6010B	10/30/14	5
Arsenic	7440-38-2	U	4.1	6.5	13.	mg/kg		6010B	10/30/14	5
Barium	7440-39-3	38.	1.1	1.6	3.2	mg/kg		6010B	10/30/14	5
Beryllium	7440-41-7	U	.45	0.65	1.3	mg/kg		6010B	10/30/14	5
Cadmium	7440-43-9	U	.45	1.6	3.2	mg/kg		6010B	10/30/14	5
Chromium	7440-47-3	4.0	.91	3.2	6.5	mg/kg	J	6010B	10/30/14	5
Cobalt	7440-48-4	1.6	1.6	3.2	6.5	mg/kg	J	6010B	10/30/14	5
Copper	7440-50-8	U	3.4	6.5	13.	mg/kg		6010B	10/30/14	5
Lead	7439-92-1	1.8	1.2	1.6	3.2	mg/kg	J	6010B	10/30/14	5
Manganese	7439-96-5	41.	.78	3.2	6.5	mg/kg		6010B	10/30/14	5
Nickel	7440-02-0	U	3.1	6.5	13.	mg/kg		6010B	10/30/14	5
Selenium	7782-49-2	U	4.8	6.5	13.	mg/kg		6010B	10/30/14	5
Silver	7440-22-4	U	1.8	3.2	6.5	mg/kg		6010B	10/30/14	5
Thallium	7440-28-0	U	4.1	6.5	13.	mg/kg		6010B	11/04/14	5
Vanadium	7440-62-2	9.4	1.6	6.5	13.	mg/kg	J	6010B	10/30/14	5
Zinc	7440-66-6	12.16	3.9	16.	32.	mg/kg	J	6010B	10/30/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.028	0.065	0.13	mg/kg		8015D/GR	10/28/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	99.1				% Rec.		8015D/GR	10/28/14	1
Volatile Organics										
Acetone	67-64-1	0.038	0.013	0.032	0.065	mg/kg	J	8260B	10/29/14	1
Benzene	71-43-2	0.0012	0.00035	0.00065	0.0013	mg/kg	J	8260B	10/29/14	1
Bromobenzene	108-86-1	U	.00036	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Bromochloromethane	74-97-5	U	.0005	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Bromodichloromethane	75-27-4	U	.00032	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Bromoform	75-25-2	U	.00054	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Bromomethane	74-83-9	U	.0017	0.0032	0.0065	mg/kg		8260B	10/29/14	1
n-Butylbenzene	104-51-8	U	.00034	0.00065	0.0013	mg/kg		8260B	10/29/14	1
sec-Butylbenzene	135-98-8	U	.00026	0.00065	0.0013	mg/kg		8260B	10/29/14	1
tert-Butylbenzene	98-06-6	U	.00027	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Carbon Disulfide	75-15-0	U	.00036	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Carbon tetrachloride	56-23-5	U	.00043	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Chlorobenzene	108-90-7	U	.00027	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Chlorodibromomethane	124-48-1	U	.00048	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Chloroethane	75-00-3	U	.0012	0.0032	0.0065	mg/kg		8260B	10/29/14	1
Chloroform	67-66-3	U	.0003	0.0032	0.0065	mg/kg		8260B	10/29/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

Note:

This report shall not be reproduced, except in full, without the written approval from ESC.

The reported analytical results relate only to the sample submitted

Reported: 11/14/14 18:36 Revised: 11/18/14 16:18

L729030-01 (ICP METALS) - Dilution due to matrix

L729030-01 (PH) - 6.6@20.3c

KA 1/28/15
BMS 2/19/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB03-NS01
Collected By :
Collection Date : 10/21/14 11:30

ESC Sample # : L729030-01
Site ID :
Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00049	0.00065	0.0032	mg/kg	8260B	10/29/14	1	
2-Chlorotoluene	95-49-8	U	.00039	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
4-Chlorotoluene	106-43-4	U	.00031	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0013	0.0032	0.0065	mg/kg	8260B	10/29/14	1	
1,2-Dibromoethane	106-93-4	U	.00044	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
Dibromomethane	74-95-3	U	.00049	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
1,2-Dichlorobenzene	95-50-1	U	.00039	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
1,3-Dichlorobenzene	541-73-1	U	.00031	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
1,4-Dichlorobenzene	106-46-7	U	.0003	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
Dichlorodifluoromethane	75-71-8	U	.00092	0.0032	0.0065	mg/kg	8260B	10/29/14	1	
1,1-Dichloroethane	75-34-3	U	.00026	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
1,2-Dichloroethane	107-06-2	U	.00034	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
1,1-Dichloroethene	75-35-4	U	.00039	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
cis-1,2-Dichloroethene	156-59-2	U	.00031	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
trans-1,2-Dichloroethene	156-60-5	U	.00034	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
1,2-Dichloropropane	78-87-5	U	.00047	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
1,1-Dichloropropene	563-58-6	U	.00041	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
1,3-Dichloropropane	142-28-9	U	.00027	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
cis-1,3-Dichloropropene	10061-01-5	U	.00034	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
trans-1,3-Dichloropropene	10061-02-6	U	.00035	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
2,2-Dichloropropane	594-20-7	U	.00036	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
Ethylbenzene	100-41-4	U	.00039	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
Hexachloro-1,3-butadiene	87-68-3	U	.00044	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
2-Hexanone	591-78-6	U	.0049	0.0065	0.013	mg/kg	8260B	10/29/14	1	
Isopropylbenzene	98-82-8	U	.00031	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
p-Isopropyltoluene	99-87-6	U	.00026	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
2-Butanone (MEK)	78-93-3	U	.0061	0.0065	0.013	mg/kg	8260B	10/29/14	1	
Methylene Chloride	75-09-2	U	.0013	0.0032	0.0065	mg/kg	8260B	10/29/14	1	
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0025	0.0065	0.013	mg/kg	8260B	10/29/14	1	
Methyl tert-butyl ether	1634-04-4	U	.00027	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
Naphthalene	91-20-3	U	.0013	0.0032	0.0065	mg/kg	8260B	10/29/14	1	
n-Propylbenzene	103-65-1	U	.00027	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
Styrene	100-42-5	U	.0003	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
1,1,1,2-Tetrachloroethane	630-20-6	U	.00034	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
1,1,2,2-Tetrachloroethane	79-34-5	U	.00047	0.00097	0.0013	mg/kg	8260B	10/29/14	1	
Tetrachloroethene	127-18-4	U	.00036	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
Toluene <i>F SOL-1</i>	108-88-3	0.0013	.00056	0.0032	0.0065	mg/kg	J	8260B	10/29/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.0004	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
1,2,4-Trichlorobenzene	120-82-1	U	.0005	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
1,1,1-Trichloroethane	71-55-6	U	.00037	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
1,1,2-Trichloroethane	79-00-5	U	.00036	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
Trichloroethene	79-01-6	U	.00036	0.00065	0.0013	mg/kg	8260B	10/29/14	1	
Trichlorofluoromethane	75-69-4	U	.00049	0.0032	0.0065	mg/kg	8260B	10/29/14	1	
1,2,3-Trichloropropane	96-18-4	U	.00096	0.0013	0.0032	mg/kg	8260B	10/29/14	1	
1,2,4-Trimethylbenzene	95-63-6	U	.00027	0.00065	0.0013	mg/kg	8260B	10/29/14	1	

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/14/14 18:36 Revised: 11/18/14 16:18

L729030-01 (ICP METALS) - Dilution due to matrix

L729030-01 (PH) - 6.6@20.3c

KA 1/28/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB03-NS01
Collected By :
Collection Date : 10/21/14 11:30

ESC Sample # : L729030-01

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00044	0.00065	0.0013	mg/kg		8260B	10/29/14	1
m&p-Xylene	1330-20-7	U	.00093	0.0013	0.0026	mg/kg		8260B	10/29/14	1
Vinyl chloride	75-01-4	U	.00038	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00035	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	104.				% Rec.		8260B	10/29/14	1
Dibromofluoromethane	1868-53-7	100.				% Rec.		8260B	10/29/14	1
4-Bromofluorobenzene	460-00-4	103.				% Rec.		8260B	10/29/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.1	2.6	5.2	mg/kg		8015	10/30/14	1
C28-C40 Oil Range		U	.35	2.6	5.2	mg/kg		8015	10/30/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	67.4				% Rec.		8015	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Acenaphthene	83-32-9	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Acenaphthylene	208-96-8	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Benzo(a)anthracene	56-55-3	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Benzo(a)pyrene	50-32-8	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Benzo(b)fluoranthene	205-99-2	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Benzo(k)fluoranthene	207-08-9	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Chrysene	218-01-9	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Fluoranthene	206-44-0	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Fluorene	86-73-7	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Naphthalene	91-20-3	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Phenanthrene	85-01-8	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Pyrene	129-00-0	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
2-Methylnaphthalene	91-57-6	U	.00083	0.0078	0.026	mg/kg		8270C-SI	10/25/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	83.7				% Rec.		8270C-SI	10/25/14	1
Nitrobenzene-d5	4165-60-0	77.7				% Rec.		8270C-SI	10/25/14	1
2-Fluorobiphenyl	321-60-8	93.4				% Rec.		8270C-SI	10/25/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	.01	0.22	0.43	mg/kg		8270C	10/26/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.012	0.22	0.43	mg/kg		8270C	10/26/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.0098	0.22	0.43	mg/kg		8270C	10/26/14	1
Benzyl Alcohol	100-51-6	U	.0097	0.22	0.43	mg/kg		8270C	10/26/14	1
Benzoic acid	65-85-0	U	.16	2.2	4.3	mg/kg		8270C	10/26/14	1
Carbazole	86-74-8	U	.0067	0.22	0.43	mg/kg		8270C	10/26/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/14/14 18:36 Revised: 11/18/14 16:18

L729030-01 (ICP METALS) - Dilution due to matrix

L729030-01 (PH) - 6.6@20.3c

DNR: DO NOT REPORT

KA-128/15
BNS 9/2/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729030-01

Sample ID : TU503-SB03-NS01

Site ID :

Collected By :
Collection Date : 10/21/14 11:30

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0067	0.22	0.43	mg/kg		8270C	10/26/14	1
4-Bromophenyl-phenylether	101-55-3	U	.014	0.22	0.43	mg/kg		8270C	10/26/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0082	0.22	0.43	mg/kg		8270C	10/26/14	1
2-Chloronaphthalene	91-58-7	U	.0083	0.22	0.43	mg/kg		8270C	10/26/14	1
3,3-Dichlorobenzidine	91-94-1	U	.1	0.22	0.43	mg/kg		8270C	10/26/14	1
2,4-Dinitrotoluene	121-14-2	U	.0079	0.22	0.43	mg/kg		8270C	10/26/14	1
2,6-Dinitrotoluene	606-20-2	U	.0095	0.22	0.43	mg/kg		8270C	10/26/14	1
Hexachlorobenzene	118-74-1	U	.011	0.22	0.43	mg/kg		8270C	10/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.013	0.22	0.43	mg/kg		8270C	10/26/14	1
Hexachloroethane	67-72-1	U	.017	0.22	0.43	mg/kg		8270C	10/26/14	1
Isophorone	78-59-1	U	.0067	0.22	0.43	mg/kg		8270C	10/26/14	1
Nitrobenzene	98-95-3	U	.009	0.22	0.43	mg/kg		8270C	10/26/14	1
n-Nitrosodimethylamine	62-75-9	U	.084	0.22	0.43	mg/kg		8270C	10/26/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0076	0.22	0.43	mg/kg		8270C	10/26/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.012	0.22	0.43	mg/kg		8270C	10/26/14	1
Benzylbutyl phthalate	85-68-7	U	.013	0.22	0.43	mg/kg		8270C	10/26/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.016	0.22	0.43	mg/kg		8270C	10/26/14	1
Di-n-butyl phthalate	84-74-2	U	.014	0.22	0.43	mg/kg		8270C	10/26/14	1
Diethyl phthalate	84-66-2	U	.0089	0.22	0.43	mg/kg		8270C	10/26/14	1
Dimethyl phthalate	131-11-3	U	.007	0.22	0.43	mg/kg		8270C	10/26/14	1
Di-n-octyl phthalate	117-84-0	U	.012	0.22	0.43	mg/kg		8270C	10/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.011	0.22	0.43	mg/kg		8270C	10/26/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0062	0.22	0.43	mg/kg		8270C	10/26/14	1
2-Chlorophenol	95-57-8	U	.011	0.22	0.43	mg/kg		8270C	10/26/14	1
2,4-Dichlorophenol	120-83-2	U	.0097	0.22	0.43	mg/kg		8270C	10/26/14	1
2,4-Dimethylphenol	105-67-9	U	.061	0.22	0.43	mg/kg		8270C	10/26/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.16	0.22	0.43	mg/kg		8270C	10/26/14	1
2,4-Dinitrophenol	51-28-5	U	.13	0.22	0.43	mg/kg		8270C	10/26/14	1
2-Methylphenol	95-48-7	U	.013	0.22	0.43	mg/kg		8270C	10/26/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.01	0.22	0.43	mg/kg		8270C	10/26/14	1
2-Nitrophenol	88-75-5	U	.017	0.22	0.43	mg/kg		8270C	10/26/14	1
4-Nitrophenol	100-02-7	U	.067	0.22	0.43	mg/kg		8270C	10/26/14	1
4-Chloroaniline	106-47-8	U	.0045	0.22	0.43	mg/kg		8270C	10/26/14	1
2-Nitroaniline	88-74-4	U	.0098	0.22	0.43	mg/kg		8270C	10/26/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0018	0.22	0.43	mg/kg		8270C	10/26/14	1
3-Nitroaniline	99-09-2	U	.011	0.22	0.43	mg/kg		8270C	10/26/14	1
4-Nitroaniline	100-01-6	U	.0083	0.22	0.43	mg/kg		8270C	10/26/14	1
Pentachlorophenol	87-86-5	U	.062	0.22	0.43	mg/kg		8270C	10/26/14	1
Phenol	108-95-2	U	.009	0.22	0.43	mg/kg		8270C	10/26/14	1
2,4,5-Trichlorophenol	95-95-4	U	.013	0.22	0.43	mg/kg		8270C	10/26/14	1
2,4,6-Trichlorophenol	88-06-2	U	.01	0.22	0.43	mg/kg		8270C	10/26/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	64.5				% Rec.		8270C	10/26/14	1
Phenol-d5	4165-62-2	63.4				% Rec.		8270C	10/26/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/14/14 18:36 Revised: 11/18/14 16:18

L729030-01 (ICP METALS) - Dilution due to matrix

L729030-01 (PH) - 6.6@20.3c

DNR = do not report

*KAL/2015
BMS 2/17/15*



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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB03-NS01
 Collected By :
 Collection Date : 10/21/14 11:30

ESC Sample # : L729030-01
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	64.8				% Rec.		8270C	10/26/14	1
2-Fluorobiphenyl	321-60-8	67.2				% Rec.		8270C	10/26/14	1
2,4,6-Tribromophenol	118-79-6	72.5				% Rec.		8270C	10/26/14	1
p-Terphenyl-d14	1718-51-0	48.6				% Rec.		8270C	10/26/14	1

Results listed are dry weight basis.
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Reported: 11/14/14 18:36 Revised: 11/18/14 16:18
 L729030-01 (ICP METALS) - Dilution due to matrix
 L729030-01 (PH) - 6.6@20.3c

BA-1/28/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729030-02

Sample ID : TU503-SB03-NS02

Site ID :

Collected By :
Collection Date : 10/21/14 11:35

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.6				su		9045D	10/24/14	1
Total Solids	TSOLIDS	63.9	.0333			%		2540 G-2	10/26/14	1
Mercury	7439-97-6	U	.0044	0.016	0.031	mg/kg		7471	10/23/14	1
Aluminum	7429-90-5	4200	27	39.	78.	mg/kg		6010B	10/30/14	5
Antimony	7440-36-0	U	5.9	7.8	16.	mg/kg		6010B	10/30/14	5
Arsenic	7440-38-2	U	5	7.8	16.	mg/kg		6010B	10/30/14	5
Barium	7440-39-3	34.	1.3	2.0	3.9	mg/kg		6010B	10/30/14	5
Beryllium	7440-41-7	U	.55	0.78	1.6	mg/kg		6010B	10/30/14	5
Cadmium	7440-43-9	U	.55	2.0	3.9	mg/kg		6010B	10/30/14	5
Chromium	7440-47-3	4.4	1.1	3.9	7.8	mg/kg	J	6010B	10/30/14	5
Cobalt	7440-48-4	U	1.9	3.9	7.8	mg/kg		6010B	10/30/14	5
Copper	7440-50-8	U	4.1	7.8	16.	mg/kg		6010B	10/30/14	5
Lead	7439-92-1	2.2	1.5	2.0	3.9	mg/kg	J	6010B	10/30/14	5
Manganese	7439-96-5	34.	.94	3.9	7.8	mg/kg		6010B	10/30/14	5
Nickel	7440-02-0	U	3.8	7.8	16.	mg/kg		6010B	10/30/14	5
Selenium	7782-49-2	U	5.8	7.8	16.	mg/kg		6010B	10/30/14	5
Silver	7440-22-4	U	2.2	3.9	7.8	mg/kg		6010B	10/30/14	5
Thallium	7440-28-0	U	5	7.8	16.	mg/kg		6010B	11/04/14	5
Vanadium	7440-62-2	9.8	1.9	7.8	16.	mg/kg	J	6010B	10/30/14	5
Zinc	7440-66-6	14.20 4.7	4.7 14	20.	39.	mg/kg	J	6010B	10/30/14	5
TPH (GC/FID) Low Fraction	8006-61-9	69.	5.3	12.	25.	mg/kg		8015D/GR	10/28/14	158
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	100.				% Rec.		8015D/GR	10/28/14	158
Volatile Organics										
Acetone	67-64-1	U	1.2	3.1	6.2	mg/kg		8260B	10/29/14	80
Benzene	71-43-2	U	.034	0.063	0.12	mg/kg		8260B	10/29/14	80
Bromobenzene	108-86-1	U	.036	0.063	0.12	mg/kg		8260B	10/29/14	80
Bromochloromethane	74-97-5	U	.048	0.063	0.12	mg/kg		8260B	10/29/14	80
Bromodichloromethane	75-27-4	U	.031	0.063	0.12	mg/kg		8260B	10/29/14	80
Bromoform	75-25-2	U	.053	0.063	0.12	mg/kg		8260B	10/29/14	80
Bromomethane	74-83-9	U	.17	0.31	0.62	mg/kg		8260B	10/29/14	80
n-Butylbenzene	104-51-8	U	.033	0.063	0.12	mg/kg		8260B	10/29/14	80
sec-Butylbenzene	135-98-8	U	.025	0.063	0.12	mg/kg		8260B	10/29/14	80
tert-Butylbenzene	98-06-6	U	.025	0.063	0.12	mg/kg		8260B	10/29/14	80
Carbon Disulfide	75-15-0	U	.034	0.063	0.12	mg/kg		8260B	10/29/14	80
Carbon tetrachloride	56-23-5	U	.041	0.063	0.12	mg/kg		8260B	10/29/14	80
Chlorobenzene	108-90-7	U	.027	0.063	0.12	mg/kg		8260B	10/29/14	80
Chlorodibromomethane	124-48-1	U	.047	0.063	0.12	mg/kg		8260B	10/29/14	80
Chloroethane	75-00-3	U	.12	0.31	0.62	mg/kg		8260B	10/29/14	80
Chloroform	67-66-3	U	.028	0.31	0.62	mg/kg		8260B	10/29/14	80

Results listed are dry weight basis.

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Reported: 11/14/14 18:36 Revised: 11/18/14 16:19

L729030-02 (ICP METALS) - Dilution due to matrix

L729030-02 (PH) - 6.6@21.1c

L729030-02 (SV8270BNA) - Diluted due to matrix

CA 1/28/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729030-02

Sample ID : TU503-SB03-NS02

Site ID :

Collected By :
Collection Date : 10/21/14 11:35

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.047	0.063	0.31	mg/kg	8260B	10/29/14	80	
2-Chlorotoluene	95-49-8	U	.038	0.063	0.12	mg/kg	8260B	10/29/14	80	
4-Chlorotoluene	106-43-4	U	.03	0.063	0.12	mg/kg	8260B	10/29/14	80	
1,2-Dibromo-3-Chloropropane	96-12-8	U	.13	0.31	0.62	mg/kg	8260B	10/29/14	80	
1,2-Dibromoethane	106-93-4	U	.042	0.063	0.12	mg/kg	8260B	10/29/14	80	
Dibromomethane	74-95-3	U	.047	0.063	0.12	mg/kg	8260B	10/29/14	80	
1,2-Dichlorobenzene	95-50-1	U	.038	0.063	0.12	mg/kg	8260B	10/29/14	80	
1,3-Dichlorobenzene	541-73-1	U	.03	0.063	0.12	mg/kg	8260B	10/29/14	80	
1,4-Dichlorobenzene	106-46-7	U	.028	0.063	0.12	mg/kg	8260B	10/29/14	80	
Dichlorodifluoromethane	75-71-8	U	.089	0.31	0.62	mg/kg	8260B	10/29/14	80	
1,1-Dichloroethane	75-34-3	U	.025	0.063	0.12	mg/kg	8260B	10/29/14	80	
1,2-Dichloroethane	107-06-2	U	.033	0.063	0.12	mg/kg	8260B	10/29/14	80	
1,1-Dichloroethene	75-35-4	U	.038	0.063	0.12	mg/kg	8260B	10/29/14	80	
cis-1,2-Dichloroethene	156-59-2	U	.03	0.063	0.12	mg/kg	8260B	10/29/14	80	
trans-1,2-Dichloroethene	156-60-5	U	.033	0.063	0.12	mg/kg	8260B	10/29/14	80	
1,2-Dichloropropane	78-87-5	U	.045	0.063	0.12	mg/kg	8260B	10/29/14	80	
1,1-Dichloropropene	563-58-6	U	.039	0.063	0.12	mg/kg	8260B	10/29/14	80	
1,3-Dichloropropene	142-28-9	U	.025	0.063	0.12	mg/kg	8260B	10/29/14	80	
cis-1,3-Dichloropropene	10061-01-5	U	.033	0.063	0.12	mg/kg	8260B	10/29/14	80	
trans-1,3-Dichloropropene	10061-02-6	U	.033	0.063	0.12	mg/kg	8260B	10/29/14	80	
2,2-Dichloropropane	594-20-7	U	.034	0.063	0.12	mg/kg	8260B	10/29/14	80	
Ethylbenzene	100-41-4	U	.038	0.063	0.12	mg/kg	8260B	10/29/14	80	
Hexachloro-1,3-butadiene	87-68-3	U	.042	0.063	0.12	mg/kg	8260B	10/29/14	80	
2-Hexanone	591-78-6	U	.47	0.63	1.2	mg/kg	8260B	10/29/14	80	
Isopropylbenzene	98-82-8	U	.03	0.063	0.12	mg/kg	8260B	10/29/14	80	
p-Isopropyltoluene	99-87-6	U	.025	0.063	0.12	mg/kg	8260B	10/29/14	80	
2-Butanone (MEK)	78-93-3	U	.58	0.63	1.2	mg/kg	8260B	10/29/14	80	
Methylene Chloride	75-09-2	U	.12	0.31	0.62	mg/kg	8260B	10/29/14	80	
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.23	0.63	1.2	mg/kg	8260B	10/29/14	80	
Methyl tert-butyl ether	1634-04-4	U	.027	0.063	0.12	mg/kg	8260B	10/29/14	80	
Naphthalene DNR	91-20-3	U	.12	0.31	0.62	mg/kg	8260B	10/29/14	80	
n-Propylbenzene	103-65-1	U	.025	0.063	0.12	mg/kg	8260B	10/29/14	80	
Styrene	100-42-5	U	.03	0.063	0.12	mg/kg	8260B	10/29/14	80	
1,1,1,2-Tetrachloroethane	630-20-6	U	.033	0.063	0.12	mg/kg	8260B	10/29/14	80	
1,1,2,2-Tetrachloroethane	79-34-5	U	.045	0.094	0.12	mg/kg	8260B	10/29/14	80	
Tetrachloroethene	127-18-4	U	.034	0.063	0.12	mg/kg	8260B	10/29/14	80	
Toluene	108-88-3	U	.055	0.31	0.62	mg/kg	8260B	10/29/14	80	
1,2,3-Trichlorobenzene	87-61-6	U	.038	0.063	0.12	mg/kg	8260B	10/29/14	80	
1,2,4-Trichlorobenzene	120-82-1	U	.048	0.063	0.12	mg/kg	8260B	10/29/14	80	
1,1,1-Trichloroethane	71-55-6	U	.036	0.063	0.12	mg/kg	8260B	10/29/14	80	
1,1,2-Trichloroethane	79-00-5	U	.034	0.063	0.12	mg/kg	8260B	10/29/14	80	
Trichloroethene	79-01-6	U	.034	0.063	0.12	mg/kg	8260B	10/29/14	80	
Trichlorofluoromethane	75-69-4	U	.047	0.31	0.62	mg/kg	8260B	10/29/14	80	
1,2,3-Trichloropropane	96-18-4	U	.092	0.13	0.31	mg/kg	8260B	10/29/14	80	
1,2,4-Trimethylbenzene	95-63-6	U	.027	0.063	0.12	mg/kg	8260B	10/29/14	80	

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/14/14 18:36 Revised: 11/18/14 16:19

L729030-02 (ICP METALS) - Dilution due to matrix

L729030-02 (PH) - 6.6@21.1c

L729030-02 (SV8270BNA) - Diluted due to matrix

DNR: DO NOT REPORT

KA 1/20/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB03-NS02
Collected By :
Collection Date : 10/21/14 11:35

ESC Sample # : L729030-02

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.042	0.063	0.12	mg/kg		8260B	10/29/14	80
m&p-Xylene	1330-20-7	U	.091	0.13	0.25	mg/kg		8260B	10/29/14	80
Vinyl chloride	75-01-4	U	.036	0.063	0.12	mg/kg		8260B	10/29/14	80
1,3,5-Trimethylbenzene	108-67-8	U	.033	0.063	0.12	mg/kg		8260B	10/29/14	80
Surrogate Recovery										
Toluene-d8	2037-26-5	103.				% Rec.		8260B	10/29/14	80
Dibromofluoromethane	1868-53-7	99.5				% Rec.		8260B	10/29/14	80
4-Bromofluorobenzene	460-00-4	102.				% Rec.		8260B	10/29/14	80
Diesel and Oil Ranges										
C10-C28 Diesel Range		1200	50	63.	120	mg/kg		8015	10/29/14	20
C28-C40 Oil Range		1.9	.42	3.1	6.2	mg/kg	J	8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	45.5				% Rec.	J2	8015	10/29/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	0.11	.00094	0.0031	0.0094	mg/kg		8270C-SI	10/25/14	1
Acenaphthene	83-32-9	0.095	.00094	0.0031	0.0094	mg/kg		8270C-SI	10/25/14	1
Acenaphthylene	208-96-8	0.019	.00094	0.0031	0.0094	mg/kg		8270C-SI	10/25/14	1
Benzo(a)anthracene	56-55-3	U	.00094	0.0031	0.0094	mg/kg		8270C-SI	10/25/14	1
Benzo(a)pyrene	50-32-8	0.0010	.00094	0.0031	0.0094	mg/kg	J	8270C-SI	10/25/14	1
Benzo(b)fluoranthene	205-99-2	0.00095	.00094	0.0031	0.0094	mg/kg	J	8270C-SI	10/25/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00094	0.0031	0.0094	mg/kg		8270C-SI	10/25/14	1
Benzo(k)fluoranthene	207-08-9	U	.00094	0.0031	0.0094	mg/kg		8270C-SI	10/25/14	1
Chrysene	218-01-9	U	.00094	0.0031	0.0094	mg/kg		8270C-SI	10/25/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00094	0.0031	0.0094	mg/kg		8270C-SI	10/25/14	1
Fluoranthene	206-44-0	0.0053	.00094	0.0031	0.0094	mg/kg	J	8270C-SI	10/25/14	1
Fluorene	86-73-7	0.023	.00094	0.0031	0.0094	mg/kg		8270C-SI	10/25/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00094	0.0031	0.0094	mg/kg		8270C-SI	10/25/14	1
Naphthalene	91-20-3	0.023	.00094	0.0094	0.031	mg/kg	J	8270C-SI	10/25/14	1
Phenanthrene	85-01-8	0.041	.00094	0.0031	0.0094	mg/kg		8270C-SI	10/25/14	1
Pyrene	129-00-0	0.020	.00094	0.0031	0.0094	mg/kg		8270C-SI	10/25/14	1
2-Methylnaphthalene	91-57-6	0.0058	.001	0.0094	0.031	mg/kg	J	8270C-SI	10/25/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	89.1				% Rec.		8270C-SI	10/25/14	1
Nitrobenzene-d5	4165-60-0	55.3				% Rec.		8270C-SI	10/25/14	1
2-Fluorobiphenyl	321-60-8	105.				% Rec.		8270C-SI	10/25/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.59	13.	26.	mg/kg		8270C	10/28/14	50
Bis(2-chloroethyl)ether	111-44-4	U	.7	13.	26.	mg/kg		8270C	10/28/14	50
Bis(2-chloroisopropyl)ether	108-60-1	U	.59	13.	26.	mg/kg		8270C	10/28/14	50
Benzyl Alcohol	100-51-6	U	.59	13.	26.	mg/kg		8270C	10/28/14	50
Benzoic acid	65-85-0	U	9.7	130	260.	mg/kg		8270C	10/28/14	50
Carbazole	86-74-8	U	.41	13.	26.	mg/kg		8270C	10/28/14	50

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/14/14 18:36 Revised: 11/18/14 16:19

L729030-02 (ICP METALS) - Dilution due to matrix

L729030-02 (PH) - 6.6@21.1c

L729030-02 (SV8270BNA) - Diluted due to matrix

KA-12/15

BMS 9/2/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729030-02

Sample ID : TU503-SB03-NS02

Site ID :

Collected By :
Collection Date : 10/21/14 11:35

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.41	13.	26.	mg/kg		8270C	10/28/14	50
4-Bromophenyl-phenylether	101-55-3	U	.89	13.	26.	mg/kg		8270C	10/28/14	50
4-Chlorophenyl-phenylether	7005-72-3	U	.48	13.	26.	mg/kg		8270C	10/28/14	50
2-Chloronaphthalene	91-58-7	U	.5	13.	26.	mg/kg		8270C	10/28/14	50
3,3-Dichlorobenzidine	91-94-1	U	6.2	13.	26.	mg/kg		8270C	10/28/14	50
2,4-Dinitrotoluene	121-14-2	U	.47	13.	26.	mg/kg		8270C	10/28/14	50
2,6-Dinitrotoluene	606-20-2	U	.58	13.	26.	mg/kg		8270C	10/28/14	50
Hexachlorobenzene	118-74-1	U	.67	13.	26.	mg/kg		8270C	10/28/14	50
Hexachloro-1,3-butadiene	87-68-3	U	.78	13.	26.	mg/kg		8270C	10/28/14	50
Hexachloroethane	67-72-1	U	1	13.	26.	mg/kg		8270C	10/28/14	50
Isophorone	78-59-1	U	.41	13.	26.	mg/kg		8270C	10/28/14	50
Nitrobenzene	98-95-3	U	.54	13.	26.	mg/kg		8270C	10/28/14	50
n-Nitrosodimethylamine	62-75-9	U	5	13.	26.	mg/kg		8270C	10/28/14	50
n-Nitrosodiphenylamine	86-30-6	U	.47	13.	26.	mg/kg		8270C	10/28/14	50
n-Nitrosodi-n-propylamine	621-64-7	U	.7	13.	26.	mg/kg		8270C	10/28/14	50
Benzylbutyl phthalate	85-68-7	U	.81	13.	26.	mg/kg		8270C	10/28/14	50
Bis(2-ethylhexyl)phthalate	117-81-7	3.3	.94	13.	26.	mg/kg	J	8270C	10/28/14	50
Di-n-butyl phthalate	84-74-2	2.3	.84	13.	26.	mg/kg	J	8270C	10/28/14	50
Diethyl phthalate	84-66-2	U	.53	13.	26.	mg/kg		8270C	10/28/14	50
Dimethyl phthalate	131-11-3	U	.42	13.	26.	mg/kg		8270C	10/28/14	50
Di-n-octyl phthalate	117-84-0	U	.7	13.	26.	mg/kg		8270C	10/28/14	50
1,2,4-Trichlorobenzene	120-82-1	U	.69	13.	26.	mg/kg		8270C	10/28/14	50
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.38	13.	26.	mg/kg		8270C	10/28/14	50
2-Chlorophenol	95-57-8	U	.65	13.	26.	mg/kg		8270C	10/28/14	50
2,4-Dichlorophenol	120-83-2	U	.58	13.	26.	mg/kg		8270C	10/28/14	50
2,4-Dimethylphenol	105-67-9	U	3.8	13.	26.	mg/kg		8270C	10/28/14	50
4,6-Dinitro-2-methylphenol	534-52-1	U	9.7	13.	26.	mg/kg		8270C	10/28/14	50
2,4-Dinitrophenol	51-28-5	U	7.7	13.	26.	mg/kg		8270C	10/28/14	50
2-Methylphenol	95-48-7	U	.77	13.	26.	mg/kg		8270C	10/28/14	50
3&4-Methyl Phenol	3&4-Methyl	1.7	.61	13.	26.	mg/kg	J	8270C	10/28/14	50
2-Nitrophenol	88-75-5	U	1	13.	26.	mg/kg		8270C	10/28/14	50
4-Nitrophenol	100-02-7	U	4.1	13.	26.	mg/kg		8270C	10/28/14	50
4-Chloroaniline	106-47-8	U	.28	13.	26.	mg/kg		8270C	10/28/14	50
2-Nitroaniline	88-74-4	U	.59	13.	26.	mg/kg		8270C	10/28/14	50
1,2-Diphenylhydrazine	103-33-3	U	.11	13.	26.	mg/kg		8270C	10/28/14	50
3-Nitroaniline	99-09-2	U	.66	13.	26.	mg/kg		8270C	10/28/14	50
4-Nitroaniline	100-01-6	U	.5	13.	26.	mg/kg		8270C	10/28/14	50
Pentachlorophenol	87-86-5	U	3.8	13.	26.	mg/kg		8270C	10/28/14	50
Phenol	108-95-2	U	.55	13.	26.	mg/kg		8270C	10/28/14	50
2,4,5-Trichlorophenol	95-95-4	U	.81	13.	26.	mg/kg		8270C	10/28/14	50
2,4,6-Trichlorophenol	88-06-2	U	.61	13.	26.	mg/kg		8270C	10/28/14	50
Surrogate Recovery										
2-Fluorophenol	367-12-4	126.				% Rec.	J7	8270C	10/28/14	50
Phenol-d5	4165-62-2	128.				% Rec.	J7	8270C	10/28/14	50

Results listed are dry weight basis.

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Reported: 11/14/14 18:36 Revised: 11/18/14 16:19

L729030-02 (ICP METALS) - Dilution due to matrix

L729030-02 (PH) - 6.6@21.1c

L729030-02 (SV8270BNA) - Diluted due to matrix

DNR = Do Not Report

*RA: hals
BAS 2/17/15*



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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB03-NS02
 Collected By :
 Collection Date : 10/21/14 11:35

ESC Sample # : L729030-02
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	162.				% Rec.	J7	8270C	10/28/14	50
2-Fluorobiphenyl	321-60-8	126.				% Rec.	J7	8270C	10/28/14	50
2,4,6-Tribromophenol	118-79-6	119.				% Rec.	J7	8270C	10/28/14	50
p-Terphenyl-d14	1718-51-0	85.3				% Rec.	J7	8270C	10/28/14	50

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Reported: 11/14/14 18:36 Revised: 11/18/14 16:19

L729030-02 (ICP METALS) - Dilution due to matrix

L729030-02 (PH) - 6.6@21.1c

L729030-02 (SV8270BNA) - Diluted due to matrix

CA 128/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-TRIPBLANK05-NT01
 Collected By :
 Collection Date : 10/21/14 14:00

ESC Sample # : L729030-03

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/27/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	100.				% Rec.		8015D/G	10/27/14	1
Volatile Organics										
Acetone <i>FSOL-1</i>	67-64-1	11.	10	25.	50	ug/l	J	8260B	10/28/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	10/28/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	10/28/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	10/28/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	10/28/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	10/28/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	10/28/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	10/28/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	10/28/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	10/28/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	10/28/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	10/28/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	10/28/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	10/28/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	10/28/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	10/28/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	10/28/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	10/28/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	10/28/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	10/28/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	10/28/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	10/28/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	10/28/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	10/28/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	10/28/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	10/28/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	10/28/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	10/28/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	10/28/14	1

U = Not Detected at the LOD

Note:

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Reported: 11/14/14 18:36 Revised: 11/18/14 16:19

KA/ks



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 Fax (615) 758-5859

Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-TRIPBLANK05-NT01
 Collected By :
 Collection Date : 10/21/14 14:00

ESC Sample # : L729030-03
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	10/28/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	10/28/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	10/28/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	10/28/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	10/28/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	10/28/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	10/28/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	10/28/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	10/28/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	10/28/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	10/28/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	10/28/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	10/28/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	10/28/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	10/28/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	10/28/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	10/28/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	10/28/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	10/28/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	10/28/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	10/28/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	100.					% Rec.	8260B	10/28/14	1
Dibromofluoromethane	1868-53-7	98.5					% Rec.	8260B	10/28/14	1
4-Bromofluorobenzene	460-00-4	99.0					% Rec.	8260B	10/28/14	1

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB06-NS01
Collected By :
Collection Date : 10/21/14 10:05

ESC Sample # : L729030-04
Site ID :
Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.6				su		9045D	10/24/14	1
Total Solids	TSOLIDS	73.0	.0333			%		2540 G-2	10/26/14	1
Mercury	7439-97-6	U	.0038	0.014	0.027	mg/kg		7471	10/23/14	1
Aluminum	7429-90-5	4100	24	34.	68.	mg/kg		6010B	10/30/14	5
Antimony	7440-36-0	U	5.2	6.8	14.	mg/kg		6010B	10/30/14	5
Arsenic	7440-38-2	U	4.4	6.8	14.	mg/kg		6010B	10/30/14	5
Barium	7440-39-3	55.	1.2	1.7	3.4	mg/kg		6010B	10/30/14	5
Beryllium	7440-41-7	U	.48	0.68	1.4	mg/kg		6010B	10/30/14	5
Cadmium	7440-43-9	U	.48	1.7	3.4	mg/kg		6010B	10/30/14	5
Chromium	7440-47-3	4.2	.96	3.4	6.8	mg/kg	J	6010B	10/30/14	5
Cobalt	7440-48-4	2.2	1.6	3.4	6.8	mg/kg	J	6010B	10/30/14	5
Copper	7440-50-8	U	3.6	6.8	14.	mg/kg		6010B	10/30/14	5
Lead	7439-92-1	2.5	1.3	1.7	3.4	mg/kg	J	6010B	10/30/14	5
Manganese	7439-96-5	71.	.82	3.4	6.8	mg/kg		6010B	10/30/14	5
Nickel	7440-02-0	4.5	3.3	6.8	14.	mg/kg	J	6010B	10/30/14	5
Selenium	7782-49-2	U	5.1	6.8	14.	mg/kg		6010B	10/30/14	5
Silver	7440-22-4	U	1.9	3.4	6.8	mg/kg		6010B	10/30/14	5
Thallium	7440-28-0	U	4.4	6.8	14.	mg/kg		6010B	11/04/14	5
Vanadium	7440-62-2	9.9	1.6	6.8	14.	mg/kg	J	6010B	10/30/14	5
Zinc	7440-66-6	17	4.1	17.	34.	mg/kg	J	6010B	10/30/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.03	0.068	0.14	mg/kg		8015D/GR	10/28/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	100.				% Rec.		8015D/GR	10/28/14	1
Volatile Organics				0.058	0.058					
Acetone	67-64-1	0.058	0.014	0.034	0.068	mg/kg	J	8260B	10/29/14	1
Benzene	71-43-2	0.00099	.00037	0.00068	0.0014	mg/kg	J	8260B	10/29/14	1
Bromobenzene	108-86-1	U	.00038	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Bromochloromethane	74-97-5	U	.00053	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Bromodichloromethane	75-27-4	U	.00034	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Bromoform	75-25-2	U	.00058	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Bromomethane	74-83-9	U	.0018	0.0034	0.0068	mg/kg		8260B	10/29/14	1
n-Butylbenzene	104-51-8	U	.00036	0.00068	0.0014	mg/kg		8260B	10/29/14	1
sec-Butylbenzene	135-98-8	U	.00027	0.00068	0.0014	mg/kg		8260B	10/29/14	1
tert-Butylbenzene	98-06-6	U	.00029	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Carbon Disulfide	75-15-0	U	.00038	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Carbon tetrachloride	56-23-5	U	.00045	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Chlorobenzene	108-90-7	U	.00029	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Chlorodibromomethane	124-48-1	U	.00051	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Chloroethane	75-00-3	U	.0013	0.0034	0.0068	mg/kg		8260B	10/29/14	1
Chloroform	67-66-3	U	.00032	0.0034	0.0068	mg/kg		8260B	10/29/14	1

Results listed are dry weight basis.

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Reported: 11/14/14 18:36 Revised: 11/18/14 16:19

L729030-04 (PH) - 6.6@20.2c

L729030-04 (ICP METALS) - Dilution due to matrix

KA/2015
BRS 2/11/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB06-NS01
Collected By :
Collection Date : 10/21/14 10:05

ESC Sample # : L729030-04

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00052	0.00068	0.0034	mg/kg	8260B	10/29/14	1	
2-Chlorotoluene	95-49-8	U	.00041	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
4-Chlorotoluene	106-43-4	U	.00033	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0014	0.0034	0.0068	mg/kg	8260B	10/29/14	1	
1,2-Dibromoethane	106-93-4	U	.00046	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
Dibromomethane	74-95-3	U	.00052	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
1,2-Dichlorobenzene	95-50-1	U	.00041	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
1,3-Dichlorobenzene	541-73-1	U	.00033	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
1,4-Dichlorobenzene	106-46-7	U	.00032	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
Dichlorodifluoromethane	75-71-8	U	.00097	0.0034	0.0068	mg/kg	8260B	10/29/14	1	
1,1-Dichloroethane	75-34-3	U	.00027	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
1,2-Dichloroethane	107-06-2	U	.00036	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
1,1-Dichloroethene	75-35-4	U	.00041	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
cis-1,2-Dichloroethene	156-59-2	U	.00033	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
trans-1,2-Dichloroethene	156-60-5	U	.00036	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
1,2-Dichloropropane	78-87-5	U	.00049	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
1,1-Dichloropropene	563-58-6	U	.00044	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
1,3-Dichloropropane	142-28-9	U	.00029	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
cis-1,3-Dichloropropene	10061-01-5	U	.00036	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
trans-1,3-Dichloropropene	10061-02-6	U	.00037	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
2,2-Dichloropropane	594-20-7	U	.00038	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
Ethylbenzene	100-41-4	U	.00041	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
Hexachloro-1,3-butadiene	87-68-3	U	.00046	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
2-Hexanone	591-78-6	U	.0052	0.0068	0.014	mg/kg	8260B	10/29/14	1	
Isopropylbenzene	98-82-8	U	.00033	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
p-Isopropyltoluene	99-87-6	U	.00027	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
2-Butanone (MEK) <i>FSOL-I</i>	78-93-3	0.010	.0064	0.0068	0.014	mg/kg	J	8260B	10/29/14	1
Methylene Chloride	75-09-2	U	.0014	0.0034	0.0068	mg/kg	8260B	10/29/14	1	
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0026	0.0068	0.014	mg/kg	8260B	10/29/14	1	
Methyl tert-butyl ether	1634-04-4	U	.00029	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
Naphthalene	91-20-3	U	.0014	0.0034	0.0068	mg/kg	8260B	10/29/14	1	
n-Propylbenzene	103-65-1	U	.00029	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
Styrene	100-42-5	U	.00032	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
1,1,1,2-Tetrachloroethane	630-20-6	U	.00036	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
1,1,2,2-Tetrachloroethane	79-34-5	U	.00049	0.0010	0.0014	mg/kg	8260B	10/29/14	1	
Tetrachloroethene	127-18-4	U	.00038	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
Toluene <i>FSOL-I</i>	108-88-3	0.0016	.00059	0.0034	0.0068	mg/kg	J	8260B	10/29/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00042	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
1,2,4-Trichlorobenzene	120-82-1	U	.00053	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
1,1,1-Trichloroethane	71-55-6	U	.00039	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
1,1,2-Trichloroethane	79-00-5	U	.00038	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
Trichloroethene	79-01-6	U	.00038	0.00068	0.0014	mg/kg	8260B	10/29/14	1	
Trichlorofluoromethane	75-69-4	U	.00052	0.0034	0.0068	mg/kg	8260B	10/29/14	1	
1,2,3-Trichloropropane	96-18-4	U	.001	0.0014	0.0034	mg/kg	8260B	10/29/14	1	
1,2,4-Trimethylbenzene	95-63-6	U	.00029	0.00068	0.0014	mg/kg	8260B	10/29/14	1	

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L729030-04 (PH) - 6.6@20.2c

L729030-04 (ICP METALS) - Dilution due to matrix

CA 1/28/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB06-NS01
Collected By :
Collection Date : 10/21/14 10:05

ESC Sample # : L729030-04

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00046	0.00068	0.0014	mg/kg		8260B	10/29/14	1
m&p-Xylene	1330-20-7	U	.00099	0.0014	0.0027	mg/kg		8260B	10/29/14	1
Vinyl chloride	75-01-4	U	.0004	0.00068	0.0014	mg/kg		8260B	10/29/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00037	0.00068	0.0014	mg/kg		8260B	10/29/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	101.				% Rec.		8260B	10/29/14	1
Dibromofluoromethane	1868-53-7	109.				% Rec.		8260B	10/29/14	1
4-Bromofluorobenzene	460-00-4	100.				% Rec.		8260B	10/29/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.2	2.7	5.5	mg/kg		8015	10/29/14	1
C28-C40 Oil Range		U	.37	2.7	5.5	mg/kg		8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	60.4				% Rec.		8015	10/29/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	10/25/14	1
Acenaphthene	83-32-9	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	10/25/14	1
Acenaphthylene	208-96-8	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	10/25/14	1
Benzo(a)anthracene	56-55-3	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	10/25/14	1
Benzo(a)pyrene	50-32-8	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	10/25/14	1
Benzo(b)fluoranthene	205-99-2	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	10/25/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	10/25/14	1
Benzo(k)fluoranthene	207-08-9	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	10/25/14	1
Chrysene	218-01-9	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	10/25/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	10/25/14	1
Fluoranthene	206-44-0	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	10/25/14	1
Fluorene	86-73-7	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	10/25/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	10/25/14	1
Naphthalene	91-20-3	0.0018	.00082	0.0082	0.027	mg/kg	J	8270C-SI	10/25/14	1
Phenanthrene	85-01-8	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	10/25/14	1
Pyrene	129-00-0	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	10/25/14	1
2-Methylnaphthalene	91-57-6	U	.00088	0.0082	0.027	mg/kg		8270C-SI	10/25/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	93.6				% Rec.		8270C-SI	10/25/14	1
Nitrobenzene-d5	4165-60-0	85.7				% Rec.		8270C-SI	10/25/14	1
2-Fluorobiphenyl	321-60-8	102.				% Rec.		8270C-SI	10/25/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	.01	0.23	0.46	mg/kg		8270C	10/26/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.012	0.23	0.46	mg/kg		8270C	10/26/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.01	0.23	0.46	mg/kg		8270C	10/26/14	1
Benzyl Alcohol	100-51-6	U	.01	0.23	0.46	mg/kg		8270C	10/26/14	1
Benzoic acid	65-85-0	U	.16	2.3	4.6	mg/kg		8270C	10/26/14	1
Carbazole	86-74-8	U	.0071	0.23	0.46	mg/kg		8270C	10/26/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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The reported analytical results relate only to the sample submitted

Reported: 11/14/14 18:36 Revised: 11/18/14 16:19

L729030-04 (PH) - 6.6@20.2c

L729030-04 (ICP METALS) - Dilution due to matrix

DNR! DO NOT REPORT

*KA:kolis
DMS 9/2/15*



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB06-NS01
Collected By :
Collection Date : 10/21/14 10:05

ESC Sample # : L729030-04

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0071	0.23	0.46	mg/kg		8270C	10/26/14	1
4-Bromophenyl-phenylether	101-55-3	U	.015	0.23	0.46	mg/kg		8270C	10/26/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0086	0.23	0.46	mg/kg		8270C	10/26/14	1
2-Chloronaphthalene	91-58-7	U	.0088	0.23	0.46	mg/kg		8270C	10/26/14	1
3,3-Dichlorobenzidine	91-94-1	U	.11	0.23	0.46	mg/kg		8270C	10/26/14	1
2,4-Dinitrotoluene	121-14-2	U	.0084	0.23	0.46	mg/kg		8270C	10/26/14	1
2,6-Dinitrotoluene	606-20-2	U	.01	0.23	0.46	mg/kg		8270C	10/26/14	1
Hexachlorobenzene	118-74-1	U	.012	0.23	0.46	mg/kg		8270C	10/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.014	0.23	0.46	mg/kg		8270C	10/26/14	1
Hexachloroethane	67-72-1	U	.018	0.23	0.46	mg/kg		8270C	10/26/14	1
Isophorone	78-59-1	U	.0071	0.23	0.46	mg/kg		8270C	10/26/14	1
Nitrobenzene	98-95-3	U	.0095	0.23	0.46	mg/kg		8270C	10/26/14	1
n-Nitrosodimethylamine	62-75-9	U	.089	0.23	0.46	mg/kg		8270C	10/26/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0081	0.23	0.46	mg/kg		8270C	10/26/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.012	0.23	0.46	mg/kg		8270C	10/26/14	1
Benzylbutyl phthalate	85-68-7	U	.014	0.23	0.46	mg/kg		8270C	10/26/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.016	0.23	0.46	mg/kg		8270C	10/26/14	1
Di-n-butyl phthalate	84-74-2	U	.015	0.23	0.46	mg/kg		8270C	10/26/14	1
Diethyl phthalate	84-66-2	U	.0094	0.23	0.46	mg/kg		8270C	10/26/14	1
Dimethyl phthalate	131-11-3	U	.0074	0.23	0.46	mg/kg		8270C	10/26/14	1
Di-n-octyl phthalate	117-84-0	U	.012	0.23	0.46	mg/kg		8270C	10/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.012	0.23	0.46	mg/kg		8270C	10/26/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0066	0.23	0.46	mg/kg		8270C	10/26/14	1
2-Chlorophenol	95-57-8	U	.011	0.23	0.46	mg/kg		8270C	10/26/14	1
2,4-Dichlorophenol	120-83-2	U	.01	0.23	0.46	mg/kg		8270C	10/26/14	1
2,4-Dimethylphenol	105-67-9	U	.064	0.23	0.46	mg/kg		8270C	10/26/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.16	0.23	0.46	mg/kg		8270C	10/26/14	1
2,4-Dinitrophenol	51-28-5	U	.13	0.23	0.46	mg/kg		8270C	10/26/14	1
2-Methylphenol	95-48-7	U	.013	0.23	0.46	mg/kg		8270C	10/26/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.011	0.23	0.46	mg/kg		8270C	10/26/14	1
2-Nitrophenol	88-75-5	U	.018	0.23	0.46	mg/kg		8270C	10/26/14	1
4-Nitrophenol	100-02-7	U	.071	0.23	0.46	mg/kg		8270C	10/26/14	1
4-Chloroaniline	106-47-8	0.0058	.0048	0.23	0.46	mg/kg	J	8270C	10/26/14	1
2-Nitroaniline	88-74-4	U	.01	0.23	0.46	mg/kg		8270C	10/26/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0019	0.23	0.46	mg/kg		8270C	10/26/14	1
3-Nitroaniline	99-09-2	U	.012	0.23	0.46	mg/kg		8270C	10/26/14	1
4-Nitroaniline	100-01-6	U	.0088	0.23	0.46	mg/kg		8270C	10/26/14	1
Pentachlorophenol	87-86-5	U	.066	0.23	0.46	mg/kg		8270C	10/26/14	1
Phenol	108-95-2	U	.0095	0.23	0.46	mg/kg		8270C	10/26/14	1
2,4,5-Trichlorophenol	95-95-4	U	.014	0.23	0.46	mg/kg		8270C	10/26/14	1
2,4,6-Trichlorophenol	88-06-2	U	.011	0.23	0.46	mg/kg		8270C	10/26/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	65.7				% Rec.		8270C	10/26/14	1
Phenol-d5	4165-62-2	66.1				% Rec.		8270C	10/26/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/14/14 18:36 Revised: 11/18/14 16:19

L729030-04 (PH) - 6.6@20.2c

L729030-04 (ICP METALS) - Dilution due to matrix

DNR = do not report

*KA/2015
BMS 2/17/15*



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 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB06-NS01
 Collected By :
 Collection Date : 10/21/14 10:05

ESC Sample # : L729030-04
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	66.8				% Rec.		8270C	10/26/14	1
2-Fluorobiphenyl	321-60-8	73.5				% Rec.		8270C	10/26/14	1
2,4,6-Tribromophenol	118-79-6	75.1				% Rec.		8270C	10/26/14	1
p-Terphenyl-d14	1718-51-0	59.6				% Rec.		8270C	10/26/14	1

Results listed are dry weight basis.

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Reported: 11/14/14 18:36 Revised: 11/18/14 16:19

L729030-04 (PH) - 6.6@20.2c

L729030-04 (ICP METALS) - Dilution due to matrix

KA-12015



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB06-NS02
Collected By :
Collection Date : 10/21/14 10:12

ESC Sample # : L729030-05
Site ID :
Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.6				su		9045D	10/24/14	1
Total Solids	TSOLIDS	74.1	.0333			%		2540 G-2	10/25/14	1
Mercury	7439-97-6	U	.0038	0.013	0.027	mg/kg		7471	10/23/14	1
Aluminum	7429-90-5	6500	24	34.	67.	mg/kg		6010B	10/30/14	5
Antimony	7440-36-0	U	5.1	6.7	13.	mg/kg		6010B	10/30/14	5
Arsenic	7440-38-2	U	4.3	6.7	13.	mg/kg		6010B	10/30/14	5
Barium	7440-39-3	43.	1.1	1.7	3.4	mg/kg		6010B	10/30/14	5
Beryllium	7440-41-7	U	.47	0.67	1.3	mg/kg		6010B	10/30/14	5
Cadmium	7440-43-9	U	.47	1.7	3.4	mg/kg		6010B	10/30/14	5
Chromium	7440-47-3	7.6	.94	3.4	6.7	mg/kg		6010B	10/30/14	5
Cobalt	7440-48-4	2.8	1.6	3.4	6.7	mg/kg	J	6010B	10/30/14	5
Copper	7440-50-8	U	3.5	6.7	13.	mg/kg		6010B	10/30/14	5
Lead	7439-92-1	3.2	1.3	1.7	3.4	mg/kg	J	6010B	10/30/14	5
Manganese	7439-96-5	86.	.81	3.4	6.7	mg/kg		6010B	10/30/14	5
Nickel	7440-02-0	15.	3.2	6.7	13.	mg/kg		6010B	10/30/14	5
Selenium	7782-49-2	U	5	6.7	13.	mg/kg		6010B	10/30/14	5
Silver	7440-22-4	U	1.9	3.4	6.7	mg/kg		6010B	10/30/14	5
Thallium	7440-28-0	U	4.3	6.7	13.	mg/kg		6010B	11/04/14	5
Vanadium	7440-62-2	13.	1.6	6.7	13.	mg/kg	J	6010B	10/30/14	5
Zinc	7440-66-6	16.	4	17.	34.	mg/kg	J	6010B	10/30/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.03	0.067	0.13	mg/kg		8015D/GR	10/28/14	1
Surrogate Recovery (70-130)										
a, a-Trifluorotoluene (FID)	98-08-8	101.				% Rec.		8015D/GR	10/28/14	1
Volatile Organics										
Acetone	67-64-1	0.034	0.016	0.034	0.067	mg/kg	J	8260B	10/29/14	1
Benzene	71-43-2	0.0024	0.00036	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Bromobenzene	108-86-1	U	.00038	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Bromochloromethane	74-97-5	U	.00053	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Bromodichloromethane	75-27-4	U	.00034	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Bromoform	75-25-2	U	.00057	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Bromomethane	74-83-9	U	.0018	0.0034	0.0067	mg/kg		8260B	10/29/14	1
n-Butylbenzene	104-51-8	U	.00035	0.00067	0.0013	mg/kg		8260B	10/29/14	1
sec-Butylbenzene	135-98-8	U	.00027	0.00067	0.0013	mg/kg		8260B	10/29/14	1
tert-Butylbenzene	98-06-6	U	.00028	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Carbon Disulfide	75-15-0	U	.00038	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Carbon tetrachloride	56-23-5	U	.00044	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Chlorobenzene	108-90-7	U	.00028	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Chlorodibromomethane	124-48-1	U	.0005	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Chloroethane	75-00-3	U	.0013	0.0034	0.0067	mg/kg		8260B	10/29/14	1
Chloroform	67-66-3	U	.00031	0.0034	0.0067	mg/kg		8260B	10/29/14	1

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Reported: 11/14/14 18:36 Revised: 11/18/14 16:19

L729030-05 (ICP METALS) - Dilution due to matrix

L729030-05 (PH) - 6.6@20.2c

Handwritten notes:
KAKOLIS
BMS 2/11/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB06-NS02
 Collected By :
 Collection Date : 10/21/14 10:12

ESC Sample # : L729030-05

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00051	0.00067	0.0034	mg/kg		8260B	10/29/14	1
2-Chlorotoluene	95-49-8	U	.0004	0.00067	0.0013	mg/kg		8260B	10/29/14	1
4-Chlorotoluene	106-43-4	U	.00032	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0013	0.0034	0.0067	mg/kg		8260B	10/29/14	1
1,2-Dibromoethane	106-93-4	U	.00046	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Dibromomethane	74-95-3	U	.00051	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dichlorobenzene	95-50-1	U	.0004	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,3-Dichlorobenzene	541-73-1	U	.00032	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,4-Dichlorobenzene	106-46-7	U	.00031	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Dichlorodifluoromethane	75-71-8	U	.00096	0.0034	0.0067	mg/kg		8260B	10/29/14	1
1,1-Dichloroethane	75-34-3	U	.00027	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dichloroethane	107-06-2	U	.00035	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,1-Dichloroethene	75-35-4	U	.0004	0.00067	0.0013	mg/kg		8260B	10/29/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00032	0.00067	0.0013	mg/kg		8260B	10/29/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00035	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dichloropropane	78-87-5	U	.00048	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,1-Dichloropropene	563-58-6	U	.00043	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,3-Dichloropropane	142-28-9	U	.00028	0.00067	0.0013	mg/kg		8260B	10/29/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00035	0.00067	0.0013	mg/kg		8260B	10/29/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00036	0.00067	0.0013	mg/kg		8260B	10/29/14	1
2,2-Dichloropropane	594-20-7	U	.00038	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Ethylbenzene <i>FSQL-I</i>	100-41-4	0.00046	.0004	0.00067	0.0013	mg/kg	J	8260B	10/29/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00046	0.00067	0.0013	mg/kg		8260B	10/29/14	1
2-Hexanone	591-78-6	U	.0051	0.0067	0.013	mg/kg		8260B	10/29/14	1
Isopropylbenzene	98-82-8	U	.00032	0.00067	0.0013	mg/kg		8260B	10/29/14	1
p-Isopropyltoluene	99-87-6	U	.00027	0.00067	0.0013	mg/kg		8260B	10/29/14	1
2-Butanone (MEK)	78-93-3	U	.0063	0.0067	0.013	mg/kg		8260B	10/29/14	1
Methylene Chloride	75-09-2	U	.0013	0.0034	0.0067	mg/kg		8260B	10/29/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0026	0.0067	0.013	mg/kg		8260B	10/29/14	1
Methyl tert-butyl ether	1634-04-4	U	.00028	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Naphthalene	91-20-3	U	.0013	0.0034	0.0067	mg/kg		8260B	10/29/14	1
n-Propylbenzene	103-65-1	U	.00028	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Styrene	100-42-5	U	.00031	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00035	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00048	0.0010	0.0013	mg/kg		8260B	10/29/14	1
Tetrachloroethene	127-18-4	U	.00038	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Toluene <i>FSQL-I</i>	108-88-3	0.0024	.00058	0.0034	0.0067	mg/kg	J	8260B	10/29/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00042	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00053	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,1,1-Trichloroethane	71-55-6	U	.00038	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,1,2-Trichloroethane	79-00-5	U	.00038	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Trichloroethene	79-01-6	U	.00038	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Trichlorofluoromethane	75-69-4	U	.00051	0.0034	0.0067	mg/kg		8260B	10/29/14	1
1,2,3-Trichloropropane	96-18-4	U	.001	0.0013	0.0034	mg/kg		8260B	10/29/14	1
1,2,4-Trimethylbenzene <i>FSQL-I</i>	95-63-6	0.00067	.00028	0.00067	0.0013	mg/kg	J	8260B	10/29/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/14/14 18:36 Revised: 11/18/14 16:19

L729030-05 (ICP METALS) - Dilution due to matrix

L729030-05 (PH) - 6.6@20.2c

KA 1/28/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB06-NS02
Collected By :
Collection Date : 10/21/14 10:12

ESC Sample # : L729030-05
Site ID :
Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00046	0.00067	0.0013	mg/kg		8260B	10/29/14	1
m&p-Xylene <i>F SOL-I</i>	1330-20-7	0.0013	.00097	0.0013	0.0027	mg/kg	J	8260B	10/29/14	1
Vinyl chloride	75-01-4	U	.00039	0.00067	0.0013	mg/kg		8260B	10/29/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00036	0.00067	0.0013	mg/kg		8260B	10/29/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	102.				% Rec.		8260B	10/29/14	1
Dibromofluoromethane	1868-53-7	115.				% Rec.		8260B	10/29/14	1
4-Bromofluorobenzene	460-00-4	105.				% Rec.		8260B	10/29/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range <i>US MS-L</i>		U	2.2	2.7	5.4	mg/kg		8015	10/29/14	1
C28-C40 Oil Range		U	.36	2.7	5.4	mg/kg		8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	53.4				% Rec.		8015	10/29/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	10/25/14	1
Acenaphthene	83-32-9	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	10/25/14	1
Acenaphthylene	208-96-8	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	10/25/14	1
Benzo(a)anthracene	56-55-3	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	10/25/14	1
Benzo(a)pyrene	50-32-8	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	10/25/14	1
Benzo(b)fluoranthene <i>US MS-L</i>	205-99-2	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	10/25/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	10/25/14	1
Benzo(k)fluoranthene	207-08-9	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	10/25/14	1
Chrysene	218-01-9	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	10/25/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	10/25/14	1
Fluoranthene	206-44-0	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	10/25/14	1
Fluorene	86-73-7	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	10/25/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	10/25/14	1
Naphthalene <i>ORIG - DNR</i>	91-20-3	0.0011	.00081	0.0027	0.0081	mg/kg	J	8270C-SI	10/25/14	1
Phenanthrene	85-01-8	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	10/25/14	1
Pyrene	129-00-0	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	10/25/14	1
2-Methylnaphthalene	91-57-6	U	.00086	0.0081	0.027	mg/kg		8270C-SI	10/25/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	93.7				% Rec.		8270C-SI	10/25/14	1
Nitrobenzene-d5	4165-60-0	83.4				% Rec.		8270C-SI	10/25/14	1
2-Fluorobiphenyl	321-60-8	100.				% Rec.		8270C-SI	10/25/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.01	0.23	0.45	mg/kg		8270C	10/26/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.012	0.23	0.45	mg/kg		8270C	10/26/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.01	0.23	0.45	mg/kg		8270C	10/26/14	1
Benzyl Alcohol	100-51-6	U	.01	0.23	0.45	mg/kg		8270C	10/26/14	1
Benzoic acid	65-85-0	U	.16	2.3	4.5	mg/kg		8270C	10/26/14	1
Carbazole	86-74-8	U	.007	0.23	0.45	mg/kg		8270C	10/26/14	1

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Reported: 11/14/14 18:36 Revised: 11/18/14 16:19

L729030-05 (ICP METALS) - Dilution due to matrix

L729030-05 (PH) - 6.6@20.2c

DNR: Do Not Report

KA 1/20/15

BMS 2/18/15

ms 2/2/15



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB06-NS02
 Collected By :
 Collection Date : 10/21/14 10:12

ESC Sample # : L729030-05

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.007	0.23	0.45	mg/kg		8270C	10/26/14	1
4-Bromophenyl-phenylether	101-55-3	U	.015	0.23	0.45	mg/kg		8270C	10/26/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0085	0.23	0.45	mg/kg		8270C	10/26/14	1
2-Chloronaphthalene	91-58-7	U	.0086	0.23	0.45	mg/kg		8270C	10/26/14	1
3,3-Dichlorobenzidine	91-94-1	U	.11	0.23	0.45	mg/kg		8270C	10/26/14	1
2,4-Dinitrotoluene	121-14-2	U	.0082	0.23	0.45	mg/kg		8270C	10/26/14	1
2,6-Dinitrotoluene	606-20-2	U	.01	0.23	0.45	mg/kg		8270C	10/26/14	1
Hexachlorobenzene	118-74-1	U	.012	0.23	0.45	mg/kg		8270C	10/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.013	0.23	0.45	mg/kg		8270C	10/26/14	1
Hexachloroethane	67-72-1	U	.018	0.23	0.45	mg/kg		8270C	10/26/14	1
Isophorone	78-59-1	U	.007	0.23	0.45	mg/kg		8270C	10/26/14	1
Nitrobenzene	98-95-3	U	.0094	0.23	0.45	mg/kg		8270C	10/26/14	1
n-Nitrosodimethylamine	62-75-9	U	.088	0.23	0.45	mg/kg		8270C	10/26/14	1
n-Nitrosodiphenylamine	86-30-6	U	.008	0.23	0.45	mg/kg		8270C	10/26/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.012	0.23	0.45	mg/kg		8270C	10/26/14	1
Benzylbutyl phthalate	85-68-7	U	.013	0.23	0.45	mg/kg		8270C	10/26/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.016	0.23	0.45	mg/kg		8270C	10/26/14	1
Di-n-butyl phthalate	84-74-2	U	.015	0.23	0.45	mg/kg		8270C	10/26/14	1
Diethyl phthalate	84-66-2	U	.0093	0.23	0.45	mg/kg		8270C	10/26/14	1
Dimethyl phthalate	131-11-3	U	.0073	0.23	0.45	mg/kg		8270C	10/26/14	1
Di-n-octyl phthalate	117-84-0	U	.012	0.23	0.45	mg/kg		8270C	10/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.012	0.23	0.45	mg/kg		8270C	10/26/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0065	0.23	0.45	mg/kg		8270C	10/26/14	1
2-Chlorophenol	95-57-8	U	.011	0.23	0.45	mg/kg		8270C	10/26/14	1
2,4-Dichlorophenol	120-83-2	U	.01	0.23	0.45	mg/kg		8270C	10/26/14	1
2,4-Dimethylphenol	105-67-9	U	.063	0.23	0.45	mg/kg		8270C	10/26/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.16	0.23	0.45	mg/kg		8270C	10/26/14	1
2,4-Dinitrophenol	51-28-5	U	.13	0.23	0.45	mg/kg		8270C	10/26/14	1
2-Methylphenol	95-48-7	U	.013	0.23	0.45	mg/kg		8270C	10/26/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.01	0.23	0.45	mg/kg		8270C	10/26/14	1
2-Nitrophenol	88-75-5	U	.018	0.23	0.45	mg/kg		8270C	10/26/14	1
4-Nitrophenol	100-02-7	U	.07	0.23	0.45	mg/kg		8270C	10/26/14	1
4-Chloroaniline	106-47-8	U	.0047	0.23	0.45	mg/kg		8270C	10/26/14	1
2-Nitroaniline	88-74-4	U	.01	0.23	0.45	mg/kg		8270C	10/26/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0019	0.23	0.45	mg/kg		8270C	10/26/14	1
3-Nitroaniline	99-09-2	U	.011	0.23	0.45	mg/kg		8270C	10/26/14	1
4-Nitroaniline	100-01-6	U	.0086	0.23	0.45	mg/kg		8270C	10/26/14	1
Pentachlorophenol	87-86-5	U	.065	0.23	0.45	mg/kg		8270C	10/26/14	1
Phenol	108-95-2	U	.0094	0.23	0.45	mg/kg		8270C	10/26/14	1
2,4,5-Trichlorophenol	95-95-4	U	.013	0.23	0.45	mg/kg		8270C	10/26/14	1
2,4,6-Trichlorophenol	88-06-2	U	.01	0.23	0.45	mg/kg		8270C	10/26/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	66.0				% Rec.		8270C	10/26/14	1
Phenol-d5	4165-62-2	65.4				% Rec.		8270C	10/26/14	1

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L729030-05 (ICP METALS) - Dilution due to matrix

L729030-05 (PH) - 6.6@20.2c

DNR = do not report

*CA 1/20/15
 BM 2/12/15*



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB06-NS02
 Collected By :
 Collection Date : 10/21/14 10:12

ESC Sample # : L729030-05
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	67.6				% Rec.		8270C	10/26/14	1
2-Fluorobiphenyl	321-60-8	73.4				% Rec.		8270C	10/26/14	1
2,4,6-Tribromophenol	118-79-6	77.1				% Rec.		8270C	10/26/14	1
p-Terphenyl-d14	1718-51-0	62.7				% Rec.		8270C	10/26/14	1

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L729030-05 (ICP METALS) - Dilution due to matrix

L729030-05 (PH) - 6.6@20.2c

KA 1/20/15

**Holloman AFB
Groundwater Monitoring
Data Review Summary**

Data Package Number: L729032
 Sampling Event Dates: October 21, 2014
 Sample-specific Parameter Review/Laboratory Performance Parameters: Yes
 Full Validation (e.g. result recalculation): No
 Data Reviewer: Katie Abbott, URS Project Chemist
 Date Completed: January 29, 2015
 Peer Reviewer: Sheri Fling, URS Project Quality Assurance Manager (QAM)

The table below summarizes the data package and sample identifications discussed in this data review.

Field Identification	Sample Type	Lab Identification	Matrix	Analyses						
				GRO	VOCs	PAHs	DRO/ORO	SVOCs	Total Metals	pH
L729032										
TU503-SB11-NS01	SA	L729032-01	Soil	X	X	X	X	X	X	X
TU503-SB11-NS02	SA	L729032-02	Soil	X	X	X	X	X	X	X
TU503-TRIPBLANK06-NT01	TB	L729032-03	Water	X	X	---	---	---	---	---
TU503-SB12-NS01	SA	L729032-04	Soil	X	X	X	X	X	X	X
TU503-SB12-NS02	SA	L729032-05	Soil	X	X	X	X	X	X	X
TU503-SB13-NS01	SA	L729032-06	Soil	X	X	X	X	X	X	X
TU503-SB13-NS02	SA	L729032-07	Soil	X	X	X	X	X	X ^m	X

Sample Type: SA – Sample TB – Trip Blank
 X^m - Matrix Spike/Matrix Spike Duplicate

Analyses:
 DRO/ORO - Diesel and Oil Range Organics (8015)
 GRO – Gasoline Range Organics (8015D)
 TDS – Total Dissolved Solids (SM2540C)
 Total Metals – Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Manganese, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc, Mercury (6010B/7470A)
 PAHs – Polynuclear Aromatic Hydrocarbons (8270C SIM)
 SIM – Selective Ion Monitoring
 SVOCs – Semivolatile Organic Compounds (8270C)
 VOCs – Volatile Organic Compounds (8260B)

The data review was conducted in accordance with the Final Interim Measures Work Plan – Appendix A, Sampling and Analysis Plan/Quality Assurance Project Plan: Former Septic System Site TU904 (URS, September 2014); Group 2 Former Underground Storage Sites: AOC-UST-889 (TU515) (URS, September 2014); and Group 3 Former Underground Storage Tank Sites: AOC-UST-221 (TU503), AOC-UST-298 (TU508), AOC-UST-901 (TU506) and AOC-UST-7003 (TU518) (URS, August 2014); data validation standard operating procedure (SOP) 14; Department of Defense (DoD) Quality Systems Manual version 4.2 (DoD, 2010); and method requirements.

General Overall Assessment:

- Data are usable without qualification.
- Data are usable with qualification (noted below).
- Some or all data are unusable for any purpose (detailed below).

Case Narrative Comments: Any laboratory case narrative comments concerning data qualification were addressed in the table below.

Trace level detects, reported between the method detection limit (MDL) and the reporting limit (LOQ), have been qualified as estimated (F SQL-I). All other occurrences of data qualification are covered in the following table.

Review Parameter	Criteria Met?	Comment
Chain of Custody & Sample Receipt	Yes	The samples were received by ESC Lab Sciences in good condition and were consistent with the accompanying chain of custody (COC). The cooler temperatures upon receipt were within the recommended ≤6 degrees Celsius (°C) temperature range.
Reporting	Yes	<p>During review of a representative data package selected for full validation, it was noted that improper reference spectra were displayed in the printed version of the data package for Method 8260B. Due to a LIMS limitation, the data package reference spectra were not consistently representative of the actual spectra for the analytes detected. Because the laboratory data review involves the use of NBS reference spectra and not the reference spectra taken from the instrument calibration, the analyst was not seeing the improper alignment of spectra noted in the data package during his/her review at the instrument. The laboratory revised and reissued the data package with correct reference spectral data, consistent with method requirements, and no results were changed. Therefore, no further action is necessary as a result of this validation finding.</p> <p>Method 8270C Semivolatile Organic Compounds (SVOCs)</p> <p>The results for 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene are not reported by Method 8270C SVOCs but are reported by Method 8260B volatile organic compounds (VOCs). As the detection limits (DLs), limits of detection (LODs), and limits of quantitation (LOQs) are lower by Method 8260B, further action was not necessary.</p> <p>The laboratory noted 4-methylphenol cannot be reported as 3 & 4-methylphenol coelute during the analysis; therefore, the analytes are reported together and 3&4-methylphenol on the data sheets and in the electronic database.</p>
Holding Times	Yes	All samples were analyzed within the method required holding time.
Laboratory Blanks <ul style="list-style-type: none"> • Method Blank • Initial/Continuing Calibration Blank 	No	With the exception listed in Table 1, target analytes were not detected within the method or calibration blanks.
Matrix Quality Control <ul style="list-style-type: none"> • Matrix Spike/ Matrix Spike Duplicate TU503-SB13-NS02 (Mercury) • Laboratory Duplicate TU503-SB11-NS01 (pH) 	Yes	<p>Matrix Spike/ Matrix Spike Duplicate (MS/MSD)</p> <p>The frequency of MS/MSDs met the QAPP requirement of one per twenty samples.</p> <p>The MS/MSD recoveries and relative percent differences (RPDs) met quality control criteria.</p>

Review Parameter	Criteria Met?	Comment
		<p>Results in the native sample greater than four times the concentration of the spike added during digestions/extractions are not considered to be a representative measure of accuracy. Further action with respect to spike recovery evaluation or qualification of data was not considered necessary.</p> <p>Consistent with standard operating procedure (SOP) 14, when MS/MSD issues accounted for less than 35% of the MS/MSD analyses conducted, applicable data qualification was limited to qualification of the parent sample of the affected analyte. When >35% of the MS/MSD results did not meet criteria, evaluation was extended to all associated samples. See Section 4.1 of the data validation report for overall qualifiers resulting from the MS/MSD evaluation.</p> <p>Laboratory Duplicate</p> <p>The comparison between results of the laboratory duplicate pair met the criteria listed below.</p> <ul style="list-style-type: none"> • When both the sample and duplicate values are >5x the LOQ acceptable sampling and analytical precision is indicated by a relative percent difference (RPD) between the results of $\leq 20\%$ for water samples ($\leq 35\%$ for soil samples). • Where the result for one or both analytes of the laboratory duplicate pair is <5xLOQ, satisfactory precision is indicated if the absolute difference between the laboratory duplicate results is <1xLOQ for water samples (<2xLOQ for soil samples).
<p>Metals Only</p> <ul style="list-style-type: none"> • Serial Dilution TU503-SB13-NS02 (Mercury) • Post Digestion Spike TU503-SB13-NS02 (Mercury) 	No	<p>Serial Dilution (Metals Only)</p> <p>Consistent with the method, only the results that were greater than 50 times their respective DLs were appropriate for comparing to the serial dilution evaluation criterion. All percent differences (%Ds) between the original sample results and the results obtained from the sample-diluted 1:5 were $\leq 10\%$.</p> <p>Post Digestion Spike (PDS) (Metals Only)</p> <p>With the exceptions listed in Table 2, all PDS recoveries were within the acceptance limits.</p>
<p>Method Quality Control</p> <ul style="list-style-type: none"> • Surrogates (VOCs, SVOCs, PAHs, GRO, DRO/ORO) 	No	<p>With the exception listed in Table 3, the surrogate recoveries were within the laboratory specified acceptance criteria.</p> <p>The surrogate recoveries for diesel range organics (DRO) and oil range organics (ORO) on sample TU503-SB11-NS02 could not be evaluated as they were diluted beyond the laboratory's ability to quantitate surrogate recoveries. Further action was not necessary.</p>
<p>Field Quality Control</p> <ul style="list-style-type: none"> • Trip Blank TU503-TRIPBLANK05-NT01 (GRO, VOCs) • Field Duplicate None in this package • Equipment Blank None in this package • Field Blank None in this package 	No	<p>Trip Blank</p> <p>With the exception listed in Table 4, target analytes were not detected in the trip blank.</p> <p>Field Duplicate</p> <p>The frequency of field duplicates met the QAPP requirement of one per twenty samples.</p> <p>A field duplicate was not submitted with the data package.</p>

Review Parameter	Criteria Met?	Comment
		<p>Consistent with SOP 14, when field duplicate issues accounted for less than 35% of the field duplicate analyses conducted, applicable data qualification was limited to qualification of the parent sample for the affected analyte. When >35% of the field duplicate results did not meet criteria, evaluation was extended to all associated samples. See Section 4.3 of the data validation report for overall qualifiers resulting from the field duplicate evaluation.</p> <p>Equipment Blank</p> <p>As dedicated equipment was used to collect these samples, an equipment blank was not submitted for this sampling event. Further action was not necessary.</p> <p>Field Blank</p> <p>The frequency of field blanks met the QAPP requirement of one per twenty samples.</p> <p>A field blank was not submitted with this data package. See Section 4.4 of the data validation report for overall qualifiers resulting from the field blank evaluation.</p>
LODs met?	No	<p>Due to dilutions, several 6010B metals results for all samples and several VOCs and SVOCs for sample TU503-SB11-NS02 were reported as non-detect at elevated LODs. See Section 3.7 of the validation report for further discussion.</p>
Other Parameters	Yes	<p>Naphthalene (8260B and 8270C-PAHs) and hexachloro-1,3-butadiene and 1,2,4-trichlorobenzene (8260B and 8270C) were analyzed by multiple methods. Results were selected for reporting using the following criteria:</p> <ul style="list-style-type: none"> • If both results were non-detect, the non-detect result with the lower DL was selected. • If both results were reported as detected, the higher detected result was selected for reporting. • If one result was reported as non-detect and the other result was reported as detected, the detected result was selected for reporting.
Initial Calibration	Yes	<p>Methods 8260B VOCs & 8270C SVOCs</p> <p>A minimum relative response factor (RRF) of 0.05 was used for the system performance check compounds (SPCCs) and all SPCCs met this criterion. The percent relative standard deviations (%RSDs) over the initial calibration RRFs for all calibration check compounds (CCCs) satisfied the method requirement of <30%. For all other target compounds, a requirement of 15% was used. The %RSD values for all target analytes in the calibration were less than 15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)</p> <p>The %RSD values for all target analytes in the calibration were less than 20%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8015D Gasoline Range Organics (GRO)/DRO/ORO</p> <p>The relationship between instrument response and concentration was established with a blank and at least five standards for the entire carbon</p>

Review Parameter	Criteria Met?	Comment
		<p>range of C10-C40. The %RSD over the initial calibrations curve satisfied the method requirement of <15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Methods 6010B (Inductively Coupled Plasma [ICP] Metals)</p> <p>The initial calibrations (ICALs) were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with a blank and at least one standard. The calibrations were verified with the analysis of an initial calibration verification (ICV) standard. All metals were recovered within the method acceptance range of 90-110%.</p> <p>Method 7470A (Mercury)</p> <p>The ICALs were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with five standards. The correlation coefficient was >0.995. The calibration was verified with the analysis of an ICV standard. The analytes were recovered within the acceptance range of 90-110%. Response and linearity criteria were met and data qualification on the basis of initial calibration was not necessary.</p>
Initial Calibration Verification/Continuing Calibration Verification	No	<p>Method 8260B VOCs</p> <p>The percent differences (%Ds) for all CCCs in the ICVs and continuing calibrations (CCALs) were less than 20%, satisfying method requirements, and other target analytes satisfied the %D criterion of 20%.</p> <p>Methods 8270C PAHs/SVOCs</p> <p>With the exceptions listed in Table 5, the %D values for all target analytes in the calibration were less than 20%.</p> <p>Method 8015D GRO/DRO/ORO</p> <p>The %Ds for all target compounds in the ICVs and CCALs were less than 15%. Data qualification was not necessary.</p> <p>Methods 6010B (ICP Metals) & 7470A (Mercury)</p> <p>Calibration verification analyses were conducted at the proper frequency. All metals were recovered within the DOD QSM 4.2 low level acceptance range of 80-120% and the method medium/high acceptance range of 90-110%.</p>
Interference Check Standard (Metals Only)	No	<p>The interference check standard (ICS) AB solutions were analyzed at the proper frequency. The target analytes were recovered within the acceptance range of 90-10% in the ICS AB solution. With the exceptions listed in Table 6, interferent elements were not present in the samples at concentrations greater than those in the ICSs.</p> <p>The interferent elements aluminum, calcium, iron, and magnesium were present in most samples in this data package at concentrations greater than or equal to those in the ICSs. As such, these samples were evaluated for positive and negative biases suggested by the ICS A. Data qualification was issued if the absolute value of the ICS A result was greater than the DL and it suggested a positive or negative bias which accounted for more than 25% of associated sample results or LODs. (Note: The ICS A solution only contains the interferent elements aluminum, calcium, iron, and</p>

Review Parameter	Criteria Met?	Comment
		magnesium so any positive or negative result for other analytes is inferred to be a bias potentially caused by one or more of the interferent elements present). Table 6 summarizes the resultant data qualification on the basis of the ICS results.
Internal Standard (VOCs/SVOCs/PAHs)	Yes	Recoveries for the internal standards in field samples were within the applicable acceptance limits. Therefore, data qualification based on internal standards was not necessary.
Laboratory Control Sample/ Laboratory Control Sample Duplicate	No	One laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) per method per analytical batch was prepared and analyzed. With the exceptions listed in Table 7, all of the LCS recoveries and LCS/LCSD RPDs were within the QAPP acceptance limits. These results are indicative of an acceptable level of accuracy and precision with respect to the analytical method. Method 8015 DRO/ORO The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the method could not be assessed for ORO.
Package Completeness	Yes	The results are usable as qualified for the project objective. The data are 100% complete.

< - Less Than
 ≤ - Less Than or Equal to
 °C – Degrees Celsius
 % - Percent
 %Ds – Percent Differences
 %RSD – Percent Relative Standard Deviation
 CCALs – Continuing Calibrations
 CCBs – Continuing Calibration Blanks
 CCCs – Calibration Check Compounds
 COC – Chain of Custody
 COD – Coefficient of Determination
 DLs – Detection Limits
 DRO – Diesel Range Organics
 GRO – Gasoline Range Organics
 ICAL – Initial Calibration
 ICB – Initial Calibration Blank
 ICP – Inductively Coupled Plasma

ICS – Interference Check Standard
 ICV – Initial Calibration Verification
 LCS – Laboratory Control Sample
 LCSD – Laboratory Control Sample Duplicate
 LOD – Limit of Detection
 LOQ – Limit of Quantitation
 MS/MSD – Matrix Spike/ Matrix Spike Duplicate
 ORO – Oil Range Organics
 PAHs – Polynuclear Aromatic Hydrocarbons
 PDS – Post Digestion Spike
 QAPP – Quality Assurance Project Plan
 RPDs – Relative Percent Differences
 RRF – Relative Response Factor
 SOP – Standard Operating Procedure
 SPCCs – System Performance Check Compounds
 SVOCs – Semivolatile Organic Compounds
 VOCs – Volatile Organic Compounds

Table 1: Blank Outliers and Resultant Data Qualification

Associated Samples	Analyte	Concentration	Qualification
Total Metals			
MB Batch WG750261 TU503-SB11-NS01 TU503-SB11-NS02 TU503-SB12-NS01 TU503-SB12-NS02 TU503-SB13-NS01 TU503-SB13-NS02	Aluminum	4.64 mg/Kg	None. The associated results were reported at concentrations >5x the concentration of the blank contamination.
	Zinc	1.08 mg/Kg	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).

Associated Samples	Analyte	Concentration	Qualification
PAHs			
MB Batch WG750214 TU503-SB11-NS01 TU503-SB11-NS02 TU503-SB12-NS01 TU503-SB12-NS02 TU503-SB13-NS01 TU503-SB13-NS02	Naphthalene	0.000605 mg/Kg	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).
> - Greater Than MB – Method Blank	< - Less Than PAHs – Polynuclear Aromatic Hydrocarbons		I – Indeterminate Bias U – Non-detect

Table 2: Post-Digestion Spike Outliers and Resultant Data Qualification

Associated Samples	Analyte	%R (Limits)	Qualification
Total Metals			
TU503-SB13-NS02	Mercury	268 (85-115)	As the potential bias was considered to be high, and the associated mercury result was reported as non-detect, data qualification was not considered necessary.
%R – Percent Recovery		PDS – Post Digestion Spike	
Bold indicates a recovery or RPD outside of acceptance limit			

Table 3: Surrogate Recovery Outliers and Resultant Data Qualification

Sample	Surrogate	%R (Limits)	Qualification
VOCs			
TU503-SB11-NS02	4-Bromofluorobenzene	50.0 (71-126)	As the potential bias was considered to be low, the associated VOC result was qualified as estimated (UJ/J SUR-L).
DRO/ORO			
TU503-SB13-NS01	o-Terphenyl	45.6 (50-150)	As the potential bias was considered to be low, the associated DRO/ORO results were qualified as estimated (UJ/J SUR-L).
PAHs			
TU503-SB13-NS01	Nitrobenzene-d5	177 (28.4-151)	As two of the three base/neutral surrogates were within control limits, data qualification was not considered necessary.
%R - Percent Recovery		DRO – Diesel Range Organics	
ORO – Oil Range Organics		PAHs – Polynuclear Aromatic Hydrocarbons	
UJ/J – Estimated		VOCs – Volatile Organic Compounds	
Bold indicates a recovery outside of acceptance limits.		L – Low Bias SUR – Surrogate	

Table 4: Trip Blank Outliers and Resultant Data Qualification

Associated Samples	Analyte	Concentration	Qualification
TU503-TRIPBLANK05-NT01 TU503-SB11-NS01 TU503-SB11-NS02 TU503-SB12-NS01 TU503-SB12-NS02 TU503-SB13-NS01 TU503-SB13-NS02	Acetone	12 µg/L*	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U TB-I).

µg/L – Micrograms Per Liter

< - Less Than

I – Indeterminate Bias

TB – Trip Blank

U – Non-detect

* Concentrations reported in µg/L. To determine equivalent soil value in mg/kg, multiply by the preparation factor and divided by the percent solids.

Table 5: Initial/Continuing Calibration Verification Outliers and Resultant Data Qualification

Associated Samples	Analyte	%D (Limit)	Data Qualification
SVOCs			
TU503-SB11-NS01 TU503-SB11-NS02 TU503-SB12-NS01 TU503-SB12-NS02 TU503-SB13-NS01 TU503-SB13-NS02	3&4-Methyl Phenol	-51.8 (±20)	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ/J CCAL-L).

± - Plus or minus

%D – Percent Difference

CCAL – Continuing Calibration

L – Low Bias

SVOCs – Semivolatile Organic Compounds

UJ/J - Estimated

Table 6: ICS Outliers and Resultant Data Qualification

Interferent Element	Analyte	ICS A (µg/L)	MDL (µg/L)	Qualified Samples	Qualification
Aluminum, Calcium, Iron, Magnesium	Manganese	-5.9	1.2	TU503-SB11-NS01	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ/J ICS-L).
	Cadmium	-2.8	0.7	TU503-SB11-NS01	
	Lead	-33.5	1.9	TU503-SB11-NS02	
	Nickel	-16.5	4.9	TU503-SB12-NS01 TU503-SB12-NS02 TU503-SB13-NS01 TU503-SB13-NS02	

µg/L – Micrograms per Liter

ICS – Interference Check Standard

L – Low Bias

MDL – Method Detection Limit

UJ/J - Estimated

Table 7: LCS Recovery Outliers and Resultant Data Qualification

Associated Samples	Analyte	%R (Limits)	RPD (Limits)	Qualification
Metals				
LCS WG750261 TU503-SB11-NS01 TU503-SB11-NS02 TU503-SB12-NS01 TU503-SB12-NS02 TU503-SB13-NS01 TU503-SB13-NS02	Aluminum	133/131 (80-120)	3 (50)	As the potential bias was considered to be high, the associated detected aluminum results for all samples were qualified as estimated (J LCS-H).
LCS WG750208 TU503-SB11-NS01 TU503-SB11-NS02 TU503-SB12-NS01 TU503-SB12-NS02 TU503-SB13-NS01 TU503-SB13-NS02	Mercury	128/123 (80-120)	18 (50)	As the potential bias was considered to be high and the associated sample results were reported as non-detect, data qualification was not considered necessary.

%R – Percent Recoveries

J – Estimated

H – High Bias

LCS – Laboratory Control Sample

Bold indicates a recovery outside of acceptance limits.



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB11-NS01
Collected By :
Collection Date : 10/21/14 10:05

ESC Sample # : L729032-01

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	5.3				su		9045D	10/25/14	1
Total Solids	TSOLIDS	65.3	.0333			%		2540 G-2	10/25/14	1
Mercury	7439-97-6	U	.0043	0.015	0.031	mg/kg		7471	10/23/14	1
Aluminum	7429-90-5	600	.28	38.	76.	mg/kg		6010B	10/30/14	5
Antimony	7440-36-0	U	5.8	7.7	15.	mg/kg		6010B	10/30/14	5
Arsenic	7440-38-2	U	4.9	7.7	15.	mg/kg		6010B	10/30/14	5
Barium	7440-39-3	8.3	1.3	1.9	3.8	mg/kg		6010B	10/30/14	5
Beryllium	7440-41-7	U	.54	0.77	1.5	mg/kg		6010B	10/30/14	5
Cadmium	7440-43-9	U	.54	1.9	3.8	mg/kg		6010B	10/30/14	5
Chromium	7440-47-3	U	1.1	3.8	7.6	mg/kg		6010B	10/30/14	5
Cobalt	7440-48-4	U	1.8	3.8	7.6	mg/kg		6010B	10/30/14	5
Copper	7440-50-8	U	4	7.7	15.	mg/kg		6010B	10/30/14	5
Lead	7439-92-1	U	1.4	1.9	3.8	mg/kg		6010B	10/30/14	5
Manganese	7439-96-5	4.6	.92	3.8	7.6	mg/kg	J	6010B	10/30/14	5
Nickel	7440-02-0	U	3.7	7.7	15.	mg/kg		6010B	10/30/14	5
Selenium	7782-49-2	U	5.7	7.7	15.	mg/kg		6010B	10/30/14	5
Silver	7440-22-4	U	2.1	3.8	7.6	mg/kg		6010B	10/30/14	5
Thallium	7440-28-0	U	4.9	7.7	15.	mg/kg		6010B	11/03/14	5
Vanadium	7440-62-2	3.8	1.8	7.7	15.	mg/kg	J	6010B	10/30/14	5
Zinc	7440-66-6	6.1	4.6	19.	38.	mg/kg	J	6010B	10/30/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.034	0.077	0.15	mg/kg		8015D/GR	10/28/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	99.0				% Rec.		8015D/GR	10/28/14	1
Volatile Organics										
Acetone	67-64-1	0.046		0.015	0.038	mg/kg	J	8260B	10/29/14	1
Benzene	71-43-2	U	.00041	0.00077	0.0015	mg/kg		8260B	10/29/14	1
Bromobenzene	108-86-1	U	.00043	0.00077	0.0015	mg/kg		8260B	10/29/14	1
Bromochloromethane	74-97-5	U	.0006	0.00077	0.0015	mg/kg		8260B	10/29/14	1
Bromodichloromethane	75-27-4	U	.00038	0.00077	0.0015	mg/kg		8260B	10/29/14	1
Bromoform	75-25-2	U	.00064	0.00077	0.0015	mg/kg		8260B	10/29/14	1
Bromomethane	74-83-9	U	.002	0.0038	0.0076	mg/kg		8260B	10/29/14	1
n-Butylbenzene	104-51-8	U	.0004	0.00077	0.0015	mg/kg		8260B	10/29/14	1
sec-Butylbenzene	135-98-8	U	.00031	0.00077	0.0015	mg/kg		8260B	10/29/14	1
tert-Butylbenzene	98-06-6	U	.00032	0.00077	0.0015	mg/kg		8260B	10/29/14	1
Carbon Disulfide	75-15-0	0.00055	.00043	0.00077	0.0015	mg/kg	J	8260B	10/29/14	1
Carbon tetrachloride	56-23-5	U	.0005	0.00077	0.0015	mg/kg		8260B	10/29/14	1
Chlorobenzene	108-90-7	U	.00032	0.00077	0.0015	mg/kg		8260B	10/29/14	1
Chlorodibromomethane	124-48-1	U	.00057	0.00077	0.0015	mg/kg		8260B	10/29/14	1
Chloroethane	75-00-3	U	.0014	0.0038	0.0076	mg/kg		8260B	10/29/14	1
Chloroform	67-66-3	U	.00035	0.0038	0.0076	mg/kg		8260B	10/29/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

Note:

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The reported analytical results relate only to the sample submitted

Reported: 11/04/14 08:33 Revised: 11/18/14 11:03

L729032-01 (PH) - 5.3@22.8c

L729032-01 (ICP METALS) - Dilution due to matrix

KA 1/29/15
BWS 2/19/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB11-NS01
 Collected By :
 Collection Date : 10/21/14 10:05

ESC Sample # : L729032-01

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00058	0.00077	0.0038	mg/kg		8260B	10/29/14	1
2-Chlorotoluene	95-49-8	U	.00046	0.00077	0.0015	mg/kg		8260B	10/29/14	1
4-Chlorotoluene	106-43-4	U	.00037	0.00077	0.0015	mg/kg		8260B	10/29/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0015	0.0038	0.0076	mg/kg		8260B	10/29/14	1
1,2-Dibromoethane	106-93-4	U	.00052	0.00077	0.0015	mg/kg		8260B	10/29/14	1
Dibromomethane	74-95-3	U	.00058	0.00077	0.0015	mg/kg		8260B	10/29/14	1
1,2-Dichlorobenzene	95-50-1	U	.00046	0.00077	0.0015	mg/kg		8260B	10/29/14	1
1,3-Dichlorobenzene	541-73-1	U	.00037	0.00077	0.0015	mg/kg		8260B	10/29/14	1
1,4-Dichlorobenzene	106-46-7	U	.00035	0.00077	0.0015	mg/kg		8260B	10/29/14	1
Dichlorodifluoromethane	75-71-8	U	.0011	0.0038	0.0076	mg/kg		8260B	10/29/14	1
1,1-Dichloroethane	75-34-3	U	.00031	0.00077	0.0015	mg/kg		8260B	10/29/14	1
1,2-Dichloroethane	107-06-2	U	.0004	0.00077	0.0015	mg/kg		8260B	10/29/14	1
1,1-Dichloroethene	75-35-4	U	.00046	0.00077	0.0015	mg/kg		8260B	10/29/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00037	0.00077	0.0015	mg/kg		8260B	10/29/14	1
trans-1,2-Dichloroethene	156-60-5	U	.0004	0.00077	0.0015	mg/kg		8260B	10/29/14	1
1,2-Dichloropropane	78-87-5	U	.00055	0.00077	0.0015	mg/kg		8260B	10/29/14	1
1,1-Dichloropropene	563-58-6	U	.00049	0.00077	0.0015	mg/kg		8260B	10/29/14	1
1,3-Dichloropropane	142-28-9	U	.00032	0.00077	0.0015	mg/kg		8260B	10/29/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.0004	0.00077	0.0015	mg/kg		8260B	10/29/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00041	0.00077	0.0015	mg/kg		8260B	10/29/14	1
2,2-Dichloropropane	594-20-7	U	.00043	0.00077	0.0015	mg/kg		8260B	10/29/14	1
Ethylbenzene	100-41-4	U	.00046	0.00077	0.0015	mg/kg		8260B	10/29/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00052	0.00077	0.0015	mg/kg		8260B	10/29/14	1
2-Hexanone	591-78-6	U	.0058	0.0077	0.015	mg/kg		8260B	10/29/14	1
Isopropylbenzene	98-82-8	U	.00037	0.00077	0.0015	mg/kg		8260B	10/29/14	1
p-Isopropyltoluene	99-87-6	U	.00031	0.00077	0.0015	mg/kg		8260B	10/29/14	1
2-Butanone (MEK) FSOL-I	78-93-3	0.012	.0072	0.0077	0.015	mg/kg	J	8260B	10/29/14	1
Methylene Chloride	75-09-2	U	.0015	0.0038	0.0076	mg/kg		8260B	10/29/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0029	0.0077	0.015	mg/kg		8260B	10/29/14	1
Methyl tert-butyl ether	1634-04-4	U	.00032	0.00077	0.0015	mg/kg		8260B	10/29/14	1
Naphthalene	91-20-3	U	.0015	0.0038	0.0076	mg/kg		8260B	10/29/14	1
n-Propylbenzene	103-65-1	U	.00032	0.00077	0.0015	mg/kg		8260B	10/29/14	1
Styrene	100-42-5	U	.00035	0.00077	0.0015	mg/kg		8260B	10/29/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.0004	0.00077	0.0015	mg/kg		8260B	10/29/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00055	0.0011	0.0015	mg/kg		8260B	10/29/14	1
Tetrachloroethene	127-18-4	U	.00043	0.00077	0.0015	mg/kg		8260B	10/29/14	1
Toluene FSOL-I	108-88-3	0.00069	.00066	0.0038	0.0076	mg/kg	J	8260B	10/29/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00047	0.00077	0.0015	mg/kg		8260B	10/29/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.0006	0.00077	0.0015	mg/kg		8260B	10/29/14	1
1,1,1-Trichloroethane	71-55-6	U	.00044	0.00077	0.0015	mg/kg		8260B	10/29/14	1
1,1,2-Trichloroethane	79-00-5	U	.00043	0.00077	0.0015	mg/kg		8260B	10/29/14	1
Trichloroethene	79-01-6	U	.00043	0.00077	0.0015	mg/kg		8260B	10/29/14	1
Trichlorofluoromethane	75-69-4	U	.00058	0.0038	0.0076	mg/kg		8260B	10/29/14	1
1,2,3-Trichloropropane	96-18-4	U	.0011	0.0015	0.0038	mg/kg		8260B	10/29/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.00032	0.00077	0.0015	mg/kg		8260B	10/29/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/04/14 08:33 Revised: 11/18/14 11:03

L729032-01 (PH) - 5.3@22.8c

L729032-01 (ICP METALS) - Dilution due to matrix

Handwritten signature: CA/zelis



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB11-NS01
Collected By :
Collection Date : 10/21/14 10:05

ESC Sample # : L729032-01

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00052	0.00077	0.0015	mg/kg		8260B	10/29/14	1
m&p-Xylene	1330-20-7	U	.0011	0.0015	0.0031	mg/kg		8260B	10/29/14	1
Vinyl chloride	75-01-4	U	.00044	0.00077	0.0015	mg/kg		8260B	10/29/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00041	0.00077	0.0015	mg/kg		8260B	10/29/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	103.				% Rec.		8260B	10/29/14	1
Dibromofluoromethane	1868-53-7	113.				% Rec.		8260B	10/29/14	1
4-Bromofluorobenzene	460-00-4	105.				% Rec.		8260B	10/29/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range <i>F SOL-I</i>		4.4	2.4	3.1	6.1	mg/kg	J	8015	10/29/14	1
C28-C40 Oil Range		U	.41	3.1	6.1	mg/kg		8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	64.3				% Rec.		8015	10/29/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00092	0.0031	0.0092	mg/kg		8270C-SI	10/25/14	1
Acenaphthene	83-32-9	U	.00092	0.0031	0.0092	mg/kg		8270C-SI	10/25/14	1
Acenaphthylene	208-96-8	U	.00092	0.0031	0.0092	mg/kg		8270C-SI	10/25/14	1
Benzo(a)anthracene	56-55-3	U	.00092	0.0031	0.0092	mg/kg		8270C-SI	10/25/14	1
Benzo(a)pyrene	50-32-8	U	.00092	0.0031	0.0092	mg/kg		8270C-SI	10/25/14	1
Benzo(b)fluoranthene <i>US MS-L</i>	205-99-2	U	.00092	0.0031	0.0092	mg/kg		8270C-SI	10/25/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00092	0.0031	0.0092	mg/kg		8270C-SI	10/25/14	1
Benzo(k)fluoranthene	207-08-9	U	.00092	0.0031	0.0092	mg/kg		8270C-SI	10/25/14	1
Chrysene	218-01-9	U	.00092	0.0031	0.0092	mg/kg		8270C-SI	10/25/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00092	0.0031	0.0092	mg/kg		8270C-SI	10/25/14	1
Fluoranthene	206-44-0	U	.00092	0.0031	0.0092	mg/kg		8270C-SI	10/25/14	1
Fluorene	86-73-7	U	.00092	0.0031	0.0092	mg/kg		8270C-SI	10/25/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00092	0.0031	0.0092	mg/kg		8270C-SI	10/25/14	1
Naphthalene <i>US MS-L DNR</i>	91-20-3	0.0017	.00092	0.0031	0.0092	mg/kg	J	8270C-SI	10/25/14	1
Phenanthrene	85-01-8	U	.00092	0.0031	0.0092	mg/kg		8270C-SI	10/25/14	1
Pyrene	129-00-0	U	.00092	0.0031	0.0092	mg/kg		8270C-SI	10/25/14	1
2-Methylnaphthalene	91-57-6	U	.00098	0.0092	0.031	mg/kg		8270C-SI	10/25/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	62.7				% Rec.		8270C-SI	10/25/14	1
Nitrobenzene-d5	4165-60-0	75.8				% Rec.		8270C-SI	10/25/14	1
2-Fluorobiphenyl	321-60-8	88.2				% Rec.		8270C-SI	10/25/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.012	0.26	0.51	mg/kg		8270C	10/26/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.014	0.26	0.51	mg/kg		8270C	10/26/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.012	0.26	0.51	mg/kg		8270C	10/26/14	1
Benzyl Alcohol	100-51-6	U	.011	0.26	0.51	mg/kg		8270C	10/26/14	1
Benzoic acid	65-85-0	U	.18	2.6	5.1	mg/kg		8270C	10/26/14	1
Carbazole	86-74-8	U	.008	0.26	0.51	mg/kg		8270C	10/26/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

Note:

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Reported: 11/04/14 08:33 Revised: 11/18/14 11:03

L729032-01 (PH) - 5.3@22.8c

L729032-01 (ICP METALS) - Dilution due to matrix

DNR: DO NOT REPORT

KA 11/29/15

ONS 9/2/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB11-NS01
Collected By :
Collection Date : 10/21/14 10:05

ESC Sample # : L729032-01

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.008	0.26	0.51	mg/kg		8270C	10/26/14	1
4-Bromophenyl-phenylether	101-55-3	U	.017	0.26	0.51	mg/kg		8270C	10/26/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0096	0.26	0.51	mg/kg		8270C	10/26/14	1
2-Chloronaphthalene	91-58-7	U	.0098	0.26	0.51	mg/kg		8270C	10/26/14	1
3,3-Dichlorobenzidine	91-94-1	U	.12	0.26	0.51	mg/kg		8270C	10/26/14	1
2,4-Dinitrotoluene	121-14-2	U	.0093	0.26	0.51	mg/kg		8270C	10/26/14	1
2,6-Dinitrotoluene	606-20-2	U	.011	0.26	0.51	mg/kg		8270C	10/26/14	1
Hexachlorobenzene	118-74-1	U	.013	0.26	0.51	mg/kg		8270C	10/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.015	0.26	0.51	mg/kg		8270C	10/26/14	1
Hexachloroethane	67-72-1	U	.02	0.26	0.51	mg/kg		8270C	10/26/14	1
Isophorone	78-59-1	U	.008	0.26	0.51	mg/kg		8270C	10/26/14	1
Nitrobenzene	98-95-3	U	.011	0.26	0.51	mg/kg		8270C	10/26/14	1
n-Nitrosodimethylamine	62-75-9	U	.1	0.26	0.51	mg/kg		8270C	10/26/14	1
n-Nitrosodiphenylamine	86-30-6	U	.009	0.26	0.51	mg/kg		8270C	10/26/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.014	0.26	0.51	mg/kg		8270C	10/26/14	1
Benzylbutyl phthalate	85-68-7	U	.015	0.26	0.51	mg/kg		8270C	10/26/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.018	0.26	0.51	mg/kg		8270C	10/26/14	1
Di-n-butyl phthalate	84-74-2	U	.017	0.26	0.51	mg/kg		8270C	10/26/14	1
Diethyl phthalate	84-66-2	U	.01	0.26	0.51	mg/kg		8270C	10/26/14	1
Dimethyl phthalate	131-11-3	U	.0083	0.26	0.51	mg/kg		8270C	10/26/14	1
Di-n-octyl phthalate	117-84-0	U	.014	0.26	0.51	mg/kg		8270C	10/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.013	0.26	0.51	mg/kg		8270C	10/26/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0074	0.26	0.51	mg/kg		8270C	10/26/14	1
2-Chlorophenol	95-57-8	U	.013	0.26	0.51	mg/kg		8270C	10/26/14	1
2,4-Dichlorophenol	120-83-2	U	.011	0.26	0.51	mg/kg		8270C	10/26/14	1
2,4-Dimethylphenol	105-67-9	U	.072	0.26	0.51	mg/kg		8270C	10/26/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.18	0.26	0.51	mg/kg		8270C	10/26/14	1
2,4-Dinitrophenol	51-28-5	U	.15	0.26	0.51	mg/kg		8270C	10/26/14	1
2-Methylphenol	95-48-7	U	.015	0.26	0.51	mg/kg		8270C	10/26/14	1
3&4-Methyl Phenol	US CAL-L	U	.012	0.26	0.51	mg/kg		8270C	10/26/14	1
2-Nitrophenol	88-75-5	U	.02	0.26	0.51	mg/kg		8270C	10/26/14	1
4-Nitrophenol	100-02-7	U	.08	0.26	0.51	mg/kg		8270C	10/26/14	1
4-Chloroaniline	106-47-8	U	.0054	0.26	0.51	mg/kg		8270C	10/26/14	1
2-Nitroaniline	88-74-4	U	.012	0.26	0.51	mg/kg		8270C	10/26/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0021	0.26	0.51	mg/kg		8270C	10/26/14	1
3-Nitroaniline	99-09-2	U	.013	0.26	0.51	mg/kg		8270C	10/26/14	1
4-Nitroaniline	100-01-6	U	.0098	0.26	0.51	mg/kg		8270C	10/26/14	1
Pentachlorophenol	87-86-5	U	.074	0.26	0.51	mg/kg		8270C	10/26/14	1
Phenol	108-95-2	U	.011	0.26	0.51	mg/kg		8270C	10/26/14	1
2,4,5-Trichlorophenol	95-95-4	U	.015	0.26	0.51	mg/kg		8270C	10/26/14	1
2,4,6-Trichlorophenol	88-06-2	U	.012	0.26	0.51	mg/kg		8270C	10/26/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	64.3				% Rec.		8270C	10/26/14	1
Phenol-d5	4165-62-2	62.2				% Rec.		8270C	10/26/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/04/14 08:33 Revised: 11/18/14 11:03

L729032-01 (PH) - 5.3@22.8c

L729032-01 (ICP METALS) - Dilution due to matrix

DNR = do not report

*KA 1/2/15
BAS 2/17/15*



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 (615) 758-5858
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB11-NS01
 Collected By :
 Collection Date : 10/21/14 10:05

ESC Sample # : L729032-01

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	63.7				% Rec.		8270C	10/26/14	1
2-Fluorobiphenyl	321-60-8	69.4				% Rec.		8270C	10/26/14	1
2,4,6-Tribromophenol	118-79-6	73.4				% Rec.		8270C	10/26/14	1
p-Terphenyl-d14	1718-51-0	59.5				% Rec.		8270C	10/26/14	1

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Reported: 11/04/14 08:33 Revised: 11/18/14 11:03

L729032-01 (PH) - 5.3@22.8c

L729032-01 (ICP METALS) - Dilution due to matrix

KA/za/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729032-02

Sample ID : TU503-SB11-NS02

Site ID :

Collected By :
Collection Date : 10/21/14 10:20

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	5.6				su		9045D	10/25/14	1
Total Solids	TSOLIDS	78.3	.0333			%		2540 G-2	10/25/14	1
Mercury	7439-97-6	U	.0036	0.013	0.026	mg/kg		7471	10/23/14	1
Aluminum	7429-90-5	3300	.23	32.	64.	mg/kg		6010B	10/30/14	5
Antimony	7440-36-0	U	4.8	6.4	13.	mg/kg		6010B	10/30/14	5
Arsenic	7440-38-2	U	4.1	6.4	13.	mg/kg		6010B	10/30/14	5
Barium	7440-39-3	27.	1.1	1.6	3.2	mg/kg		6010B	10/30/14	5
Beryllium	7440-41-7	U	.45	0.64	1.3	mg/kg		6010B	10/30/14	5
Cadmium	7440-43-9	U	.45	1.6	3.2	mg/kg		6010B	10/30/14	5
Chromium	7440-47-3	3.8	.89	3.2	6.4	mg/kg	J	6010B	10/30/14	5
Cobalt	7440-48-4	U	1.5	3.2	6.4	mg/kg		6010B	10/30/14	5
Copper	7440-50-8	U	3.3	6.4	13.	mg/kg		6010B	10/30/14	5
Lead	7439-92-1	1.5	1.2	1.6	3.2	mg/kg	J	6010B	10/30/14	5
Manganese	7439-96-5	77.	.77	3.2	6.4	mg/kg		6010B	10/30/14	5
Nickel	7440-02-0	U	3.1	6.4	13.	mg/kg		6010B	10/30/14	5
Selenium	7782-49-2	U	4.7	6.4	13.	mg/kg		6010B	10/30/14	5
Silver	7440-22-4	U	1.8	3.2	6.4	mg/kg		6010B	10/30/14	5
Thallium	7440-28-0	U	4.1	6.4	13.	mg/kg		6010B	11/03/14	5
Vanadium	7440-62-2	8.3	1.5	6.4	13.	mg/kg	J	6010B	10/30/14	5
Zinc	7440-66-6	11. 16	3.8 11	16.	32.	mg/kg	J	6010B	10/30/14	5
TPH (GC/FID) Low Fraction	8006-61-9	3.3	.56	1.3	2.6	mg/kg		8015D/GR	10/29/14	20.5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	100.				% Rec.		8015D/GR	10/29/14	20.5
Volatile Organics										
Acetone	67-64-1	U	.27	0.66	1.3	mg/kg		8260B	10/29/14	20.75
Benzene	71-43-2	U	.0072	0.013	0.026	mg/kg		8260B	10/29/14	20.75
Bromobenzene	108-86-1	U	.0075	0.013	0.026	mg/kg		8260B	10/29/14	20.75
Bromochloromethane	74-97-5	U	.01	0.013	0.026	mg/kg		8260B	10/29/14	20.75
Bromodichloromethane	75-27-4	U	.0068	0.013	0.026	mg/kg		8260B	10/29/14	20.75
Bromoform	75-25-2	U	.011	0.013	0.026	mg/kg		8260B	10/29/14	20.75
Bromomethane	74-83-9	U	.036	0.066	0.13	mg/kg		8260B	10/29/14	20.75
n-Butylbenzene	104-51-8	U	.0069	0.013	0.026	mg/kg		8260B	10/29/14	20.75
sec-Butylbenzene	135-98-8	0.022	.0054	0.013	0.026	mg/kg	J	8260B	10/29/14	20.75
tert-Butylbenzene	98-06-6	U	.0055	0.013	0.026	mg/kg		8260B	10/29/14	20.75
Carbon Disulfide	75-15-0	0.020	.0074	0.013	0.026	mg/kg	J	8260B	10/29/14	20.75
Carbon tetrachloride	56-23-5	U	.0087	0.013	0.026	mg/kg		8260B	10/29/14	20.75
Chlorobenzene	108-90-7	U	.0056	0.013	0.026	mg/kg		8260B	10/29/14	20.75
Chlorodibromomethane	124-48-1	U	.0098	0.013	0.026	mg/kg		8260B	10/29/14	20.75
Chloroethane	75-00-3	U	.026	0.066	0.13	mg/kg		8260B	10/29/14	20.75
Chloroform	67-66-3	U	.0061	0.066	0.13	mg/kg		8260B	10/29/14	20.75

Results listed are dry weight basis.
U = Not Detected at the LOD

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Reported: 11/04/14 08:33 Revised: 11/18/14 11:03
L729032-02 (PH) - 5.6@22.5c
L729032-02 (DRORLA) - Diluted due to matrix
L729032-02 (SV8270BNA) - Diluted due to matrix
L729032-02 (ICP METALS) - Dilution due to matrix

KA:halis
BMS 2/11/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB11-NS02
Collected By :
Collection Date : 10/21/14 10:20

ESC Sample # : L729032-02

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.01	0.013	0.066	mg/kg		8260B	10/29/14	20.75
2-Chlorotoluene	95-49-8	U	.0079	0.013	0.026	mg/kg		8260B	10/29/14	20.75
4-Chlorotoluene	106-43-4	U	.0064	0.013	0.026	mg/kg		8260B	10/29/14	20.75
1,2-Dibromo-3-Chloropropane	96-12-8	U	.028	0.066	0.13	mg/kg		8260B	10/29/14	20.75
1,2-Dibromoethane	106-93-4	U	.0091	0.013	0.026	mg/kg		8260B	10/29/14	20.75
Dibromomethane	74-95-3	U	.01	0.013	0.026	mg/kg		8260B	10/29/14	20.75
1,2-Dichlorobenzene	95-50-1	U	.008	0.013	0.026	mg/kg		8260B	10/29/14	20.75
1,3-Dichlorobenzene	541-73-1	U	.0064	0.013	0.026	mg/kg		8260B	10/29/14	20.75
1,4-Dichlorobenzene	106-46-7	U	.006	0.013	0.026	mg/kg		8260B	10/29/14	20.75
Dichlorodifluoromethane	75-71-8	U	.019	0.066	0.13	mg/kg		8260B	10/29/14	20.75
1,1-Dichloroethane	75-34-3	U	.0052	0.013	0.026	mg/kg		8260B	10/29/14	20.75
1,2-Dichloroethane	107-06-2	U	.007	0.013	0.026	mg/kg		8260B	10/29/14	20.75
1,1-Dichloroethene	75-35-4	U	.008	0.013	0.026	mg/kg		8260B	10/29/14	20.75
cis-1,2-Dichloroethene	156-59-2	U	.0062	0.013	0.026	mg/kg		8260B	10/29/14	20.75
trans-1,2-Dichloroethene	156-60-5	U	.007	0.013	0.026	mg/kg		8260B	10/29/14	20.75
1,2-Dichloropropane	78-87-5	U	.0094	0.013	0.026	mg/kg		8260B	10/29/14	20.75
1,1-Dichloropropene	563-58-6	U	.0084	0.013	0.026	mg/kg		8260B	10/29/14	20.75
1,3-Dichloropropane	142-28-9	U	.0055	0.013	0.026	mg/kg		8260B	10/29/14	20.75
cis-1,3-Dichloropropene	10061-01-5	U	.0069	0.013	0.026	mg/kg		8260B	10/29/14	20.75
trans-1,3-Dichloropropene	10061-02-6	U	.007	0.013	0.026	mg/kg		8260B	10/29/14	20.75
2,2-Dichloropropane	594-20-7	U	.0074	0.013	0.026	mg/kg		8260B	10/29/14	20.75
Ethylbenzene	100-41-4	U	.0079	0.013	0.026	mg/kg		8260B	10/29/14	20.75
Hexachloro-1,3-butadiene	87-68-3	U	.0091	0.013	0.026	mg/kg		8260B	10/29/14	20.75
2-Hexanone	591-78-6	U	.1	0.13	0.26	mg/kg		8260B	10/29/14	20.75
Isopropylbenzene	98-82-8	U	.0064	0.013	0.026	mg/kg		8260B	10/29/14	20.75
p-Isopropyltoluene	99-87-6	U	.0054	0.013	0.026	mg/kg		8260B	10/29/14	20.75
2-Butanone (MEK)	78-93-3	U	.12	0.13	0.26	mg/kg		8260B	10/29/14	20.75
Methylene Chloride	75-09-2	U	.027	0.066	0.13	mg/kg		8260B	10/29/14	20.75
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.05	0.13	0.26	mg/kg		8260B	10/29/14	20.75
Methyl tert-butyl ether	1634-04-4	U	.0056	0.013	0.026	mg/kg		8260B	10/29/14	20.75
Naphthalene	91-20-3	U	.027	0.066	0.13	mg/kg		8260B	10/29/14	20.75
n-Propylbenzene	103-65-1	U	.0055	0.013	0.026	mg/kg		8260B	10/29/14	20.75
Styrene	100-42-5	U	.0061	0.013	0.026	mg/kg		8260B	10/29/14	20.75
1,1,1,2-Tetrachloroethane	630-20-6	U	.007	0.013	0.026	mg/kg		8260B	10/29/14	20.75
1,1,2,2-Tetrachloroethane	79-34-5	U	.0097	0.020	0.026	mg/kg		8260B	10/29/14	20.75
Tetrachloroethene	127-18-4	U	.0073	0.013	0.026	mg/kg		8260B	10/29/14	20.75
Toluene	108-88-3	U	.011	0.066	0.13	mg/kg		8260B	10/29/14	20.75
1,2,3-Trichlorobenzene	87-61-6	U	.008	0.013	0.026	mg/kg		8260B	10/29/14	20.75
1,2,4-Trichlorobenzene	120-82-1	U	.01	0.013	0.026	mg/kg		8260B	10/29/14	20.75
1,1,1-Trichloroethane	71-55-6	U	.0076	0.013	0.026	mg/kg		8260B	10/29/14	20.75
1,1,2-Trichloroethane	79-00-5	U	.0073	0.013	0.026	mg/kg		8260B	10/29/14	20.75
Trichloroethene	79-01-6	U	.0074	0.013	0.026	mg/kg		8260B	10/29/14	20.75
Trichlorofluoromethane	75-69-4	U	.01	0.066	0.13	mg/kg		8260B	10/29/14	20.75
1,2,3-Trichloropropane	96-18-4	U	.019	0.026	0.066	mg/kg		8260B	10/29/14	20.75
1,2,4-Trimethylbenzene	95-63-6	U	.0056	0.013	0.026	mg/kg		8260B	10/29/14	20.75

Results listed are dry weight basis.

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Reported: 11/04/14 08:33 Revised: 11/18/14 11:03

L729032-02 (PH) - 5.6@22.5c

L729032-02 (DRORLA) - Diluted due to matrix

L729032-02 (SV8270BNA) - Diluted due to matrix

L729032-02 (ICP METALS) - Dilution due to matrix

DNR: DO NOT REPORT

Kathalis



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729032-02

Sample ID : TU503-SB11-NS02

Site ID :

Collected By :
Collection Date : 10/21/14 10:20

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene <i>US SOL-L</i>	95-47-6	U	.0089	0.013	0.026	mg/kg		8260B	10/29/14	20.75
m&p-Xylene	1330-20-7	U	.019	0.026	0.053	mg/kg		8260B	10/29/14	20.75
Vinyl chloride	75-01-4	U	.0077	0.013	0.026	mg/kg		8260B	10/29/14	20.75
1,3,5-Trimethylbenzene	108-67-8	U	.007	0.013	0.026	mg/kg		8260B	10/29/14	20.75
Surrogate Recovery										
Toluene-d8	2037-26-5	103.				% Rec.		8260B	10/29/14	20.75
Dibromofluoromethane	1868-53-7	95.3				% Rec.		8260B	10/29/14	20.75
4-Bromofluorobenzene	460-00-4	50.0				% Rec.	J2	8260B	10/29/14	20.75
Diesel and Oil Ranges										
C10-C28 Diesel Range		7400	41	51.	100	mg/kg		8015	10/29/14	20
C28-C40 Oil Range <i>F SOL-I</i>		57.	7	51.	100	mg/kg	J	8015	10/29/14	20
Surrogate Recovery										
o-Terphenyl	84-15-1	0.00				% Rec.	J7	8015	10/29/14	20
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	0.28	.0077	0.026	0.077	mg/kg		8270C-SI	10/27/14	10
Acenaphthene	83-32-9	0.45	.0077	0.026	0.077	mg/kg		8270C-SI	10/27/14	10
Acenaphthylene <i>F SOL-I</i>	208-96-8	0.061	.0077	0.026	0.077	mg/kg	J	8270C-SI	10/27/14	10
Benzo(a)anthracene	56-55-3	0.27	.0077	0.026	0.077	mg/kg		8270C-SI	10/27/14	10
Benzo(a)pyrene	50-32-8	0.80	.0077	0.026	0.077	mg/kg		8270C-SI	10/27/14	10
Benzo(b)fluoranthene <i>SUSL</i>	205-99-2	0.66	.0077	0.026	0.077	mg/kg		8270C-SI	10/27/14	10
Benzo(g,h,i)perylene	191-24-2	0.23	.0077	0.026	0.077	mg/kg		8270C-SI	10/27/14	10
Benzo(k)fluoranthene	207-08-9	0.29	.0077	0.026	0.077	mg/kg		8270C-SI	10/27/14	10
Chrysene	218-01-9	0.38	.0077	0.026	0.077	mg/kg		8270C-SI	10/27/14	10
Dibenz(a,h)anthracene <i>F SOL-I</i>	53-70-3	0.062	.0077	0.026	0.077	mg/kg	J	8270C-SI	10/27/14	10
Fluoranthene	206-44-0	0.77	.0077	0.026	0.077	mg/kg		8270C-SI	10/27/14	10
Fluorene	86-73-7	0.18	.0077	0.026	0.077	mg/kg		8270C-SI	10/27/14	10
Indeno(1,2,3-cd)pyrene	193-39-5	0.23	.0077	0.026	0.077	mg/kg		8270C-SI	10/27/14	10
Naphthalene <i>F SOL-I</i>	91-20-3	0.080	.0077	0.026	0.077	mg/kg	J	8270C-SI	10/27/14	10
Phenanthrene	85-01-8	0.22	.0077	0.026	0.077	mg/kg		8270C-SI	10/27/14	10
Pyrene	129-00-0	2.3	.0077	0.026	0.077	mg/kg		8270C-SI	10/27/14	10
2-Methylnaphthalene <i>F SOL-I</i>	91-57-6	0.18	.0082	0.077	0.26	mg/kg	J	8270C-SI	10/27/14	10
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	83.0				% Rec.		8270C-SI	10/27/14	10
Nitrobenzene-d5	4165-60-0	177.				% Rec.	J1	8270C-SI	10/27/14	10
2-Fluorobiphenyl	321-60-8	88.4				% Rec.		8270C-SI	10/27/14	10
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.048	1.1	2.1	mg/kg		8270C	10/26/14	5
Bis(2-chloroethyl)ether	111-44-4	U	.057	1.1	2.1	mg/kg		8270C	10/26/14	5
Bis(2-chloroisopropyl)ether	108-60-1	U	.048	1.1	2.1	mg/kg		8270C	10/26/14	5
Benzyl Alcohol	100-51-6	U	.048	1.1	2.1	mg/kg		8270C	10/26/14	5
Benzoic acid	65-85-0	U	.79	11.	21	mg/kg		8270C	10/26/14	5
Carbazole	86-74-8	U	.033	1.1	2.1	mg/kg		8270C	10/26/14	5

Results listed are dry weight basis.

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L729032-02 (PH) - 5.6@22.5c

L729032-02 (DRORLA) - Diluted due to matrix

L729032-02 (SV8270BNA) - Diluted due to matrix

L729032-02 (ICP METALS) - Dilution due to matrix

KA/Chalio

BMS 9/2/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB11-NS02
Collected By :
Collection Date : 10/21/14 10:20

ESC Sample # : L729032-02

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.033	1.1	2.1	mg/kg		8270C	10/26/14	5
4-Bromophenyl-phenylether	101-55-3	U	.073	1.1	2.1	mg/kg		8270C	10/26/14	5
4-Chlorophenyl-phenylether	7005-72-3	U	.04	1.1	2.1	mg/kg		8270C	10/26/14	5
2-Chloronaphthalene	91-58-7	U	.041	1.1	2.1	mg/kg		8270C	10/26/14	5
3,3-Dichlorobenzidine	91-94-1	U	.51	1.1	2.1	mg/kg		8270C	10/26/14	5
2,4-Dinitrotoluene	121-14-2	U	.038	1.1	2.1	mg/kg		8270C	10/26/14	5
2,6-Dinitrotoluene	606-20-2	U	.047	1.1	2.1	mg/kg		8270C	10/26/14	5
Hexachlorobenzene	118-74-1	U	.055	1.1	2.1	mg/kg		8270C	10/26/14	5
Hexachloro-1,3-butadiene	87-68-3	U	.064	1.1	2.1	mg/kg		8270C	10/26/14	5
Hexachloroethane	67-72-1	U	.086	1.1	2.1	mg/kg		8270C	10/26/14	5
Isophorone	78-59-1	U	.033	1.1	2.1	mg/kg		8270C	10/26/14	5
Nitrobenzene	98-95-3	U	.045	1.1	2.1	mg/kg		8270C	10/26/14	5
n-Nitrosodimethylamine	62-75-9	U	.41	1.1	2.1	mg/kg		8270C	10/26/14	5
n-Nitrosodiphenylamine	86-30-6	U	.038	1.1	2.1	mg/kg		8270C	10/26/14	5
n-Nitrosodi-n-propylamine	621-64-7	U	.057	1.1	2.1	mg/kg		8270C	10/26/14	5
Benzylbutyl phthalate	85-68-7	U	.066	1.1	2.1	mg/kg		8270C	10/26/14	5
Bis(2-ethylhexyl)phthalate	117-81-7	U	.077	1.1	2.1	mg/kg		8270C	10/26/14	5
Di-n-butyl phthalate	84-74-2	U	.069	1.1	2.1	mg/kg		8270C	10/26/14	5
Diethyl phthalate	84-66-2	U	.043	1.1	2.1	mg/kg		8270C	10/26/14	5
Dimethyl phthalate	131-11-3	U	.034	1.1	2.1	mg/kg		8270C	10/26/14	5
Di-n-octyl phthalate	117-84-0	U	.057	1.1	2.1	mg/kg		8270C	10/26/14	5
1,2,4-Trichlorobenzene	120-82-1	U	.056	1.1	2.1	mg/kg		8270C	10/26/14	5
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.031	1.1	2.1	mg/kg		8270C	10/26/14	5
2-Chlorophenol	95-57-8	U	.054	1.1	2.1	mg/kg		8270C	10/26/14	5
2,4-Dichlorophenol	120-83-2	U	.047	1.1	2.1	mg/kg		8270C	10/26/14	5
2,4-Dimethylphenol	105-67-9	U	.31	1.1	2.1	mg/kg		8270C	10/26/14	5
4,6-Dinitro-2-methylphenol	534-52-1	U	.79	1.1	2.1	mg/kg		8270C	10/26/14	5
2,4-Dinitrophenol	51-28-5	U	.62	1.1	2.1	mg/kg		8270C	10/26/14	5
2-Methylphenol	95-48-7	U	.062	1.1	2.1	mg/kg		8270C	10/26/14	5
3&4-Methyl Phenol	US CCAL-L	U	.05	1.1	2.1	mg/kg		8270C	10/26/14	5
2-Nitrophenol	88-75-5	U	.083	1.1	2.1	mg/kg		8270C	10/26/14	5
4-Nitrophenol	100-02-7	U	.33	1.1	2.1	mg/kg		8270C	10/26/14	5
4-Chloroaniline	106-47-8	U	.023	1.1	2.1	mg/kg		8270C	10/26/14	5
2-Nitroaniline	88-74-4	U	.048	1.1	2.1	mg/kg		8270C	10/26/14	5
1,2-Diphenylhydrazine	103-33-3	U	.0089	1.1	2.1	mg/kg		8270C	10/26/14	5
3-Nitroaniline	99-09-2	U	.054	1.1	2.1	mg/kg		8270C	10/26/14	5
4-Nitroaniline	100-01-6	U	.041	1.1	2.1	mg/kg		8270C	10/26/14	5
Pentachlorophenol	87-86-5	U	.31	1.1	2.1	mg/kg		8270C	10/26/14	5
Phenol	108-95-2	U	.045	1.1	2.1	mg/kg		8270C	10/26/14	5
2,4,5-Trichlorophenol	95-95-4	U	.066	1.1	2.1	mg/kg		8270C	10/26/14	5
2,4,6-Trichlorophenol	88-06-2	U	.05	1.1	2.1	mg/kg		8270C	10/26/14	5
Surrogate Recovery										
2-Fluorophenol	367-12-4	58.8				% Rec.		8270C	10/26/14	5
Phenol-d5	4165-62-2	54.8				% Rec.		8270C	10/26/14	5

Results listed are dry weight basis.

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L729032-02 (PH) - 5.6@22.5c

L729032-02 (DRORLA) - Diluted due to matrix

L729032-02 (SV8270BNA) - Diluted due to matrix

L729032-02 (ICP METALS) - Dilution due to matrix

DMR = do not report

*KAI/zal/s
BMS 2/17/15*



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB11-NS02
Collected By :
Collection Date : 10/21/14 10:20

ESC Sample # : L729032-02
Site ID :
Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	57.0				% Rec.		8270C	10/26/14	5
2-Fluorobiphenyl	321-60-8	59.6				% Rec.		8270C	10/26/14	5
2,4,6-Tribromophenol	118-79-6	56.3				% Rec.		8270C	10/26/14	5
p-Terphenyl-d14	1718-51-0	54.4				% Rec.		8270C	10/26/14	5

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L729032-02 (PH) - 5.6@22.5c

L729032-02 (DRORLA) - Diluted due to matrix

L729032-02 (SV8270BNA) - Diluted due to matrix

L729032-02 (ICP METALS) - Dilution due to matrix

KA-12/15



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-TRIPBLANK06-NT01
 Collected By :
 Collection Date : 10/21/14 14:00

ESC Sample # : L729032-03

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/27/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	100.				% Rec.		8015D/G	10/27/14	1
Volatile Organics										
Acetone FSOL-1	67-64-1	12.	10	25.	50	ug/l	J	8260B	10/28/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	10/28/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	10/28/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	10/28/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	10/28/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	10/28/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	10/28/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	10/28/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	10/28/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	10/28/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	10/28/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	10/28/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	10/28/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	10/28/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	10/28/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	10/28/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	10/28/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	10/28/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	10/28/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	10/28/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	10/28/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	10/28/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	10/28/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	10/28/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	10/28/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	10/28/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	10/28/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	10/28/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	10/28/14	1

U = Not Detected at the LOD

Note:

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LA 1/2/15



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 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-TRIPBLANK06-NT01
 Collected By :
 Collection Date : 10/21/14 14:00

ESC Sample # : L729032-03

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	10/28/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	10/28/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	10/28/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	10/28/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	10/28/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	10/28/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	10/28/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	10/28/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	10/28/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	10/28/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	10/28/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	10/28/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	10/28/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	10/28/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	10/28/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	10/28/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	10/28/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	10/28/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	10/28/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	10/28/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	10/28/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	101.					% Rec.	8260B	10/28/14	1
Dibromofluoromethane	1868-53-7	97.5					% Rec.	8260B	10/28/14	1
4-Bromofluorobenzene	460-00-4	96.4					% Rec.	8260B	10/28/14	1

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KA 1/29/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729032-04

Sample ID : TU503-SB12-NS01

Site ID :

Collected By :
Collection Date : 10/21/14 11:15

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	5.7				su		9045D	10/25/14	1
Total Solids	TSOLIDS	70.5	.0333			%		2540 G-2	10/25/14	1
Mercury	7439-97-6	U	.004	0.014	0.028	mg/kg		7471	10/23/14	1
Aluminum	7429-90-5	1600	26	35.	71.	mg/kg		6010B	10/30/14	5
Antimony	7440-36-0	U	5.4	7.1	14.	mg/kg		6010B	10/30/14	5
Arsenic	7440-38-2	U	4.5	7.1	14.	mg/kg		6010B	10/30/14	5
Barium	7440-39-3	21.	1.2	1.8	3.5	mg/kg		6010B	10/30/14	5
Beryllium	7440-41-7	U	.5	0.71	1.4	mg/kg		6010B	10/30/14	5
Cadmium	7440-43-9	U	.5	1.8	3.5	mg/kg		6010B	10/30/14	5
Chromium	7440-47-3	1.6	.99	3.5	7.1	mg/kg	J	6010B	10/30/14	5
Cobalt	7440-48-4	U	1.7	3.5	7.1	mg/kg		6010B	10/30/14	5
Copper	7440-50-8	U	3.7	7.1	14.	mg/kg		6010B	10/30/14	5
Lead	7439-92-1	U	1.3	1.8	3.5	mg/kg		6010B	10/30/14	5
Manganese	7439-96-5	21.	.85	3.5	7.1	mg/kg		6010B	10/30/14	5
Nickel	7440-02-0	U	3.4	7.1	14.	mg/kg		6010B	10/30/14	5
Selenium	7782-49-2	U	5.2	7.1	14.	mg/kg		6010B	10/30/14	5
Silver	7440-22-4	U	2	3.5	7.1	mg/kg		6010B	10/30/14	5
Thallium	7440-28-0	U	4.5	7.1	14.	mg/kg		6010B	11/03/14	5
Vanadium	7440-62-2	2.0	1.7	7.1	14.	mg/kg	J	6010B	10/30/14	5
Zinc	7440-66-6	7.0 18	4.2 7.6	18.	35.	mg/kg	J	6010B	10/30/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.031	0.071	0.14	mg/kg		8015D/GR	10/28/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	99.2				% Rec.		8015D/GR	10/28/14	1
Volatile Organics				0.075	0.075	0.075				
Acetone	67-64-1	0.075		0.014	0.035	0.071	mg/kg	8260B	10/29/14	1
Benzene	71-43-2	U	.00038	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Bromobenzene	108-86-1	U	.0004	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Bromochloromethane	74-97-5	U	.00055	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Bromodichloromethane	75-27-4	U	.00035	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Bromoform	75-25-2	U	.0006	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Bromomethane	74-83-9	U	.0018	0.0035	0.0071	mg/kg		8260B	10/29/14	1
n-Butylbenzene	104-51-8	U	.00037	0.00071	0.0014	mg/kg		8260B	10/29/14	1
sec-Butylbenzene	135-98-8	U	.00028	0.00071	0.0014	mg/kg		8260B	10/29/14	1
tert-Butylbenzene	98-06-6	U	.0003	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Carbon Disulfide	75-15-0	U	.0004	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Carbon tetrachloride	56-23-5	U	.00047	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Chlorobenzene	108-90-7	U	.0003	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Chlorodibromomethane	124-48-1	U	.00052	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Chloroethane	75-00-3	U	.0013	0.0035	0.0071	mg/kg		8260B	10/29/14	1
Chloroform	67-66-3	U	.00033	0.0035	0.0071	mg/kg		8260B	10/29/14	1

Results listed are dry weight basis.

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Reported: 11/04/14 08:33 Revised: 11/18/14 11:03

L729032-04 (PH) - 5.7@22.3c

L729032-04 (ICP METALS) - Dilution due to matrix

Kathalis

BJS 2/19/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB

ESC Sample # : L729032-04

Sample ID : TU503-SB12-NS01

Site ID :

Collected By :
 Collection Date : 10/21/14 11:15

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00054	0.00071	0.0035	mg/kg		8260B	10/29/14	1
2-Chlorotoluene	95-49-8	U	.00042	0.00071	0.0014	mg/kg		8260B	10/29/14	1
4-Chlorotoluene	106-43-4	U	.00034	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0014	0.0035	0.0071	mg/kg		8260B	10/29/14	1
1,2-Dibromoethane	106-93-4	U	.00048	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Dibromomethane	74-95-3	U	.00054	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,2-Dichlorobenzene	95-50-1	U	.00042	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,3-Dichlorobenzene	541-73-1	U	.00034	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,4-Dichlorobenzene	106-46-7	U	.00033	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Dichlorodifluoromethane	75-71-8	U	.001	0.0035	0.0071	mg/kg		8260B	10/29/14	1
1,1-Dichloroethane	75-34-3	U	.00028	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,2-Dichloroethane	107-06-2	U	.00037	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,1-Dichloroethene	75-35-4	U	.00042	0.00071	0.0014	mg/kg		8260B	10/29/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00034	0.00071	0.0014	mg/kg		8260B	10/29/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00037	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,2-Dichloropropane	78-87-5	U	.00051	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,1-Dichloropropene	563-58-6	U	.00045	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,3-Dichloropropane	142-28-9	U	.0003	0.00071	0.0014	mg/kg		8260B	10/29/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00037	0.00071	0.0014	mg/kg		8260B	10/29/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00038	0.00071	0.0014	mg/kg		8260B	10/29/14	1
2,2-Dichloropropane	594-20-7	U	.0004	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Ethylbenzene	100-41-4	U	.00042	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00048	0.00071	0.0014	mg/kg		8260B	10/29/14	1
2-Hexanone	591-78-6	U	.0054	0.0071	0.014	mg/kg		8260B	10/29/14	1
Isopropylbenzene	98-82-8	U	.00034	0.00071	0.0014	mg/kg		8260B	10/29/14	1
p-Isopropyltoluene	99-87-6	U	.00028	0.00071	0.0014	mg/kg		8260B	10/29/14	1
2-Butanone (MEK) <i>F SOL-I</i>	78-93-3	0.014	.0067	0.0071	0.014	mg/kg	J	8260B	10/29/14	1
Methylene Chloride	75-09-2	U	.0014	0.0035	0.0071	mg/kg		8260B	10/29/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0027	0.0071	0.014	mg/kg		8260B	10/29/14	1
Methyl tert-butyl ether	1634-04-4	U	.0003	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Naphthalene	91-20-3	U	.0014	0.0035	0.0071	mg/kg		8260B	10/29/14	1
n-Propylbenzene	103-65-1	U	.0003	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Styrene	100-42-5	U	.00033	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00037	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00051	0.0011	0.0014	mg/kg		8260B	10/29/14	1
Tetrachloroethene	127-18-4	U	.0004	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Toluene	108-88-3	U	.00061	0.0035	0.0071	mg/kg		8260B	10/29/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00044	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00055	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,1,1-Trichloroethane	71-55-6	U	.0004	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,1,2-Trichloroethane	79-00-5	U	.0004	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Trichloroethene	79-01-6	U	.0004	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Trichlorofluoromethane	75-69-4	U	.00054	0.0035	0.0071	mg/kg		8260B	10/29/14	1
1,2,3-Trichloropropane	96-18-4	U	.001	0.0014	0.0035	mg/kg		8260B	10/29/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.0003	0.00071	0.0014	mg/kg		8260B	10/29/14	1

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L729032-04 (PH) - 5.7@22.3c

L729032-04 (ICP METALS) - Dilution due to matrix

KA 1/29/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729032-04

Sample ID : TU503-SB12-NS01

Site ID :

Collected By :
Collection Date : 10/21/14 11:15

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00048	0.00071	0.0014	mg/kg		8260B	10/29/14	1
m&p-Xylene	1330-20-7	U	.001	0.0014	0.0028	mg/kg		8260B	10/29/14	1
Vinyl chloride	75-01-4	U	.00041	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00038	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	102.				% Rec.		8260B	10/29/14	1
Dibromofluoromethane	1868-53-7	112.				% Rec.		8260B	10/29/14	1
4-Bromofluorobenzene	460-00-4	104.				% Rec.		8260B	10/29/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.3	2.8	5.7	mg/kg		8015	10/30/14	1
C28-C40 Oil Range		U	.38	2.8	5.7	mg/kg		8015	10/30/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	64.7				% Rec.		8015	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Acenaphthene	83-32-9	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Acenaphthylene	208-96-8	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Benzo (a) anthracene	56-55-3	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Benzo (a) pyrene	50-32-8	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Benzo (b) fluoranthene	205-99-2	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Benzo (g, h, i) perylene	191-24-2	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Benzo (k) fluoranthene	207-08-9	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Chrysene	218-01-9	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Dibenz (a, h) anthracene	53-70-3	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Fluoranthene	206-44-0	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Fluorene	86-73-7	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Indeno (1,2,3-cd) pyrene	193-39-5	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Naphthalene	91-20-3	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Phenanthrene	85-01-8	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Pyrene	129-00-0	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
2-Methylnaphthalene	91-57-6	U	.00091	0.0085	0.028	mg/kg		8270C-SI	10/25/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	84.5				% Rec.		8270C-SI	10/25/14	1
Nitrobenzene-d5	4165-60-0	81.7				% Rec.		8270C-SI	10/25/14	1
2-Fluorobiphenyl	321-60-8	94.3				% Rec.		8270C-SI	10/25/14	1
Base/Neutral Extractables										
Bis (2-chloroethoxy) methane	111-91-1	U	.011	0.24	0.47	mg/kg		8270C	10/26/14	1
Bis (2-chloroethyl) ether	111-44-4	U	.013	0.24	0.47	mg/kg		8270C	10/26/14	1
Bis (2-chloroisopropyl) ether	108-60-1	U	.011	0.24	0.47	mg/kg		8270C	10/26/14	1
Benzyl Alcohol	100-51-6	U	.011	0.24	0.47	mg/kg		8270C	10/26/14	1
Benzoic acid	65-85-0	U	.17	2.4	4.7	mg/kg		8270C	10/26/14	1
Carbazole	86-74-8	U	.0074	0.24	0.47	mg/kg		8270C	10/26/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/04/14 08:33 Revised: 11/18/14 11:03

L729032-04 (PH) - 5.7@22.3c

L729032-04 (ICP METALS) - Dilution due to matrix

DNR! DO NOT REPORT

KA/2/15

DMS 9/2/15



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB12-NS01
Collected By :
Collection Date : 10/21/14 11:15

ESC Sample # : L729032-04
Site ID :
Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0074	0.24	0.47	mg/kg		8270C	10/26/14	1
4-Bromophenyl-phenylether	101-55-3	U	.016	0.24	0.47	mg/kg		8270C	10/26/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0089	0.24	0.47	mg/kg		8270C	10/26/14	1
2-Chloronaphthalene	91-58-7	U	.0091	0.24	0.47	mg/kg		8270C	10/26/14	1
3,3-Dichlorobenzidine	91-94-1	U	.11	0.24	0.47	mg/kg		8270C	10/26/14	1
2,4-Dinitrotoluene	121-14-2	U	.0086	0.24	0.47	mg/kg		8270C	10/26/14	1
2,6-Dinitrotoluene	606-20-2	U	.01	0.24	0.47	mg/kg		8270C	10/26/14	1
Hexachlorobenzene	118-74-1	U	.012	0.24	0.47	mg/kg		8270C	10/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.014	0.24	0.47	mg/kg		8270C	10/26/14	1
Hexachloroethane	67-72-1	U	.018	0.24	0.47	mg/kg		8270C	10/26/14	1
Isophorone	78-59-1	U	.0074	0.24	0.47	mg/kg		8270C	10/26/14	1
Nitrobenzene	98-95-3	U	.0099	0.24	0.47	mg/kg		8270C	10/26/14	1
n-Nitrosodimethylamine	62-75-9	U	.092	0.24	0.47	mg/kg		8270C	10/26/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0084	0.24	0.47	mg/kg		8270C	10/26/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.013	0.24	0.47	mg/kg		8270C	10/26/14	1
Benzylbutyl phthalate	85-68-7	U	.014	0.24	0.47	mg/kg		8270C	10/26/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.017	0.24	0.47	mg/kg		8270C	10/26/14	1
Di-n-butyl phthalate	84-74-2	U	.016	0.24	0.47	mg/kg		8270C	10/26/14	1
Diethyl phthalate	84-66-2	U	.0098	0.24	0.47	mg/kg		8270C	10/26/14	1
Dimethyl phthalate	131-11-3	U	.0076	0.24	0.47	mg/kg		8270C	10/26/14	1
Di-n-octyl phthalate	117-84-0	U	.013	0.24	0.47	mg/kg		8270C	10/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.012	0.24	0.47	mg/kg		8270C	10/26/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0068	0.24	0.47	mg/kg		8270C	10/26/14	1
2-Chlorophenol	95-57-8	U	.012	0.24	0.47	mg/kg		8270C	10/26/14	1
2,4-Dichlorophenol	120-83-2	U	.011	0.24	0.47	mg/kg		8270C	10/26/14	1
2,4-Dimethylphenol	105-67-9	U	.067	0.24	0.47	mg/kg		8270C	10/26/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.17	0.24	0.47	mg/kg		8270C	10/26/14	1
2,4-Dinitrophenol	51-28-5	U	.14	0.24	0.47	mg/kg		8270C	10/26/14	1
2-Methylphenol	95-48-7	U	.014	0.24	0.47	mg/kg		8270C	10/26/14	1
3&4-Methyl Phenol	US CCAL-L 3&4-Methyl	U	.011	0.24	0.47	mg/kg		8270C	10/26/14	1
2-Nitrophenol	88-75-5	U	.018	0.24	0.47	mg/kg		8270C	10/26/14	1
4-Nitrophenol	100-02-7	U	.074	0.24	0.47	mg/kg		8270C	10/26/14	1
4-Chloroaniline	106-47-8	U	.005	0.24	0.47	mg/kg		8270C	10/26/14	1
2-Nitroaniline	88-74-4	U	.011	0.24	0.47	mg/kg		8270C	10/26/14	1
1,2-Diphenylhydrazine	103-33-3	U	.002	0.24	0.47	mg/kg		8270C	10/26/14	1
3-Nitroaniline	99-09-2	U	.012	0.24	0.47	mg/kg		8270C	10/26/14	1
4-Nitroaniline	100-01-6	U	.0091	0.24	0.47	mg/kg		8270C	10/26/14	1
Pentachlorophenol	87-86-5	U	.068	0.24	0.47	mg/kg		8270C	10/26/14	1
Phenol	108-95-2	U	.0099	0.24	0.47	mg/kg		8270C	10/26/14	1
2,4,5-Trichlorophenol	95-95-4	U	.014	0.24	0.47	mg/kg		8270C	10/26/14	1
2,4,6-Trichlorophenol	88-06-2	U	.011	0.24	0.47	mg/kg		8270C	10/26/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	64.8				% Rec.		8270C	10/26/14	1
Phenol-d5	4165-62-2	64.5				% Rec.		8270C	10/26/14	1

Results listed are dry weight basis.

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Reported: 11/04/14 08:33 Revised: 11/18/14 11:03

L729032-04 (PH) - 5.7@22.3c

L729032-04 (ICP METALS) - Dilution due to matrix

DNR - Do Not Report

*KA 1/29/15
BMS 2/17/15*



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB12-NS01
 Collected By :
 Collection Date : 10/21/14 11:15

ESC Sample # : L729032-04

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	62.8				% Rec.		8270C	10/26/14	1
2-Fluorobiphenyl	321-60-8	70.1				% Rec.		8270C	10/26/14	1
2,4,6-Tribromophenol	118-79-6	71.7				% Rec.		8270C	10/26/14	1
p-Terphenyl-d14	1718-51-0	56.4				% Rec.		8270C	10/26/14	1

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Reported: 11/04/14 08:33 Revised: 11/18/14 11:03

L729032-04 (PH) - 5.7@22.3c

L729032-04 (ICP METALS) - Dilution due to matrix

VA/29/15



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB12-NS02
 Collected By :
 Collection Date : 10/21/14 11:25

ESC Sample # : L729032-05
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	5.7				su		9045D	10/25/14	1
Total Solids	TSOLIDS	76.8	.0333			%		2540 G-2	10/25/14	1
Mercury	7439-97-6	U	.0036	0.013	0.026	mg/kg		7471	10/23/14	1
Aluminum	7429-90-5	5600	23	33.	65.	mg/kg		6010B	10/30/14	5
Antimony	7440-36-0	U	4.9	6.5	13.	mg/kg		6010B	10/30/14	5
Arsenic	7440-38-2	U	4.2	6.5	13.	mg/kg		6010B	10/30/14	5
Barium	7440-39-3	70.	1.1	1.6	3.2	mg/kg		6010B	10/30/14	5
Beryllium	7440-41-7	U	.46	0.65	1.3	mg/kg		6010B	10/30/14	5
Cadmium	7440-43-9	U	.46	1.6	3.2	mg/kg		6010B	10/30/14	5
Chromium	7440-47-3	5.5	.91	3.3	6.5	mg/kg	J	6010B	10/30/14	5
Cobalt	7440-48-4	2.3	1.6	3.3	6.5	mg/kg	J	6010B	10/30/14	5
Copper	7440-50-8	U	3.4	6.5	13.	mg/kg		6010B	10/30/14	5
Lead	7439-92-1	2.9	1.2	1.6	3.2	mg/kg	J	6010B	10/30/14	5
Manganese	7439-96-5	65.	.78	3.3	6.5	mg/kg		6010B	10/30/14	5
Nickel	7440-02-0	4.3	3.1	6.5	13.	mg/kg	J	6010B	10/30/14	5
Selenium	7782-49-2	U	4.8	6.5	13.	mg/kg		6010B	10/30/14	5
Silver	7440-22-4	U	1.8	3.3	6.5	mg/kg		6010B	10/30/14	5
Thallium	7440-28-0	U	4.2	6.5	13.	mg/kg		6010B	11/03/14	5
Vanadium	7440-62-2	12.	1.6	6.5	13.	mg/kg	J	6010B	10/30/14	5
Zinc	7440-66-6	16.	3.9	16.	32.	mg/kg	J	6010B	10/30/14	5
TPH (GC/FID) Low Fraction	8006-61-9	0.036	.029	0.065	0.13	mg/kg	J	8015D/GR	10/29/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	97.0				% Rec.		8015D/GR	10/29/14	1
Volatile Organics										
Acetone	67-64-1	0.033	0.031	0.033	0.065	mg/kg	J	8260B	10/29/14	1
Benzene	71-43-2	0.00086	.00035	0.00065	0.0013	mg/kg	J	8260B	10/29/14	1
Bromobenzene	108-86-1	U	.00036	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Bromochloromethane	74-97-5	U	.00051	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Bromodichloromethane	75-27-4	U	.00032	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Bromoform	75-25-2	U	.00055	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Bromomethane	74-83-9	U	.0017	0.0033	0.0065	mg/kg		8260B	10/29/14	1
n-Butylbenzene	104-51-8	U	.00034	0.00065	0.0013	mg/kg		8260B	10/29/14	1
sec-Butylbenzene	135-98-8	U	.00026	0.00065	0.0013	mg/kg		8260B	10/29/14	1
tert-Butylbenzene	98-06-6	U	.00027	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Carbon Disulfide	75-15-0	U	.00036	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Carbon tetrachloride	56-23-5	U	.00043	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Chlorobenzene	108-90-7	U	.00027	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Chlorodibromomethane	124-48-1	U	.00048	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Chloroethane	75-00-3	U	.0012	0.0033	0.0065	mg/kg		8260B	10/29/14	1
Chloroform	67-66-3	U	.0003	0.0033	0.0065	mg/kg		8260B	10/29/14	1

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Reported: 11/04/14 08:33 Revised: 11/18/14 11:03

L729032-05 (ICP METALS) - Dilution due to matrix

L729032-05 (PH) - 5.7@22.1c

KA/kalis

BMS 2/19/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB

ESC Sample # : L729032-05

Sample ID : TU503-SB12-NS02

Site ID :

Collected By :
 Collection Date : 10/21/14 11:25

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00049	0.00065	0.0032	mg/kg		8260B	10/29/14	1
2-Chlorotoluene	95-49-8	U	.00039	0.00065	0.0013	mg/kg		8260B	10/29/14	1
4-Chlorotoluene	106-43-4	U	.00031	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0013	0.0033	0.0065	mg/kg		8260B	10/29/14	1
1,2-Dibromoethane	106-93-4	U	.00044	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Dibromomethane	74-95-3	U	.00049	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dichlorobenzene	95-50-1	U	.00039	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,3-Dichlorobenzene	541-73-1	U	.00031	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,4-Dichlorobenzene	106-46-7	U	.0003	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Dichlorodifluoromethane	75-71-8	U	.00092	0.0033	0.0065	mg/kg		8260B	10/29/14	1
1,1-Dichloroethane	75-34-3	U	.00026	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dichloroethane	107-06-2	U	.00034	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,1-Dichloroethene	75-35-4	U	.00039	0.00065	0.0013	mg/kg		8260B	10/29/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00031	0.00065	0.0013	mg/kg		8260B	10/29/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00034	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,2-Dichloropropane	78-87-5	U	.00047	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,1-Dichloropropene	563-58-6	U	.00042	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,3-Dichloropropane	142-28-9	U	.00027	0.00065	0.0013	mg/kg		8260B	10/29/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00034	0.00065	0.0013	mg/kg		8260B	10/29/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00035	0.00065	0.0013	mg/kg		8260B	10/29/14	1
2,2-Dichloropropane	594-20-7	U	.00036	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Ethylbenzene	100-41-4	U	.00039	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00044	0.00065	0.0013	mg/kg		8260B	10/29/14	1
2-Hexanone	591-78-6	U	.0049	0.0065	0.013	mg/kg		8260B	10/29/14	1
Isopropylbenzene	98-82-8	U	.00031	0.00065	0.0013	mg/kg		8260B	10/29/14	1
p-Isopropyltoluene	99-87-6	U	.00026	0.00065	0.0013	mg/kg		8260B	10/29/14	1
2-Butanone (MEK)	78-93-3	U	.0061	0.0065	0.013	mg/kg		8260B	10/29/14	1
Methylene Chloride	75-09-2	U	.0013	0.0033	0.0065	mg/kg		8260B	10/29/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0025	0.0065	0.013	mg/kg		8260B	10/29/14	1
Methyl tert-butyl ether	1634-04-4	U	.00027	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Naphthalene	91-20-3	U	.0013	0.0033	0.0065	mg/kg		8260B	10/29/14	1
n-Propylbenzene	103-65-1	U	.00027	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Styrene	100-42-5	U	.0003	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00034	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00047	0.00098	0.0013	mg/kg		8260B	10/29/14	1
Tetrachloroethene	127-18-4	U	.00036	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Toluene F SOL-I	108-88-3	0.00083	.00056	0.0033	0.0065	mg/kg	J	8260B	10/29/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.0004	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00051	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,1,1-Trichloroethane	71-55-6	U	.00037	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,1,2-Trichloroethane	79-00-5	U	.00036	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Trichloroethene	79-01-6	U	.00036	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Trichlorofluoromethane	75-69-4	U	.00049	0.0033	0.0065	mg/kg		8260B	10/29/14	1
1,2,3-Trichloropropane	96-18-4	U	.00096	0.0013	0.0032	mg/kg		8260B	10/29/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.00027	0.00065	0.0013	mg/kg		8260B	10/29/14	1

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Reported: 11/04/14 08:33 Revised: 11/18/14 11:03

L729032-05 (ICP METALS) - Dilution due to matrix

L729032-05 (PH) - 5.7@22.1c

CA1/2a/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB12-NS02
Collected By :
Collection Date : 10/21/14 11:25

ESC Sample # : L729032-05
Site ID :
Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00044	0.00065	0.0013	mg/kg		8260B	10/29/14	1
m&p-Xylene	1330-20-7	U	.00094	0.0013	0.0026	mg/kg		8260B	10/29/14	1
Vinyl chloride	75-01-4	U	.00038	0.00065	0.0013	mg/kg		8260B	10/29/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00035	0.00065	0.0013	mg/kg		8260B	10/29/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	102.				% Rec.		8260B	10/29/14	1
Dibromofluoromethane	1868-53-7	98.9				% Rec.		8260B	10/29/14	1
4-Bromofluorobenzene	460-00-4	99.8				% Rec.		8260B	10/29/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.1	2.6	5.2	mg/kg		8015	10/30/14	1
C28-C40 Oil Range		U	.35	2.6	5.2	mg/kg		8015	10/30/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	74.6				% Rec.		8015	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Acenaphthene	83-32-9	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Acenaphthylene	208-96-8	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Benzo(a)anthracene	56-55-3	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Benzo(a)pyrene	50-32-8	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Benzo(b)fluoranthene	205-99-2	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Benzo(k)fluoranthene	207-08-9	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Chrysene	218-01-9	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Fluoranthene	206-44-0	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Fluorene	86-73-7	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
Naphthalene	91-20-3	0.0014	.00078	0.0026	0.0078	mg/kg	J	8270C-SI	10/25/14	1
Phenanthrene	85-01-8	0.00086	.00078	0.0026	0.0078	mg/kg	J	8270C-SI	10/25/14	1
Pyrene	129-00-0	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/25/14	1
2-Methylnaphthalene	91-57-6	0.0017	.00083	0.0078	0.026	mg/kg	J	8270C-SI	10/25/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	92.2				% Rec.		8270C-SI	10/25/14	1
Nitrobenzene-d5	4165-60-0	85.0				% Rec.		8270C-SI	10/25/14	1
2-Fluorobiphenyl	321-60-8	100.				% Rec.		8270C-SI	10/25/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	.01	0.22	0.43	mg/kg		8270C	10/26/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.012	0.22	0.43	mg/kg		8270C	10/26/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.0099	0.22	0.43	mg/kg		8270C	10/26/14	1
Benzyl Alcohol	100-51-6	U	.0098	0.22	0.43	mg/kg		8270C	10/26/14	1
Benzoic acid	65-85-0	U	.16	2.2	4.3	mg/kg		8270C	10/26/14	1
Carbazole	86-74-8	U	.0068	0.22	0.43	mg/kg		8270C	10/26/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/04/14 08:33 Revised: 11/18/14 11:03

L729032-05 (ICP METALS) - Dilution due to matrix

L729032-05 (PH) - 5.7@22.1c

DNR: DO NOT REPORT

KAI/zal/s

BWS 9/2/15



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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB12-NS02
Collected By :
Collection Date : 10/21/14 11:25

ESC Sample # : L729032-05
Site ID :
Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0068	0.22	0.43	mg/kg		8270C	10/26/14	1
4-Bromophenyl-phenylether	101-55-3	U	.014	0.22	0.43	mg/kg		8270C	10/26/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0082	0.22	0.43	mg/kg		8270C	10/26/14	1
2-Chloronaphthalene	91-58-7	U	.0083	0.22	0.43	mg/kg		8270C	10/26/14	1
3,3-Dichlorobenzidine	91-94-1	U	.1	0.22	0.43	mg/kg		8270C	10/26/14	1
2,4-Dinitrotoluene	121-14-2	U	.0079	0.22	0.43	mg/kg		8270C	10/26/14	1
2,6-Dinitrotoluene	606-20-2	U	.0096	0.22	0.43	mg/kg		8270C	10/26/14	1
Hexachlorobenzene	118-74-1	U	.011	0.22	0.43	mg/kg		8270C	10/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.013	0.22	0.43	mg/kg		8270C	10/26/14	1
Hexachloroethane	67-72-1	U	.017	0.22	0.43	mg/kg		8270C	10/26/14	1
Isophorone	78-59-1	U	.0068	0.22	0.43	mg/kg		8270C	10/26/14	1
Nitrobenzene	98-95-3	U	.0091	0.22	0.43	mg/kg		8270C	10/26/14	1
n-Nitrosodimethylamine	62-75-9	U	.085	0.22	0.43	mg/kg		8270C	10/26/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0077	0.22	0.43	mg/kg		8270C	10/26/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.012	0.22	0.43	mg/kg		8270C	10/26/14	1
Benzylbutyl phthalate	85-68-7	U	.013	0.22	0.43	mg/kg		8270C	10/26/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.016	0.22	0.43	mg/kg		8270C	10/26/14	1
Di-n-butyl phthalate	84-74-2	U	.014	0.22	0.43	mg/kg		8270C	10/26/14	1
Diethyl phthalate	84-66-2	U	.009	0.22	0.43	mg/kg		8270C	10/26/14	1
Dimethyl phthalate	131-11-3	U	.007	0.22	0.43	mg/kg		8270C	10/26/14	1
Di-n-octyl phthalate	117-84-0	U	.012	0.22	0.43	mg/kg		8270C	10/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.011	0.22	0.43	mg/kg		8270C	10/26/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0062	0.22	0.43	mg/kg		8270C	10/26/14	1
2-Chlorophenol	95-57-8	U	.011	0.22	0.43	mg/kg		8270C	10/26/14	1
2,4-Dichlorophenol	120-83-2	U	.0098	0.22	0.43	mg/kg		8270C	10/26/14	1
2,4-Dimethylphenol	105-67-9	U	.061	0.22	0.43	mg/kg		8270C	10/26/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.16	0.22	0.43	mg/kg		8270C	10/26/14	1
2,4-Dinitrophenol	51-28-5	U	.13	0.22	0.43	mg/kg		8270C	10/26/14	1
2-Methylphenol	95-48-7	U	.013	0.22	0.43	mg/kg		8270C	10/26/14	1
3&4-Methyl Phenol	VS CCAL-L 3&4-Methyl	U	.01	0.22	0.43	mg/kg		8270C	10/26/14	1
2-Nitrophenol	88-75-5	U	.017	0.22	0.43	mg/kg		8270C	10/26/14	1
4-Nitrophenol	100-02-7	U	.068	0.22	0.43	mg/kg		8270C	10/26/14	1
4-Chloroaniline	106-47-8	U	.0046	0.22	0.43	mg/kg		8270C	10/26/14	1
2-Nitroaniline	88-74-4	U	.0099	0.22	0.43	mg/kg		8270C	10/26/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0018	0.22	0.43	mg/kg		8270C	10/26/14	1
3-Nitroaniline	99-09-2	U	.011	0.22	0.43	mg/kg		8270C	10/26/14	1
4-Nitroaniline	100-01-6	U	.0083	0.22	0.43	mg/kg		8270C	10/26/14	1
Pentachlorophenol	87-86-5	U	.062	0.22	0.43	mg/kg		8270C	10/26/14	1
Phenol	108-95-2	U	.0091	0.22	0.43	mg/kg		8270C	10/26/14	1
2,4,5-Trichlorophenol	95-95-4	U	.013	0.22	0.43	mg/kg		8270C	10/26/14	1
2,4,6-Trichlorophenol	88-06-2	U	.01	0.22	0.43	mg/kg		8270C	10/26/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	63.3				% Rec.		8270C	10/26/14	1
Phenol-d5	4165-62-2	64.3				% Rec.		8270C	10/26/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/04/14 08:33 Revised: 11/18/14 11:03

L729032-05 (ICP METALS) - Dilution due to matrix

L729032-05 (PH) - 5.7@22.1c

DNR = do not report

*KA 1/29/15
BMS 2/17/15*



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 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB12-NS02
 Collected By :
 Collection Date : 10/21/14 11:25

ESC Sample # : L729032-05
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	65.1				% Rec.		8270C	10/26/14	1
2-Fluorobiphenyl	321-60-8	70.0				% Rec.		8270C	10/26/14	1
2,4,6-Tribromophenol	118-79-6	76.9				% Rec.		8270C	10/26/14	1
p-Terphenyl-d14	1718-51-0	60.5				% Rec.		8270C	10/26/14	1

Results listed are dry weight basis.

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Reported: 11/04/14 08:33 Revised: 11/18/14 11:03

L729032-05 (ICP METALS) - Dilution due to matrix

L729032-05 (PH) - 5.7@22.1c

Kathalis



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB13-NS01
Collected By :
Collection Date : 10/21/14 13:00

ESC Sample # : L729032-06

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	5.8				su		9045D	10/25/14	1
Total Solids	TSOLIDS	72.1	.0333			%		2540 G-2	10/25/14	1
Mercury	7439-97-6	U	.0039	0.014	0.028	mg/kg		7471	10/23/14	1
Aluminum	7429-90-5	760	25	35.	69.	mg/kg		6010B	10/30/14	5
Antimony	7440-36-0	U	5.3	6.9	14.	mg/kg		6010B	10/30/14	5
Arsenic	7440-38-2	U	4.4	6.9	14.	mg/kg		6010B	10/30/14	5
Barium	7440-39-3	19.	1.2	1.7	3.5	mg/kg		6010B	10/30/14	5
Beryllium	7440-41-7	U	.48	0.69	1.4	mg/kg		6010B	10/30/14	5
Cadmium	7440-43-9	U	.48	1.7	3.5	mg/kg		6010B	10/30/14	5
Chromium	7440-47-3	U	.97	3.5	6.9	mg/kg		6010B	10/30/14	5
Cobalt	7440-48-4	U	1.7	3.5	6.9	mg/kg		6010B	10/30/14	5
Copper	7440-50-8	U	3.6	6.9	14.	mg/kg		6010B	10/30/14	5
Lead	7439-92-1	U	1.3	1.7	3.5	mg/kg		6010B	10/30/14	5
Manganese	7439-96-5	13.	.83	3.5	6.9	mg/kg		6010B	10/30/14	5
Nickel	7440-02-0	U	3.3	6.9	14.	mg/kg		6010B	10/30/14	5
Selenium	7782-49-2	U	5.1	6.9	14.	mg/kg		6010B	10/30/14	5
Silver	7440-22-4	U	1.9	3.5	6.9	mg/kg		6010B	10/30/14	5
Thallium	7440-28-0	U	4.4	6.9	14.	mg/kg		6010B	11/03/14	5
Vanadium	7440-62-2	U	1.7	6.9	14.	mg/kg		6010B	10/30/14	5
Zinc	7440-66-6	6.2	4.2	17.	35.	mg/kg	J	6010B	10/30/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.03	0.069	0.14	mg/kg		8015D/GR	10/28/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	99.1				% Rec.		8015D/GR	10/28/14	1
Volatile Organics										
Acetone	67-64-1	0.037		0.037	0.037	mg/kg	J	8260B	10/29/14	1
Benzene	71-43-2	U	.00037	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Bromobenzene	108-86-1	U	.00039	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Bromochloromethane	74-97-5	U	.00054	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Bromodichloromethane	75-27-4	U	.00035	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Bromoform	75-25-2	U	.00058	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Bromomethane	74-83-9	U	.0018	0.0035	0.0069	mg/kg		8260B	10/29/14	1
n-Butylbenzene	104-51-8	U	.00036	0.00069	0.0014	mg/kg		8260B	10/29/14	1
sec-Butylbenzene	135-98-8	U	.00028	0.00069	0.0014	mg/kg		8260B	10/29/14	1
tert-Butylbenzene	98-06-6	U	.00029	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Carbon Disulfide	75-15-0	U	.00039	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Carbon tetrachloride	56-23-5	U	.00046	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Chlorobenzene	108-90-7	U	.00029	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Chlorodibromomethane	124-48-1	U	.00051	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Chloroethane	75-00-3	U	.0013	0.0035	0.0069	mg/kg		8260B	10/29/14	1
Chloroform	67-66-3	U	.00032	0.0035	0.0069	mg/kg		8260B	10/29/14	1

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Reported: 11/04/14 08:33 Revised: 11/18/14 11:03

L729032-06 (ICP METALS) - Dilution due to matrix

L729032-06 (PH) - 5.8@21.7c

KA/ka/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB13-NS01
 Collected By :
 Collection Date : 10/21/14 13:00

ESC Sample # : L729032-06

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00053	0.00069	0.0035	mg/kg		8260B	10/29/14	1
2-Chlorotoluene	95-49-8	U	.00042	0.00069	0.0014	mg/kg		8260B	10/29/14	1
4-Chlorotoluene	106-43-4	U	.00033	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0014	0.0035	0.0069	mg/kg		8260B	10/29/14	1
1,2-Dibromoethane	106-93-4	U	.00047	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Dibromomethane	74-95-3	U	.00053	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,2-Dichlorobenzene	95-50-1	U	.00042	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,3-Dichlorobenzene	541-73-1	U	.00033	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,4-Dichlorobenzene	106-46-7	U	.00032	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Dichlorodifluoromethane	75-71-8	U	.00098	0.0035	0.0069	mg/kg		8260B	10/29/14	1
1,1-Dichloroethane	75-34-3	U	.00028	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,2-Dichloroethane	107-06-2	U	.00036	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,1-Dichloroethene	75-35-4	U	.00042	0.00069	0.0014	mg/kg		8260B	10/29/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00033	0.00069	0.0014	mg/kg		8260B	10/29/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00036	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,2-Dichloropropane	78-87-5	U	.0005	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,1-Dichloropropene	563-58-6	U	.00044	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,3-Dichloropropane	142-28-9	U	.00029	0.00069	0.0014	mg/kg		8260B	10/29/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00036	0.00069	0.0014	mg/kg		8260B	10/29/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00037	0.00069	0.0014	mg/kg		8260B	10/29/14	1
2,2-Dichloropropane	594-20-7	U	.00039	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Ethylbenzene	100-41-4	U	.00042	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00047	0.00069	0.0014	mg/kg		8260B	10/29/14	1
2-Hexanone	591-78-6	U	.0053	0.0069	0.014	mg/kg		8260B	10/29/14	1
Isopropylbenzene	98-82-8	U	.00033	0.00069	0.0014	mg/kg		8260B	10/29/14	1
p-Isopropyltoluene	99-87-6	U	.00028	0.00069	0.0014	mg/kg		8260B	10/29/14	1
2-Butanone (MEK) F SQL-I	78-93-3	0.0066	.0065	0.0069	0.014	mg/kg	J	8260B	10/29/14	1
Methylene Chloride	75-09-2	U	.0014	0.0035	0.0069	mg/kg		8260B	10/29/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0026	0.0069	0.014	mg/kg		8260B	10/29/14	1
Methyl tert-butyl ether	1634-04-4	U	.00029	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Naphthalene	91-20-3	U	.0014	0.0035	0.0069	mg/kg		8260B	10/29/14	1
n-Propylbenzene	103-65-1	U	.00029	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Styrene	100-42-5	U	.00032	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00036	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.0005	0.0010	0.0014	mg/kg		8260B	10/29/14	1
Tetrachloroethene	127-18-4	U	.00039	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Toluene	108-88-3	U	.0006	0.0035	0.0069	mg/kg		8260B	10/29/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00043	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00054	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,1,1-Trichloroethane	71-55-6	U	.0004	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,1,2-Trichloroethane	79-00-5	U	.00039	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Trichloroethene	79-01-6	U	.00039	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Trichlorofluoromethane	75-69-4	U	.00053	0.0035	0.0069	mg/kg		8260B	10/29/14	1
1,2,3-Trichloropropane	96-18-4	U	.001	0.0014	0.0035	mg/kg		8260B	10/29/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.00029	0.00069	0.0014	mg/kg		8260B	10/29/14	1

Results listed are dry weight basis.

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Reported: 11/04/14 08:33 Revised: 11/18/14 11:03

L729032-06 (ICP METALS) - Dilution due to matrix

L729032-06 (PH) - 5.8@21.7c

Handwritten signature/initials



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729032-06

Sample ID : TU503-SB13-NS01

Site ID :

Collected By :
Collection Date : 10/21/14 13:00

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00047	0.00069	0.0014	mg/kg		8260B	10/29/14	1
m&p-Xylene	1330-20-7	U	.001	0.0014	0.0028	mg/kg		8260B	10/29/14	1
Vinyl chloride	75-01-4	U	.0004	0.00069	0.0014	mg/kg		8260B	10/29/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00037	0.00069	0.0014	mg/kg		8260B	10/29/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	102.				% Rec.		8260B	10/29/14	1
Dibromofluoromethane	1868-53-7	112.				% Rec.		8260B	10/29/14	1
4-Bromofluorobenzene	460-00-4	107.				% Rec.		8260B	10/29/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.2	2.8	5.5	mg/kg		8015	10/30/14	1
C28-C40 Oil Range		U	.37	2.8	5.5	mg/kg		8015	10/30/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	45.6				% Rec.	J2	8015	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Acenaphthene	83-32-9	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Acenaphthylene	208-96-8	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Benzo(a)anthracene	56-55-3	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Benzo(a)pyrene	50-32-8	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Benzo(b)fluoranthene	205-99-2	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Benzo(k)fluoranthene	207-08-9	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Chrysene	218-01-9	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Fluoranthene	206-44-0	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Fluorene	86-73-7	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Naphthalene	91-20-3	0.0012	.00083	0.0028	0.0083	mg/kg	J	8270C-SI	10/25/14	1
Phenanthrene	85-01-8	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
Pyrene	129-00-0	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/25/14	1
2-Methylnaphthalene	91-57-6	U	.00089	0.0083	0.028	mg/kg		8270C-SI	10/25/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	86.6				% Rec.		8270C-SI	10/25/14	1
Nitrobenzene-d5	4165-60-0	80.9				% Rec.		8270C-SI	10/25/14	1
2-Fluorobiphenyl	321-60-8	94.6				% Rec.		8270C-SI	10/25/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	.011	0.23	0.46	mg/kg		8270C	10/26/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.012	0.23	0.46	mg/kg		8270C	10/26/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.01	0.23	0.46	mg/kg		8270C	10/26/14	1
Benzyl Alcohol	100-51-6	U	.01	0.23	0.46	mg/kg		8270C	10/26/14	1
Benzoic acid	65-85-0	U	.17	2.3	4.6	mg/kg		8270C	10/26/14	1
Carbazole	86-74-8	U	.0072	0.23	0.46	mg/kg		8270C	10/26/14	1

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Reported: 11/04/14 08:33 Revised: 11/18/14 11:03

L729032-06 (ICP METALS) - Dilution due to matrix

L729032-06 (PH) - 5.8@21.7c

DNR: Do Not Report

KA/2/15

BRS 9/1/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB13-NS01
Collected By :
Collection Date : 10/21/14 13:00

ESC Sample # : L729032-06
Site ID :
Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0072	0.23	0.46	mg/kg		8270C	10/26/14	1
4-Bromophenyl-phenylether	101-55-3	U	.015	0.23	0.46	mg/kg		8270C	10/26/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0087	0.23	0.46	mg/kg		8270C	10/26/14	1
2-Chloronaphthalene	91-58-7	U	.0089	0.23	0.46	mg/kg		8270C	10/26/14	1
3,3-Dichlorobenzidine	91-94-1	U	.11	0.23	0.46	mg/kg		8270C	10/26/14	1
2,4-Dinitrotoluene	121-14-2	U	.0085	0.23	0.46	mg/kg		8270C	10/26/14	1
2,6-Dinitrotoluene	606-20-2	U	.01	0.23	0.46	mg/kg		8270C	10/26/14	1
Hexachlorobenzene	118-74-1	U	.012	0.23	0.46	mg/kg		8270C	10/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.014	0.23	0.46	mg/kg		8270C	10/26/14	1
Hexachloroethane	67-72-1	U	.018	0.23	0.46	mg/kg		8270C	10/26/14	1
Isophorone	78-59-1	U	.0072	0.23	0.46	mg/kg		8270C	10/26/14	1
Nitrobenzene	98-95-3	U	.0097	0.23	0.46	mg/kg		8270C	10/26/14	1
n-Nitrosodimethylamine	62-75-9	U	.09	0.23	0.46	mg/kg		8270C	10/26/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0082	0.23	0.46	mg/kg		8270C	10/26/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.013	0.23	0.46	mg/kg		8270C	10/26/14	1
Benzylbutyl phthalate	85-68-7	U	.014	0.23	0.46	mg/kg		8270C	10/26/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.017	0.23	0.46	mg/kg		8270C	10/26/14	1
Di-n-butyl phthalate	84-74-2	U	.015	0.23	0.46	mg/kg		8270C	10/26/14	1
Diethyl phthalate	84-66-2	U	.0096	0.23	0.46	mg/kg		8270C	10/26/14	1
Dimethyl phthalate	131-11-3	U	.0075	0.23	0.46	mg/kg		8270C	10/26/14	1
Di-n-octyl phthalate	117-84-0	U	.013	0.23	0.46	mg/kg		8270C	10/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.012	0.23	0.46	mg/kg		8270C	10/26/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0066	0.23	0.46	mg/kg		8270C	10/26/14	1
2-Chlorophenol	95-57-8	U	.012	0.23	0.46	mg/kg		8270C	10/26/14	1
2,4-Dichlorophenol	120-83-2	U	.01	0.23	0.46	mg/kg		8270C	10/26/14	1
2,4-Dimethylphenol	105-67-9	U	.065	0.23	0.46	mg/kg		8270C	10/26/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.17	0.23	0.46	mg/kg		8270C	10/26/14	1
2,4-Dinitrophenol	51-28-5	U	.14	0.23	0.46	mg/kg		8270C	10/26/14	1
2-Methylphenol	95-48-7	U	.014	0.23	0.46	mg/kg		8270C	10/26/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.011	0.23	0.46	mg/kg		8270C	10/26/14	1
2-Nitrophenol	88-75-5	U	.018	0.23	0.46	mg/kg		8270C	10/26/14	1
4-Nitrophenol	100-02-7	U	.072	0.23	0.46	mg/kg		8270C	10/26/14	1
4-Chloroaniline	106-47-8	U	.0048	0.23	0.46	mg/kg		8270C	10/26/14	1
2-Nitroaniline	88-74-4	U	.01	0.23	0.46	mg/kg		8270C	10/26/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0019	0.23	0.46	mg/kg		8270C	10/26/14	1
3-Nitroaniline	99-09-2	U	.012	0.23	0.46	mg/kg		8270C	10/26/14	1
4-Nitroaniline	100-01-6	U	.0089	0.23	0.46	mg/kg		8270C	10/26/14	1
Pentachlorophenol	87-86-5	U	.066	0.23	0.46	mg/kg		8270C	10/26/14	1
Phenol	108-95-2	U	.0097	0.23	0.46	mg/kg		8270C	10/26/14	1
2,4,5-Trichlorophenol	95-95-4	U	.014	0.23	0.46	mg/kg		8270C	10/26/14	1
2,4,6-Trichlorophenol	88-06-2	U	.011	0.23	0.46	mg/kg		8270C	10/26/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	63.7					§ Rec.	8270C	10/26/14	1
Phenol-d5	4165-62-2	63.9					§ Rec.	8270C	10/26/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/04/14 08:33 Revised: 11/18/14 11:03

L729032-06 (ICP METALS) - Dilution due to matrix

L729032-06 (PH) - 5.8@21.7c

DNR - do not report

KAI/KR/15
BM 2/17/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB13-NS01
 Collected By :
 Collection Date : 10/21/14 13:00

ESC Sample # : L729032-06

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	63.9				% Rec.		8270C	10/26/14	1
2-Fluorobiphenyl	321-60-8	65.5				% Rec.		8270C	10/26/14	1
2,4,6-Tribromophenol	118-79-6	76.8				% Rec.		8270C	10/26/14	1
p-Terphenyl-d14	1718-51-0	49.8				% Rec.		8270C	10/26/14	1

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Reported: 11/04/14 08:33 Revised: 11/18/14 11:03
 L729032-06 (ICP METALS) - Dilution due to matrix
 L729032-06 (PH) - 5.8@21.7c

KATZALIS



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 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB13-NS02
 Collected By :
 Collection Date : 10/21/14 13:05

ESC Sample # : L729032-07
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	5.9				su		9045D	10/25/14	1
Total Solids	TSOLIDS	70.8	.0333			%		2540 G-2	10/25/14	1
Mercury	7439-97-6	U	.004	0.014	0.028	mg/kg	J3J6	7471	10/23/14	1
Aluminum	7429-90-5	2000	.25	35.	71.	mg/kg		6010B	10/30/14	5
Antimony	7440-36-0	U	5.4	7.1	14.	mg/kg		6010B	10/30/14	5
Arsenic	7440-38-2	U	4.5	7.1	14.	mg/kg		6010B	10/30/14	5
Barium	7440-39-3	25.	1.2	1.8	3.5	mg/kg		6010B	10/30/14	5
Beryllium	7440-41-7	U	.49	0.71	1.4	mg/kg		6010B	10/30/14	5
Cadmium	7440-43-9	U	.49	1.8	3.5	mg/kg		6010B	10/30/14	5
Chromium	7440-47-3	1.8	.99	3.5	7.1	mg/kg	J	6010B	10/30/14	5
Cobalt	7440-48-4	U	1.7	3.5	7.1	mg/kg		6010B	10/30/14	5
Copper	7440-50-8	U	3.7	7.1	14.	mg/kg		6010B	10/30/14	5
Lead	7439-92-1	1.3	1.3	1.8	3.5	mg/kg	J	6010B	10/30/14	5
Manganese	7439-96-5	28.	.85	3.5	7.1	mg/kg		6010B	10/30/14	5
Nickel	7440-02-0	U	3.4	7.1	14.	mg/kg		6010B	10/30/14	5
Selenium	7782-49-2	U	5.2	7.1	14.	mg/kg		6010B	10/30/14	5
Silver	7440-22-4	U	2	3.5	7.1	mg/kg		6010B	10/30/14	5
Thallium	7440-28-0	U	4.5	7.1	14.	mg/kg		6010B	11/03/14	5
Vanadium	7440-62-2	8.9	1.7	7.1	14.	mg/kg	J	6010B	10/30/14	5
Zinc	7440-66-6	7.6	4.2	18.	35.	mg/kg	J	6010B	10/30/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.031	0.071	0.14	mg/kg		8015D/GR	10/28/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	99.2				% Rec.		8015D/GR	10/28/14	1
Volatile Organics										
Acetone	67-64-1	0.041		0.041	0.041	mg/kg	J	8260B	10/29/14	1
Benzene	71-43-2	0.00082	.00038	0.00071	0.0014	mg/kg	J	8260B	10/29/14	1
Bromobenzene	108-86-1	U	.0004	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Bromochloromethane	74-97-5	U	.00055	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Bromodichloromethane	75-27-4	U	.00035	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Bromoform	75-25-2	U	.00059	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Bromomethane	74-83-9	U	.0018	0.0035	0.0071	mg/kg		8260B	10/29/14	1
n-Butylbenzene	104-51-8	U	.00037	0.00071	0.0014	mg/kg		8260B	10/29/14	1
sec-Butylbenzene	135-98-8	U	.00028	0.00071	0.0014	mg/kg		8260B	10/29/14	1
tert-Butylbenzene	98-06-6	U	.0003	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Carbon Disulfide	75-15-0	0.00054	.0004	0.00071	0.0014	mg/kg	J	8260B	10/29/14	1
Carbon tetrachloride	56-23-5	U	.00047	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Chlorobenzene	108-90-7	U	.0003	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Chlorodibromomethane	124-48-1	U	.00052	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Chloroethane	75-00-3	U	.0013	0.0035	0.0071	mg/kg		8260B	10/29/14	1
Chloroform	67-66-3	U	.00032	0.0035	0.0071	mg/kg		8260B	10/29/14	1

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Reported: 11/04/14 08:33 Revised: 11/18/14 11:03

L729032-07 (PH) - 5.9@22.1c

L729032-07 (ICP METALS) - Dilution due to matrix

Handwritten notes:
 KAL/2/15
 BMS 2/19/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB

ESC Sample # : L729032-07

Sample ID : TU503-SB13-NS02

Site ID :

Collected By :
 Collection Date : 10/21/14 13:05

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00054	0.00071	0.0035	mg/kg		8260B	10/29/14	1
2-Chlorotoluene	95-49-8	U	.00042	0.00071	0.0014	mg/kg		8260B	10/29/14	1
4-Chlorotoluene	106-43-4	U	.00034	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0014	0.0035	0.0071	mg/kg		8260B	10/29/14	1
1,2-Dibromoethane	106-93-4	U	.00048	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Dibromomethane	74-95-3	U	.00054	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,2-Dichlorobenzene	95-50-1	U	.00042	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,3-Dichlorobenzene	541-73-1	U	.00034	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,4-Dichlorobenzene	106-46-7	U	.00032	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Dichlorodifluoromethane	75-71-8	U	.001	0.0035	0.0071	mg/kg		8260B	10/29/14	1
1,1-Dichloroethane	75-34-3	U	.00028	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,2-Dichloroethane	107-06-2	U	.00037	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,1-Dichloroethene	75-35-4	U	.00042	0.00071	0.0014	mg/kg		8260B	10/29/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00034	0.00071	0.0014	mg/kg		8260B	10/29/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00037	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,2-Dichloropropane	78-87-5	U	.00051	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,1-Dichloropropene	563-58-6	U	.00045	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,3-Dichloropropane	142-28-9	U	.0003	0.00071	0.0014	mg/kg		8260B	10/29/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00037	0.00071	0.0014	mg/kg		8260B	10/29/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00038	0.00071	0.0014	mg/kg		8260B	10/29/14	1
2,2-Dichloropropane	594-20-7	U	.0004	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Ethylbenzene	100-41-4	U	.00042	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00048	0.00071	0.0014	mg/kg		8260B	10/29/14	1
2-Hexanone	591-78-6	U	.0054	0.0071	0.014	mg/kg		8260B	10/29/14	1
Isopropylbenzene	98-82-8	U	.00034	0.00071	0.0014	mg/kg		8260B	10/29/14	1
p-Isopropyltoluene	99-87-6	U	.00028	0.00071	0.0014	mg/kg		8260B	10/29/14	1
2-Butanone (MEK) FSQ-I	78-93-3	0.0078	.0066	0.0071	0.014	mg/kg	J	8260B	10/29/14	1
Methylene Chloride	75-09-2	U	.0014	0.0035	0.0071	mg/kg		8260B	10/29/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0027	0.0071	0.014	mg/kg		8260B	10/29/14	1
Methyl tert-butyl ether	1634-04-4	U	.0003	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Naphthalene DNR	91-20-3	U	.0014	0.0035	0.0071	mg/kg		8260B	10/29/14	1
n-Propylbenzene	103-65-1	U	.0003	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Styrene	100-42-5	U	.00032	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00037	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00051	0.0011	0.0014	mg/kg		8260B	10/29/14	1
Tetrachloroethene	127-18-4	U	.0004	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Toluene FSQ-I	108-88-3	0.00090	.00061	0.0035	0.0071	mg/kg	J	8260B	10/29/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00044	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00055	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,1,1-Trichloroethane	71-55-6	U	.0004	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,1,2-Trichloroethane	79-00-5	U	.0004	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Trichloroethene	79-01-6	U	.0004	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Trichlorofluoromethane	75-69-4	U	.00054	0.0035	0.0071	mg/kg		8260B	10/29/14	1
1,2,3-Trichloropropane	96-18-4	U	.001	0.0014	0.0035	mg/kg		8260B	10/29/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.0003	0.00071	0.0014	mg/kg		8260B	10/29/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/04/14 08:33 Revised: 11/18/14 11:03

L729032-07 (PH) - 5.9@22.1c

L729032-07 (ICP METALS) - Dilution due to matrix

DNR: DO NOT REPORT

KA: kalis



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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : TU503-SB13-NS02
Collected By :
Collection Date : 10/21/14 13:05

ESC Sample # : L729032-07

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00048	0.00071	0.0014	mg/kg		8260B	10/29/14	1
m&p-Xylene	1330-20-7	U	.001	0.0014	0.0028	mg/kg		8260B	10/29/14	1
Vinyl chloride	75-01-4	U	.00041	0.00071	0.0014	mg/kg		8260B	10/29/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00038	0.00071	0.0014	mg/kg		8260B	10/29/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	104.				% Rec.		8260B	10/29/14	1
Dibromofluoromethane	1868-53-7	111.				% Rec.		8260B	10/29/14	1
4-Bromofluorobenzene	460-00-4	103.				% Rec.		8260B	10/29/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.2	2.8	5.6	mg/kg		8015	10/30/14	1
C28-C40 Oil Range		U	.38	2.8	5.6	mg/kg		8015	10/30/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	59.4				% Rec.		8015	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Acenaphthene	83-32-9	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Acenaphthylene	208-96-8	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Benzo (a) anthracene	56-55-3	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Benzo (a) pyrene	50-32-8	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Benzo (b) fluoranthene	205-99-2	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Benzo (g, h, i) perylene	191-24-2	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Benzo (k) fluoranthene	207-08-9	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Chrysene	218-01-9	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Dibenz (a, h) anthracene	53-70-3	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Fluoranthene	206-44-0	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Fluorene	86-73-7	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Indeno (1,2,3-cd) pyrene	193-39-5	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
Napthalene	91-20-3	0.0037	.00085	0.0085	0.028	mg/kg	J	8270C-SI	10/25/14	1
Phenanthrene	85-01-8	0.00096	.00085	0.0028	0.0085	mg/kg	J	8270C-SI	10/25/14	1
Pyrene	129-00-0	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/25/14	1
2-Methylnaphthalene	91-57-6	0.0031	.0009	0.0085	0.028	mg/kg	J	8270C-SI	10/25/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	95.3				% Rec.		8270C-SI	10/25/14	1
Nitrobenzene-d5	4165-60-0	84.3				% Rec.		8270C-SI	10/25/14	1
2-Fluorobiphenyl	321-60-8	101.				% Rec.		8270C-SI	10/25/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	.011	0.24	0.47	mg/kg		8270C	10/26/14	1
Bis(2-chloroethyl) ether	111-44-4	U	.013	0.24	0.47	mg/kg		8270C	10/26/14	1
Bis(2-chloroisopropyl) ether	108-60-1	U	.011	0.24	0.47	mg/kg		8270C	10/26/14	1
Benzyl Alcohol	100-51-6	U	.01	0.24	0.47	mg/kg		8270C	10/26/14	1
Benzoic acid	65-85-0	U	.17	2.4	4.7	mg/kg		8270C	10/26/14	1
Carbazole	86-74-8	U	.0073	0.24	0.47	mg/kg		8270C	10/26/14	1

Results listed are dry weight basis.

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Reported: 11/04/14 08:33 Revised: 11/18/14 11:03

L729032-07 (PH) - 5.9@22.1c

L729032-07 (ICP METALS) - Dilution due to matrix

KA:kal/s
SRS 7/2/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729032-07

Sample ID : TU503-SB13-NS02

Site ID :

Collected By :
Collection Date : 10/21/14 13:05

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0073	0.24	0.47	mg/kg		8270C	10/26/14	1
4-Bromophenyl-phenylether	101-55-3	U	.016	0.24	0.47	mg/kg		8270C	10/26/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0089	0.24	0.47	mg/kg		8270C	10/26/14	1
2-Chloronaphthalene	91-58-7	U	.009	0.24	0.47	mg/kg		8270C	10/26/14	1
3,3-Dichlorobenzidine	91-94-1	U	.11	0.24	0.47	mg/kg		8270C	10/26/14	1
2,4-Dinitrotoluene	121-14-2	U	.0086	0.24	0.47	mg/kg		8270C	10/26/14	1
2,6-Dinitrotoluene	606-20-2	U	.01	0.24	0.47	mg/kg		8270C	10/26/14	1
Hexachlorobenzene	118-74-1	U	.012	0.24	0.47	mg/kg		8270C	10/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.014	0.24	0.47	mg/kg		8270C	10/26/14	1
Hexachloroethane	67-72-1	U	.018	0.24	0.47	mg/kg		8270C	10/26/14	1
Isophorone	78-59-1	U	.0073	0.24	0.47	mg/kg		8270C	10/26/14	1
Nitrobenzene	98-95-3	U	.0099	0.24	0.47	mg/kg		8270C	10/26/14	1
n-Nitrosodimethylamine	62-75-9	U	.092	0.24	0.47	mg/kg		8270C	10/26/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0083	0.24	0.47	mg/kg		8270C	10/26/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.013	0.24	0.47	mg/kg		8270C	10/26/14	1
Benzylbutyl phthalate	85-68-7	U	.014	0.24	0.47	mg/kg		8270C	10/26/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.017	0.24	0.47	mg/kg		8270C	10/26/14	1
Di-n-butyl phthalate	84-74-2	U	.016	0.24	0.47	mg/kg		8270C	10/26/14	1
Diethyl phthalate	84-66-2	U	.0097	0.24	0.47	mg/kg		8270C	10/26/14	1
Dimethyl phthalate	131-11-3	U	.0076	0.24	0.47	mg/kg		8270C	10/26/14	1
Di-n-octyl phthalate	117-84-0	U	.013	0.24	0.47	mg/kg		8270C	10/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.012	0.24	0.47	mg/kg		8270C	10/26/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0068	0.24	0.47	mg/kg		8270C	10/26/14	1
2-Chlorophenol	95-57-8	U	.012	0.24	0.47	mg/kg		8270C	10/26/14	1
2,4-Dichlorophenol	120-83-2	U	.01	0.24	0.47	mg/kg		8270C	10/26/14	1
2,4-Dimethylphenol	105-67-9	U	.066	0.24	0.47	mg/kg		8270C	10/26/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.17	0.24	0.47	mg/kg		8270C	10/26/14	1
2,4-Dinitrophenol	51-28-5	U	.14	0.24	0.47	mg/kg		8270C	10/26/14	1
2-Methylphenol	95-48-7	U	.014	0.24	0.47	mg/kg		8270C	10/26/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.011	0.24	0.47	mg/kg		8270C	10/26/14	1
2-Nitrophenol	88-75-5	U	.018	0.24	0.47	mg/kg		8270C	10/26/14	1
4-Nitrophenol	100-02-7	U	.073	0.24	0.47	mg/kg		8270C	10/26/14	1
4-Chloroaniline	106-47-8	U	.0049	0.24	0.47	mg/kg		8270C	10/26/14	1
2-Nitroaniline	88-74-4	U	.011	0.24	0.47	mg/kg		8270C	10/26/14	1
1,2-Diphenylhydrazine	103-33-3	U	.002	0.24	0.47	mg/kg		8270C	10/26/14	1
3-Nitroaniline	99-09-2	U	.012	0.24	0.47	mg/kg		8270C	10/26/14	1
4-Nitroaniline	100-01-6	U	.009	0.24	0.47	mg/kg		8270C	10/26/14	1
Pentachlorophenol	87-86-5	U	.068	0.24	0.47	mg/kg		8270C	10/26/14	1
Phenol	108-95-2	U	.0099	0.24	0.47	mg/kg		8270C	10/26/14	1
2,4,5-Trichlorophenol	95-95-4	U	.014	0.24	0.47	mg/kg		8270C	10/26/14	1
2,4,6-Trichlorophenol	88-06-2	U	.011	0.24	0.47	mg/kg		8270C	10/26/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	61.4				% Rec.		8270C	10/26/14	1
Phenol-d5	4165-62-2	62.6				% Rec.		8270C	10/26/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/04/14 08:33 Revised: 11/18/14 11:03

L729032-07 (PH) - 5.9@22.1c

L729032-07 (ICP METALS) - Dilution due to matrix

DNR = do not report

*KA/hals
BWS 2/12/15*



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 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB13-NS02
 Collected By :
 Collection Date : 10/21/14 13:05

ESC Sample # : L729032-07
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	61.7				% Rec.		8270C	10/26/14	1
2-Fluorobiphenyl	321-60-8	67.5				% Rec.		8270C	10/26/14	1
2,4,6-Tribromophenol	118-79-6	75.0				% Rec.		8270C	10/26/14	1
p-Terphenyl-d14	1718-51-0	52.7				% Rec.		8270C	10/26/14	1

Results listed are dry weight basis.

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L729032-07 (PH) - 5.9@22.1c

L729032-07 (ICP METALS) - Dilution due to matrix

Carroll

**Holloman AFB
Groundwater Monitoring
Data Review Summary**

Data Package Number: L729034
 Sampling Event Dates: October 21, 2014
 Sample-specific Parameter Review/Laboratory Performance Parameters: Yes
 Full Validation (e.g. result recalculation): Yes
 Data Reviewer: Katie Abbott, URS Project Chemist
 Date Completed: February 2, 2015
 Peer Reviewer: Sheri Fling, URS Project Quality Assurance Manager (QAM)

The table below summarizes the data package and sample identifications discussed in this data review.

Field Identification	Sample Type	Lab Identification	Matrix	Analyses							
				GRO	DRO/ORO	VOCs	PAHs	SVOCs	Dissolved Metals	Total Metals	
L729034											
H-TU503-GW01-DD01	FD	L729034-01	Water	---	---	---	---	---	X ^m	---	
H-TU503-GW01-ND01	SA	L729034-02	Water	---	---	---	---	---	X	---	
H-TU503-GW01-DT01	FD	L729034-03	Water	X	X	X	X	X	---	X	
H-TU503-GW01-NT01	SA	L729034-04	Water	X	X	X	X	X	---	X	
H-TU503-GW10-ND01	SA	L729034-05	Water	---	---	---	---	---	X	---	
H-TU503-GW10-NT01	SA	L729034-06	Water	X	X	X	X	X	---	X	
H-TU503-TRIPBLANK-TT01	TB	L729034-07	Water	X	---	X	---	---	---	---	

Sample Type: SA – Sample FD - Field Duplicate TB – Trip Blank
 X^m - Matrix Spike/Matrix Spike Duplicate

Analyses:
 DRO/ORO - Diesel and Oil Range Organics (8015D)
 GRO – Gasoline Range Organics (8015D)
 Total/Dissolved Metals – Antimony, Arsenic, Cadmium, Chromium, Cobalt, Lead, Nickel, Selenium, Silver, Thallium, Mercury, Aluminum, Barium, Beryllium, Copper, Manganese, Vanadium, Zinc (6010B/6020/7470A)
 PAHs – Polynuclear Aromatic Hydrocarbons (8270C SIM)
 SIM – Selective Ion Monitoring
 SVOCs – Semivolatile Organic Compounds (8270C)
 VOCs – Volatile Organic Compounds (8260B)

The data review was conducted in accordance with the Final Interim Measures Work Plan – Appendix A, Sampling and Analysis Plan/Quality Assurance Project Plan: Former Septic System Site TU904 (URS, September 2014); Group 2 Former Underground Storage Sites: AOC-UST-889 (TU515) (URS, September 2014); and Group 3 Former Underground Storage Tank Sites: AOC-UST-221 (TU503), AOC-UST-298 (TU508), AOC-UST-901 (TU506) and AOC-UST-7003 (TU518) (URS, August 2014); data validation standard operating procedure (SOP) 14; Department of Defense (DoD) Quality Systems Manual version 4.2 (DoD, 2010); and method requirements.

General Overall Assessment:

- Data are usable without qualification.
- Data are usable with qualification (noted below).
- Some or all data are unusable for any purpose (detailed below).

Case Narrative Comments: Any laboratory case narrative comments concerning data qualification were addressed in the table below.

Trace level detects, reported between the method detection limit (MDL) and the reporting limit (LOQ), have been qualified as estimated (F SQL-I). All other occurrences of data qualification are covered in the following table.

Review Parameter	Criteria Met?	Comment
Chain of Custody & Sample Receipt	Yes	The samples were received by ESC Lab Sciences in good condition and were consistent with the accompanying chain of custody (COC). The cooler temperatures upon receipt were within the recommended ≤6 degrees Celsius (°C) temperature range.
Reporting	Yes	<p>During review of a representative data package selected for full validation, it was noted that improper reference spectra were displayed in the printed version of the data package for Method 8260B. Due to a LIMS limitation, the data package reference spectra were not consistently representative of the actual spectra for the analytes detected. Because the laboratory data review involves the use of NBS reference spectra and not the reference spectra taken from the instrument calibration, the analyst was not seeing the improper alignment of spectra noted in the data package during his/her review at the instrument. The laboratory revised and reissued the data package with correct reference spectral data, consistent with method requirements, and no results were changed. Therefore, no further action is necessary as a result of this validation finding.</p> <p>Method 8270C Semivolatile Organic Compounds (SVOCs)</p> <p>The results for 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene are not reported by Method 8270C SVOCs but are reported by Method 8260B volatile organic compounds (VOCs). As the detection limits (DLs), limits of detection (LODs), and limits of quantitation (LOQs) are lower by Method 8260B, further action was not necessary.</p> <p>The laboratory noted 4-methylphenol cannot be reported as 3 & 4-methylphenol coelute during the analysis; therefore, the analytes are reported together and 3&4-methylphenol on the data sheets and in the electronic database.</p>
Holding Times	Yes	All samples were analyzed within the method required holding time.
Laboratory Blanks <ul style="list-style-type: none"> • Method Blank • Continuing Calibration Blank 	No	With the exceptions listed in Table 1, target analytes were not detected within the method or calibration blanks.
Matrix Quality Control <ul style="list-style-type: none"> • Matrix Spike/ Matrix Spike Duplicate H-TU503-GW01-DD01 (Dissolved Mercury and 6010B Metals) • Total vs. Partial Analyses (Metals) 	No	<p>Matrix Spike/ Matrix Spike Duplicate (MS/MSD)</p> <p>The frequency of MS/MSDs met the QAPP requirement of one per twenty samples.</p> <p>With the exception listed in Table 2, the MS/MSD recoveries and relative percent differences (RPDs) met quality control criteria.</p>

Review Parameter	Criteria Met?	Comment
		<p>Results in the native sample greater than four times the concentration of the spike added during digestions/extractions are not considered to be a representative measure of accuracy. Further action with respect to spike recovery evaluation or qualification of data was not considered necessary.</p> <p>Consistent with standard operating procedure (SOP) 14, when MS/MSD issues accounted for less than 35% of the MS/MSD analyses conducted, applicable data qualification was limited to qualification of the parent sample of the affected analyte. When >35% of the MS/MSD results did not meet criteria, evaluation was extended to all associated samples. See Section 4.1 of the data validation report for overall qualifiers resulting from the MS/MSD evaluation.</p> <p>Total vs. Partial Analyses (Metals)</p> <p>Consistent with SOP 14, results for the total analysis of a particular analyte should be greater than the results for a partial analyte of that analyte. The following criteria were used to evaluate the total versus dissolved results:</p> <ul style="list-style-type: none"> • In instances where the value for a partial analysis exceed that for a total analysis and both of the results are >5xLOQ, the criterion utilized is that the two values should agree within $\pm 30\%$. • In instances where the value for a partial analysis exceeds that for a total analysis and either of the results is 5x the LOQ, the absolute difference between the results is compared against an evaluation criterion of 2xLOQ. <p>With the exceptions listed in Table 3, the total metal sample results were compared with the associated dissolved sample results against the concentration-dependent criteria set forth in SOP 14.</p>
<p>Metals Only</p> <ul style="list-style-type: none"> • Serial Dilution H-TU503-GW01-DD01 (Dissolved Mercury and 6010BMetals) • Post Digestion Spike H-TU503-GW01-DD01 (Dissolved Mercury and 6010BMetals) 	Yes	<p>Serial Dilution (Metals Only)</p> <p>Consistent with the method, only the results that were greater than 50 times their respective DLs were appropriate for comparing to the serial dilution evaluation criterion. All percent differences (%Ds) between the original sample results and the results obtained from the sample-diluted 1:5 were $\leq 10\%$.</p> <p>Post Digestion Spike (PDS) (Metals Only)</p> <p>All PDS recoveries were within the acceptance limits.</p>
<p>Method Quality Control</p> <ul style="list-style-type: none"> • Surrogates (VOCs, PAHs, SVOCs, GRO, DRO/ORO) 	Yes	<p>The surrogate recoveries were within the laboratory specified acceptance criteria.</p>
<p>Field Quality Control</p> <ul style="list-style-type: none"> • Trip Blank H-TU503-TRIPBLANK-TT01 (GRO, VOCs) • Field Duplicate H-TU503-GW01-ND01/ H-TU503-GW01-DD01 H-TU503-GW01-NT01/ H-TU503-GW01-DT01 • Equipment Blank None in this package • Field Blank None in this package 	No	<p>Trip Blank</p> <p>Target analytes were not detected in the trip blank.</p> <p>Field Duplicate</p> <p>The frequency of field duplicates met the QAPP requirement of one per twenty samples.</p> <p>With the exceptions listed in Table 4, the comparison between results of the field duplicate pair met the criteria listed below.</p> <ul style="list-style-type: none"> • When both the sample and duplicate values are >5x the LOQ acceptable sampling and analytical precision is indicated by an RPD

Review Parameter	Criteria Met?	Comment
		<p>between the results of $\leq 30\%$ for water samples ($\leq 50\%$ for soil samples).</p> <ul style="list-style-type: none"> Where the result for one or both analytes of the field duplicate pair is $< 5 \times \text{LOQ}$, satisfactory precision is indicated if the absolute difference between the field duplicate results is $< 2 \times \text{LOQ}$ for water samples ($< 3.5 \times \text{LOQ}$ for soil samples). <p>Consistent with SOP 14, when field duplicate issues accounted for less than 35% of the field duplicate analyses conducted, applicable data qualification was limited to qualification of the parent sample for the affected analyte. When $> 35\%$ of the field duplicate results did not meet criteria, evaluation was extended to all associated samples. See Section 4.3 of the data validation report for overall qualifiers resulting from the field duplicate evaluation.</p> <p>Equipment Blank</p> <p>As dedicated equipment was used to collect these samples, an equipment blank was not submitted for this sampling event. Further action was not necessary.</p> <p>Field Blank</p> <p>The frequency of field blanks met the QAPP requirement of one per twenty samples.</p> <p>A field blank was not submitted with this data package. See Section 4.4 of the data validation report for overall qualifiers resulting from the field blank evaluation.</p>
LODs met?	No	Due to dilutions, the dissolved 6020 metals results for all samples, and the total beryllium, VOCs, and PAHs results for sample H-TU503-GW10-NT01 were reported as non-detect at elevated LODs. See Section 3.7 of the validation report for further discussion.
Other Parameters	Yes	<p>Naphthalene (8260B and 8270C-PAHs) and hexachloro-1,3-butadiene and 1,2,4-trichlorobenzene (8260B and 8270C) were analyzed by multiple methods. Results were selected for reporting using the following criteria:</p> <ul style="list-style-type: none"> If both results were non-detect, the non-detect result with the lower DL was selected. If both results were reported as detected, the higher detected result was selected for reporting. If one result was reported as non-detect and the other result was reported as detected, the detected result was selected for reporting.
Laboratory Performance Review		
Initial Calibration	Yes	<p>Methods 8260B VOCs & 8270C SVOCs</p> <p>A minimum relative response factor (RRF) of 0.05 was used for the system performance check compounds (SPCCs) and all SPCCs met this criterion. The percent relative standard deviations (%RSDs) over the initial calibration RRFs for all calibration check compounds (CCCs) satisfied the method requirement of $< 30\%$. For all other target compounds, a requirement of 15% was used. The %RSD values for all target analytes in the calibration were less than 15%. Therefore, the initial calibration met method acceptance criteria.</p>

Review Parameter	Criteria Met?	Comment
		<p>Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)</p> <p>The %RSD values for all target analytes in the calibration were less than 20%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8015D Gasoline Range Organics (GRO)/DRO/ORO</p> <p>The relationship between instrument response and concentration was established with a blank and at least five standards for each analyte. The %RSD over the initial calibrations curve satisfied the method requirement of <15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Methods 6010B (Inductively Coupled Plasma [ICP] Metals) and 6020 (ICPMS Metals)</p> <p>The initial calibrations (ICALs) were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with a blank and at least five standards. The calibrations were verified with the analysis of an initial calibration verification (ICV) standard. All metals were recovered within the method acceptance range of 90-110%.</p> <p>7470A (Mercury)</p> <p>The ICALs were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with five standards. The correlation coefficient was >0.995. The calibration was verified with the analysis of an ICV standard. The analytes were recovered within the acceptance range of 90-110%. Response and linearity criteria were met and data qualification on the basis of initial calibration was not necessary.</p>
Tuning (as applicable to the method)	Yes	<p>Methods 8260C VOCs/ 8270C SVOCs/8270C PAHs</p> <p>A satisfactory tuning event was conducted at the beginning of every 12 hours of sample analysis. No errors in calculation of percent relative abundances were found and all were within the required acceptance ranges. Data qualification on the basis of instrument tuning was not necessary.</p>
Initial Calibration Verification/Continuing Calibration Verification	No	<p>Method 8260B VOCs</p> <p>The percent differences (%Ds) for all CCCs in the ICVs and continuing calibrations (CCALs) were less than 20%, satisfying method requirements, and other target analytes satisfied the %D criterion of 20%.</p> <p>Methods 8270C PAHs/SVOCs</p> <p>With the exceptions listed in Table 5, the %D values for all target analytes in the calibration were less than 20%.</p> <p>Method 8015D GRO/Method 8015 DRO/ORO</p> <p>The %Ds for GRO and DRO/ORO (C10-C40) in the ICVs and CCALs were less than 15%. Data qualification was not necessary.</p> <p>Methods 6010B (ICP Metals), 6020 (ICPMS Metals), and 7470A (Mercury)</p> <p>Calibration verification analyses were conducted at the proper frequency. All metals were recovered within the DOD QSM 4.2 low level acceptance range of 80-120% and the method medium/high acceptance range of 90-110%.</p>

Review Parameter	Criteria Met?	Comment
Interference Check Standard (Metals Only)	No	<p>The interference check standard (ICS) AB solutions were analyzed at the proper frequency. The target analytes were recovered within the acceptance range of 80-120% in the ICS AB solution. With the exceptions listed in Table 6, interferent elements were not present in the samples at concentrations greater than those in the ICSs.</p> <p>The interferent elements aluminum, calcium, iron, and magnesium were present in most samples in this data package at concentrations greater than or equal to those in the ICSs. As such, these samples were evaluated for positive and negative biases suggested by the ICS A. Data qualification was issued if the absolute value of the ICS A result was greater than the DL and it suggested a positive or negative bias which accounted for more than 25% of associated sample results or LODs. (Note: The ICS A solution only contains the interferent elements aluminum, calcium, iron, and magnesium so any positive or negative result for other analytes is inferred to be a bias potentially caused by one or more of the interferent elements present). Table 6 summarizes the resultant data qualification on the basis of the ICS results.</p>
Internal Standard (VOCs/SVOCs/PAHs/Metals (6020))	Yes	Recoveries for the internal standards in field samples were within the applicable acceptance limits. Therefore, data qualification based on internal standards was not necessary.
Laboratory Control Sample/ Laboratory Control Sample Duplicate	No	<p>One laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) per method per analytical batch was prepared and analyzed. With the exceptions listed in Table 7, all of the LCS recoveries and LCS/LCSD RPDs were within the QAPP acceptance limits. These results are indicative of an acceptable level of accuracy and precision with respect to the analytical method.</p> <p>Method 8015 DRO/ORO</p> <p>The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the method could not be assessed for ORO.</p>
Target Compound Identification	Yes	<p>Methods 8260C VOCs/ 8270C SVOCs/8270C PAHs</p> <p>The quantitation sheets and total ion chromatograms were reviewed to assure that compounds reported as identified meet the criteria contained in the method. The mass spectra were reviewed for compounds reported as identified to assure that the reported mass spectral data meet the mass spectral identification criteria contained in the analytical method. No errors in compound identification were found and data qualification was not necessary.</p> <p>Methods 8015D (GRO/DRO/ORO), 6010B (ICP Metals), 6020 (ICPMS Metals), &7470A (Mercury)</p> <p>The instrument printouts were reviewed. Results obtained for QC check samples (calibration standards and laboratory control samples) indicate that instrument signals reported were due to the target analytes. Reported signal intensities agreed with reported concentrations for all samples. No errors in compound identification were found and data qualification was not necessary.</p>
Transcription Errors	Yes	Transcription errors were not found in this data package. Data qualification was not necessary.

Review Parameter	Criteria Met?	Comment
Recalculation	Yes	Calculation or sample quantitation errors were not found in this data package. Data qualification was not necessary.
Package Completeness	Yes	The results are usable as qualified for the project objective. The data are 100% complete.

> - Greater Than
 < - Less Than
 ≤ - Less Than or Equal to
 ± - Plus or Minus
 °C – Degrees Celsius
 % - Percent

%Ds – Percent Differences
 %RSD – Percent Relative Standard Deviation
 CCALs – Continuing Calibrations
 CCBs – Continuing Calibration Blanks
 CCCs – Calibration Check Compounds
 COC – Chain of Custody
 COD – Coefficient of Determination
 DLs – Detection Limits
 DRO – Diesel Range Organics
 GRO – Gasoline Range Organics
 ICAL – Initial Calibration
 ICB – Initial Calibration Blank

ICP – Inductively Coupled Plasma
 ICPMS - Inductively Coupled Plasma Mass Spectrometry
 ICS – Interference Check Standard
 ICV – Initial Calibration Verification
 LCS – Laboratory Control Sample
 LCSD – Laboratory Control Sample Duplicate
 LOD – Limit of Detection
 LOQ – Limit of Quantitation
 MS/MSD – Matrix Spike/ Matrix Spike Duplicate
 ORO – Oil Range Organics
 PAHs – Polynuclear Aromatic Hydrocarbons
 PDS – Post Digestion Spike
 QAPP – Quality Assurance Project Plan
 RPDs – Relative Percent Differences
 RRF – Relative Response Factor
 SOP – Standard Operating Procedure
 SPCCs – System Performance Check Compounds
 VOCs – Volatile Organic Compounds

Table 1: Blank Outliers and Resultant Data Qualification

Associated Samples	Analyte	Concentration	Qualification
Total Metals			
MB Batch WG750267 H-TU503-GW01-DT01 H-TU503-GW01-NT01 H-TU503-GW10-NT01	Chromium	0.858 µg/L	None. The associated results were reported at concentrations >5x the concentration of the blank contamination.
CCB 10/23/2014 2:42PM H-TU503-GW01-DT01 H-TU503-GW01-NT01 H-TU503-GW10-NT01	Vanadium	2.43 µg/L	
CCB 10/23/2014 3:33PM H-TU503-GW01-DT01 H-TU503-GW01-NT01 H-TU503-GW10-NT01	Antimony	0.248 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U CCB-I).
Dissolved Metals			
MB Batch WG750650 H-TU503-GW01-DD01 H-TU503-GW01-ND01 H-TU503-GW10-ND01	Cadmium	0.160 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).
	Chromium	0.626 µg/L	
CCB 10/28/2014 4:27PM H-TU503-GW01-DD01 H-TU503-GW01-ND01 H-TU503-GW10-ND01	Antimony	0.238 µg/L	None. The associated results were reported as non-detect or at concentrations >5x the concentration of the blank contamination.

Associated Samples	Analyte	Concentration	Qualification
VOCs			
MB Batch WG750182 H-TU503-GW01-DT01 H-TU503-GW01-NT01	Methylene Chloride	2.13 µg/L	None. The associated results were reported as non-detect.
PAHs			
MB Batch WG750797 H-TU503-GW01-DT01 H-TU503-GW01-NT01 H-TU503-GW10-NT01	Naphthalene	0.0182 µg/L	None. The associated results were reported at concentrations >5x the concentration of the blank contamination.

> - Greater Than

CCB – Continuing Calibration Blank

PAHs – Polynuclear Aromatic Hydrocarbons

< - Less Than

I – Indeterminate Bias

U – Non-detect

µg/L – Micrograms per Liter

MB – Method Blank

VOCs – Volatile Organic Compounds

Table 2: MS/MSD Recovery and RPD Outliers and Resultant Data Qualification

Associated Sample	Analyte	%R (Limits)	RPD (Limit)	Qualification
Dissolved Metals				
H-TU503-GW01-DD01	Mercury	58/57 (80-120)	1 (30)	As the potential bias was considered to be low, the associated mercury result for sample H-TU503-GW01-DD01 was qualified as estimated (UJ MS-L).

%R – Percent Recoveries

RPD – Relative Percent Difference

Bold indicates a recovery or RPD outside of acceptance limit

L – Low Bias

UJ – Estimated

MS/MSD – Matrix Spike Matrix Spike Duplicate

Table 3: Total vs. Partial Outliners and Resultant Data Qualification

Sample	Analyte	Total Result (µg/L)	Dissolved Result (µg/L)	Criteria not Met	Qualification
H-TU503-GW01-DT01/ H-TU503-GW01-DD01	Antimony	U	3.6	Absolute Difference >2x LOQ	As the absolute difference between the total and dissolved results exceeded 2x the LOQ, results were qualified as estimated (UJ/J TvP-I).

µg/L – Micrograms per Liter

LOQ – Limit of Quantitation

UJ/J - Estimated

> - Greater Than

TvP – Total versus Partial

I – Indeterminate Bias

U – Non-detect

Table 4: Field Duplicate Outliners and Resultant Data Qualification

Field Duplicate Pair	Analyte	Parent Result (µg/L)	FD Result (µg/L)	Criteria not Met	Qualification
Dissolved Metals					
H-TU503-GW01-ND01/ H-TU503-GW01-DD01	Antimony	U	3.6	Absolute Difference >2x LOQ	As the absolute difference between the field duplicate pair results exceeded 2x the LOQ, results were qualified as estimated (UJ/J FD-I)
	Cobalt	0.36	15		
	Nickel	1.4	19		
	Manganese	1200	2200	RPD >30%	As the RPD between the field duplicate pair results exceeded 30%, results were qualified as estimated (J FD-I).
Total Metals					
H-TU503-GW01-NT01/ H-TU503-GW01-DT01	Aluminum	59000	87000	RPD >30%	As the RPD between the field duplicate pair results exceeded 30%, results were qualified as estimated (J FD-I).

µg/L – Micrograms per Liter

FD – Field Duplicate

RPD – Relative Percent Difference

% - Percent

I – Indeterminate Bias

UJ/J - Estimated

> - Greater Than

LOQ – Limit of Quantitation

Table 5: Initial/Continuing Calibration Verification Outliers and Resultant Data Qualification

Associated Samples	Analyte	%D (Limit)	Data Qualification
SVOCs			
H-TU503-GW01-DT01 H-TU503-GW01-NT01 H-TU503-GW10-NT01	3&4-Methyl Phenol	-50.7 (±20)	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ/J CCAL-L).
	4-Nitroaniline	+26.5 (±20)	As the potential bias was considered to be high, the associated detected result for sample H-TU503-GW10-NT01 was qualified as estimated (J CCAL-H).

± - Plus or minus

H – High Bias

UJ/J - Estimated

%D – Percent Difference

L – Low Bias

CCAL – Continuing Calibration

SVOCs – Semivolatile Organic Compounds

Table 6: ICS Outliers and Resultant Data Qualification

Interferent Element	Analyte	ICS A (µg/L)	MDL (µg/L)	Qualified Samples	Qualification
Calcium, Magnesium	Antimony	1.2	0.4	H-TU503-GW01-DD01	As the potential bias was considered to be high, the associated detected results were qualified as estimated (J ICS-H).
	Lead	0.4	0.18		
	Silver	0.1	0.033		
	Antimony	1.2	0.4	H-TU503-GW01-DT01 H-TU503-GW10-ND01	
Calcium	Cadmium	0.50	0.10	H-TU503-GW10-NT01	

µg/L – Micrograms per Liter

J – Estimated

H – High Bias

MDL – Method Detection Limit

ICS – Interference Check Standard

Table 7: LCS Recovery Outliers and Resultant Data Qualification

Associated Samples	Analyte	%R (Limits)	RPD (Limits)	Qualification
SVOCs				
LCS WG750235 H-TU503-GW01-DT01 H-TU503-GW01-NT01 H-TU503-GW10-NT01	2,4-Dinitrophenol	52/30 (15-140)	53 (30)	As the RPDs were outside control limits, the associated results were qualified as estimated (UJ LCS-I).
	4-Nitrophenol	42/24 (10-125)	56 (30)	

%R – Percent Recoveries

RPD – Relative Percent Difference

I – Indeterminate Bias

SVOCs – Semivolatile Organic Compounds

LCS – Laboratory Control Sample

UJ - Estimated

Bold indicates a recovery outside of acceptance limits.



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : H-TU503-GW01-DD01
 Collected By :
 Collection Date : 10/21/14 12:20

ESC Sample # : L729034-01
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved	7440-36-0	3.6	0.21	0.50	1	ug/l		6020	10/28/14	1
Arsenic, Dissolved	7440-38-2	1.4	0.25	0.50	1	ug/l		6020	10/28/14	1
Cadmium, Dissolved	7440-43-9	0.31	0.16	0.31	0.5	ug/l	J	6020	10/28/14	1
Chromium, Dissolved	7440-47-3	1.2	0.54	1.2	1.2	ug/l	J	6020	10/28/14	1
Cobalt, Dissolved	7440-48-4	15.	0.26	0.50	1	ug/l		6020	10/28/14	1
Lead, Dissolved	7439-92-1	0.33	0.24	0.50	1	ug/l	J	6020	10/28/14	1
Nickel, Dissolved	7440-02-0	19.	0.35	0.50	1	ug/l		6020	10/28/14	1
Selenium, Dissolved	7782-49-2	6.6	1.9	2.5	5	ug/l		6020	10/31/14	5
Silver, Dissolved	7440-22-4	0.35	0.31	0.50	1	ug/l	J	6020	10/28/14	1
Thallium, Dissolved	7440-28-0	U	0.19	0.50	1	ug/l		6020	10/28/14	1
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l	J6	7470A	10/23/14	1
Aluminum, Dissolved	7429-90-5	U	350	500	1000	ug/l		6010B	10/24/14	10
Barium, Dissolved	7440-39-3	38.	17	25.	50	ug/l	J	6010B	10/24/14	10
Beryllium, Dissolved	7440-41-7	U	7	10.	20	ug/l		6010B	10/24/14	10
Copper, Dissolved	7440-50-8	U	53	100	200	ug/l		6010B	10/24/14	10
Manganese, Dissolved	7439-96-5	2200	12	50.	100	ug/l		6010B	10/24/14	10
Vanadium, Dissolved	7440-62-2	31.	24	100	200	ug/l	J	6010B	10/24/14	10
Zinc, Dissolved	7440-66-6	U	59	250	500	ug/l		6010B	10/24/14	10

U = Not Detected at the LOD

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 10/31/14 14:41 Revised: 11/18/14 11:37

L729034-01 (ICP METALS) - Sample was diluted and therefore MS/MSD data is invalid

CA 2/13/15



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 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : H-TU503-GW01-ND01
 Collected By :
 Collection Date : 10/21/14 12:20

ESC Sample # : L729034-02
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved <i>VJ FD-I</i>	7440-36-0	U	0.21	0.50	1	ug/l		6020	10/28/14	1
Arsenic, Dissolved	7440-38-2	1.5	0.25	0.50	1	ug/l		6020	10/28/14	1
Cadmium, Dissolved	7440-43-9	U	0.16	0.25	0.5	ug/l		6020	10/28/14	1
Chromium, Dissolved <i>U MB-I</i>	7440-47-3	2.2	0.54 <i>2.2</i>	1.0 <i>2.2</i>	2.2 <i>2.2</i>	ug/l		6020	10/28/14	1
Cobalt, Dissolved <i>FJ SOL, FD-I</i>	7440-48-4	0.39	0.26	0.50	1	ug/l	J	6020	10/28/14	1
Lead, Dissolved	7439-92-1	U	0.24	0.50	1	ug/l		6020	10/28/14	1
Nickel, Dissolved <i>J FD, IMS-I</i>	7440-02-0	1.4	0.35	0.50	1	ug/l		6020	10/28/14	1
Selenium, Dissolved <i>F SOL-I</i>	7782-49-2	2.5	1.9	2.5	5	ug/l	J	6020	10/31/14	5
Silver, Dissolved	7440-22-4	U	0.31	0.50	1	ug/l		6020	10/28/14	1
Thallium, Dissolved	7440-28-0	U	0.19	0.50	1	ug/l		6020	10/28/14	1
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/23/14	1
Aluminum, Dissolved	7429-90-5	U	350	500	1000	ug/l		6010B	10/24/14	10
Barium, Dissolved <i>F SOL-I</i>	7440-39-3	30.	17	25.	50	ug/l	J	6010B	10/24/14	10
Beryllium, Dissolved	7440-41-7	U	7	10.	20	ug/l		6010B	10/24/14	10
Copper, Dissolved	7440-50-8	U	53	100	200	ug/l		6010B	10/24/14	10
Manganese, Dissolved <i>J FD-I</i>	7439-96-5	1200	12	50.	100	ug/l		6010B	10/24/14	10
Vanadium, Dissolved <i>F SOL-I</i>	7440-62-2	38.	24	100	200	ug/l	J	6010B	10/24/14	10
Zinc, Dissolved	7440-66-6	U	59	250	500	ug/l		6010B	10/24/14	10

U = Not Detected at the LOD

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Reported: 10/31/14 14:41 Revised: 11/18/14 11:37

KA 2/13/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729034-03

Sample ID : H-TU503-GW01-DT01

Site ID :

Collected By :
Collection Date : 10/21/14 12:20

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony <i>US CCB, #TVPICS, #MS, FD-I</i>	7440-36-0	0.85	0.21	0.50	1	ug/l	J	6020	10/23/14	1
Arsenic <i>FD-I</i>	7440-38-2	82.	0.25	0.50	1	ug/l		6020	10/23/14	1
Cadmium	7440-43-9	5.0	0.16	0.25	0.5	ug/l		6020	10/23/14	1
Chromium	7440-47-3	260	0.54	1.0	2	ug/l		6020	10/23/14	1
Cobalt	7440-48-4	74.	0.26	0.50	1	ug/l		6020	10/23/14	1
Lead	7439-92-1	130	0.24	0.50	1	ug/l		6020	10/23/14	1
Nickel	7440-02-0	140	0.35	0.50	1	ug/l		6020	10/23/14	1
Selenium <i>MS-I</i>	7782-49-2	56.	0.38	0.50	1	ug/l		6020	10/23/14	1
Silver	7440-22-4	U	0.31	0.50	1	ug/l		6020	10/23/14	1
Thallium <i>FSOL-I</i>	7440-28-0	0.71	0.19	0.50	1	ug/l	J	6020	10/23/14	1
Mercury	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/23/14	1
Aluminum <i>FD-I, MS, FD-H</i>	7429-90-5	87000	350	500	1000	ug/l		6010B	10/23/14	10
Barium <i>FD-I</i>	7440-39-3	1000	17	25.	50	ug/l		6010B	10/23/14	10
Beryllium <i>FSOL-I</i>	7440-41-7	11.	7	10.	20	ug/l	J	6010B	10/23/14	10
Copper <i>FSOL-I</i>	7440-50-8	120	53	100	200	ug/l	J	6010B	10/23/14	10
Manganese	7439-96-5	5800	12	50.	100	ug/l		6010B	10/23/14	10
Vanadium	7440-62-2	480	24	100	200	ug/l		6010B	10/23/14	10
Zinc <i>FSOL-I</i>	7440-66-6	330	59	250	500	ug/l	J	6010B	10/23/14	10
TPH (GC/FID) Low Fraction <i>US MS-I</i>	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/27/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	101.				% Rec.		8015D/G	10/27/14	1
Volatile Organics										
Acetone <i>FSOL-I</i>	67-64-1	11.	10	25.	50	ug/l	J	8260B	10/25/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	10/25/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	10/25/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	10/25/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	10/25/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	10/25/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	10/25/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	10/25/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	10/25/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	10/25/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	10/25/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	10/25/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	10/25/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	10/25/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	10/25/14	1
Chloroform <i>FSOL-I, UFB-I, FSOL-I</i>	67-66-3	0.66	0.32	2.5	5	ug/l	J	8260B	10/25/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	10/25/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	10/25/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	10/25/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	10/25/14	1

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L729034-03 (ICP METALS) - Non-target compounds too high to run at a lower dilution.

KA 2/13/15
BMS 2/19/15
11 of 2157
BMS 2/19/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : H-TU503-GW01-DT01
Collected By :
Collection Date : 10/21/14 12:20

ESC Sample # : L729034-03

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	10/25/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	10/25/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	10/25/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	10/25/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	10/25/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	10/25/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	10/25/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	10/25/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	10/25/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	10/25/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	10/25/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	10/25/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	10/25/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	10/25/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	10/25/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	10/25/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	10/25/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	10/25/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	10/25/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	10/25/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	10/25/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	10/25/14	1
2-Butanone (MEK)	78-93-3	28.	3.9	5.0	10	ug/l		8260B	10/25/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	10/25/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	10/25/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	10/25/14	1
Naphthalene <i>F SOL-I</i>	91-20-3	1.3	1	2.5	5	ug/l	J	8260B	10/25/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	10/25/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	10/25/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	10/25/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	10/25/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	10/25/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	10/25/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	10/25/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	10/25/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	10/25/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	10/25/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	10/25/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	10/25/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	10/25/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	10/25/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	10/25/14	1
o-Xylene <i>F SOL-I</i>	95-47-6	0.44	0.34	0.50	1	ug/l	J	8260B	10/25/14	1
m&p-Xylene <i>F SOL-I</i>	1330-20-7	1.4	0.72	1.0	2	ug/l	J	8260B	10/25/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	10/25/14	1
Surrogate Recovery										

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Reported: 10/31/14 14:41 Revised: 11/18/14 11:37
L729034-03 (ICP METALS) - Non-target compounds too high to run at a lower dilution.

ICA zhslls



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : H-TU503-GW01-DT01
Collected By :
Collection Date : 10/21/14 12:20

ESC Sample # : L729034-03

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Toluene-d8	2037-26-5	102.				% Rec.		8260B	10/25/14	1
Dibromofluoromethane	1868-53-7	100.				% Rec.		8260B	10/25/14	1
4-Bromofluorobenzene	460-00-4	99.8				% Rec.		8260B	10/25/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		420	22	33.	100	ug/l		8015	10/29/14	1
C28-C40 Oil Range		150	12	33.	100	ug/l		8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	104.				% Rec.		8015	10/29/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene <i>MS-L</i>	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	10/29/14	1
Acenaphthene <i>MS-L</i>	83-32-9	0.062	0.0082	0.025	0.05	ug/l		8270 C-	10/29/14	1
Acenaphthylene <i>MS-L MS-L</i>	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo (a) anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo (a) pyrene <i>MS-L</i>	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo (b) fluoranthene <i>MS-L</i>	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo (g, h, i) perylene <i>MS-L</i>	191-24-2	U	0.016	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo (k) fluoranthene <i>MS-L</i>	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	10/29/14	1
Chrysene <i>MS-L</i>	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	10/29/14	1
Dibenz (a, h) anthracene <i>MS-L</i>	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	10/29/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/29/14	1
Fluorene <i>MS-L MS-L</i>	86-73-7	0.12	0.009	0.025	0.05	ug/l		8270 C-	10/29/14	1
Indeno (1, 2, 3-cd) pyrene <i>MS-L</i>	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	10/29/14	1
Naphthalene <i>DNR</i>	91-20-3	0.39	0.012	0.025	0.25	ug/l		8270 C-	10/29/14	1
Phenanthrene <i>MS-L</i>	85-01-8	0.25	0.018	0.025	0.05	ug/l		8270 C-	10/29/14	1
Pyrene <i>MS-L</i>	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/29/14	1
2-Methylnaphthalene <i>MS-L MS-L</i>	91-57-6	0.37	0.016	0.025	0.25	ug/l		8270 C-	10/29/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	81.4				% Rec.		8270 C-	10/29/14	1
2-Fluorobiphenyl	321-60-8	78.6				% Rec.		8270 C-	10/29/14	1
p-Terphenyl-d14	1718-51-0	86.2				% Rec.		8270 C-	10/29/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	10/23/14	1
Bis(2-chloroethyl)ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	10/23/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	10/23/14	1
Benzyl Alcohol	100-51-6	U	0.39	5.0	10	ug/l		8270C	10/23/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	10/23/14	1
Benzoic acid <i>MS-L-I</i>	65-85-0	3.3	0.44	5.0	10	ug/l	J	8270C	10/23/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	10/23/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	10/23/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	10/23/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	10/23/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	10/23/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	10/23/14	1

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Reported: 10/31/14 14:41 Revised: 11/18/14 11:37

L729034-03 (ICP METALS) - Non-target compounds too high to run at a lower dilution.

DNR: DO NOT REPORT

KA 2/13/15
BMS 2/19/15
13 of 2157
BMS 9/4/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : H-TU503-GW01-DT01
Collected By :
Collection Date : 10/21/14 12:20

ESC Sample # : L729034-03

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	10/23/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	10/23/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.33	5.0	10	ug/l		8270C	10/23/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	10/23/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	10/23/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	10/23/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	10/23/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	10/23/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	10/23/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	10/23/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	1.0	0.71	1.0	3	ug/l	J	8270C	10/23/14	1
Di-n-butyl phthalate	84-74-2	U	0.27	1.0	3	ug/l		8270C	10/23/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	10/23/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	10/23/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	10/23/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.36	5.0	10	ug/l		8270C	10/23/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	10/23/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	10/23/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	10/23/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	10/23/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	10/23/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l	J3	8270C	10/23/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	10/23/14	1
3&4-Methyl Phenol	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	10/23/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	10/23/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l	J3	8270C	10/23/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	10/23/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	10/23/14	1
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	10/23/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	10/23/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	10/23/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	10/23/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	10/23/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	10/23/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	10/23/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	34.4				% Rec.		8270C	10/23/14	1
Phenol-d5	4165-62-2	22.1				% Rec.		8270C	10/23/14	1
Nitrobenzene-d5	4165-60-0	67.6				% Rec.		8270C	10/23/14	1
2-Fluorobiphenyl	321-60-8	72.7				% Rec.		8270C	10/23/14	1
2,4,6-Tribromophenol	118-79-6	82.4				% Rec.		8270C	10/23/14	1
p-Terphenyl-d14	1718-51-0	69.0				% Rec.		8270C	10/23/14	1

DNR = Do Not Report

U = Not Detected at the LOD

Note:

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Reported: 10/31/14 14:41 Revised: 11/18/14 11:37

L729034-03 (ICP METALS) - Non-target compounds too high to run at a lower dilution.

KA 2/13/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : H-TU503-GW01-NT01
Collected By :
Collection Date : 10/21/14 12:20

ESC Sample # : L729034-04
Site ID :
Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony <i>UJCCBYZMS-I</i>	7440-36-0	0.96	0.21 <i>0.96</i>	0.50 <i>0.96</i>	1	ug/l	J	6020	10/23/14	1
Arsenic	7440-38-2	86.	0.25	0.50	1	ug/l		6020	10/23/14	1
Cadmium	7440-43-9	4.9	0.16	0.25	0.5	ug/l		6020	10/23/14	1
Chromium	7440-47-3	270	0.54	1.0	2	ug/l		6020	10/23/14	1
Cobalt	7440-48-4	78.	0.26	0.50	1	ug/l		6020	10/23/14	1
Lead	7439-92-1	140	0.24	0.50	1	ug/l		6020	10/23/14	1
Nickel	7440-02-0	160	0.35	0.50	1	ug/l		6020	10/23/14	1
Selenium <i>JMS-I</i>	7782-49-2	51.	0.38	0.50	1	ug/l		6020	10/23/14	1
Silver	7440-22-4	U	0.31	0.50	1	ug/l		6020	10/23/14	1
Thallium <i>FSOL-I</i>	7440-28-0	0.80	0.19	0.50	1	ug/l	J	6020	10/23/14	1
Mercury	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/23/14	1
Aluminum <i>J PD;ZMS-H</i>	7429-90-5	59000	350	500	1000	ug/l		6010B	10/23/14	10
Barium <i>J PD-I</i>	7440-39-3	760	17	250	50	ug/l		6010B	10/23/14	10
Beryllium <i>FSOL-I</i>	7440-41-7	8.2	7	10.	20	ug/l	J	6010B	10/23/14	10
Copper <i>FSOL-I</i>	7440-50-8	100	53	100	200	ug/l	J	6010B	10/23/14	10
Manganese	7439-96-5	6000	12	50.	100	ug/l		6010B	10/23/14	10
Vanadium	7440-62-2	410	24	100	200	ug/l		6010B	10/23/14	10
Zinc <i>FSOL-I</i>	7440-66-6	200	59	250	500	ug/l	J	6010B	10/23/14	10
TPH (GC/FID) Low Fraction <i>UJMS-I</i>	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/27/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	100.				% Rec.		8015D/G	10/27/14	1
Volatile Organics										
Acetone <i>FSOL-I</i>	67-64-1	11.	10	25.	50	ug/l	J	8260B	10/25/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	10/25/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	10/25/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	10/25/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	10/25/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	10/25/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	10/25/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	10/25/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	10/25/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	10/25/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	10/25/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	10/25/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	10/25/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	10/25/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	10/25/14	1
Chloroform <i>FSOL-I</i>	67-66-3	U	0.35 <i>0.35</i>	2.5 <i>2.5</i>	5	ug/l	J	8260B	10/25/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	10/25/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	10/25/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	10/25/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	10/25/14	1

U = Not Detected at the LOD

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Reported: 10/31/14 14:41 Revised: 11/18/14 11:37
L729034-04 (ICP METALS) - Non-target compounds too high to run at a lower dilution.
L729034-04 (DROOROLVI) - Dilution due to sample volume

KA 2/13/15
BMS 2/12/15
BMS 2/19/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729034-04

Sample ID : H-TU503-GW01-NT01

Site ID :

Collected By :
Collection Date : 10/21/14 12:20

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	10/25/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	10/25/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	10/25/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	10/25/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	10/25/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	10/25/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	10/25/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	10/25/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	10/25/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	10/25/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	10/25/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	10/25/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	10/25/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	10/25/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	10/25/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	10/25/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	10/25/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	10/25/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	10/25/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	10/25/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	10/25/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	10/25/14	1
2-Butanone (MEK)	78-93-3	20.	3.9	5.0	10	ug/l		8260B	10/25/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	10/25/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	10/25/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	10/25/14	1
Naphthalene <i>F SOL-I</i>	91-20-3	1.3	1	2.5	5	ug/l	J	8260B	10/25/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	10/25/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	10/25/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	10/25/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	10/25/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	10/25/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	10/25/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	10/25/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	10/25/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	10/25/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	10/25/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	10/25/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	10/25/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	10/25/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	10/25/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	10/25/14	1
o-Xylene <i>F SOL-I</i>	95-47-6	0.41	0.34	0.50	1	ug/l	J	8260B	10/25/14	1
m&p-Xylene <i>F SOL-I</i>	1330-20-7	1.4	0.72	1.0	2	ug/l	J	8260B	10/25/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	10/25/14	1
Surrogate Recovery										

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Reported: 10/31/14 14:41 Revised: 11/18/14 11:37

L729034-04 (ICP METALS) - Non-target compounds too high to run at a lower dilution.

L729034-04 (DROOROLVI) - Dilution due to sample volume

KA 2/13/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : H-TU503-GW01-NT01
Collected By :
Collection Date : 10/21/14 12:20

ESC Sample # : L729034-04

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Toluene-d8	2037-26-5	102.				% Rec.		8260B	10/25/14	1
Dibromofluoromethane	1868-53-7	101.				% Rec.		8260B	10/25/14	1
4-Bromofluorobenzene	460-00-4	99.3				% Rec.		8260B	10/25/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		390	25	38.	114	ug/l		8015	10/29/14	1.14
C28-C40 Oil Range		150	13	38.	114	ug/l		8015	10/29/14	1.14
Surrogate Recovery										
o-Terphenyl	84-15-1	103.				% Rec.		8015	10/29/14	1.14
Polynuclear Aromatic Hydrocarbons										
Anthracene <i>FS SOL MS-L-I</i>	120-12-7	0.027	0.013	0.025	0.05	ug/l	J	8270 C-	10/29/14	1
Acenaphthene <i>S MS-L</i>	83-32-9	0.066	0.0082	0.025	0.05	ug/l		8270 C-	10/29/14	1
Acenaphthylene <i>FS SOL MS-L</i>	208-96-8	0.013	0.011	0.025	0.05	ug/l	J	8270 C-	10/29/14	1
Benzo(a)anthracene <i>MS-L</i>	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo(a)pyrene <i>MS-L</i>	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo(b)fluoranthene <i>MS-L</i>	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo(g,h,i)perylene <i>MS-L</i>	191-24-2	U	0.016	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo(k)fluoranthene <i>MS-L</i>	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	10/29/14	1
Chrysene <i>MS-L</i>	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	10/29/14	1
Dibenz(a,h)anthracene <i>MS-L</i>	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	10/29/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/29/14	1
Fluorene <i>MS-L MS-F</i>	86-73-7	0.15	0.009	0.025	0.05	ug/l		8270 C-	10/29/14	1
Indeno(1,2,3-cd)pyrene <i>MS-L</i>	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	10/29/14	1
Naphthalene <i>DHR</i>	91-20-3	0.40	0.012	0.025	0.25	ug/l		8270 C-	10/29/14	1
Phenanthrene <i>MS-L</i>	85-01-8	0.28	0.018	0.025	0.05	ug/l		8270 C-	10/29/14	1
Pyrene <i>MS-L</i>	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/29/14	1
2-Methylnaphthalene <i>MS-D-KI</i>	91-57-6	0.47	0.016	0.025	0.25	ug/l		8270 C-	10/29/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	79.2				% Rec.		8270 C-	10/29/14	1
2-Fluorobiphenyl	321-60-8	77.2				% Rec.		8270 C-	10/29/14	1
p-Terphenyl-d14	1718-51-0	83.2				% Rec.		8270 C-	10/29/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	10/23/14	1
Bis(2-chloroethyl)ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	10/23/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	10/23/14	1
Benzyl Alcohol	100-51-6	U	0.39	5.0	10	ug/l		8270C	10/23/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	10/23/14	1
Benzoic acid	65-85-0	U	0.44	5.0	10	ug/l		8270C	10/23/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	10/23/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	10/23/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	10/23/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	10/23/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	10/23/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	10/23/14	1

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Reported: 10/31/14 14:41 Revised: 11/18/14 11:37

L729034-04 (ICP METALS) - Non-target compounds too high to run at a lower dilution.

L729034-04 (DROOROLVI) - Dilution due to sample volume

DHR: Do Not Report

*CA 2/13/15
BMS 2/19/15
17 of 2157*

BMS 7/4/15



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8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729034-04

Sample ID : H-TU503-GW01-NT01

Site ID :

Collected By :
Collection Date : 10/21/14 12:20

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	10/23/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	10/23/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.33	5.0	10	ug/l		8270C	10/23/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	10/23/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	10/23/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	10/23/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	10/23/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	10/23/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	10/23/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	10/23/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	1.1	0.71	1.0	3	ug/l	J	8270C	10/23/14	1
Di-n-butyl phthalate	84-74-2	U	0.27	1.0	3	ug/l		8270C	10/23/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	10/23/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	10/23/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	10/23/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.36	5.0	10	ug/l		8270C	10/23/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	10/23/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	10/23/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	10/23/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	10/23/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	10/23/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l	J3	8270C	10/23/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	10/23/14	1
3&4-Methyl Phenol	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	10/23/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	10/23/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l	J3	8270C	10/23/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	10/23/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	10/23/14	1
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	10/23/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	10/23/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	10/23/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	10/23/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	10/23/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	10/23/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	10/23/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	31.2				% Rec.		8270C	10/23/14	1
Phenol-d5	4165-62-2	19.7				% Rec.		8270C	10/23/14	1
Nitrobenzene-d5	4165-60-0	63.6				% Rec.		8270C	10/23/14	1
2-Fluorobiphenyl	321-60-8	63.6				% Rec.		8270C	10/23/14	1
2,4,6-Tribromophenol	118-79-6	71.4				% Rec.		8270C	10/23/14	1
p-Terphenyl-d14	1718-51-0	61.6				% Rec.		8270C	10/23/14	1

DNR = Do Not Report

U = Not Detected at the LOD

Note:

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Reported: 10/31/14 14:41 Revised: 11/18/14 11:37

L729034-04 (ICP METALS) - Non-target compounds too high to run at a lower dilution.

L729034-04 (DROOROLVI) - Dilution due to sample volume

KA 2/13/15



12065 Lebanon Rd.
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 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : H-TU503-GW10-ND01
 Collected By :
 Collection Date : 10/21/14 09:00

ESC Sample # : L729034-05
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved <i>J ICS-H</i>	7440-36-0	2.1	0.21	0.50	1	ug/l		6020	10/28/14	1
Arsenic, Dissolved	7440-38-2	1.3	0.25	0.50	1	ug/l		6020	10/28/14	1
Cadmium, Dissolved <i>U MB-I</i>	7440-43-9	0.23 0.25	0.16 0.25	0.25	0.5	ug/l	J	6020	10/28/14	1
Chromium, Dissolved <i>U MB-I</i>	7440-47-3	1.5	0.54 1.5	1.0 1.5	2	ug/l	J	6020	10/28/14	1
Cobalt, Dissolved	7440-48-4	14.	0.26	0.50	1	ug/l		6020	10/28/14	1
Lead, Dissolved	7439-92-1	U	0.24	0.50	1	ug/l		6020	10/28/14	1
Nickel, Dissolved <i>J MS, FD-I</i>	7440-02-0	19.	0.35	0.50	1	ug/l		6020	10/28/14	1
Selenium, Dissolved	7782-49-2	14.	1.9	2.5	5	ug/l		6020	10/31/14	5
Silver, Dissolved	7440-22-4	U	0.31	0.50	1	ug/l		6020	10/28/14	1
Thallium, Dissolved	7440-28-0	U	0.19	0.50	1	ug/l		6020	10/28/14	1
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/23/14	1
Aluminum, Dissolved	7429-90-5	U	350	500	1000	ug/l		6010B	10/24/14	10
Barium, Dissolved <i>F SOL-I</i>	7440-39-3	37.	17	25.	50	ug/l	J	6010B	10/24/14	10
Beryllium, Dissolved	7440-41-7	U	7	10.	20	ug/l		6010B	10/24/14	10
Copper, Dissolved	7440-50-8	U	53	100	200	ug/l		6010B	10/24/14	10
Manganese, Dissolved	7439-96-5	2000	12	50.	100	ug/l		6010B	10/24/14	10
Vanadium, Dissolved	7440-62-2	U	24	100	200	ug/l		6010B	10/24/14	10
Zinc, Dissolved	7440-66-6	U	59	250	500	ug/l		6010B	10/24/14	10

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Reported: 10/31/14 14:41 Revised: 11/18/14 11:38

ka-zis/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : H-TU503-GW10-NT01
Collected By :
Collection Date : 10/21/14 09:00

ESC Sample # : L729034-06

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony <i>UJ CCR₅ MS-I</i>	7440-36-0	0.50 0.47	0.21	0.50	1	ug/l	J	6020	10/23/14	1
Arsenic <i>J FO-I</i>	7440-38-2	24.	0.25	0.50	1	ug/l		6020	10/23/14	1
Cadmium <i>J ICS-H</i>	7440-43-9	0.96	0.16	0.25	0.5	ug/l		6020	10/23/14	1
Chromium <i>J FO-I</i>	7440-47-3	76.	0.54	1.0	2	ug/l		6020	10/23/14	1
Cobalt <i>J FO-I</i>	7440-48-4	19.	0.26	0.50	1	ug/l		6020	10/23/14	1
Lead	7439-92-1	39.	0.24	0.50	1	ug/l		6020	10/23/14	1
Nickel <i>J FO-I</i>	7440-02-0	40.	0.35	0.50	1	ug/l		6020	10/23/14	1
Selenium <i>J MS-I</i>	7782-49-2	14.	0.38	0.50	1	ug/l		6020	10/23/14	1
Silver	7440-22-4	U	0.31	0.50	1	ug/l		6020	10/23/14	1
Thallium <i>F SOL-I</i>	7440-28-0	0.20	0.19	0.50	1	ug/l	J	6020	10/23/14	1
Mercury	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/23/14	1
Aluminum <i>J MS, FO-H</i>	7429-90-5	30000	350	500	1000	ug/l		6010B	10/23/14	10
Barium <i>J FO-I</i>	7440-39-3	590	17	25.	50	ug/l		6010B	10/23/14	10
Beryllium	7440-41-7	U	7	10.	20	ug/l		6010B	10/23/14	10
Copper <i>F SOL-I</i>	7440-50-8	59.	53	100	200	ug/l	J	6010B	10/23/14	10
Manganese	7439-96-5	2400	12	50.	100	ug/l		6010B	10/23/14	10
Vanadium <i>F SOL-I</i>	7440-62-2	160	24	100	200	ug/l	J	6010B	10/23/14	10
Zinc <i>F SOL-I</i>	7440-66-6	100	59	250	500	ug/l	J	6010B	10/23/14	10
TPH (GC/FID) Low Fraction <i>J MS-I</i>	8006-61-9	750	31	50.	100	ug/l		8015D/G	10/27/14	1
Surrogate Recovery- a,a,a-Trifluorotoluene(FID)	98-08-8	99.3				% Rec.		8015D/G	10/27/14	1
Volatile Organics										
Acetone	67-64-1	U	100	250	500	ug/l		8260B	10/28/14	10
Benzene	71-43-2	17.	3.3	5.0	10	ug/l		8260B	10/28/14	10
Bromobenzene	108-86-1	U	3.5	5.0	10	ug/l		8260B	10/28/14	10
Bromochloromethane	74-97-5	U	5.2	7.5	10	ug/l		8260B	10/28/14	10
Bromodichloromethane	75-27-4	U	3.8	5.0	10	ug/l		8260B	10/28/14	10
Bromoform	75-25-2	U	4.7	5.0	10	ug/l		8260B	10/28/14	10
Bromomethane	74-83-9	U	8.7	25.	50	ug/l		8260B	10/28/14	10
n-Butylbenzene <i>F SOL-I</i>	104-51-8	8.0	3.6	5.0	10	ug/l	J	8260B	10/28/14	10
sec-Butylbenzene <i>F SOL-I</i>	135-98-8	5.9	3.6	5.0	10	ug/l	J	8260B	10/28/14	10
tert-Butylbenzene	98-06-6	U	4	5.0	10	ug/l		8260B	10/28/14	10
Carbon Disulfide <i>F SOL-I</i>	75-15-0	4.5	2.8	5.0	10	ug/l	J	8260B	10/28/14	10
Carbon tetrachloride	56-23-5	U	3.8	5.0	10	ug/l		8260B	10/28/14	10
Chlorobenzene	108-90-7	U	3.5	5.0	10	ug/l		8260B	10/28/14	10
Chlorodibromomethane	124-48-1	U	3.3	5.0	10	ug/l		8260B	10/28/14	10
Chloroethane	75-00-3	U	4.5	25.	50	ug/l		8260B	10/28/14	10
Chloroform	67-66-3	U	3.2	25.	50	ug/l		8260B	10/28/14	10
Chloromethane	74-87-3	U	2.8	5.0	25	ug/l		8260B	10/28/14	10
2-Chlorotoluene	95-49-8	U	3.8	5.0	10	ug/l		8260B	10/28/14	10
4-Chlorotoluene	106-43-4	U	3.5	5.0	10	ug/l		8260B	10/28/14	10
1,2-Dibromo-3-Chloropropane	96-12-8	U	13	25.	50	ug/l		8260B	10/28/14	10

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Reported: 10/31/14 14:41 Revised: 11/18/14 11:38

L729034-06 (ICP METALS) - Non-target compounds too high to run at a lower dilution.

KAZ/SHS
BMS 2/19/15
20 of 2157



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : H-TU503-GW10-NT01
Collected By :
Collection Date : 10/21/14 09:00

ESC Sample # : L729034-06

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
1,2-Dibromoethane	106-93-4	U	3.8	5.0	10	ug/l		8260B	10/28/14	10
Dibromomethane	74-95-3	U	3.5	5.0	10	ug/l		8260B	10/28/14	10
1,2-Dichlorobenzene	95-50-1	U	3.5	5.0	10	ug/l		8260B	10/28/14	10
1,3-Dichlorobenzene	541-73-1	U	2.2	5.0	10	ug/l		8260B	10/28/14	10
1,4-Dichlorobenzene	106-46-7	U	2.7	5.0	10	ug/l		8260B	10/28/14	10
Dichlorodifluoromethane	75-71-8	U	5.5	25.	50	ug/l		8260B	10/28/14	10
1,1-Dichloroethane	75-34-3	U	2.6	5.0	10	ug/l		8260B	10/28/14	10
1,2-Dichloroethane	107-06-2	U	3.6	5.0	10	ug/l		8260B	10/28/14	10
1,1-Dichloroethene	75-35-4	U	4	5.0	10	ug/l		8260B	10/28/14	10
cis-1,2-Dichloroethene	156-59-2	U	2.6	5.0	10	ug/l		8260B	10/28/14	10
trans-1,2-Dichloroethene	156-60-5	U	4	5.0	10	ug/l		8260B	10/28/14	10
1,2-Dichloropropane	78-87-5	U	3.1	5.0	10	ug/l		8260B	10/28/14	10
1,1-Dichloropropene	563-58-6	U	3.5	5.0	10	ug/l		8260B	10/28/14	10
1,3-Dichloropropane	142-28-9	U	3.7	5.0	10	ug/l		8260B	10/28/14	10
cis-1,3-Dichloropropene	10061-01-5	U	4.2	5.0	10	ug/l		8260B	10/28/14	10
trans-1,3-Dichloropropene	10061-02-6	U	4.2	5.0	10	ug/l		8260B	10/28/14	10
2,2-Dichloropropane	594-20-7	U	3.2	5.0	10	ug/l		8260B	10/28/14	10
Ethylbenzene	100-41-4	20.	3.8	5.0	10	ug/l		8260B	10/28/14	10
2-Hexanone	591-78-6	U	38	50.	100	ug/l		8260B	10/28/14	10
Hexachloro-1,3-butadiene	87-68-3	U	2.6	5.0	10	ug/l		8260B	10/28/14	10
Isopropylbenzene <i>FSOL-I</i>	98-82-8	6.2	3.3	5.0	10	ug/l	J	8260B	10/28/14	10
p-Isopropyltoluene <i>FSOL-I</i>	99-87-6	4.5	3.5	5.0	10	ug/l	J	8260B	10/28/14	10
2-Butanone (MEK)	78-93-3	U	39	50.	100	ug/l		8260B	10/28/14	10
Methylene Chloride	75-09-2	U	10	25.	50	ug/l		8260B	10/28/14	10
4-Methyl-2-pentanone (MIBK)	108-10-1	U	21	50.	100	ug/l		8260B	10/28/14	10
Methyl tert-butyl ether	1634-04-4	U	3.7	5.0	10	ug/l		8260B	10/28/14	10
Naphthalene	91-20-3	340	10	25.	50	ug/l		8260B	10/28/14	10
n-Propylbenzene	103-65-1	10.	3.5	5.0	10	ug/l		8260B	10/28/14	10
Styrene	100-42-5	U	3.1	5.0	10	ug/l		8260B	10/28/14	10
1,1,1,2-Tetrachloroethane	630-20-6	U	3.8	5.0	10	ug/l		8260B	10/28/14	10
1,1,2,2-Tetrachloroethane	79-34-5	U	5.8	7.5	10	ug/l		8260B	10/28/14	10
Tetrachloroethene	127-18-4	U	3.7	5.0	10	ug/l		8260B	10/28/14	10
Toluene	108-88-3	U	7.8	25.	50	ug/l		8260B	10/28/14	10
1,2,3-Trichlorobenzene	87-61-6	U	2.3	5.0	10	ug/l		8260B	10/28/14	10
1,2,4-Trichlorobenzene <i>DNR</i>	120-82-1	U	2.1	5.0	10	ug/l		8260B	10/28/14	10
1,1,1-Trichloroethane	71-55-6	U	3.19	5.0	10	ug/l		8260B	10/28/14	10
1,1,2-Trichloroethane	79-00-5	U	3.8	5.0	10	ug/l		8260B	10/28/14	10
Trichloroethene	79-01-6	U	4	5.0	10	ug/l		8260B	10/28/14	10
Trichlorofluoromethane	75-69-4	U	12	25.	50	ug/l		8260B	10/28/14	10
1,2,3-Trichloropropane	96-18-4	U	8.1	10.	25	ug/l		8260B	10/28/14	10
1,2,4-Trimethylbenzene	95-63-6	31.	3.7	5.0	10	ug/l		8260B	10/28/14	10
1,3,5-Trimethylbenzene	108-67-8	U	3.9	5.0	10	ug/l		8260B	10/28/14	10
o-Xylene	95-47-6	U	3.4	5.0	10	ug/l		8260B	10/28/14	10
m&p-Xylene	1330-20-7	U	7.2	10.	20	ug/l		8260B	10/28/14	10
Vinyl chloride	75-01-4	U	2.6	5.0	10	ug/l		8260B	10/28/14	10

U = Not Detected at the LOD

Note:

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Reported: 10/31/14 14:41 Revised: 11/18/14 11:38

L729034-06 (ICP METALS) - Non-target compounds too high to run at a lower dilution.

DNR = Do Not Report

KA2/13/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : H-TU503-GW10-NT01
Collected By :
Collection Date : 10/21/14 09:00

ESC Sample # : L729034-06

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Toluene-d8	2037-26-5	99.0				% Rec.		8260B	10/28/14	10
Dibromofluoromethane	1868-53-7	99.3				% Rec.		8260B	10/28/14	10
4-Bromofluorobenzene	460-00-4	102.				% Rec.		8260B	10/28/14	10
Diesel and Oil Ranges										
C10-C28 Diesel Range		130000	2200	3300	10000	ug/l		8015	10/29/14	100
C28-C40 Oil Range		1300	12	33.	100	ug/l		8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	0.00				% Rec.	J7	8015	10/29/14	100
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.13	0.25	0.5	ug/l		8270 C-	10/29/14	10
Acenaphthene	83-32-9	U	0.082	0.25	0.5	ug/l		8270 C-	10/29/14	10
Acenaphthylene	208-96-8	U	0.11	0.25	0.5	ug/l		8270 C-	10/29/14	10
Benzo(a)anthracene	56-55-3	U	0.12	0.25	0.5	ug/l		8270 C-	10/29/14	10
Benzo(a)pyrene	50-32-8	U	0.16	0.25	0.5	ug/l		8270 C-	10/29/14	10
Benzo(b)fluoranthene	205-99-2	U	0.19	0.25	0.5	ug/l		8270 C-	10/29/14	10
Benzo(g,h,i)perylene	191-24-2	U	0.16	0.25	0.5	ug/l		8270 C-	10/29/14	10
Benzo(k)fluoranthene	207-08-9	U	0.26	0.35	0.5	ug/l		8270 C-	10/29/14	10
Chrysene	218-01-9	U	0.14	0.25	0.5	ug/l		8270 C-	10/29/14	10
Dibenz(a,h)anthracene	193-39-5	U	0.045	0.25	0.5	ug/l		8270 C-	10/29/14	10
Fluoranthene	206-44-0	U	0.16	0.25	0.5	ug/l		8270 C-	10/29/14	10
Fluorene	86-73-7	0.14	0.09	0.25	0.5	ug/l	J	8270 C-	10/29/14	10
Indeno(1,2,3-cd)pyrene	193-39-5	U	0.074	0.25	0.5	ug/l		8270 C-	10/29/14	10
Naphthalene	91-20-3	0.80	0.12	0.25	2.5	ug/l	J	8270 C-	10/29/14	10
Phenanthrene	85-01-8	0.29	0.18	0.25	0.5	ug/l	J	8270 C-	10/29/14	10
Pyrene	129-00-0	U	0.16	0.25	0.5	ug/l		8270 C-	10/29/14	10
2-Methylnaphthalene	91-57-6	0.45	0.16	0.25	2.5	ug/l	J	8270 C-	10/29/14	10
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	85.3				% Rec.		8270 C-	10/29/14	10
2-Fluorobiphenyl	321-60-8	83.4				% Rec.		8270 C-	10/29/14	10
p-Terphenyl-d14	1718-51-0	88.9				% Rec.		8270 C-	10/29/14	10
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	10/23/14	1
Bis(2-chloroethyl)ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	10/23/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	10/23/14	1
Benzyl Alcohol	100-51-6	0.58	0.39	5.0	10	ug/l	J	8270C	10/23/14	1
Carbazole	86-74-8	13.	0.16	5.0	10	ug/l		8270C	10/23/14	1
Benzoic acid	65-85-0	U	0.44	5.0	10	ug/l		8270C	10/23/14	1
Dibenzofuran	132-64-9	10.	0.34	5.0	10	ug/l		8270C	10/23/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	10/23/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	10/23/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	10/23/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	10/23/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	10/23/14	1

U = Not Detected at the LOD

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Reported: 10/31/14 14:41 Revised: 11/18/14 11:38

L729034-06 (ICP METALS) - Non-target compounds too high to run at a lower dilution.

DNR: DO NOT REPORT

*KA 2/13/15
BMS 2/17/15
22 of 2157*

RMS 9/4/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB

ESC Sample # : L729034-06

Sample ID : H-TU503-GW10-NT01

Site ID :

Collected By :
Collection Date : 10/21/14 09:00

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	10/23/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	10/23/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.33	5.0	10	ug/l		8270C	10/23/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	10/23/14	1
Isophorone <i>F SOL-I</i>	78-59-1	7.3	0.27	5.0	10	ug/l	J	8270C	10/23/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	10/23/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	10/23/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	10/23/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	10/23/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	10/23/14	1
Bis(2-ethylhexyl)phthalate <i>F SOL-I</i>	117-81-7	1.3	0.71	1.0	3	ug/l	J	8270C	10/23/14	1
Di-n-butyl phthalate <i>F SOL-I</i>	84-74-2	0.36	0.27	1.0	3	ug/l	J	8270C	10/23/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	10/23/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	10/23/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	10/23/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.36	5.0	10	ug/l		8270C	10/23/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	10/23/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	10/23/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	10/23/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	10/23/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	10/23/14	1
2,4-Dinitrophenol <i>UJ LCS-I</i>	51-28-5	U	3.2	5.0	10	ug/l	J3	8270C	10/23/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	10/23/14	1
3&4-Methyl Phenol <i>FJ SOL,CCAL-L</i>	3&4-Methyl	0.45	0.27	5.0	10	ug/l	J	8270C	10/23/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	10/23/14	1
4-Nitrophenol <i>UJ LCS-I</i>	100-02-7	U	2	5.0	10	ug/l	J3	8270C	10/23/14	1
4-Chloroaniline <i>F SOL-I</i>	106-47-8	5.6	0.38	5.0	10	ug/l	J	8270C	10/23/14	1
2-Nitroaniline <i>F SOL-I</i>	88-74-4	2.8	1.9	5.0	10	ug/l	J	8270C	10/23/14	1
3-Nitroaniline <i>F SOL-I</i>	99-09-2	2.5	0.31	5.0	10	ug/l	J	8270C	10/23/14	1
1,2-Diphenylhydrazine <i>F SOL-I</i>	103-33-3	2.0	0.32	5.0	10	ug/l	J	8270C	10/23/14	1
4-Nitroaniline <i>FJ SOL,CCAL-L</i>	100-01-6	0.54	0.35	5.0	10	ug/l	J	8270C	10/23/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	10/23/14	1
Phenol <i>F SOL-I</i>	108-95-2	0.43	0.33	5.0	10	ug/l	J	8270C	10/23/14	1
2,4,5-Trichlorophenol <i>F SOL-I</i>	95-95-4	5.4	0.24	5.0	10	ug/l	J	8270C	10/23/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	10/23/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	61.1				% Rec.		8270C	10/23/14	1
Phenol-d5	4165-62-2	52.1				% Rec.		8270C	10/23/14	1
Nitrobenzene-d5	4165-60-0	81.5				% Rec.		8270C	10/23/14	1
2-Fluorobiphenyl	321-60-8	75.2				% Rec.		8270C	10/23/14	1
2,4,6-Tribromophenol	118-79-6	107.				% Rec.		8270C	10/23/14	1
p-Terphenyl-d14	1718-51-0	71.3				% Rec.		8270C	10/23/14	1

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Reported: 10/31/14 14:41 Revised: 11/18/14 11:38

L729034-06 (ICP METALS) - Non-target compounds too high to run at a lower dilution.

CA 2/13/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
Description : Holloman AFB
Sample ID : H-TU503-TRIPBLANK-TT01
Collected By :
Collection Date : 10/21/14 14:00

ESC Sample # : L729034-07

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TFP (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/27/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	100.				% Rec.		8015D/G	10/27/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	10/28/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	10/28/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	10/28/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	10/28/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	10/28/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	10/28/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	10/28/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	10/28/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	10/28/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	10/28/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	10/28/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	10/28/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	10/28/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	10/28/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	10/28/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	10/28/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	10/28/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	10/28/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	10/28/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	10/28/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	10/28/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	10/28/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	10/28/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	10/28/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	10/28/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	10/28/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	10/28/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	10/28/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	10/28/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	10/28/14	1

U = Not Detected at the LOD

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KA 2-13-15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 22, 2014
 Description : Holloman AFB
 Sample ID : H-TU503-TRIPBLANK-TT01
 Collected By :
 Collection Date : 10/21/14 14:00

ESC Sample # : L729034-07

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	10/28/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	10/28/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	10/28/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	10/28/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	10/28/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	10/28/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	10/28/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	10/28/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	10/28/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	10/28/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	10/28/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	10/28/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	10/28/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	10/28/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	10/28/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	10/28/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	10/28/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	10/28/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	10/28/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	10/28/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	10/28/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	10/28/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	100.				% Rec.		8260B	10/28/14	1
Dibromofluoromethane	1868-53-7	97.6				% Rec.		8260B	10/28/14	1
4-Bromofluorobenzene	460-00-4	98.0				% Rec.		8260B	10/28/14	1

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Reported: 10/31/14 14:41 Revised: 11/18/14 11:38

KA 2/13/15

**Holloman AFB
Groundwater Monitoring
Data Review Summary**

Data Package Number: L729559
 Sampling Event Dates: October 22, 2014
 Sample-specific Parameter Review/Laboratory Performance Parameters: Yes
 Full Validation (e.g. result recalculation): No
 Data Reviewer: Katie Abbott, URS Project Chemist
 Date Completed: February 2, 2015
 Peer Reviewer: Sheri Fling, URS Project Quality Assurance Manager (QAM)

The table below summarizes the data package and sample identifications discussed in this data review.

Field Identification	Sample Type	Lab Identification	Matrix	Analyses							
				GRO	DRO/ORO	VOCs	PAHs	SVOCs	Dissolved Metals	Total Metals	
L729559											
H-TU503-GW13-ND01	SA	L729559-01	Water	---	---	---	---	---	X ^m	---	
H-TU503-GW13-NT01	SA	L729559-02	Water	X ^m	---	X ^m					
H-TU503-TRIPBLANK-TT01	TB	L729559-03	Water	X	---	X	---	---	---	---	

Sample Type: SA – Sample FD - Field Duplicate TB – Trip Blank
 X^m - Matrix Spike/Matrix Spike Duplicate

Analyses:
 DRO/ORO - Diesel and Oil Range Organics (8015D)
 GRO – Gasoline Range Organics (8015D)
 Total/Dissolved Metals – Antimony, Arsenic, Cadmium, Chromium, Cobalt, Lead, Nickel, Selenium, Silver, Thallium, Mercury, Aluminum, Barium, Beryllium, Copper, Manganese, Vanadium, Zinc (6010B/6020/7470A)
 PAH – Polynuclear Aromatic Hydrocarbons (8270C SIM)
 SIM – Selective Ion Monitoring
 SVOCs – Semivolatile Organic Compounds (8270C)
 VOCs – Volatile Organic Compounds (8260B)

The data review was conducted in accordance with the Final Interim Measures Work Plan – Appendix A, Sampling and Analysis Plan/Quality Assurance Project Plan: Former Septic System Site TU904 (URS, September 2014); Group 2 Former Underground Storage Sites: AOC-UST-889 (TU515) (URS, September 2014); and Group 3 Former Underground Storage Tank Sites: AOC-UST-221 (TU503), AOC-UST-298 (TU508), AOC-UST-901 (TU506) and AOC-UST-7003 (TU518) (URS, August 2014); data validation standard operating procedure (SOP) 14; Department of Defense (DoD) Quality Systems Manual version 4.2 (DoD, 2010); and method requirements.

General Overall Assessment:

- Data are usable without qualification.
 Data are usable with qualification (noted below).
 Some or all data are unusable for any purpose (detailed below).

Case Narrative Comments: Any laboratory case narrative comments concerning data qualification were addressed in the table below.

Trace level detects, reported between the method detection limit (MDL) and the reporting limit (LOQ), have been qualified as estimated (F SQL-I). All other occurrences of data qualification are covered in the following table.

Review Parameter	Criteria Met?	Comment
Chain of Custody & Sample Receipt	Yes	The samples were received by ESC Lab Sciences in good condition and were consistent with the accompanying chain of custody (COC). The cooler temperatures upon receipt were within the recommended ≤ 6 degrees Celsius ($^{\circ}\text{C}$) temperature range.
Reporting	Yes	<p>During review of a representative data package selected for full validation, it was noted that improper reference spectra were displayed in the printed version of the data package for Method 8260B. Due to a LIMS limitation, the data package reference spectra were not consistently representative of the actual spectra for the analytes detected. Because the laboratory data review involves the use of NBS reference spectra and not the reference spectra taken from the instrument calibration, the analyst was not seeing the improper alignment of spectra noted in the data package during his/her review at the instrument. The laboratory revised and reissued the data package with correct reference spectral data, consistent with method requirements, and no results were changed. Therefore, no further action is necessary as a result of this validation finding.</p> <p>Method 8270C Semivolatile Organic Compounds (SVOCs)</p> <p>The results for 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene are not reported by Method 8270C SVOCs but are reported by Method 8260B volatile organic compounds (VOCs). As the detection limits (DLs), limits of detection (LODs), and limits of quantitation (LOQs) are lower by Method 8260B, further action was not necessary.</p> <p>The laboratory noted 4-methylphenol cannot be reported as 3 & 4-methylphenol coelute during the analysis; therefore, the analytes are reported together and 3&4-methylphenol on the data sheets and in the electronic database.</p>
Holding Times	Yes	All samples were analyzed within the method required holding time.
Laboratory Blanks <ul style="list-style-type: none"> Method Blank Continuing Calibration Blank 	No	With the exceptions listed in Table 1, target analytes were not detected within the method or calibration blanks.
Matrix Quality Control <ul style="list-style-type: none"> Matrix Spike/ Matrix Spike Duplicate H-TU503-GW13-ND01 (Dissolved Metals) H-TU503-GW13-NT01 (Total Metals, GRO, VOCs, DRO, SVOCs, PAHs) Total vs. Partial Analyses (Metals) 	No	<p>Matrix Spike/ Matrix Spike Duplicate (MS/MSD)</p> <p>The frequency of MS/MSDs met the QAPP requirement of one per twenty samples.</p> <p>With the exceptions listed in Table 2, the MS/MSD recoveries and relative percent differences (RPDs) met quality control criteria.</p> <p>The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the sample matrix could not be assessed for oil range organics (ORO).</p> <p>Results in the native sample greater than four times the concentration of the spike added during digestions/extractions are not considered to be a</p>

Review Parameter	Criteria Met?	Comment
		<p>representative measure of accuracy. Further action with respect to spike recovery evaluation or qualification of data was not considered necessary.</p> <p>Consistent with standard operating procedure (SOP) 14, when MS/MSD issues accounted for less than 35% of the MS/MSD analyses conducted, applicable data qualification was limited to qualification of the parent sample of the affected analyte. When >35% of the MS/MSD results did not meet criteria, evaluation was extended to all associated samples. See Section 4.1 of the data validation report for overall qualifiers resulting from the MS/MSD evaluation.</p> <p>Total vs. Partial Analyses (Metals)</p> <p>Consistent with SOP 14, results for the total analysis of a particular analyte should be greater than the results for a partial analyte of that analyte. The following criteria were used to evaluate the total versus dissolved results:</p> <ul style="list-style-type: none"> • In instances where the value for a partial analysis exceed that for a total analysis and both of the results are >5xLOQ, the criterion utilized is that the two values should agree within $\pm 30\%$. • In instances where the value for a partial analysis exceeds that for a total analysis and either of the results is 5x the LOQ, the absolute difference between the results is compared against an evaluation criterion of 2xLOQ. <p>The total metal sample results were compared with the associated dissolved sample results against the concentration-dependent criteria set forth in SOP 14.</p>
<p>Metals Only</p> <ul style="list-style-type: none"> • Post Digestion Spike H-TU503-GW13-NT01 (Total Mercury) • Serial Dilution H-TU503-GW13-ND01 (Dissolved Metals) H-TU503-GW13-NT01 (Total Metals) 	No	<p>Serial Dilution (Metals Only)</p> <p>Consistent with the method, only the results that were greater than 50 times their respective DLs were appropriate for comparing to the serial dilution evaluation criterion. With the exceptions listed in Table 3, all percent differences (%Ds) between the original sample results and the results obtained from the sample-diluted 1:5 were $\leq 10\%$.</p> <p>Post Digestion Spike (PDS) (Metals Only)</p> <p>All PDS recoveries were within the acceptance limits.</p>
<p>Method Quality Control</p> <ul style="list-style-type: none"> • Surrogates (VOCs, PAHs, SVOCs, GRO, DRO/ORO) 	Yes	<p>The surrogate recoveries were within the laboratory specified acceptance criteria.</p>
<p>Field Quality Control</p> <ul style="list-style-type: none"> • Trip Blank H-TU503-TRIPBLANK-TT01 (GRO, VOCs) • Field Duplicate None in this package • Equipment Blank None in this package • Field Blank None in this package 	Yes	<p>Trip Blank</p> <p>Target analytes were not detected in the trip blank.</p> <p>Field Duplicate</p> <p>The frequency of field duplicates met the QAPP requirement of one per twenty samples.</p> <p>A field duplicate was not submitted with the data package.</p> <p>Consistent with SOP 14, when field duplicate issues accounted for less than 35% of the field duplicate analyses conducted, applicable data qualification was limited to qualification of the parent sample for the affected analyte. When >35% of the field duplicate results did not meet criteria, evaluation was extended to all associated samples. See Section 4.3 of the data</p>

Review Parameter	Criteria Met?	Comment
		<p>validation report for overall qualifiers resulting from the field duplicate evaluation.</p> <p>Equipment Blank</p> <p>As dedicated equipment was used to collect these samples, an equipment blank was not submitted for this sampling event. Further action was not necessary.</p> <p>Field Blank</p> <p>The frequency of field blanks met the QAPP requirement of one per twenty samples.</p> <p>A field blank was not submitted with this data package. See Section 4.4 of the data validation report for overall qualifiers resulting from the field blank evaluation.</p>
LODs met?	No	Due to dilutions, the antimony, silver, and thallium results for sample H-TU503-GW13-NT01 were reported as non-detect at elevated LODs. See Section 3.7 of the validation report for further discussion.
Other Parameters	Yes	<p>Naphthalene (8260B and 8270C-PAHs) and hexachloro-1,3-butadiene and 1,2,4-trichlorobenzene (8260B and 8270C) were analyzed by multiple methods. Results were selected for reporting using the following criteria:</p> <ul style="list-style-type: none"> • If both results were non-detect, the non-detect result with the lower DL was selected. • If both results were reported as detected, the higher detected result was selected for reporting. • If one result was reported as non-detect and the other result was reported as detected, the detected result was selected for reporting.
Initial Calibration	Yes	<p>Methods 8260B VOCs & 8270C SVOCs</p> <p>A minimum relative response factor (RRF) of 0.05 was used for the system performance check compounds (SPCCs) and all SPCCs met this criterion. The percent relative standard deviations (%RSDs) over the initial calibration RRFs for all calibration check compounds (CCCs) satisfied the method requirement of <30%. For all other target compounds, a requirement of 15% was used. The %RSD values for all target analytes in the calibration were less than 15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)</p> <p>The %RSD values for all target analytes in the calibration were less than 20%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8015D Gasoline Range Organics (GRO)/DRO/ORO</p> <p>The relationship between instrument response and concentration was established with a blank and at least five standards for each analyte. The %RSD over the initial calibrations curve satisfied the method requirement of <15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Methods 6010B (Inductively Coupled Plasma [ICP] Metals) and 6020 (ICPMS Metals)</p> <p>The initial calibrations (ICALs) were performed in association with the samples reported in this package. The relationship between instrument</p>

Review Parameter	Criteria Met?	Comment
		<p>response and concentration was established with a blank and at least five standards. The calibrations were verified with the analysis of an initial calibration verification (ICV) standard. All metals were recovered within the method acceptance range of 90-110%.</p> <p>7470A (Mercury)</p> <p>The ICALs were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with five standards. The correlation coefficient was >0.995. The calibration was verified with the analysis of an ICV standard. The analytes were recovered within the acceptance range of 90-110%. Response and linearity criteria were met and data qualification on the basis of initial calibration was not necessary.</p>
Initial Calibration Verification/Continuing Calibration Verification	No	<p>Method 8260B VOCs</p> <p>The percent differences (%Ds) for all CCCs in the ICVs and continuing calibrations (CCALs) were less than 20%, satisfying method requirements, and other target analytes satisfied the %D criterion of 20%.</p> <p>Methods 8270C PAHs/SVOCs</p> <p>With the exceptions listed in Table 5, the %D values for all target analytes in the calibration were less than 20%.</p> <p>Method 8015D GRO/Method 8015 DRO/ORO</p> <p>The %Ds for GRO and DRO/ORO (C10-C40) in the ICVs and CCALs were less than 15%. Data qualification was not necessary.</p> <p>Methods 6010B (ICP Metals), 6020 (ICPMS Metals), and 7470A (Mercury)</p> <p>Calibration verification analyses were conducted at the proper frequency. All metals were recovered within the DOD QSM 4.2 low level acceptance range of 80-120% and the method medium/high acceptance range of 90-110%.</p>
Interference Check Standard (Metals Only)	No	<p>The interference check standard (ICS) AB solutions were analyzed at the proper frequency. The target analytes were recovered within the acceptance range of 80-120% in the ICS AB solution. With the exceptions listed in Table 6, interferent elements were not present in the samples at concentrations greater than those in the ICSs.</p> <p>The interferent elements aluminum, calcium, iron, and magnesium were present in most samples in this data package at concentrations greater than or equal to those in the ICSs. As such, these samples were evaluated for positive and negative biases suggested by the ICS A. Data qualification was issued if the absolute value of the ICS A result was greater than the DL and it suggested a positive or negative bias which accounted for more than 25% of associated sample results or LODs. (Note: The ICS A solution only contains the interferent elements aluminum, calcium, iron, and magnesium so any positive or negative result for other analytes is inferred to be a bias potentially caused by one or more of the interferent elements present). Table 6 summarizes the resultant data qualification on the basis of the ICS results.</p>

Review Parameter	Criteria Met?	Comment
Internal Standard (VOCs/SVOCs/PAHs/Metals (6020))	Yes	Recoveries for the internal standards in field samples were within the applicable acceptance limits. Therefore, data qualification based on internal standards was not necessary.
Laboratory Control Sample/ Laboratory Control Sample Duplicate	Yes	One laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) per method per analytical batch was prepared and analyzed. All of the LCS recoveries and LCS/LCSD RPDs were within the QAPP acceptance limits. These results are indicative of an acceptable level of accuracy and precision with respect to the analytical method. Method 8015 DRO/ORO The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the method could not be assessed for ORO.
Package Completeness	No	With the exception of the benzoic acid result for sample H-TU503-GW13-NT01, which was qualified as unusable due to MS/MSD recoveries <10%, the results are usable as qualified for the project objective. The data are 99% complete.

> - Greater Than
 < - Less Than
 ≤ - Less Than or Equal to
 ± - Plus or Minus
 °C – Degrees Celsius
 % - Percent
 %Ds – Percent Differences
 %RSD – Percent Relative Standard Deviation
 CCALs – Continuing Calibrations
 CCBs – Continuing Calibration Blanks
 CCCs – Calibration Check Compounds
 COC – Chain of Custody
 COD – Coefficient of Determination
 DLs – Detection Limits
 DRO – Diesel Range Organics
 GRO – Gasoline Range Organics
 ICAL – Initial Calibration
 ICB – Initial Calibration Blank

ICP – Inductively Coupled Plasma
 ICPMS - Inductively Coupled Plasma Mass Spectrometry
 ICS – Interference Check Standard
 ICV – Initial Calibration Verification
 LCS – Laboratory Control Sample
 LCSD – Laboratory Control Sample Duplicate
 LOD – Limit of Detection
 LOQ – Limit of Quantitation
 MS/MSD – Matrix Spike/ Matrix Spike Duplicate
 ORO – Oil Range Organics
 PAHs – Polynuclear Aromatic Hydrocarbons
 PDS – Post Digestion Spike
 QAPP – Quality Assurance Project Plan
 RPDs – Relative Percent Differences
 RRF – Relative Response Factor
 SOP – Standard Operating Procedure
 SPCCs – System Performance Check Compounds
 VOCs – Volatile Organic Compounds

Table 1: Blank Outliers and Resultant Data Qualification

Associated Samples	Analyte	Concentration	Qualification
Total Metals			
MB Batch WG751215 H-TU503-GW13-NT01	Cadmium	0.160 µg/L	None. The associated results were reported at concentrations >5x the concentration of the blank contamination.
MB Batch WG751559 H-TU503-GW13-NT01	Lead	0.246 µg/L	
CCB 10/28/2014 5:14PM H-TU503-GW13-NT01	Mercury	0.084 µg/L	
Dissolved Metals			
MB Batch WG750742 H-TU503-GW13-ND01	Copper	5.42 µg/L	None. The associated results were reported as non-detect or at concentrations >5x the concentration of the blank contamination.
	Manganese	2.24 µg/L	

Associated Samples	Analyte	Concentration	Qualification
	Zinc	11.6 µg/L	The associated result for sample H-TU503-GW13-ND01 was reported at a concentration <5x the concentration of the blank contamination and was qualified as non-detect (U MB-I).
MB Batch WG751129 H-TU503-GW13-ND01	Cadmium	0.160 µg/L	None. The associated results were reported as non-detect or at concentrations >5x the concentration of the blank contamination.
	Lead	0.323 µg/L	
MB Batch WG751129 H-TU503-GW13-ND01	Chromium	0.768 µg/L	The associated result for sample H-TU503-GW13-ND01 was reported at a concentration <5x the concentration of the blank contamination and was qualified as non-detect (U MB-I).
PAHs			
MB Batch WG750797 H-TU503-GW13-NT01	Naphthalene	0.0182 µg/L	None. The associated results were reported at concentrations >5x the concentration of the blank contamination.

> - Greater Than

CCB – Continuing Calibration Blank

PAHs – Polynuclear Aromatic Hydrocarbons

< - Less Than

I – Indeterminate Bias

U – Non-detect

µg/L – Micrograms per Liter

MB – Method Blank

Table 2: MS/MSD Recovery and RPD Outliers and Resultant Data Qualification

Associated Sample	Analyte	%R (Limits)	RPD (Limit)	Qualification
Total Metals				
H-TU503-GW13-NT01	Mercury	56/30 (80-120)	37 (30)	As the potential bias was considered to be low, and the RPD was outside of control limits, the associated mercury result for sample H-TU503-GW13-NT01 was qualified as estimated (UJ MS, D-L).
	Antimony	31/34 (80-120)	8 (30)	As the potential bias was considered to be low, the associated antimony result for sample H-TU503-GW13-NT01 was qualified as estimated (UJ MS-L).
	Lead	123/108 (80-120)	6 (30)	As the potential bias was considered to be high, the associated detected lead result for sample H-TU503-GW13-NT01 was qualified as estimated (J MS-H).
	Selenium	66/97 (80-120)	23 (30)	As the potential bias was considered to be low, the associated selenium result for sample H-TU503-GW13-NT01 was qualified as estimated (J MS-L).
	Thallium	99/125 (80-120)	23 (30)	As the potential bias was considered to be high, and the associated

Associated Sample	Analyte	%R (Limits)	RPD (Limit)	Qualification
				thallium result for sample H-TU503-GW13-NT01 was reported as non-detect, data qualification was not considered necessary.
Dissolved Metals				
H-TU503-GW13-ND01	Nickel	70/56 (80-120)	9 (30)	As the potential bias was considered to be low, the associated nickel result for sample H-TU503-GW13-ND01 was qualified as estimated (J MS-L).
GRO				
H-TU503-GW13-NT01	GRO	80.4/78.3 (80-120)	2.65 (20)	As the potential bias was considered to be low, the associated GRO result for sample H-TU503-GW13-NT01 was qualified as estimated (UJ MS-L).
VOCs				
H-TU503-GW13-NT01	1,2-Dibromo-3-Chloropropane	116/134 (50-130)	15 (30)	As the potential bias was considered to be high, and the associated results for sample H-TU503-GW13-NT01 were reported as non-detect, data qualification was not considered necessary.
	2-Hexanone	124/133 (55-130)	7 (30)	
SVOCs				
H-TU503-GW13-NT01	Benzoic Acid	128/135 (10-125)	5.88 (30)	As the potential bias was considered to be high, and the associated benzoic acid result for sample H-TU503-GW13-NT01 was reported as non-detect, data qualification was not considered necessary.
	Benzyl Alcohol	6.15/6.5 (30-110)	5.53 (30)	As the potential bias was considered to be low, and the percent recovery <10%, the associated non-detect benzyl alcohol result was qualified as unusable (R).
PAHs				
H-TU503-GW13-NT01	2-Methylnaphthalene	139/0.12 (45-105)	39.8 (20)	As the potential bias was considered to be low, and the RPD was outside of control limits, the associated 2-methylnaphthalene result for sample H-TU503-GW13-NT01 was qualified as estimated (J MS, D-I).
	Acenaphthylene	107/102 (50-105)	5.53 (20)	As the potential bias was considered to be high, the associated detected results for sample H-TU503-GW13-NT01 were qualified as estimated (J MS-H). Qualifications were not
	Anthracene	117/112 (55-110)	4.44 (20)	
	Benzo(a)anthracene	114/108 (55-110)	5.15 (20)	

Table 6: ICS Outliers and Resultant Data Qualification

Interferent Element	Analyte	ICS A (µg/L)	MDL (µg/L)	Qualified Samples	Qualification
Calcium	Zinc	-14.3	5.9	H-TU503-GW13-ND01	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ/J ICS-L).
	Copper	-16	5.3	H-TU503-GW13-NT01	
Calcium, Magnesium					

µg/L – Micrograms per Liter
MDL – Method Detection Limit

ICS – Interference Check Standard
UJ/J - Estimated

L – Low Bias



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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : H-TU503-GW13-ND01
 Collected By :
 Collection Date : 10/22/14 11:35

ESC Sample # : L729559-01
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved <i>F SOL-I</i>	7440-36-0	0.61	0.21	0.50	1	ug/l	J	6020	10/30/14	1
Arsenic, Dissolved	7440-38-2	3.0	0.25	0.50	1	ug/l		6020	10/30/14	1
Cadmium, Dissolved	7440-43-9	U	0.16	0.25	0.5	ug/l		6020	10/30/14	1
Chromium, Dissolved <i>U MB-I</i>	7440-47-3	3.0 6.0	2.7 3.0	5.0	10	ug/l	J	6020	10/31/14	5
Cobalt, Dissolved	7440-48-4	14.	0.26	0.50	1	ug/l		6020	10/30/14	1
Lead, Dissolved	7439-92-1	5.3	0.24	0.50	1	ug/l		6020	10/30/14	1
Nickel, Dissolved <i>J MS+KFD-L</i>	7440-02-0	45.	1.8	2.5	5	ug/l	01J6	6020	10/31/14	5
Selenium, Dissolved	7782-49-2	2.3	0.38	0.50	1	ug/l		6020	10/30/14	1
Silver, Dissolved	7440-22-4	U	0.31	0.50	1	ug/l		6020	10/30/14	1
Thallium, Dissolved	7440-28-0	U	0.19	0.50	1	ug/l		6020	10/30/14	1
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/27/14	1
Aluminum, Dissolved	7429-90-5	100	35	50.	100	ug/l		6010B	10/27/14	1
Barium, Dissolved	7440-39-3	39.	1.7	2.5	5	ug/l		6010B	10/27/14	1
Beryllium, Dissolved	7440-41-7	U	0.7	1.0	2	ug/l		6010B	10/27/14	1
Copper, Dissolved <i>UJ ICS-L</i>	7440-50-8	U	5.3	10.	20	ug/l		6010B	10/27/14	1
Manganese, Dissolved	7439-96-5	2500	1.2	5.0	10	ug/l		6010B	10/27/14	1
Vanadium, Dissolved <i>F SOL-I</i>	7440-62-2	13.	2.4	10.	20	ug/l	J	6010B	10/27/14	1
Zinc, Dissolved <i>U MB-I</i>	7440-66-6	9.9 25	5.9 9.9	25.	50	ug/l	J	6010B	10/27/14	1

U = Not Detected at the LOD

Note:

The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.
 Reported: 11/14/14 18:37 Revised: 11/18/14 11:04
 L729559-01 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KAZ/13/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : H-TU503-GW13-NT01
Collected By :
Collection Date : 10/22/14 11:35

ESC Sample # : L729559-02

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony <i>J MS-L</i>	7440-36-0	U	1.9	4.5	9	ug/l	J6	6020	10/28/14	9
Arsenic <i>J DL-L, FD-L</i>	7440-38-2	270	2.2	4.5	9	ug/l		6020	10/28/14	9
Cadmium	7440-43-9	11.	1.4	2.3	4.5	ug/l		6020	10/28/14	9
Chromium <i>J DL-L, FD-L</i>	7440-47-3	850	4.9	9.0	18	ug/l		6020	10/28/14	9
Cobalt <i>J DL-L, FD-L</i>	7440-48-4	390	2.3	4.5	9	ug/l		6020	10/28/14	9
Lead <i>J MS-L</i>	7439-92-1	57.	1.2	2.5	5	ug/l		6020	10/31/14	5
Nickel <i>J DL-L, FD-L</i>	7440-02-0	730	3.2	4.5	9	ug/l		6020	10/28/14	9
Selenium <i>J MS-L</i>	7782-49-2	230	17	23.	45	ug/l	01J6	6020	10/31/14	45
Silver	7440-22-4	U	2.8	4.5	9	ug/l		6020	10/28/14	9
Thallium	7440-28-0	U	8.6	23.	45	ug/l	J3	6020	10/31/14	45
Mercury <i>J MS, D-L</i>	7439-97-6	0.82	0.049	0.080	0.2	ug/l	J6J3	7470A	10/28/14	1
Aluminum <i>J MS, FD-L</i>	7429-90-5	46000	180	250	500	ug/l	V	6010B	10/29/14	5
Barium <i>J FD-L</i>	7440-39-3	540	8.5	13.	25	ug/l		6010B	10/29/14	5
Beryllium	7440-41-7	13.	3.5	5.0	10	ug/l		6010B	10/29/14	5
Copper <i>F3 SOL, ICS-L</i>	7440-50-8	62.	26	50.	100	ug/l	J	6010B	10/29/14	5
Manganese	7439-96-5	8300	6	25.	50	ug/l		6010B	10/29/14	5
Vanadium	7440-62-2	380	12	50.	100	ug/l		6010B	10/29/14	5
Zinc <i>F3 ICS-L, F3 SOL, ICS-L</i>	7440-66-6	230	30	130	250	ug/l	J	6010B	10/29/14	5
TPH (GC/FID) Low Fraction <i>VJ MS-L</i>	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/26/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	99.4				% Rec.		8015D/G	10/26/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	10/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	10/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	10/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	10/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	10/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
Carbon Disulfide	75-15-0	1.2	0.28	0.50	1	ug/l		8260B	10/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	10/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	10/26/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	10/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	10/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	10/26/14	1

U = Not Detected at the LOD

Note:

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Reported: 11/14/14 18:37 Revised: 11/18/14 11:04

L729559-02 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

Handwritten: KA2/13/15
BMS 2/19/15
10 of 1929



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : H-TU503-GW13-NT01
 Collected By :
 Collection Date : 10/22/14 11:35

ESC Sample # : L729559-02

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	10/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	10/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	10/26/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	10/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l	J4	8260B	10/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	10/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	10/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	10/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	10/26/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	10/26/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	10/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	10/26/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
Naphthalene	91-20-3	5.7	1	2.5	5	ug/l		8260B	10/26/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	10/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	10/26/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	10/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	10/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	10/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	10/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Trichloroethene	79-01-6	5.9	0.4	0.50	1	ug/l		8260B	10/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	10/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	10/26/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	10/26/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	10/26/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	10/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
Surrogate Recovery										

U = Not Detected at the LOD

Note:

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Reported: 11/14/14 18:37 Revised: 11/18/14 11:04

L729559-02 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KA 2/13/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : H-TU503-GW13-NT01
Collected By :
Collection Date : 10/22/14 11:35

ESC Sample # : L729559-02

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Toluene-d8	2037-26-5	100.				% Rec.		8260B	10/26/14	1
Dibromofluoromethane	1868-53-7	98.2				% Rec.		8260B	10/26/14	1
4-Bromofluorobenzene	460-00-4	97.4				% Rec.		8260B	10/26/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		630	22	33.	100	ug/l		8015	10/29/14	1
C28-C40 Oil Range		300	12	33.	100	ug/l		8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	112.				% Rec.		8015	10/29/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene <i>FSOL, MS-H</i>	120-12-7	0.023	0.013	0.025	0.05	ug/l	J	8270 C-	10/29/14	1
Acenaphthene	83-32-9	0.17	0.0082	0.025	0.05	ug/l		8270 C-	10/29/14	1
Acenaphthylene <i>FSOL, MS-H</i>	208-96-8	0.031	0.011	0.025	0.05	ug/l	J	8270 C-	10/29/14	1
Benzo (a) anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo (a) pyrene <i>MS-H</i>	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo (b) fluoranthene <i>MS-H</i>	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo (g, h, i) perylene <i>MS-H</i>	191-24-2	U	0.016	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo (k) fluoranthene <i>MS-H</i>	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	10/29/14	1
Chrysene <i>MS-H</i>	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	10/29/14	1
Dibenz (a, h) anthracene <i>MS-H</i>	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	10/29/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/29/14	1
Fluorene <i>J MS-H</i>	86-73-7	0.28	0.009	0.025	0.05	ug/l	J5	8270 C-	10/29/14	1
Indeno (1,2,3-cd) pyrene <i>MS-H</i>	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	10/29/14	1
Naphthalene <i>DNR</i>	91-20-3	2.5	0.012	0.025	0.25	ug/l	J6J3	8270 C-	10/29/14	1
Phenanthrene	85-01-8	0.21	0.018	0.025	0.05	ug/l	J5	8270 C-	10/29/14	1
Pyrene <i>FSOL-I</i>	129-00-0	0.020	0.016	0.025	0.05	ug/l	J5	8270 C-	10/29/14	1
2-Methylnaphthalene <i>J MS-H</i>	91-57-6	5.6	0.016	0.025	0.25	ug/l	J5J6	8270 C-	10/29/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	90.1				% Rec.		8270 C-	10/29/14	1
2-Fluorobiphenyl	321-60-8	85.3				% Rec.		8270 C-	10/29/14	1
p-Terphenyl-d14	1718-51-0	92.6				% Rec.		8270 C-	10/29/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	0.41	6.3	12.5	ug/l		8270C	10/28/14	1.25
Bis(2-chloroethyl) ether	111-44-4	U	2	6.3	12.5	ug/l		8270C	10/28/14	1.25
Bis(2-chloroisopropyl) ether	108-60-1	U	0.56	6.3	12.5	ug/l		8270C	10/28/14	1.25
Benzyl Alcohol <i>R</i>	100-51-6	U	0.49	6.3	12.5	ug/l	J6	8270C	10/28/14	1.25
Carbazole	86-74-8	U	0.2	6.3	12.5	ug/l		8270C	10/28/14	1.25
Benzoic acid	65-85-0	U	0.55	6.3	12.5	ug/l	J5	8270C	10/28/14	1.25
Dibenzofuran	132-64-9	U	0.42	6.3	12.5	ug/l		8270C	10/28/14	1.25
4-Bromophenyl-phenylether	101-55-3	U	0.44	6.3	12.5	ug/l		8270C	10/28/14	1.25
2-Chloronaphthalene	91-58-7	U	0.41	0.63	1.25	ug/l		8270C	10/28/14	1.25
4-Chlorophenyl-phenylether	7005-72-3	U	0.38	6.3	12.5	ug/l		8270C	10/28/14	1.25
3,3-Dichlorobenzidine	91-94-1	U	2.5	6.3	12.5	ug/l		8270C	10/28/14	1.25
2,4-Dinitrotoluene	121-14-2	U	2.1	6.3	12.5	ug/l		8270C	10/28/14	1.25

U = Not Detected at the LOD

Note:

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Reported: 11/14/14 18:37 Revised: 11/18/14 11:04

L729559-02 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

DNR: DO NOT REPORT

KAZ/1/15

BMS 11/15

BMS 9/2/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : H-TU503-GW13-NT01
Collected By :
Collection Date : 10/22/14 11:35

ESC Sample # : L729559-02

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2,6-Dinitrotoluene	606-20-2	U	0.35	6.3	12.5	ug/l		8270C	10/28/14	1.25
Hexachlorobenzene	118-74-1	U	0.43	0.63	1.25	ug/l		8270C	10/28/14	1.25
Hexachloro-1,3-butadiene <i>DNR</i>	87-68-3	U	0.41	6.3	12.5	ug/l		8270C	10/28/14	1.25
Hexachloroethane	67-72-1	U	0.46	6.3	12.5	ug/l		8270C	10/28/14	1.25
Isophorone	78-59-1	U	0.34	6.3	12.5	ug/l		8270C	10/28/14	1.25
Nitrobenzene	98-95-3	U	0.46	6.3	12.5	ug/l		8270C	10/28/14	1.25
n-Nitrosodimethylamine	62-75-9	U	1.6	6.3	12.5	ug/l		8270C	10/28/14	1.25
n-Nitrosodiphenylamine	86-30-6	U	0.38	6.3	12.5	ug/l		8270C	10/28/14	1.25
n-Nitrosodi-n-propylamine	621-64-7	U	0.5	6.3	12.5	ug/l		8270C	10/28/14	1.25
Benzylbutyl phthalate	85-68-7	U	0.34	1.3	3.75	ug/l		8270C	10/28/14	1.25
Bis(2-ethylhexyl)phthalate	117-81-7	U	0.89	1.3	3.75	ug/l		8270C	10/28/14	1.25
Di-n-butyl phthalate <i>F SGL-I</i>	84-74-2	0.56	0.33	1.3	3.75	ug/l	J	8270C	10/28/14	1.25
Diethyl phthalate	84-66-2	U	0.35	1.3	3.75	ug/l		8270C	10/28/14	1.25
Dimethyl phthalate	131-11-3	U	0.35	1.3	3.75	ug/l		8270C	10/28/14	1.25
Di-n-octyl phthalate	117-84-0	U	0.35	1.3	3.75	ug/l		8270C	10/28/14	1.25
1,2,4-Trichlorobenzene <i>DNR</i>	120-82-1	U	0.44	6.3	12.5	ug/l		8270C	10/28/14	1.25
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.33	6.3	12.5	ug/l		8270C	10/28/14	1.25
2-Chlorophenol	95-57-8	U	0.35	6.3	12.5	ug/l		8270C	10/28/14	1.25
2,4-Dichlorophenol	120-83-2	U	0.36	6.3	12.5	ug/l		8270C	10/28/14	1.25
2,4-Dimethylphenol	105-67-9	U	0.78	6.3	12.5	ug/l		8270C	10/28/14	1.25
4,6-Dinitro-2-methylphenol	534-52-1	U	3.3	6.3	12.5	ug/l		8270C	10/28/14	1.25
2,4-Dinitrophenol	51-28-5	U	4.1	6.3	12.5	ug/l		8270C	10/28/14	1.25
2-Methylphenol	95-48-7	U	0.39	6.3	12.5	ug/l		8270C	10/28/14	1.25
3&4-Methyl Phenol <i>US CAL-L</i>	3&4-Methyl	U	0.33	6.3	12.5	ug/l		8270C	10/28/14	1.25
2-Nitrophenol	88-75-5	U	0.4	6.3	12.5	ug/l		8270C	10/28/14	1.25
4-Nitrophenol	100-02-7	U	2.5	6.3	12.5	ug/l	J4	8270C	10/28/14	1.25
4-Chloroaniline	106-47-8	U	0.48	6.3	12.5	ug/l		8270C	10/28/14	1.25
2-Nitroaniline	88-74-4	U	2.4	6.3	12.5	ug/l		8270C	10/28/14	1.25
3-Nitroaniline	99-09-2	U	0.38	6.3	12.5	ug/l		8270C	10/28/14	1.25
1,2-Diphenylhydrazine	103-33-3	U	0.4	6.3	12.5	ug/l		8270C	10/28/14	1.25
4-Nitroaniline	100-01-6	U	0.44	6.3	12.5	ug/l		8270C	10/28/14	1.25
Pentachlorophenol	87-86-5	U	0.39	6.3	12.5	ug/l	J5	8270C	10/28/14	1.25
Phenol	108-95-2	U	0.42	6.3	12.5	ug/l		8270C	10/28/14	1.25
2,4,5-Trichlorophenol	95-95-4	U	0.3	6.3	12.5	ug/l		8270C	10/28/14	1.25
2,4,6-Trichlorophenol	88-06-2	U	0.37	6.3	12.5	ug/l		8270C	10/28/14	1.25
Surrogate Recovery										
2-Fluorophenol	367-12-4	43.5				% Rec.		8270C	10/28/14	1.25
Phenol-d5	4165-62-2	33.1				% Rec.		8270C	10/28/14	1.25
Nitrobenzene-d5	4165-60-0	54.7				% Rec.		8270C	10/28/14	1.25
2-Fluorobiphenyl	321-60-8	54.7				% Rec.		8270C	10/28/14	1.25
2,4,6-Tribromophenol	118-79-6	64.3				% Rec.		8270C	10/28/14	1.25
p-Terphenyl-d14	1718-51-0	55.2				% Rec.		8270C	10/28/14	1.25

DNR = Do Not Report

U = Not Detected at the LOD
Note:

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Reported: 11/14/14 18:37 Revised: 11/18/14 11:04
L729559-02 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

ICA 2/13/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : H-TU503-TRIPBLANK-TT01
Collected By :
Collection Date : 10/23/14 12:00

ESC Sample # : L729559-03
Site ID :
Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/26/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	100.				% Rec.		8015D/G	10/26/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	10/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	10/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	10/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	10/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	10/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	10/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	10/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	10/26/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	10/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	10/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	10/26/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	10/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	10/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	10/26/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	10/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l	J4	8260B	10/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	10/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	10/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	10/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	10/26/14	1

U = Not Detected at the LOD

Note:

The reported analytical results relate only to the sample submitted.
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KA 2/13/14



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : H-TU503-TRIPBLANK-TT01
 Collected By :
 Collection Date : 10/23/14 12:00

ESC Sample # : L729559-03

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	10/26/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	10/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	10/26/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	10/26/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	10/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	10/26/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	10/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	10/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	10/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	10/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	10/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	10/26/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	10/26/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	10/26/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	10/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	99.2				% Rec.		8260B	10/26/14	1
Dibromofluoromethane	1868-53-7	99.0				% Rec.		8260B	10/26/14	1
4-Bromofluorobenzene	460-00-4	94.2				% Rec.		8260B	10/26/14	1

U = Not Detected at the LOD

Note:

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Reported: 11/14/14 18:37 Revised: 11/18/14 11:04

KAZ/11/15

**Holloman AFB
Groundwater Monitoring
Data Review Summary**

Data Package Number: L729561
 Sampling Event Dates: October 21-23, 2014
 Sample-specific Parameter Review/Laboratory Performance Parameters: Yes
 Full Validation (e.g. result recalculation): No
 Data Reviewer: Katie Abbott, URS Project Chemist
 Date Completed: February 3, 2015
 Peer Reviewer: Sheri Fling, URS Project Quality Assurance Manager (QAM)

The table below summarizes the data package and sample identifications discussed in this data review.

Field Identification	Sample Type	Lab Identification	Matrix	Analyses						
				GRO	DRO/ORO	VOCs	PAHs	SVOCs	Dissolved Metals	Total Metals
L729561										
H-TU503-GW02-ND01	SA	L729561-01	Water	---	---	---	---	---	X	---
H-TU503-GW02-NT01	SA	L729561-02	Water	X	X	X	X	X	---	X
H-TU503-GW12-ND01	SA	L729561-03	Water	---	---	---	---	---	X	---
H-TU503-GW12-NT01	SA	L729561-04	Water	X	X	X	X	X	---	X
H-TU503-GW14-ND01	SA	L729561-05	Water	---	---	---	---	---	X	---
H-TU503-GW14-NT01	SA	L729561-06	Water	X	X	X	X	X	---	X
H-TU503-TRIPBLANK-TT02	TB	L729561-07	Water	X	---	X	---	---	---	---

Sample Type: SA – Sample TB – Trip Blank
 X^m - Matrix Spike/Matrix Spike Duplicate

Analyses:
 DRO/ORO - Diesel and Oil Range Organics (8015D)
 GRO – Gasoline Range Organics (8015D)
 Total/Dissolved Metals – Antimony, Arsenic, Cadmium, Chromium, Cobalt, Lead, Nickel, Selenium, Silver, Thallium, Mercury, Aluminum, Barium, Beryllium, Copper, Manganese, Vanadium, Zinc (6010B/6020/7470A)
 PAHs – Polynuclear Aromatic Hydrocarbons (8270C SIM)
 SIM – Selective Ion Monitoring
 SVOCs – Semivolatile Organic Compounds (8270C)
 VOCs – Volatile Organic Compounds (8260B)

The data review was conducted in accordance with the Final Interim Measures Work Plan – Appendix A, Sampling and Analysis Plan/Quality Assurance Project Plan: Former Septic System Site TU904 (URS, September 2014); Group 2 Former Underground Storage Sites: AOC-UST-889 (TU515) (URS, September 2014); and Group 3 Former Underground Storage Tank Sites: AOC-UST-221 (TU503), AOC-UST-298 (TU508), AOC-UST-901 (TU506) and AOC-UST-7003 (TU518) (URS, August 2014); data validation standard operating procedure (SOP) 14; Department of Defense (DoD) Quality Systems Manual version 4.2 (DoD, 2010); and method requirements.

General Overall Assessment:

- Data are usable without qualification.
- Data are usable with qualification (noted below).
- Some or all data are unusable for any purpose (detailed below).

Case Narrative Comments: Any laboratory case narrative comments concerning data qualification were addressed in the table below.

Trace level detects, reported between the method detection limit (MDL) and the reporting limit (LOQ), have been qualified as estimated (F SQL-I). All other occurrences of data qualification are covered in the following table.

Review Parameter	Criteria Met?	Comment
Chain of Custody & Sample Receipt	No	<p>The samples were received by ESC Lab Sciences in good condition and were consistent with the accompanying chain of custody (COC). The cooler temperatures upon receipt were within the recommended ≤6 degrees Celsius (°C) temperature range.</p> <p>The laboratory noted that one of the two bottles submitted for total metals analysis on sample H-TU503-GW14-NT01 was received at an improper pH; therefore, an additional 5mL of nitric acid was added to the bottle. The 6010B and lead by 6020 analyses were performed from the bottle requiring additional preservation; therefore, the associated results were qualified as estimated (J P-I).</p>
Reporting	Yes	<p>During review of a representative data package selected for full validation, it was noted that improper reference spectra were displayed in the printed version of the data package for Method 8260B. Due to a LIMS limitation, the data package reference spectra were not consistently representative of the actual spectra for the analytes detected. Because the laboratory data review involves the use of NBS reference spectra and not the reference spectra taken from the instrument calibration, the analyst was not seeing the improper alignment of spectra noted in the data package during his/her review at the instrument. The laboratory revised and reissued the data package with correct reference spectral data, consistent with method requirements, and no results were changed. Therefore, no further action is necessary as a result of this validation finding.</p> <p>Method 8270C Semivolatile Organic Compounds (SVOCs)</p> <p>The results for 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene are not reported by Method 8270C SVOCs but are reported by Method 8260B volatile organic compounds (VOCs). As the detection limits (DLs), limits of detection (LODs), and limits of quantitation (LOQs) are lower by Method 8260B, further action was not necessary.</p> <p>The laboratory noted 4-methylphenol cannot be reported as 3 & 4-methylphenol coelute during the analysis; therefore, the analytes are reported together and 3&4-methylphenol on the data sheets and in the electronic database.</p>
Holding Times	Yes	All samples were analyzed within the method required holding time.
Laboratory Blanks <ul style="list-style-type: none"> • Method Blank • Continuing Calibration Blank 	No	With the exceptions listed in Table 1, target analytes were not detected within the method or calibration blanks.

Review Parameter	Criteria Met?	Comment
<p>Matrix Quality Control</p> <ul style="list-style-type: none"> Matrix Spike/ Matrix Spike Duplicate None in this package Total vs. Partial Analyses (Metals) 	Yes	<p>Matrix Spike/ Matrix Spike Duplicate (MS/MSD)</p> <p>The frequency of MS/MSDs met the QAPP requirement of one per twenty samples.</p> <p>An MS/MSD was not performed on a sample from this data package.</p> <p>Consistent with standard operating procedure (SOP) 14, when MS/MSD issues accounted for less than 35% of the MS/MSD analyses conducted, applicable data qualification was limited to qualification of the parent sample of the affected analyte. When >35% of the MS/MSD results did not meet criteria, evaluation was extended to all associated samples. See Section 4.1 of the data validation report for overall qualifiers resulting from the MS/MSD evaluation.</p> <p>Total vs. Partial Analyses (Metals)</p> <p>Consistent with SOP 14, results for the total analysis of a particular analyte should be greater than the results for a partial analyte of that analyte. The following criteria were used to evaluate the total versus dissolved results:</p> <ul style="list-style-type: none"> In instances where the value for a partial analysis exceed that for a total analysis and both of the results are >5xLOQ, the criterion utilized is that the two values should agree within $\pm 30\%$. In instances where the value for a partial analysis exceeds that for a total analysis and either of the results is 5x the LOQ, the absolute difference between the results is compared against an evaluation criterion of 2xLOQ. <p>The total metal sample results were compared with the associated dissolved sample results against the concentration-dependent criteria set forth in SOP 14.</p>
<p>Metals Only</p> <ul style="list-style-type: none"> Serial Dilution None in this package Post Digestion Spike None in this package 	NA	<p>Serial Dilution (Metals Only)</p> <p>A serial dilution was not reported in association with the sample in this data package.</p> <p>Post Digestion Spike (PDS) (Metals Only)</p> <p>A post digestion spike was not reported in association with the sample in this data package.</p>
<p>Method Quality Control</p> <ul style="list-style-type: none"> Surrogates (VOCs, PAHs, SVOCs, GRO, DRO/ORO) 	Yes	<p>The surrogate recoveries were within the laboratory specified acceptance criteria.</p>
<p>Field Quality Control</p> <ul style="list-style-type: none"> Trip Blank H-TU503-TRIPBLANK-TT02 (GRO, VOCs) Field Duplicate None in this package Equipment Blank None in this package Field Blank None in this package 	Yes	<p>Trip Blank</p> <p>Target analytes were not detected in the trip blank.</p> <p>Field Duplicate</p> <p>The frequency of field duplicates met the QAPP requirement of one per twenty samples.</p> <p>A field duplicate was not submitted with the data package.</p> <p>Consistent with SOP 14, when field duplicate issues accounted for less than 35% of the field duplicate analyses conducted, applicable data qualification was limited to qualification of the parent sample for the affected analyte. When >35% of the field duplicate results did not meet criteria, evaluation</p>

Review Parameter	Criteria Met?	Comment
		<p>was extended to all associated samples. See Section 4.3 of the data validation report for overall qualifiers resulting from the field duplicate evaluation.</p> <p>Equipment Blank</p> <p>As dedicated equipment was used to collect these samples, an equipment blank was not submitted for this sampling event. Further action was not necessary.</p> <p>Field Blank</p> <p>The frequency of field blanks met the QAPP requirement of one per twenty samples.</p> <p>A field blank was not submitted with this data package. See Section 4.4 of the data validation report for overall qualifiers resulting from the field blank evaluation.</p>
LODs met?	No	<p>Due to dilutions, the dissolved metals by Methods 6010B and 6020 for all samples, as well as the total metals by 6010B on sample H-TU503-GW02-NT01 and the 6010B and 6020 metals on sample H-TU503-GW14-NT01 were reported as non-detect at elevated LODs. See Section 3.7 of the validation report for further discussion.</p>
Other Parameters	Yes	<p>Naphthalene (8260B and 8270C-PAHs) and hexachloro-1,3-butadiene and 1,2,4-trichlorobenzene (8260B and 8270C) were analyzed by multiple methods. Results were selected for reporting using the following criteria:</p> <ul style="list-style-type: none"> • If both results were non-detect, the non-detect result with the lower DL was selected. • If both results were reported as detected, the higher detected result was selected for reporting. • If one result was reported as non-detect and the other result was reported as detected, the detected result was selected for reporting.
Initial Calibration	Yes	<p>Methods 8260B VOCs & 8270C SVOCs</p> <p>A minimum relative response factor (RRF) of 0.05 was used for the system performance check compounds (SPCCs) and all SPCCs met this criterion. The percent relative standard deviations (%RSDs) over the initial calibration RRFs for all calibration check compounds (CCCs) satisfied the method requirement of <30%. For all other target compounds, a requirement of 15% was used. The %RSD values for all target analytes in the calibration were less than 15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)</p> <p>The %RSD values for all target analytes in the calibration were less than 20%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8015D Gasoline Range Organics (GRO)/DRO/ORO</p> <p>The relationship between instrument response and concentration was established with a blank and at least five standards for each analyte. The %RSD over the initial calibrations curve satisfied the method requirement of <15%. Therefore, the initial calibration met method acceptance criteria.</p>

Review Parameter	Criteria Met?	Comment
		<p>Methods 6010B (Inductively Coupled Plasma [ICP] Metals) and 6020 (ICPMS Metals)</p> <p>The initial calibrations (ICALs) were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with a blank and at least five standards. The calibrations were verified with the analysis of an initial calibration verification (ICV) standard. All metals were recovered within the method acceptance range of 90-110%.</p> <p>7470A (Mercury)</p> <p>The ICALs were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with five standards. The correlation coefficient was >0.995. The calibration was verified with the analysis of an ICV standard. The analytes were recovered within the acceptance range of 90-110%. Response and linearity criteria were met and data qualification on the basis of initial calibration was not necessary.</p>
Initial Calibration Verification/Continuing Calibration Verification	No	<p>Method 8260B VOCs</p> <p>With the exceptions listed in Table 2, the percent differences (%Ds) for all CCCs in the ICVs and continuing calibrations (CCALs) were less than 20%, satisfying method requirements, and other target analytes satisfied the %D criterion of 20%.</p> <p>Methods 8270C PAHs/SVOCs</p> <p>With the exceptions listed in Table 2, the %D values for all target analytes in the calibration were less than 20%.</p> <p>Method 8015D GRO/Method 8015 DRO/ORO</p> <p>The %Ds for GRO and DRO/ORO (C10-C40) in the ICVs and CCALs were less than 15%. Data qualification was not necessary.</p> <p>Methods 6010B (ICP Metals), 6020 (ICPMS Metals), and 7470A (Mercury)</p> <p>Calibration verification analyses were conducted at the proper frequency. All metals were recovered within the DOD QSM 4.2 low level acceptance range of 80-120% and the method medium/high acceptance range of 90-110%.</p>
Interference Check Standard (Metals Only)	No	<p>The interference check standard (ICS) AB solutions were analyzed at the proper frequency. The target analytes were recovered within the acceptance range of 80-120% in the ICS AB solution. With the exceptions listed in Table 3, interferent elements were not present in the samples at concentrations greater than those in the ICSs.</p> <p>The interferent elements aluminum, calcium, iron, and magnesium were present in most samples in this data package at concentrations greater than or equal to those in the ICSs. As such, these samples were evaluated for positive and negative biases suggested by the ICS A. Data qualification was issued if the absolute value of the ICS A result was greater than the DL and it suggested a positive or negative bias which accounted for more than 25% of associated sample results or LODs. (Note: The ICS A solution only contains the interferent elements aluminum, calcium, iron, and magnesium so any positive or negative result for other analytes is inferred</p>

Review Parameter	Criteria Met?	Comment
		to be a bias potentially caused by one or more of the interferent elements present). Table 3 summarizes the resultant data qualification on the basis of the ICS results.
Internal Standard (VOCs/SVOCs/PAHs/Metals (6020))	Yes	Recoveries for the internal standards in field samples were within the applicable acceptance limits. Therefore, data qualification based on internal standards was not necessary.
Laboratory Control Sample/ Laboratory Control Sample Duplicate	Yes	One laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) per method per analytical batch was prepared and analyzed. All of the LCS recoveries and LCS/LCSD RPDs were within the QAPP acceptance limits. These results are indicative of an acceptable level of accuracy and precision with respect to the analytical method. Method 8015 DRO/ORO The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the method could not be assessed for ORO.
Package Completeness	Yes	The results are usable as qualified for the project objective. The data are 100% complete.

> - Greater Than

< - Less Than

≤ - Less Than or Equal to

± - Plus or Minus

°C – Degrees Celsius

% - Percent

%Ds – Percent Differences

%RSD – Percent Relative Standard Deviation

CCALs – Continuing Calibrations

CCBs – Continuing Calibration Blanks

CCCs – Calibration Check Compounds

COC – Chain of Custody

COD – Coefficient of Determination

DLs – Detection Limits

DRO – Diesel Range Organics

GRO – Gasoline Range Organics

I – Indeterminate Bias

ICAL – Initial Calibration

ICB – Initial Calibration Blank

ICP – Inductively Coupled Plasma

ICPMS - Inductively Coupled Plasma Mass Spectrometry

ICS – Interference Check Standard

ICV – Initial Calibration Verification

ID – Identification

J - Estimated

LCS – Laboratory Control Sample

LCSD – Laboratory Control Sample Duplicate

LOD – Limit of Detection

LOQ – Limit of Quantitation

MS/MSD – Matrix Spike/ Matrix Spike Duplicate

ORO – Oil Range Organics

P – Preservation requirement(s) not met

PAHs – Polynuclear Aromatic Hydrocarbons

PDS – Post Digestion Spike

QAPP – Quality Assurance Project Plan

RPDs – Relative Percent Differences

RRF – Relative Response Factor

SOP – Standard Operating Procedure

SPCCs – System Performance Check Compounds

VOCs – Volatile Organic Compounds

Table 1: Blank Outliers and Resultant Data Qualification

Associated Samples	Analyte	Concentration	Qualification
Total Metals			
MB Batch WG751215 H-TU503-GW02-NT01 H-TU503-GW12-NT01 H-TU503-GW14-NT01	Chromium	0.540 µg/L	None. The associated results were reported at concentrations >5x the concentration of the blank contamination.
MB Batch WG751559 H-TU503-GW02-NT01 H-TU503-GW12-NT01 H-TU503-GW14-NT01	Lead	0.246 µg/L	

Associated Samples	Analyte	Concentration	Qualification
CCB 10/28/2014 5:14PM H-TU503-GW02-NT01 H-TU503-GW12-NT01 H-TU503-GW14-NT01	Mercury	0.084 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U CCB-I).
Dissolved Metals			
MB Batch WG750742 H-TU503-GW02-ND01 H-TU503-GW12-ND01 H-TU503-GW14-ND01	Copper	5.42 µg/L	None. The associated results were reported as non-detect or at concentrations >5x the concentration of the blank contamination.
	Manganese	2.24 µg/L	
	Zinc	11.6 µg/L	
MB Batch WG751129 H-TU503-GW02-ND01 H-TU503-GW12-ND01 H-TU503-GW14-ND01	Lead	0.323 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).
MB Batch WG751906 H-TU503-GW02-ND01 H-TU503-GW12-ND01 H-TU503-GW14-ND01	Chromium	0.768 µg/L	
PAHs			
MB Batch WG750797 H-TU503-GW02-NT01 H-TU503-GW12-NT01 H-TU503-GW14-NT01	Naphthalene	0.0182 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).

> - Greater Than

CCB – Continuing Calibration Blank

PAHs – Polynuclear Aromatic Hydrocarbons

< - Less Than

I – Indeterminate Bias

U – Non-detect

µg/L – Micrograms per Liter

MB – Method Blank

VOCs – Volatile Organic Compounds

Table 2: Initial/Continuing Calibration Verification Outliers and Resultant Data Qualification

Associated Samples	Analyte	%D (Limit)	Data Qualification
VOCs			
H-TU503-GW02-NT01 H-TU503-GW12-NT01 H-TU503-GW14-NT01	Chlorobenzene	+26.4 (±20)	As the potential bias was considered to be high, and the associated sample results were reported as non-detect, data qualification was not considered necessary.
	1,2,4-Trichlorobenzene	+23.9 (±20)	
SVOCs			
H-TU503-GW02-NT01 H-TU503-GW12-NT01 H-TU503-GW14-NT01	3&4-Methyl Phenol	-55.4 (±20)	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ CCAL-L).

± - Plus or minus

H – Low Bias

VOCs – Volatile Organic Compounds

%D – Percent Difference

SVOCs – Semivolatile Organic Compounds

CCAL – Continuing Calibration

UJ – Estimated

Table 3: ICS Outliers and Resultant Data Qualification

Interferent Element	Analyte	ICS A (µg/L)	MDL (µg/L)	Qualified Samples	Qualification
Calcium, Magnesium	Copper	-16	5.3	H-TU503-GW02-ND01	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ/J ICS-L).
	Zinc	-14.3	5.9		
	Antimony	0.5	0.4		
	Copper	-16	5.3	H-TU503-GW02-NT01	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ/J ICS-L).
		-16	5.3	H-TU503-GW12-ND01	
	Zinc	-14.3	5.9	H-TU503-GW12-NT01	As the potential bias was considered to be high, the associated results were qualified as estimated (J ICS-H).
	Antimony	0.5	0.4		
	Silver	0.1	0.033		
Copper	-16	5.3	H-TU503-GW14-ND01	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ/J ICS-L).	
	Zinc	-14.3			5.9
Aluminum, Calcium, Iron, Magnesium	Copper	-16	5.3	H-TU503-GW14-NT01	

µg/L – Micrograms per Liter
L – Low Bias

H – High Bias
MDL – Method Detection Limit

ICS – Interference Check Standard
UJ/J - Estimated



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB

ESC Sample # : L729561-01

Sample ID : H-TU503-GW02-ND01

Site ID :

Collected By :
 Collection Date : 10/21/14 16:30

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved <i>FJ SOLICS-H</i>	7440-36-0	1.3	1	2.5	5	ug/l	J	6020	10/31/14	5
Arsenic, Dissolved <i>F SOL-I</i>	7440-38-2	2.0	1.2	2.5	5	ug/l	J	6020	10/31/14	5
Cadmium, Dissolved	7440-43-9	U	0.8	1.3	2.5	ug/l		6020	10/31/14	5
Chromium, Dissolved <i>U MB-I</i>	7440-47-3	12.	2.7 12	5.0 12	10 12	ug/l		6020	10/31/14	5
Cobalt, Dissolved	7440-48-4	20.	1.3	2.5	5	ug/l		6020	10/31/14	5
Lead, Dissolved <i>U MB-I</i>	7439-92-1	5.1	1.2 5.1	2.5 5.1	5 5.1	ug/l		6020	10/31/14	5
Nickel, Dissolved <i>J MS, FD-I</i>	7440-02-0	56.	1.8	2.5	5	ug/l		6020	10/31/14	5
Selenium, Dissolved	7782-49-2	6.8	1.9	2.5	5	ug/l		6020	10/31/14	5
Silver, Dissolved	7440-22-4	U	1.6	2.5	5	ug/l		6020	10/31/14	5
Thallium, Dissolved	7440-28-0	U	0.95	2.5	5	ug/l		6020	10/31/14	5
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/27/14	1
Aluminum, Dissolved	7429-90-5	830	180	250	500	ug/l		6010B	10/27/14	5
Barium, Dissolved	7440-39-3	61.	8.5	13.	25	ug/l		6010B	10/27/14	5
Beryllium, Dissolved	7440-41-7	U	3.5	5.0	10	ug/l		6010B	10/27/14	5
Copper, Dissolved <i>U J ICS-L</i>	7440-50-8	U	26	50.	100	ug/l		6010B	10/27/14	5
Manganese, Dissolved	7439-96-5	4900	6	25.	50	ug/l		6010B	10/27/14	5
Vanadium, Dissolved	7440-62-2	U	12	50.	100	ug/l		6010B	10/27/14	5
Zinc, Dissolved <i>U J ICS-L</i>	7440-66-6	U	30	130	250	ug/l		6010B	10/27/14	5

U = Not Detected at the LOD

Note:

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Reported: 11/14/14 18:37 Revised: 11/18/14 11:04

L729561-01 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

L729561-01 (ICP METALS) - Non-target compounds too high to run at a lower dilution.

KA 2/13/15



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : H-TU503-GW02-NT01
 Collected By :
 Collection Date : 10/21/14 16:30

ESC Sample # : L729561-02
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony J MS-I	7440-36-0	2.1	0.21	0.50	1	ug/l		6020	10/28/14	1
Arsenic J FD-I	7440-38-2	46.	0.25	0.50	1	ug/l		6020	10/28/14	1
Cadmium	7440-43-9	2.3	0.16	0.25	0.5	ug/l		6020	10/28/14	1
Chromium J FD-I	7440-47-3	210	0.54	1.0	2	ug/l		6020	10/28/14	1
Cobalt J FD-I	7440-48-4	64.	0.26	0.50	1	ug/l		6020	10/28/14	1
Lead	7439-92-1	78.	1.2	2.5	5	ug/l		6020	10/31/14	5
Nickel J FD-I	7440-02-0	150	0.35	0.50	1	ug/l		6020	10/28/14	1
Selenium J MS-I	7782-49-2	38.	1.9	2.5	5	ug/l		6020	10/31/14	5
Silver	7440-22-4	U	0.31	0.50	1	ug/l		6020	10/28/14	1
Thallium F SQL-I	7440-28-0	1.3	0.95	2.5	5	ug/l	J	6020	10/31/14	5
Mercury U CCB-I	7439-97-6	0.13	0.045 0.13	0.088 0.13	0.2	ug/l	J	7470A	10/28/14	1
Aluminum J MS, FD-I, H	7429-90-5	67000	350	500	1000	ug/l		6010B	10/31/14	10
Barium J FD-I	7440-39-3	1200	17	25.	50	ug/l		6010B	10/31/14	10
Beryllium	7440-41-7	U	7	10.	20	ug/l		6010B	10/31/14	10
Copper U JCS-L	7440-50-8	U	53	100	200	ug/l		6010B	10/31/14	10
Manganese	7439-96-5	6600	12	50.	100	ug/l		6010B	10/31/14	10
Vanadium	7440-62-2	230	24	100	200	ug/l		6010B	10/31/14	10
Zinc F SQL-I	7440-66-6	260	59	250	500	ug/l	J	6010B	10/31/14	10
TPH (GC/FID) Low Fraction U JMS-I	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/30/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	99.9				% Rec.		8015D/G	10/30/14	1
Volatile Organics										
Acetone F SQL-I	67-64-1	22.	10	25.	50	ug/l	J	8260B	10/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	10/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	10/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	10/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	10/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	10/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	10/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	10/26/14	1
Chloroform F SQL-I U FB-I	67-66-3	0.370-0.325	0.320-0.325	2.5	5	ug/l	J	8260B	10/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	10/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	10/26/14	1

U = Not Detected at the LOD

Note:

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 Reported: 11/14/14 18:37 Revised: 11/18/14 11:05
 L729561-02 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

Handwritten signatures and notes:
 BUS
 KA-zlisk
 BUS zllisk
 10 of 2118



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB

ESC Sample # : L729561-02

Sample ID : H-TU503-GW02-NT01

Site ID :

Collected By :
Collection Date : 10/21/14 16:30

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	10/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	10/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	10/26/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	10/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l	J4	8260B	10/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	10/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	10/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	10/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	10/26/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	10/26/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	10/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	10/26/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
Naphthalene <i>F SOL-1</i>	91-20-3	3.8	1	2.5	5	ug/l	J	8260B	10/26/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	10/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	10/26/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	10/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	10/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	10/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	10/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Trichloroethene <i>F SOL-1</i>	79-01-6	0.83	0.4	0.50	1	ug/l	J	8260B	10/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	10/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	10/26/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	10/26/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	10/26/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	10/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
Surrogate Recovery										

U = Not Detected at the LOD

Note:

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Reported: 11/14/14 18:37 Revised: 11/18/14 11:05

L729561-02 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

Handwritten signature/initials



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : H-TU503-GW02-NT01
Collected By :
Collection Date : 10/21/14 16:30

ESC Sample # : L729561-02

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Toluene-d8	2037-26-5	99.5				% Rec.		8260B	10/26/14	1
Dibromofluoromethane	1868-53-7	98.9				% Rec.		8260B	10/26/14	1
4-Bromofluorobenzene	460-00-4	98.0				% Rec.		8260B	10/26/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		390	22	33.	100	ug/l		8015	10/29/14	1
C28-C40 Oil Range		180	12	33.	100	ug/l		8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	102.				% Rec.		8015	10/29/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	0.020	0.013	0.025	0.05	ug/l	J	8270 C-	10/29/14	1
Acenaphthene	83-32-9	0.22	0.0082	0.025	0.05	ug/l		8270 C-	10/29/14	1
Acenaphthylene	208-96-8	0.047	0.011	0.025	0.05	ug/l	J	8270 C-	10/29/14	1
Benzo (a) anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo (a) pyrene	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo (b) fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo (g, h, i) perylene	191-24-2	U	0.016	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo (k) fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	10/29/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	10/29/14	1
Dibenz (a, h) anthracene	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	10/29/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/29/14	1
Fluorene	86-73-7	0.45	0.009	0.025	0.05	ug/l		8270 C-	10/29/14	1
Indeno (1,2,3-cd) pyrene	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	10/29/14	1
Naphthalene	91-20-3	1.5	0.012	0.025	0.25	ug/l		8270 C-	10/29/14	1
Phenanthrene	85-01-8	0.34	0.018	0.025	0.05	ug/l		8270 C-	10/29/14	1
Pyrene	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/29/14	1
2-Methylnaphthalene	91-57-6	1.6	0.016	0.025	0.25	ug/l		8270 C-	10/29/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	94.0				% Rec.		8270 C-	10/29/14	1
2-Fluorobiphenyl	321-60-8	88.0				% Rec.		8270 C-	10/29/14	1
p-Terphenyl-d14	1718-51-0	94.4				% Rec.		8270 C-	10/29/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	10/28/14	1
Bis(2-chloroethyl)ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	10/28/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	10/28/14	1
Benzyl Alcohol	100-51-6	U	0.39	5.0	10	ug/l		8270C	10/28/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	10/28/14	1
Benzoic acid	65-85-0	17.	0.44	5.0	10	ug/l		8270C	10/28/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	10/28/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	10/28/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	10/28/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	10/28/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	10/28/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	10/28/14	1

U = Not Detected at the LOD

Note:

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Reported: 11/14/14 18:37 Revised: 11/18/14 11:05

L729561-02 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

DNR: DO NOT REPORT

KA 2/13/15
BMS 2/11/15
12 of 2118
BMS 7/4/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : H-TU503-GW02-NT01
Collected By :
Collection Date : 10/21/14 16:30

ESC Sample # : L729561-02

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	10/28/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	10/28/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.33	5.0	10	ug/l		8270C	10/28/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	10/28/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	10/28/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	10/28/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	10/28/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	10/28/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	10/28/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	10/28/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	0.71	1.0	3	ug/l		8270C	10/28/14	1
Di-n-butyl phthalate	84-74-2	0.52	0.27	1.0	3	ug/l	J	8270C	10/28/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	10/28/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	10/28/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	10/28/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.36	5.0	10	ug/l		8270C	10/28/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	10/28/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	10/28/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	10/28/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	10/28/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	10/28/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	10/28/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	10/28/14	1
3&4-Methyl Phenol	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	10/28/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	10/28/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l	J4	8270C	10/28/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	10/28/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	10/28/14	1
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	10/28/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	10/28/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	10/28/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	10/28/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	10/28/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	10/28/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	10/28/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	21.4				% Rec.		8270C	10/28/14	1
Phenol-d5	4165-62-2	11.9				% Rec.		8270C	10/28/14	1
Nitrobenzene-d5	4165-60-0	56.5				% Rec.		8270C	10/28/14	1
2-Fluorobiphenyl	321-60-8	59.0				% Rec.		8270C	10/28/14	1
2,4,6-Tribromophenol	118-79-6	49.2				% Rec.		8270C	10/28/14	1
p-Terphenyl-d14	1718-51-0	63.1				% Rec.		8270C	10/28/14	1

DNR: DO NOT REPORT

U = Not Detected at the LOD

Note:

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Reported: 11/14/14 18:37 Revised: 11/18/14 11:05

L729561-02 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KAZ/13/15



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 Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : H-TU503-GW12-ND01
 Collected By :
 Collection Date : 10/22/14 11:00

ESC Sample # : L729561-03
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved	7440-36-0	U	1	2.5	5	ug/l		6020	10/31/14	5
Arsenic, Dissolved <i>FSOL-I</i>	7440-38-2	1.8	1.2	2.5	5	ug/l	J	6020	10/31/14	5
Cadmium, Dissolved	7440-43-9	U	0.8	1.3	2.5	ug/l		6020	10/31/14	5
Chromium, Dissolved <i>UMB-I</i>	7440-47-3	4.8 5.0	2.7 4.8	5.0	10	ug/l	J	6020	10/31/14	5
Cobalt, Dissolved	7440-48-4	16.	1.3	2.5	5	ug/l		6020	10/31/14	5
Lead, Dissolved <i>UMB-I</i>	7439-92-1	3.0	1.2 3.0	2.5 3.0	5	ug/l	J	6020	10/31/14	5
Nickel, Dissolved <i>JMS, PD-I</i>	7440-02-0	61.	1.8	2.5	5	ug/l		6020	10/31/14	5
Selenium, Dissolved	7782-49-2	7.6	1.9	2.5	5	ug/l		6020	10/31/14	5
Silver, Dissolved	7440-22-4	U	1.6	2.5	5	ug/l		6020	10/31/14	5
Thallium, Dissolved	7440-28-0	U	0.95	2.5	5	ug/l		6020	10/31/14	5
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/27/14	1
Aluminum, Dissolved	7429-90-5	620	180	250	500	ug/l		6010B	10/27/14	5
Barium, Dissolved	7440-39-3	33.	8.5	13.	25	ug/l		6010B	10/27/14	5
Beryllium, Dissolved	7440-41-7	U	3.5	5.0	10	ug/l		6010B	10/27/14	5
Copper, Dissolved <i>US ICS-L</i>	7440-50-8	U	26	50.	100	ug/l		6010B	10/27/14	5
Manganese, Dissolved	7439-96-5	3100	6	25.	50	ug/l		6010B	10/27/14	5
Vanadium, Dissolved	7440-62-2	U	12	50.	100	ug/l		6010B	10/27/14	5
Zinc, Dissolved <i>US ICS-L</i>	7440-66-6	U	30	130	250	ug/l		6010B	10/27/14	5

U = Not Detected at the LOD

Note:

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 Reported: 11/14/14 18:37 Revised: 11/18/14 11:05
 L729561-03 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.
 L729561-03 (ICP METALS) - Non-target compounds too high to run at a lower dilution.

ICA 2/15/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB

ESC Sample # : L729561-04

Sample ID : H-TU503-GW12-NT01

Site ID :

Collected By :
Collection Date : 10/22/14 11:00

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony <i>FJ SOL, ICS, MS-I</i>	7440-36-0	0.90	0.21	0.50	1	ug/l	J	6020	10/28/14	1
Arsenic <i>J FD-I</i>	7440-38-2	84.	0.25	0.50	1	ug/l		6020	10/28/14	1
Cadmium	7440-43-9	4.4	0.16	0.25	0.5	ug/l		6020	10/28/14	1
Chromium <i>J FD-I</i>	7440-47-3	340	2.7	5.0	10	ug/l		6020	10/31/14	5
Cobalt <i>J FD-I</i>	7440-48-4	120	0.26	0.50	1	ug/l		6020	10/28/14	1
Lead	7439-92-1	190	1.2	2.5	5	ug/l		6020	10/31/14	5
Nickel <i>J FD-I</i>	7440-02-0	270	0.35	0.50	1	ug/l		6020	10/28/14	1
Selenium <i>J MS-I</i>	7782-49-2	83.	1.9	2.5	5	ug/l		6020	10/31/14	5
Silver <i>FJ SOL, ICS-H</i>	7440-22-4	0.46	0.31	0.50	1	ug/l	J	6020	10/28/14	1
Thallium <i>F SOL-I</i>	7440-28-0	2.4	0.95	2.5	5	ug/l	J	6020	10/31/14	5
Mercury <i>U CCB-I</i>	7439-97-6	0.20	0.049	0.080	0.2	ug/l		7470A	10/28/14	1
Aluminum <i>J MS, FD-H</i>	7429-90-5	160000	350	500	1000	ug/l		6010B	10/31/14	10
Barium <i>J FD-I</i>	7440-39-3	2400	17	25.	50	ug/l		6010B	10/31/14	10
Beryllium <i>F SOL-I</i>	7440-41-7	15.	7	10.	20	ug/l	J	6010B	10/31/14	10
Copper <i>F SOL-I</i>	7440-50-8	130	53	100	200	ug/l	J	6010B	10/31/14	10
Manganese	7439-96-5	8800	12	50.	100	ug/l		6010B	10/31/14	10
Vanadium	7440-62-2	550	24	100	200	ug/l		6010B	10/31/14	10
Zinc	7440-66-6	570	59	250	500	ug/l		6010B	10/31/14	10
TPH (GC/FID) Low Fraction <i>U J MS-I</i>	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/30/14	1
Surrogate Recovery- a, a, a-Trifluorotoluene (FID)	98-08-8	100.				% Rec.		8015D/G	10/30/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	10/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	10/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	10/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	10/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	10/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
Carbon Disulfide	75-15-0	1.1	0.28	0.50	1	ug/l		8260B	10/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	10/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	10/26/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	10/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	10/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	10/26/14	1

U = Not Detected at the LOD

Note:

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Reported: 11/14/14 18:37 Revised: 11/18/14 11:05

L729561-04 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KA 2/13/15
BJS 2/11/15
15 of 2118



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : H-TU503-GW12-NT01
Collected By :
Collection Date : 10/22/14 11:00

ESC Sample # : L729561-04

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	10/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	10/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	10/26/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	10/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l	J4	8260B	10/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	10/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	10/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	10/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	10/26/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	10/26/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	10/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	10/26/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
Naphthalene	91-20-3	7.6	1	2.5	5	ug/l		8260B	10/26/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	10/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	10/26/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	10/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	10/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	10/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	10/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	10/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	10/26/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	10/26/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	10/26/14	1
m,p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	10/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
Surrogate Recovery										

U = Not Detected at the LOD

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 11/14/14 18:37 Revised: 11/18/14 11:05

L729561-04 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KAZ13115



YOUR LAB OF CHOICE

12065 Lebanon Rd.
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB

ESC Sample # : L729561-04

Sample ID : H-TU503-GW12-NT01

Site ID :

Collected By :
Collection Date : 10/22/14 11:00

Project # : 23446543.0055AA

Table with columns: Parameter, CAS#, Result, DL, LOD, LOQ, Units, Qual, Method, Date, Dil. Rows include Toluene-d8, Diesel and Oil Ranges, Polynuclear Aromatic Hydrocarbons, and Base/Neutral Extractables.

U = Not Detected at the LOD

Note:

The reported analytical results relate only to the sample submitted.
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Reported: 11/14/14 18:37 Revised: 11/18/14 11:05
L729561-04 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

DNR: Do Not Report

Handwritten notes: CA 2/13/15, BMS 2/12/15, BMS 9/4/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : H-TU503-GW12-NT01
Collected By :
Collection Date : 10/22/14 11:00

ESC Sample # : L729561-04

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2,6-Dinitrotoluene	606-20-2	U	0.35	6.3	12.5	ug/l		8270C	10/28/14	1.25
Hexachlorobenzene	118-74-1	U	0.43	0.63	1.25	ug/l		8270C	10/28/14	1.25
Hexachloro-1,3-butadiene	87-68-3	U	0.41	6.3	12.5	ug/l		8270C	10/28/14	1.25
Hexachloroethane	67-72-1	U	0.46	6.3	12.5	ug/l		8270C	10/28/14	1.25
Isophorone	78-59-1	U	0.34	6.3	12.5	ug/l		8270C	10/28/14	1.25
Nitrobenzene	98-95-3	U	0.46	6.3	12.5	ug/l		8270C	10/28/14	1.25
n-Nitrosodimethylamine	62-75-9	U	1.6	6.3	12.5	ug/l		8270C	10/28/14	1.25
n-Nitrosodiphenylamine	86-30-6	U	0.38	6.3	12.5	ug/l		8270C	10/28/14	1.25
n-Nitrosodi-n-propylamine	621-64-7	U	0.5	6.3	12.5	ug/l		8270C	10/28/14	1.25
Benzylbutyl phthalate	85-68-7	U	0.34	1.3	3.75	ug/l		8270C	10/28/14	1.25
Bis(2-ethylhexyl)phthalate	117-81-7	U	0.89	1.3	3.75	ug/l		8270C	10/28/14	1.25
Di-n-butyl phthalate	84-74-2	2.0	0.33	1.3	3.75	ug/l	J	8270C	10/28/14	1.25
Diethyl phthalate	84-66-2	0.96	0.35	1.3	3.75	ug/l	J	8270C	10/28/14	1.25
Dimethyl phthalate	131-11-3	U	0.35	1.3	3.75	ug/l		8270C	10/28/14	1.25
Di-n-octyl phthalate	117-84-0	U	0.35	1.3	3.75	ug/l		8270C	10/28/14	1.25
1,2,4-Trichlorobenzene	120-82-1	U	0.44	6.3	12.5	ug/l		8270C	10/28/14	1.25
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.33	6.3	12.5	ug/l		8270C	10/28/14	1.25
2-Chlorophenol	95-57-8	U	0.35	6.3	12.5	ug/l		8270C	10/28/14	1.25
2,4-Dichlorophenol	120-83-2	U	0.36	6.3	12.5	ug/l		8270C	10/28/14	1.25
2,4-Dimethylphenol	105-67-9	U	0.78	6.3	12.5	ug/l		8270C	10/28/14	1.25
4,6-Dinitro-2-methylphenol	534-52-1	U	3.3	6.3	12.5	ug/l		8270C	10/28/14	1.25
2,4-Dinitrophenol	51-28-5	U	4.1	6.3	12.5	ug/l		8270C	10/28/14	1.25
2-Methylphenol	95-48-7	U	0.39	6.3	12.5	ug/l		8270C	10/28/14	1.25
3&4-Methyl Phenol	3&4-Methyl	U	0.33	6.3	12.5	ug/l		8270C	10/28/14	1.25
2-Nitrophenol	88-75-5	U	0.4	6.3	12.5	ug/l		8270C	10/28/14	1.25
4-Nitrophenol	100-02-7	U	2.5	6.3	12.5	ug/l	J4	8270C	10/28/14	1.25
4-Chloroaniline	106-47-8	U	0.48	6.3	12.5	ug/l		8270C	10/28/14	1.25
2-Nitroaniline	88-74-4	U	2.4	6.3	12.5	ug/l		8270C	10/28/14	1.25
3-Nitroaniline	99-09-2	U	0.38	6.3	12.5	ug/l		8270C	10/28/14	1.25
1,2-Diphenylhydrazine	103-33-3	U	0.4	6.3	12.5	ug/l		8270C	10/28/14	1.25
4-Nitroaniline	100-01-6	U	0.44	6.3	12.5	ug/l		8270C	10/28/14	1.25
Pentachlorophenol	87-86-5	U	0.39	6.3	12.5	ug/l		8270C	10/28/14	1.25
Phenol	108-95-2	U	0.42	6.3	12.5	ug/l		8270C	10/28/14	1.25
2,4,5-Trichlorophenol	95-95-4	U	0.3	6.3	12.5	ug/l		8270C	10/28/14	1.25
2,4,6-Trichlorophenol	88-06-2	U	0.37	6.3	12.5	ug/l		8270C	10/28/14	1.25
Surrogate Recovery										
2-Fluorophenol	367-12-4	26.6				% Rec.		8270C	10/28/14	1.25
Phenol-d5	4165-62-2	15.7				% Rec.		8270C	10/28/14	1.25
Nitrobenzene-d5	4165-60-0	60.7				% Rec.		8270C	10/28/14	1.25
2-Fluorobiphenyl	321-60-8	63.5				% Rec.		8270C	10/28/14	1.25
2,4,6-Tribromophenol	118-79-6	70.8				% Rec.		8270C	10/28/14	1.25
p-Terphenyl-d14	1718-51-0	62.3				% Rec.		8270C	10/28/14	1.25

DNR: Do Not Report

U = Not Detected at the LOD

Note:

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Reported: 11/14/14 18:37 Revised: 11/18/14 11:05

L729561-04 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KAR 2/13/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : H-TU503-GW14-ND01
 Collected By :
 Collection Date : 10/22/14 13:10

ESC Sample # : L729561-05

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved	7440-36-0	U	1	2.5	5	ug/l		6020	10/31/14	5
Arsenic, Dissolved	7440-38-2	U	1.2	2.5	5	ug/l		6020	10/31/14	5
Cadmium, Dissolved	7440-43-9	U	0.8	1.3	2.5	ug/l		6020	10/31/14	5
Chromium, Dissolved <i>U MB-I</i>	7440-47-3	3.3 5.0 2.7 3.3		5.0	10	ug/l	J	6020	10/31/14	5
Cobalt, Dissolved	7440-48-4	18.	1.3	2.5	5	ug/l		6020	10/31/14	5
Lead, Dissolved <i>U MB-I</i>	7439-92-1	1.5 2.5 1.2 1.5		2.5	5	ug/l	J	6020	10/31/14	5
Nickel, Dissolved <i>J MS, PD-7</i>	7440-02-0	54.	1.8	2.5	5	ug/l		6020	10/31/14	5
Selenium, Dissolved	7782-49-2	17.	1.9	2.5	5	ug/l		6020	10/31/14	5
Silver, Dissolved	7440-22-4	U	1.6	2.5	5	ug/l		6020	10/31/14	5
Thallium, Dissolved	7440-28-0	U	0.95	2.5	5	ug/l		6020	10/31/14	5
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/27/14	1
Aluminum, Dissolved	7429-90-5	U	180	250	500	ug/l		6010B	10/27/14	5
Barium, Dissolved	7440-39-3	36.	8.5	13.	25	ug/l		6010B	10/27/14	5
Beryllium, Dissolved	7440-41-7	U	3.5	5.0	10	ug/l		6010B	10/27/14	5
Copper, Dissolved <i>VJ ICS-L</i>	7440-50-8	U	26	50.	100	ug/l		6010B	10/27/14	5
Manganese, Dissolved	7439-96-5	7200	6	25.	50	ug/l		6010B	10/27/14	5
Vanadium, Dissolved	7440-62-2	U	12	50.	100	ug/l		6010B	10/27/14	5
Zinc, Dissolved <i>VJ ICS-L</i>	7440-66-6	U	30	130	250	ug/l		6010B	10/27/14	5

U = Not Detected at the LOD

Note:

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Reported: 11/14/14 18:37 Revised: 11/18/14 11:05

L729561-05 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

L729561-05 (ICP METALS) - Non-target compounds too high to run at a lower dilution.

KAZ/13/15



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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB

ESC Sample # : L729561-06

Sample ID : H-TU503-GW14-NT01

Site ID :

Collected By :
Collection Date : 10/22/14 13:10

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony <i>F3 SOL, MS-I</i>	7440-36-0	2.9	1.9	4.5	9	ug/l	J	6020	10/28/14	9
Arsenic <i>J FD-I</i>	7440-38-2	570	2.2	4.5	9	ug/l		6020	10/28/14	9
Cadmium	7440-43-9	21.	1.4	2.3	4.5	ug/l		6020	10/28/14	9
Chromium <i>J FD-I</i>	7440-47-3	1900	4.9	9.0	18	ug/l		6020	10/28/14	9
Cobalt <i>J FD-I</i>	7440-48-4	710	2.3	4.5	9	ug/l		6020	10/28/14	9
Lead <i>J P-I</i>	7439-92-1	1100	11	23.	45	ug/l	T2	6020	10/31/14	45
Nickel <i>J FD-I</i>	7440-02-0	1600	3.2	4.5	9	ug/l		6020	10/28/14	9
Selenium <i>J MS-I</i>	7782-49-2	400	17	23.	45	ug/l		6020	10/31/14	45
Silver	7440-22-4	U	2.8	4.5	9	ug/l		6020	10/28/14	9
Thallium <i>F SOL-I</i>	7440-28-0	17.	8.6	23.	45	ug/l	J	6020	10/31/14	45
Mercury	7439-97-6	0.48	0.098	0.16	0.4	ug/l		7470A	10/28/14	2
Aluminum <i>J P, MS, FD-H</i>	7429-90-5	740000	3200	4500	9000	ug/l	T2	6010B	10/31/14	90
Barium <i>J P, FD-I</i>	7440-39-3	9500	150	230	450	ug/l	T2	6010B	10/31/14	90
Beryllium <i>J P-I</i>	7440-41-7	U	63	90.	180	ug/l	T2	6010B	10/31/14	90
Copper <i>U J ICS, K P-L</i>	7440-50-8	U	480	900	1800	ug/l	T2	6010B	10/31/14	90
Manganese <i>J P-I</i>	7439-96-5	23000	110	450	900	ug/l	T2	6010B	10/31/14	90
Vanadium <i>J P-I</i>	7440-62-2	2600	220	900	1800	ug/l	T2	6010B	10/31/14	90
Zinc <i>F3 SOL, P-I</i>	7440-66-6	2300	530	2300	4500	ug/l	JT2	6010B	10/31/14	90
TPH (GC/FID) Low Fraction <i>U J MS-I</i>	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/30/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	100.				% Rec.		8015D/G	10/30/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	10/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	10/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	10/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	10/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	10/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
Carbon Disulfide	75-15-0	1.1	0.28	0.50	1	ug/l		8260B	10/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	10/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	10/26/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	10/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	10/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	10/26/14	1

U = Not Detected at the LOD

Note:

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Reported: 11/14/14 18:37 Revised: 11/18/14 11:05

L729561-06 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

L729561-06 (MERCURY) - Prepped at dilution due to pH.

KCA 2/13/15
BMS 2/19/15
20 of 2118



12065 Lebanon Rd.
Mt. Juliet, TN 37122
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : H-TU503-GW14-NT01
Collected By :
Collection Date : 10/22/14 13:10

ESC Sample # : L729561-06

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	10/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	10/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	10/26/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	10/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l	J4	8260B	10/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	10/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	10/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	10/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	10/26/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	10/26/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	10/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	10/26/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
Naphthalene F SOL-1	91-20-3	3.0	1	2.5	5	ug/l	J	8260B	10/26/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	10/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	10/26/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	10/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	10/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	10/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	10/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	10/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	10/26/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	10/26/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	10/26/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	10/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	10/26/14	1

Surrogate Recovery

U = Not Detected at the LOD

Note:

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Reported: 11/14/14 18:37 Revised: 11/18/14 11:05
L729561-06 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.
L729561-06 (MERCURY) - Prepped at dilution due to pH.

KA 2/13/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB

ESC Sample # : L729561-06

Sample ID : H-TU503-GW14-NT01

Site ID :

Collected By :
Collection Date : 10/22/14 13:10

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Toluene-d8	2037-26-5	98.5				% Rec.		8260B	10/26/14	1
Dibromofluoromethane	1868-53-7	99.8				% Rec.		8260B	10/26/14	1
4-Bromofluorobenzene	460-00-4	94.9				% Rec.		8260B	10/26/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		130	22	33.	100	ug/l		8015	10/29/14	1
C28-C40 Oil Range <i>FSOL-I</i>		74.	12	33.	100	ug/l	J	8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	105.				% Rec.		8015	10/29/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene <i>US MS-I</i>	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	10/29/14	1
Acenaphthene	83-32-9	U	0.0082	0.025	0.05	ug/l		8270 C-	10/29/14	1
Acenaphthylene <i>US MS-I</i>	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo (a) anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo (a) pyrene <i>US MS-I</i>	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo (b) fluoranthene <i>US MS-I</i>	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo (g, h, i) perylene <i>US MS-I</i>	191-24-2	U	0.016	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo (k) fluoranthene <i>US MS-I</i>	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	10/29/14	1
Chrysene <i>US MS-I</i>	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	10/29/14	1
Dibenz (a, h) anthracene <i>US MS-I</i>	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	10/29/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/29/14	1
Fluorene <i>FS SOL MS-I</i>	86-73-7	0.015	0.009	0.025	0.05	ug/l	J	8270 C-	10/29/14	1
Indeno (1, 2, 3-cd) pyrene <i>US MS-I</i>	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	10/29/14	1
Naphthalene <i>US MS-I</i>	91-20-3	0.056	0.012	0.025	0.05	ug/l	J	8270 C-	10/29/14	1
Phenanthrene <i>FS SOL MS-I</i>	85-01-8	0.020	0.018	0.025	0.05	ug/l	J	8270 C-	10/29/14	1
Pyrene <i>US MS-I</i>	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/29/14	1
2-Methylnaphthalene <i>FS SOL, MS-I</i>	91-57-6	0.071	0.016	0.025	0.25	ug/l	J	8270 C-	10/29/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	83.1				% Rec.		8270 C-	10/29/14	1
2-Fluorobiphenyl	321-60-8	79.2				% Rec.		8270 C-	10/29/14	1
p-Terphenyl-d14	1718-51-0	87.4				% Rec.		8270 C-	10/29/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	0.41	6.3	12.5	ug/l		8270C	10/28/14	1.25
Bis(2-chloroethyl) ether	111-44-4	U	2	6.3	12.5	ug/l		8270C	10/28/14	1.25
Bis(2-chloroisopropyl) ether	108-60-1	U	0.56	6.3	12.5	ug/l		8270C	10/28/14	1.25
Benzyl Alcohol	100-51-6	U	0.49	6.3	12.5	ug/l		8270C	10/28/14	1.25
Carbazole	86-74-8	U	0.2	6.3	12.5	ug/l		8270C	10/28/14	1.25
Benzoic acid	65-85-0	15.	0.55	6.3	12.5	ug/l		8270C	10/28/14	1.25
Dibenzofuran	132-64-9	U	0.42	6.3	12.5	ug/l		8270C	10/28/14	1.25
4-Bromophenyl-phenylether	101-55-3	U	0.44	6.3	12.5	ug/l		8270C	10/28/14	1.25
2-Chloronaphthalene	91-58-7	U	0.41	0.63	1.25	ug/l		8270C	10/28/14	1.25
4-Chlorophenyl-phenylether	7005-72-3	U	0.38	6.3	12.5	ug/l		8270C	10/28/14	1.25
3,3-Dichlorobenzidine	91-94-1	U	2.5	6.3	12.5	ug/l		8270C	10/28/14	1.25
2,4-Dinitrotoluene	121-14-2	U	2.1	6.3	12.5	ug/l		8270C	10/28/14	1.25

U = Not Detected at the LOD

Note:

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Reported: 11/14/14 18:37 Revised: 11/18/14 11:05

L729561-06 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

L729561-06 (MERCURY) - Prepped at dilution due to pH.

DNR: DO NOT REPORT

KAZ 1/13/15

BMS 9/4/15 BMS 2/19/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : H-TU503-GW14-NT01
Collected By :
Collection Date : 10/22/14 13:10

ESC Sample # : L729561-06
Site ID :
Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2,6-Dinitrotoluene	606-20-2	U	0.35	6.3	12.5	ug/l		8270C	10/28/14	1.25
Hexachlorobenzene	118-74-1	U	0.43	0.63	1.25	ug/l		8270C	10/28/14	1.25
Hexachloro-1,3-butadiene	87-68-3	U	0.41	6.3	12.5	ug/l		8270C	10/28/14	1.25
Hexachloroethane	67-72-1	U	0.46	6.3	12.5	ug/l		8270C	10/28/14	1.25
Isophorone	78-59-1	U	0.34	6.3	12.5	ug/l		8270C	10/28/14	1.25
Nitrobenzene	98-95-3	U	0.46	6.3	12.5	ug/l		8270C	10/28/14	1.25
n-Nitrosodimethylamine	62-75-9	U	1.6	6.3	12.5	ug/l		8270C	10/28/14	1.25
n-Nitrosodiphenylamine	86-30-6	U	0.38	6.3	12.5	ug/l		8270C	10/28/14	1.25
n-Nitrosodi-n-propylamine	621-64-7	U	0.5	6.3	12.5	ug/l		8270C	10/28/14	1.25
Benzylbutyl phthalate	85-68-7	U	0.34	1.3	3.75	ug/l		8270C	10/28/14	1.25
Bis(2-ethylhexyl)phthalate	117-81-7	U	0.89	1.3	3.75	ug/l		8270C	10/28/14	1.25
Di-n-butyl phthalate	84-74-2	0.78	0.33	1.3	3.75	ug/l	J	8270C	10/28/14	1.25
Diethyl phthalate	84-66-2	U	0.35	1.3	3.75	ug/l		8270C	10/28/14	1.25
Dimethyl phthalate	131-11-3	U	0.35	1.3	3.75	ug/l		8270C	10/28/14	1.25
Di-n-octyl phthalate	117-84-0	U	0.35	1.3	3.75	ug/l		8270C	10/28/14	1.25
1,2,4-Trichlorobenzene	120-82-1	U	0.44	6.3	12.5	ug/l		8270C	10/28/14	1.25
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.33	6.3	12.5	ug/l		8270C	10/28/14	1.25
2-Chlorophenol	95-57-8	U	0.35	6.3	12.5	ug/l		8270C	10/28/14	1.25
2,4-Dichlorophenol	120-83-2	U	0.36	6.3	12.5	ug/l		8270C	10/28/14	1.25
2,4-Dimethylphenol	105-67-9	U	0.78	6.3	12.5	ug/l		8270C	10/28/14	1.25
4,6-Dinitro-2-methylphenol	534-52-1	U	3.3	6.3	12.5	ug/l		8270C	10/28/14	1.25
2,4-Dinitrophenol	51-28-5	U	4.1	6.3	12.5	ug/l		8270C	10/28/14	1.25
2-Methylphenol	95-48-7	U	0.39	6.3	12.5	ug/l		8270C	10/28/14	1.25
3&4-Methyl Phenol	3&4-Methyl	U	0.33	6.3	12.5	ug/l		8270C	10/28/14	1.25
2-Nitrophenol	88-75-5	U	0.4	6.3	12.5	ug/l		8270C	10/28/14	1.25
4-Nitrophenol	100-02-7	U	2.5	6.3	12.5	ug/l	J4	8270C	10/28/14	1.25
4-Chloroaniline	106-47-8	U	0.48	6.3	12.5	ug/l		8270C	10/28/14	1.25
2-Nitroaniline	88-74-4	U	2.4	6.3	12.5	ug/l		8270C	10/28/14	1.25
3-Nitroaniline	99-09-2	U	0.38	6.3	12.5	ug/l		8270C	10/28/14	1.25
1,2-Diphenylhydrazine	103-33-3	U	0.4	6.3	12.5	ug/l		8270C	10/28/14	1.25
4-Nitroaniline	100-01-6	U	0.44	6.3	12.5	ug/l		8270C	10/28/14	1.25
Pentachlorophenol	87-86-5	U	0.39	6.3	12.5	ug/l		8270C	10/28/14	1.25
Phenol	108-95-2	U	0.42	6.3	12.5	ug/l		8270C	10/28/14	1.25
2,4,5-Trichlorophenol	95-95-4	U	0.3	6.3	12.5	ug/l		8270C	10/28/14	1.25
2,4,6-Trichlorophenol	88-06-2	U	0.37	6.3	12.5	ug/l		8270C	10/28/14	1.25
Surrogate Recovery										
2-Fluorophenol	367-12-4	24.0				% Rec.		8270C	10/28/14	1.25
Phenol-d5	4165-62-2	15.8				% Rec.		8270C	10/28/14	1.25
Nitrobenzene-d5	4165-60-0	55.8				% Rec.		8270C	10/28/14	1.25
2-Fluorobiphenyl	321-60-8	58.6				% Rec.		8270C	10/28/14	1.25
2,4,6-Tribromophenol	118-79-6	57.6				% Rec.		8270C	10/28/14	1.25
p-Terphenyl-d14	1718-51-0	57.0				% Rec.		8270C	10/28/14	1.25

DNR = DO NOT REPORT

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Reported: 11/14/14 18:37 Revised: 11/18/14 11:05

L729561-06 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

L729561-06 (MERCURY) - Prepped at dilution due to pH.

KAZ13115



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : H-TU503-TRIPBLANK-TT02
 Collected By :
 Collection Date : 10/23/14 12:00

ESC Sample # : L729561-07

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/30/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	101.				% Rec.		8015D/G	10/30/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	10/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	10/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	10/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	10/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	10/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	10/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	10/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	10/26/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	10/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	10/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	10/26/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	10/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	10/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	10/26/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	10/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l	J4	8260B	10/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	10/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	10/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	10/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	10/26/14	1

U = Not Detected at the LOD

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 Reported: 11/14/14 18:37 Revised: 11/18/14 11:05

10/2/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : H-TU503-TRIPBLANK-TT02
 Collected By :
 Collection Date : 10/23/14 12:00

ESC Sample # : L729561-07
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	10/26/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	10/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	10/26/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	10/26/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	10/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	10/26/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	10/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	10/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	10/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	10/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	10/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	10/26/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	10/26/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	10/26/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	10/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	99.6				% Rec.		8260B	10/26/14	1
Dibromofluoromethane	1868-53-7	99.8				% Rec.		8260B	10/26/14	1
4-Bromofluorobenzene	460-00-4	97.8				% Rec.		8260B	10/26/14	1

U = Not Detected at the LOD

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 11/14/14 18:37 Revised: 11/18/14 11:05

WCA 2/13/15

**Holloman AFB
Groundwater Monitoring
Data Review Summary**

Data Package Number: L729563
 Sampling Event Dates: October 22, 2014
 Sample-specific Parameter Review/Laboratory Performance Parameters: Yes
 Full Validation (e.g. result recalculation): No
 Data Reviewer: Katie Abbott, URS Project Chemist
 Date Completed: February 15, 2015
 Peer Reviewer: Sheri Fling, URS Project Quality Assurance Manager (QAM)

The table below summarizes the data package and sample identifications discussed in this data review.

Field Identification	Sample Type	Lab Identification	Matrix	Analyses						
				GRO	VOCs	PAHs	DRO/ORO	SVOCs	Total Metals	pH
L729563										
TU904-SB04-NS01	SA	L729563-01	Soil	X	X	X	X	X	X ^m	X
TU904-SB04-NS02	SA	L729563-02	Soil	X	X	X	X	X	X	X
TU904-TRIPBLANK05-NT01	TB	L729563-03	Water	X	X	---	---	---	---	---
TU904-SB06-NS01	SA	L729563-04	Soil	X	X	X	X	X ^m	X	X
TU904-SB07-NS01	SA	L729563-05	Soil	X	X	X	X	X	X	X
TU904-SB07-NS02	SA	L729563-06	Soil	X	X	X	X	X	X	X

Sample Type: SA – Sample TB – Trip Blank
 X^m - Matrix Spike/Matrix Spike Duplicate

Analyses: Analyses:

- DRO/ORO - Diesel and Oil Range Organics (8015)
- GRO – Gasoline Range Organics (8015D)
- TDS – Total Dissolved Solids (SM2540C)
- Total/ Metals – Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Manganese, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc, Mercury (6010B/7470A)
- PAHs – Polynuclear Aromatic Hydrocarbons (8270C SIM)
- SIM – Selective Ion Monitoring
- SVOCs – Semivolatile Organic Compounds (8270C)
- VOCs – Volatile Organic Compounds (8260B)

The data review was conducted in accordance with the Final Interim Measures Work Plan – Appendix A, Sampling and Analysis Plan/Quality Assurance Project Plan: Former Septic System Site TU904 (URS, September 2014); Group 2 Former Underground Storage Sites: AOC-UST-889 (TU515) (URS, September 2014); and Group 3 Former Underground Storage Tank Sites: AOC-UST-221 (TU503), AOC-UST-298 (TU508), AOC-UST-901 (TU506) and AOC-UST-7003 (TU518) (URS, August 2014); data validation standard operating procedure (SOP) 14; Department of Defense (DoD) Quality Systems Manual version 4.2 (DoD, 2010); and method requirements.

General Overall Assessment:

- Data are usable without qualification.
- Data are usable with qualification (noted below).
- Some or all data are unusable for any purpose (detailed below).

Case Narrative Comments: Any laboratory case narrative comments concerning data qualification were addressed in the table below.

Trace level detects, reported between the method detection limit (MDL) and the reporting limit (LOQ), have been qualified as estimated (F SQL-I). All other occurrences of data qualification are covered in the following table.

Review Parameter	Criteria Met?	Comment
Chain of Custody & Sample Receipt	Yes	The samples were received by ESC Lab Sciences in good condition and were consistent with the accompanying chain of custody (COC). The cooler temperatures upon receipt were within the recommended ≤6 degrees Celsius (°C) temperature range.
Reporting	Yes	<p>During review of a representative data package selected for full validation, it was noted that improper reference spectra were displayed in the printed version of the data package for Method 8260B. Due to a LIMS limitation, the data package reference spectra were not consistently representative of the actual spectra for the analytes detected. Because the laboratory data review involves the use of NBS reference spectra and not the reference spectra taken from the instrument calibration, the analyst was not seeing the improper alignment of spectra noted in the data package during his/her review at the instrument. The laboratory revised and reissued the data package with correct reference spectral data, consistent with method requirements, and no results were changed. Therefore, no further action is necessary as a result of this validation finding.</p> <p>Method 8270C Semivolatile Organic Compounds (SVOCs)</p> <p>The results for 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene are not reported by Method 8270C SVOCs but are reported by Method 8260B volatile organic compounds (VOCs). As the detection limits (DLs), limits of detection (LODs), and limits of quantitation (LOQs) are lower by Method 8260B, further action was not necessary.</p> <p>The laboratory noted 4-methylphenol cannot be reported as 3 & 4-methylphenol coelute during the analysis; therefore, the analytes are reported together and 3&4-methylphenol on the data sheets and in the electronic database.</p>
Holding Times	Yes	All samples were analyzed within the method required holding time.
Laboratory Blanks <ul style="list-style-type: none"> • Method Blank • Initial/Continuing Calibration Blank 	No	With the exception listed in Table 1, target analytes were not detected within the method or calibration blanks.
Matrix Quality Control <ul style="list-style-type: none"> • Matrix Spike/ Matrix Spike Duplicate TU904-SB04-NS01 (6010B Thallium) • TU904-SB06-NS01 (SVOCs) • Laboratory Duplicate TU904-SB04-NS01 (pH) 	Yes	<p>Matrix Spike/ Matrix Spike Duplicate (MS/MSD)</p> <p>The frequency of MS/MSDs met the QAPP requirement of one per twenty samples.</p> <p>The MS/MSD recoveries and relative percent differences (RPDs) met quality control criteria.</p>

Review Parameter	Criteria Met?	Comment
		<p>Results in the native sample greater than four times the concentration of the spike added during digestions/extractions are not considered to be a representative measure of accuracy. Further action with respect to spike recovery evaluation or qualification of data was not considered necessary.</p> <p>Consistent with standard operating procedure (SOP) 14, when MS/MSD issues accounted for less than 35% of the MS/MSD analyses conducted, applicable data qualification was limited to qualification of the parent sample of the affected analyte. When >35% of the MS/MSD results did not meet criteria, evaluation was extended to all associated samples. See Section 4.1 of the data validation report for overall qualifiers resulting from the MS/MSD evaluation.</p> <p>Laboratory Duplicate</p> <p>The comparison between results of the laboratory duplicate pair met the criteria listed below.</p> <ul style="list-style-type: none"> When both the sample and duplicate values are >5x the LOQ acceptable sampling and analytical precision is indicated by an RPD between the results of ≤20% for water samples (≤35% for soil samples). <p>Where the result for one or both analytes of the laboratory duplicate pair is <5xLOQ, satisfactory precision is indicated if the absolute difference between the field duplicate results is <1xLOQ for water samples (<2xLOQ for soil samples).</p>
<p>Metals Only</p> <ul style="list-style-type: none"> Serial Dilution None in this package Post Digestion Spike None in this package 	NA	<p>Serial Dilution (Metals Only)</p> <p>A serial dilution was not reported in association with the sample in this data package.</p> <p>Post Digestion Spike (PDS) (Metals Only)</p> <p>A post digestion spike was not reported in association with the sample in this data package.</p>
<p>Method Quality Control</p> <ul style="list-style-type: none"> Surrogates (VOCs, SVOCs, PAHs, GRO, DRO/ORO) 	Yes	<p>The surrogate recoveries were within the laboratory specified acceptance criteria.</p>
<p>Field Quality Control</p> <ul style="list-style-type: none"> Trip Blank TU904-TRIPBLANK05-NT01 (GRO, VOCs) Field Duplicate None in this package Equipment Blank None in this package Field Blank None in this package 	Yes	<p>Trip Blank</p> <p>Target analytes were not detected in the trip blank.</p> <p>Field Duplicate</p> <p>The frequency of field duplicates met the QAPP requirement of one per twenty samples.</p> <p>A field duplicate was not submitted with the data package.</p> <p>Consistent with SOP 14, when field duplicate issues accounted for less than 35% of the field duplicate analyses conducted, applicable data qualification was limited to qualification of the parent sample for the affected analyte. When >35% of the field duplicate results did not meet criteria, evaluation was extended to all associated samples. See Section 4.3 of the data validation report for overall qualifiers resulting from the field duplicate evaluation.</p>

Review Parameter	Criteria Met?	Comment
		<p>Equipment Blank</p> <p>As dedicated equipment was used to collect these samples, an equipment blank was not submitted for this sampling event. Further action was not necessary.</p> <p>Field Blank</p> <p>The frequency of field blanks met the QAPP requirement of one per twenty samples.</p> <p>A field blank was not submitted with this data package. See Section 4.4 of the data validation report for overall qualifiers resulting from the field blank evaluation.</p>
LODs met?	No	Due to dilutions, several of the 6010B metals and gasoline range organic (GRO) results for all samples were reported as non-detect at elevated LODs. See Section 3.7 of the validation report for further discussion.
Other Parameters	Yes	<p>Naphthalene (8260B and 8270C-PAHs) and hexachloro-1,3-butadiene and 1,2,4-trichlorobenzene (8260B and 8270C) were analyzed by multiple methods. Results were selected for reporting using the following criteria:</p> <ul style="list-style-type: none"> • If both results were non-detect, the non-detect result with the lower DL was selected. • If both results were reported as detected, the higher detected result was selected for reporting. • If one result was reported as non-detect and the other result was reported as detected, the detected result was selected for reporting.
Initial Calibration	Yes	<p>Methods 8260B VOCs & 8270C SVOCs</p> <p>A minimum relative response factor (RRF) of 0.05 was used for the system performance check compounds (SPCCs) and all SPCCs met this criterion. The percent relative standard deviations (%RSDs) over the initial calibration RRFs for all calibration check compounds (CCCs) satisfied the method requirement of <30%. For all other target compounds, a requirement of 15% was used. The %RSD values for all target analytes in the calibration were less than 15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)</p> <p>The %RSD values for all target analytes in the calibration were less than 20%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8015D Gasoline Range Organics (GRO)/DRO/ORO</p> <p>The relationship between instrument response and concentration was established with a blank and at least five standards for the entire carbon range of C10-C40. The %RSD over the initial calibrations curve satisfied the method requirement of <15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Methods 6010B (Inductively Coupled Plasma [ICP] Metals)</p> <p>The initial calibrations (ICALs) were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with a blank and at least one</p>

Review Parameter	Criteria Met?	Comment
		<p>standard. The calibrations were verified with the analysis of an initial calibration verification (ICV) standard. All metals were recovered within the method acceptance range of 90-110%.</p> <p>Method 7470A (Mercury)</p> <p>The ICALs were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with five standards. The correlation coefficient was >0.995. The calibration was verified with the analysis of an ICV standard. The analytes were recovered within the acceptance range of 90-110%. Response and linearity criteria were met and data qualification on the basis of initial calibration was not necessary.</p>
Initial Calibration Verification/Continuing Calibration Verification	No	<p>Method 8260B VOCs</p> <p>With the exceptions listed in Table 2, the percent differences (%Ds) for all CCCs in the ICVs and continuing calibrations (CCALs) were less than 20%, satisfying method requirements, and other target analytes satisfied the %D criterion of 20%.</p> <p>Methods 8270C PAHs/SVOCs</p> <p>With the exceptions listed in Table 2, the %D values for all target analytes in the calibration were less than 20%.</p> <p>Method 8015D GRO/DRO/ORO</p> <p>The %Ds for all target compounds in the ICVs and CCALs were less than 15%. Data qualification was not necessary.</p> <p>Methods 6010B (ICP Metals) & 7470A (Mercury)</p> <p>Calibration verification analyses were conducted at the proper frequency. All metals were recovered within the DOD QSM 4.2 low level acceptance range of 80-120% and the method medium/high acceptance range of 90-110%.</p>
Interference Check Standard (Metals Only)	No	<p>The interference check standard (ICS) AB solutions were analyzed at the proper frequency. The target analytes were recovered within the acceptance range of 80-120% in the ICS A solution. With the exceptions listed in Table 3, interferent elements were not present in the samples at concentrations greater than those in the ICSs.</p> <p>The interferent elements aluminum, calcium, iron, and magnesium were present in most samples in this data package at concentrations greater than or equal to those in the ICSs. As such, these samples were evaluated for positive and negative biases suggested by the ICS A. Data qualification was issued if the absolute value of the ICS A result was greater than the DL and it suggested a positive or negative bias which accounted for more than 25% of associated sample results or LODs. (Note: The ICS A solution only contains the interferent elements aluminum, calcium, iron, and magnesium so any positive or negative result for other analytes is inferred to be a bias potentially caused by one or more of the interferent elements present). Table 3 summarizes the resultant data qualification on the basis of the ICS results.</p>

Review Parameter	Criteria Met?	Comment
Internal Standard (VOCs/SVOCs/PAHs/Metals (6020))	Yes	Recoveries for the internal standards in field samples were within the applicable acceptance limits. Therefore, data qualification based on internal standards was not necessary.
Laboratory Control Sample/ Laboratory Control Sample Duplicate	No	One laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) per method per analytical batch was prepared and analyzed. With the exceptions listed in Table 4, all of the LCS recoveries and LCS/LCSD RPDs were within the QAPP acceptance limits. These results are indicative of an acceptable level of accuracy and precision with respect to the analytical method. Method 8015 DRO/ORO The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the method could not be assessed for ORO.
Package Completeness	Yes	The results are usable as qualified for the project objective. The data are 100% complete.

> - Greater Than

< - Less Than

≤ - Less Than or Equal to

°C – Degrees Celsius

% - Percent

%Ds – Percent Differences

%RSD – Percent Relative Standard Deviation

CCALs – Continuing Calibrations

CCBs – Continuing Calibration Blanks

CCCs – Calibration Check Compounds

COC – Chain of Custody

COD – Coefficient of Determination

DLs – Detection Limits

DRO – Diesel Range Organics

GRO – Gasoline Range Organics

ICAL – Initial Calibration

ICB – Initial Calibration Blank

ICP – Inductively Coupled Plasma

ICS – Interference Check Standard

ICV – Initial Calibration Verification

LCS – Laboratory Control Sample

LCSD – Laboratory Control Sample Duplicate

LOD – Limit of Detection

LOQ – Limit of Quantitation

MS/MSD – Matrix Spike/ Matrix Spike Duplicate

ORO – Oil Range Organics

PAHs – Polynuclear Aromatic Hydrocarbons

QAPP – Quality Assurance Project Plan

PDS – Post Digestion Spike

RPDs – Relative Percent Differences

RRF – Relative Response Factor

SOP – Standard Operating Procedure

SPCCs – System Performance Check Compounds

SVOCs – Semivolatile Organic Compounds

VOCs – Volatile Organic Compounds

Table 1: Blank Outliers and Resultant Data Qualification

Associated Samples	Analyte	Concentration	Qualification
Total Metals			
MB Batch WG750667 TU904-SB04-NS01 TU904-SB04-NS02 TU904-SB06-NS01 TU904-SB07-NS01 TU904-SB07-NS02	Thallium	1.65 mg/Kg	The associated results reported as non-detect.
VOCs			
MB Batch WG750700 TU904-SB04-NS01 TU904-SB04-NS02 TU904-SB06-NS01 TU904-SB07-NS01 TU904-SB07-NS02	Styrene	0.000322 mg/Kg	The associated results reported as non-detect.

Associated Samples	Analyte	Concentration	Qualification
DRO/ORO			
MB Batch WG751233 TU904-SB04-NS01 TU904-SB04-NS02 TU904-SB06-NS01 TU904-SB07-NS01 TU904-SB07-NS02	DRO	1.67 mg/Kg	The associated results reported as non-detect.

DRO – Diesel Range Organics
 ORO – Oil Range Organics

MB – Method Blank
 VOCs – Volatile Organic Compounds

mg/Kg – Milligrams per Kilogram

Table 2: Initial/Continuing Calibration Verification Outliers and Resultant Data Qualification

Associated Samples	Analyte	%D (Limit)	Data Qualification
VOCs			
TU904-TRIPBLANK05-NT01	Chloroethane	+26.4 (±20)	As the potential bias was considered to be high, and the associated sample results were reported as non-detect, data qualification was not considered necessary.
	1,2,4-Trichlorobenzene	+23.9 (±20)	
SVOCs			
TU904-SB04-NS01 TU904-SB04-NS02 TU904-SB06-NS01 TU904-SB07-NS01 TU904-SB07-NS02	3,4-Methyl Phenol	-48.1 (±20)	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ CCAL-L).

± - Plus or minus
 L – Low Bias

%D – Percent Difference
 SVOCs – Semivolatile Organic Compounds

CCAL – Continuing Calibration
 UJ – Estimated

VOCs – Volatile Organic Compounds

Table 3: ICS Outliers and Resultant Data Qualification

Interferent Element	Analyte	ICS A (µg/L)	MDL (µg/L)	Qualified Samples	Qualification
Aluminum, Calcium, Iron, Magnesium	Cadmium	-0.9	0.7	TU904-SB04-NS01	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ/J ICS-L).
	Lead	-24.5	1.9	TU904-SB04-NS02	
	Nickel	-16.8	4.9	TU904-SB06-NS01	
	Thallium	-9.8	6.5	TU904-SB07-NS01	
	Cadmium	-0.9	0.7	TU904-SB07-NS02	
	Lead	-24.5	1.9		
	Thallium	-9.8	6.5		

µg/L – Micrograms per Liter
 MDL – Method Detection Limit

ICS – Interference Check Standard
 UJ/J – Estimated

L – Low Bias

Table 4: LCS Recovery Outliers and Resultant Data Qualification

Associated Samples	Analyte	%R (Limits)	RPD (Limits)	Qualification
Metals				
LCS WG750667 TU904-SB04-NS01 TU904-SB04-NS02 TU904-SB06-NS01 TU904-SB07-NS01 TU904-SB07-NS02	Aluminum	126/134 (80-120)	6 (50)	As the potential bias was considered to be high, the associated detected aluminum results for all samples were qualified as estimated (J LCS-H).

%R – Percent Recoveries

H – High Bias

J - Estimated

LCS – Laboratory Control Sample

Bold indicates a recovery outside of acceptance limits.



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB04-NS01
Collected By :
Collection Date : 10/22/14 13:30

ESC Sample # : L729563-01

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.1				su		9045D	10/27/14	1
Total Solids	TSOLIDS	67.7	.0333			%		2540 G-2	10/28/14	1
Mercury <i>F SOL-I</i>	7439-97-6	0.0046	.0041	0.015	0.030	mg/kg	J	7471	10/28/14	1
Aluminum <i>J LCSYK FD-H</i>	7429-90-5	3200	.26	37.	74.	mg/kg		6010B	11/05/14	5
Antimony	7440-36-0	U	5.6	7.4	15.	mg/kg		6010B	11/05/14	5
Arsenic	7440-38-2	U	4.7	7.4	15.	mg/kg		6010B	11/05/14	5
Barium <i>J FD-I</i>	7440-39-3	35.	1.2	1.8	3.7	mg/kg		6010B	11/05/14	5
Beryllium	7440-41-7	U	.52	0.74	1.5	mg/kg		6010B	11/05/14	5
Cadmium <i>U3 ICS-L</i>	7440-43-9	U	.52	1.8	3.7	mg/kg		6010B	11/05/14	5
Chromium <i>F SOL-I</i>	7440-47-3	3.8	1	3.7	7.4	mg/kg	J	6010B	11/05/14	5
Cobalt	7440-48-4	U	1.8	3.7	7.4	mg/kg		6010B	11/05/14	5
Copper	7440-50-8	U	3.8	7.4	15.	mg/kg		6010B	11/05/14	5
Lead <i>U3 ICS-L</i>	7439-92-1	U	1.4	1.8	3.7	mg/kg		6010B	11/05/14	5
Manganese <i>J FD-I</i>	7439-96-5	35.	.89	3.7	7.4	mg/kg		6010B	11/05/14	5
Nickel <i>U3 ICS-L</i>	7440-02-0	U	3.5	7.4	15.	mg/kg		6010B	11/05/14	5
Selenium	7782-49-2	U	5.5	7.4	15.	mg/kg		6010B	11/05/14	5
Silver <i>U3 MS-L</i>	7440-22-4	U	2.1	3.7	7.4	mg/kg		6010B	11/05/14	5
Thallium <i>U3 ICS-L</i>	7440-28-0	U	4.7	7.4	15.	mg/kg		6010B	11/04/14	5
Vanadium <i>F SOL-I</i>	7440-62-2	5.6	1.8	7.4	15.	mg/kg	J	6010B	11/05/14	5
Zinc <i>F SOL-I</i>	7440-66-6	9.3	4.4	18.	37.	mg/kg	J	6010B	11/05/14	5
TPH (GC/FID) Low Fraction <i>U3 AS-L</i>	8006-61-9	U	.89	2.0	4.1	mg/kg		8015D/GR	10/31/14	27.5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	98.8				% Rec.		8015D/GR	10/31/14	27.5
Volatile Organics										
Acetone <i>F SOL-I</i>	67-64-1	0.056	.016	0.041	0.082	mg/kg	J	8260B	10/31/14	1.11
Benzene	71-43-2	0.0021	.00044	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
Bromobenzene	108-86-1	U	.00047	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
Bromochloromethane	74-97-5	U	.00064	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
Bromodichloromethane	75-27-4	U	.00041	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
Bromoform	75-25-2	U	.00069	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
Bromomethane	74-83-9	U	.0022	0.0041	0.0082	mg/kg		8260B	10/31/14	1.11
n-Butylbenzene	104-51-8	U	.00043	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
sec-Butylbenzene	135-98-8	U	.00032	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
tert-Butylbenzene	98-06-6	U	.00034	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
Carbon Disulfide	75-15-0	U	.00046	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
Carbon tetrachloride	56-23-5	U	.00053	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
Chlorobenzene	108-90-7	U	.00035	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
Chlorodibromomethane	124-48-1	U	.0006	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
Chloroethane	75-00-3	U	.0015	0.0041	0.0082	mg/kg		8260B	10/31/14	1.11
Chloroform	67-66-3	U	.00037	0.0041	0.0082	mg/kg		8260B	10/31/14	1.11

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/05/14 16:13 Revised: 11/18/14 11:05

L729563-01 (PH) - 6.1@21.lc

L729563-01 (ICP METALS) - Diluted due to matrix.

Handwritten notes:
KAR 2/15/15
BMS 2/17/15
BMS 2/19/15
8 of 1553



12065 Lebanon Rd.
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1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB04-NS01
Collected By :
Collection Date : 10/22/14 13:30

ESC Sample # : L729563-01

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00062	0.00082	0.0041	mg/kg		8260B	10/31/14	1.11
2-Chlorotoluene	95-49-8	U	.00049	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
4-Chlorotoluene	106-43-4	U	.0004	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0018	0.0041	0.0082	mg/kg		8260B	10/31/14	1.11
1,2-Dibromoethane	106-93-4	U	.00056	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
Dibromomethane	74-95-3	U	.00062	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
1,2-Dichlorobenzene	95-50-1	U	.0005	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
1,3-Dichlorobenzene	541-73-1	U	.00038	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
1,4-Dichlorobenzene	106-46-7	U	.00037	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
Dichlorodifluoromethane	75-71-8	U	.0012	0.0041	0.0082	mg/kg		8260B	10/31/14	1.11
1,1-Dichloroethane	75-34-3	U	.00032	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
1,2-Dichloroethane	107-06-2	U	.00043	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
1,1-Dichloroethene	75-35-4	U	.0005	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
cis-1,2-Dichloroethene	156-59-2	U	.00038	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
trans-1,2-Dichloroethene	156-60-5	U	.00043	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
1,2-Dichloropropane	78-87-5	U	.00059	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
1,1-Dichloropropene	563-58-6	U	.00052	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
1,3-Dichloropropane	142-28-9	U	.00034	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
cis-1,3-Dichloropropene	10061-01-5	U	.00043	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
trans-1,3-Dichloropropene	10061-02-6	U	.00044	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
2,2-Dichloropropane	594-20-7	U	.00046	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
Ethylbenzene	100-41-4	U	.00049	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
Hexachloro-1,3-butadiene	87-68-3	U	.00056	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
2-Hexanone	591-78-6	U	.0062	0.0082	0.016	mg/kg		8260B	10/31/14	1.11
Isopropylbenzene	98-82-8	U	.0004	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
p-Isopropyltoluene	99-87-6	U	.00034	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
2-Butanone (MEK) F3QL-I	78-93-3	0.012	.0077	0.0082	0.016	mg/kg	J	8260B	10/31/14	1.11
Methylene Chloride	75-09-2	U	.0016	0.0041	0.0082	mg/kg		8260B	10/31/14	1.11
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0031	0.0082	0.016	mg/kg		8260B	10/31/14	1.11
Methyl tert-butyl ether	1634-04-4	U	.00035	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
Naphthalene DNR	91-20-3	U	.0016	0.0041	0.0082	mg/kg		8260B	10/31/14	1.11
n-Propylbenzene	103-65-1	U	.00034	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
Styrene	100-42-5	U	.00038	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
1,1,1,2-Tetrachloroethane	630-20-6	U	.00043	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
1,1,2,2-Tetrachloroethane	79-34-5	U	.00059	0.0012	0.0016	mg/kg		8260B	10/31/14	1.11
Tetrachloroethene	127-18-4	U	.00046	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
Toluene F3QL-I	108-88-3	0.0018	.00071	0.0041	0.0082	mg/kg	J	8260B	10/31/14	1.11
1,2,3-Trichlorobenzene	87-61-6	U	.0005	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
1,2,4-Trichlorobenzene	120-82-1	U	.00064	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
1,1,1-Trichloroethane	71-55-6	U	.00047	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
1,1,2-Trichloroethane	79-00-5	U	.00046	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
Trichloroethene	79-01-6	U	.00046	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
Trichlorofluoromethane	75-69-4	U	.00062	0.0041	0.0082	mg/kg		8260B	10/31/14	1.11
1,2,3-Trichloropropane	96-18-4	U	.0012	0.0016	0.0041	mg/kg		8260B	10/31/14	1.11
1,2,4-Trimethylbenzene	95-63-6	U	.00034	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11

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L729563-01 (PH) - 6.1@21.1c

L729563-01 (ICP METALS) - Diluted due to matrix.

DNR! Do Not Report

KAZH/15
BMS 2/17/15 9 of 1553



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB04-NS01
Collected By :
Collection Date : 10/22/14 13:30

ESC Sample # : L729563-01

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00056	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
m&p-Xylene	1330-20-7	U	.0012	0.0016	0.0033	mg/kg		8260B	10/31/14	1.11
Vinyl chloride	75-01-4	U	.00047	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
1,3,5-Trimethylbenzene	108-67-8	U	.00044	0.00082	0.0016	mg/kg		8260B	10/31/14	1.11
Surrogate Recovery										
Toluene-d8	2037-26-5	103.				% Rec.		8260B	10/31/14	1.11
Dibromofluoromethane	1868-53-7	107.				% Rec.		8260B	10/31/14	1.11
4-Bromofluorobenzene	460-00-4	103.				% Rec.		8260B	10/31/14	1.11
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.4	3.0	5.9	mg/kg		8015	10/29/14	1
C28-C40 Oil Range		U	.4	3.0	5.9	mg/kg		8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	73.9				% Rec.		8015	10/29/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/29/14	1
Acenaphthene	83-32-9	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/29/14	1
Acenaphthylene	208-96-8	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/29/14	1
Benzo(a)anthracene	56-55-3	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/29/14	1
Benzo(a)pyrene	50-32-8	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/29/14	1
Benzo(b)fluoranthene	205-99-2	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/29/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/29/14	1
Benzo(k)fluoranthene	207-08-9	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/29/14	1
Chrysene	218-01-9	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/29/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/29/14	1
Fluoranthene	206-44-0	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/29/14	1
Fluorene	86-73-7	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/29/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/29/14	1
Naphthalene	91-20-3	U	.00089	0.0089	0.030	mg/kg		8270C-SI	10/29/14	1
Phenanthrene	85-01-8	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/29/14	1
Pyrene	129-00-0	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/29/14	1
2-Methylnaphthalene	91-57-6	U	.00094	0.0089	0.030	mg/kg		8270C-SI	10/29/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	61.3				% Rec.		8270C-SI	10/29/14	1
Nitrobenzene-d5	4165-60-0	74.0				% Rec.		8270C-SI	10/29/14	1
2-Fluorobiphenyl	321-60-8	72.0				% Rec.		8270C-SI	10/29/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.011	0.25	0.49	mg/kg		8270C	10/29/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.013	0.25	0.49	mg/kg		8270C	10/29/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.011	0.25	0.49	mg/kg		8270C	10/29/14	1
Benzyl Alcohol	100-51-6	U	.011	0.25	0.49	mg/kg		8270C	10/29/14	1
Benzoic acid	65-85-0	U	.18	2.5	4.9	mg/kg		8270C	10/29/14	1
Carbazole	86-74-8	U	.0077	0.25	0.49	mg/kg		8270C	10/29/14	1

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L729563-01 (PH) - 6.1@21.1c

L729563-01 (ICP METALS) - Diluted due to matrix.

Handwritten notes:
 RA 8/26/15
 RA 2/15/15
 BUS 2/15/15
 BUS 2/15/15
 10 of 1553



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB04-NS01
Collected By :
Collection Date : 10/22/14 13:30

ESC Sample # : L729563-01

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0077	0.25	0.49	mg/kg		8270C	10/29/14	1
4-Bromophenyl-phenylether	101-55-3	U	.016	0.25	0.49	mg/kg		8270C	10/29/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0093	0.25	0.49	mg/kg		8270C	10/29/14	1
2-Chloronaphthalene	91-58-7	U	.0094	0.25	0.49	mg/kg		8270C	10/29/14	1
3,3-Dichlorobenzidine	91-94-1	U	.12	0.25	0.49	mg/kg		8270C	10/29/14	1
2,4-Dinitrotoluene	121-14-2	U	.009	0.25	0.49	mg/kg		8270C	10/29/14	1
2,6-Dinitrotoluene	606-20-2	U	.011	0.25	0.49	mg/kg		8270C	10/29/14	1
Hexachlorobenzene	118-74-1	U	.013	0.25	0.49	mg/kg		8270C	10/29/14	1
Hexachloro-1,3-butadiene <i>DNR</i>	87-68-3	U	.015	0.25	0.49	mg/kg		8270C	10/29/14	1
Hexachloroethane	67-72-1	U	.019	0.25	0.49	mg/kg		8270C	10/29/14	1
Isophorone	78-59-1	U	.0077	0.25	0.49	mg/kg		8270C	10/29/14	1
Nitrobenzene	98-95-3	U	.01	0.25	0.49	mg/kg		8270C	10/29/14	1
n-Nitrosodimethylamine	62-75-9	U	.096	0.25	0.49	mg/kg		8270C	10/29/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0087	0.25	0.49	mg/kg		8270C	10/29/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.013	0.25	0.49	mg/kg		8270C	10/29/14	1
Benzylbutyl phthalate	85-68-7	U	.015	0.25	0.49	mg/kg		8270C	10/29/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.018	0.25	0.49	mg/kg		8270C	10/29/14	1
Di-n-butyl phthalate	84-74-2	U	.016	0.25	0.49	mg/kg		8270C	10/29/14	1
Diethyl phthalate	84-66-2	U	.01	0.25	0.49	mg/kg		8270C	10/29/14	1
Dimethyl phthalate	131-11-3	U	.008	0.25	0.49	mg/kg		8270C	10/29/14	1
Di-n-octyl phthalate	117-84-0	U	.013	0.25	0.49	mg/kg		8270C	10/29/14	1
1,2,4-Trichlorobenzene <i>DNR</i>	120-82-1	U	.013	0.25	0.49	mg/kg		8270C	10/29/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0071	0.25	0.49	mg/kg		8270C	10/29/14	1
2-Chlorophenol	95-57-8	U	.012	0.25	0.49	mg/kg		8270C	10/29/14	1
2,4-Dichlorophenol	120-83-2	U	.011	0.25	0.49	mg/kg		8270C	10/29/14	1
2,4-Dimethylphenol	105-67-9	U	.069	0.25	0.49	mg/kg		8270C	10/29/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.18	0.25	0.49	mg/kg		8270C	10/29/14	1
2,4-Dinitrophenol	51-28-5	U	.14	0.25	0.49	mg/kg		8270C	10/29/14	1
2-Methylphenol	95-48-7	U	.015	0.25	0.49	mg/kg		8270C	10/29/14	1
3&4-Methyl Phenol <i>US CCAL-L</i>	3&4-Methyl	U	.012	0.25	0.49	mg/kg		8270C	10/29/14	1
2-Nitrophenol	88-75-5	U	.019	0.25	0.49	mg/kg		8270C	10/29/14	1
4-Nitrophenol	100-02-7	U	.077	0.25	0.49	mg/kg		8270C	10/29/14	1
4-Chloroaniline	106-47-8	U	.0052	0.25	0.49	mg/kg		8270C	10/29/14	1
2-Nitroaniline	88-74-4	U	.011	0.25	0.49	mg/kg		8270C	10/29/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0021	0.25	0.49	mg/kg		8270C	10/29/14	1
3-Nitroaniline	99-09-2	U	.012	0.25	0.49	mg/kg		8270C	10/29/14	1
4-Nitroaniline	100-01-6	U	.0094	0.25	0.49	mg/kg		8270C	10/29/14	1
Pentachlorophenol	87-86-5	U	.071	0.25	0.49	mg/kg		8270C	10/29/14	1
Phenol	108-95-2	U	.01	0.25	0.49	mg/kg		8270C	10/29/14	1
2,4,5-Trichlorophenol	95-95-4	U	.015	0.25	0.49	mg/kg		8270C	10/29/14	1
2,4,6-Trichlorophenol	88-06-2	U	.012	0.25	0.49	mg/kg		8270C	10/29/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	53.6				% Rec.		8270C	10/29/14	1
Phenol-d5	4165-62-2	55.8				% Rec.		8270C	10/29/14	1

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L729563-01 (PH) - 6.1@21.lc

L729563-01 (ICP METALS) - Diluted due to matrix.

DNR: Do Not Report

*ICACH/SLR
BUS 2/17/15
11 of 1553*



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-SB04-NS01
 Collected By :
 Collection Date : 10/22/14 13:30

ESC Sample # : L729563-01

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	52.5				% Rec.		8270C	10/29/14	1
2-Fluorobiphenyl	321-60-8	54.6				% Rec.		8270C	10/29/14	1
2,4,6-Tribromophenol	118-79-6	59.8				% Rec.		8270C	10/29/14	1
p-Terphenyl-d14	1718-51-0	52.6				% Rec.		8270C	10/29/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/05/14 16:13 Revised: 11/18/14 11:05

L729563-01 (PH) - 6.1@21.1c

L729563-01 (ICP METALS) - Diluted due to matrix.

KA-215-115
BMS 2/17/15
 12 of 1553



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB04-NS02
Collected By :
Collection Date : 10/22/14 16:10

ESC Sample # : L729563-02

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.3				su		9045D	10/27/14	1
Total Solids	TSOLIDS	69.0	.0333			%		2540 G-2	10/28/14	1
Mercury	7439-97-6	U	.004	0.014	0.029	mg/kg		7471	10/28/14	1
Aluminum	7429-90-5	6700	.26	36.	72.	mg/kg		6010B	11/05/14	5
Antimony	7440-36-0	U	5.5	7.2	14.	mg/kg		6010B	11/05/14	5
Arsenic	7440-38-2	U	4.6	7.2	14.	mg/kg		6010B	11/05/14	5
Barium	7440-39-3	61.	1.2	1.8	3.6	mg/kg		6010B	11/05/14	5
Beryllium	7440-41-7	U	.51	0.72	1.4	mg/kg		6010B	11/05/14	5
Cadmium	7440-43-9	U	.51	1.8	3.6	mg/kg		6010B	11/05/14	5
Chromium	7440-47-3	7.0	1	3.6	7.2	mg/kg	J	6010B	11/05/14	5
Cobalt	7440-48-4	2.2	1.7	3.6	7.2	mg/kg	J	6010B	11/05/14	5
Copper	7440-50-8	U	3.8	7.2	14.	mg/kg		6010B	11/05/14	5
Lead	7439-92-1	2.3	1.4	1.8	3.6	mg/kg	J	6010B	11/05/14	5
Manganese	7439-96-5	70.	.87	3.6	7.2	mg/kg		6010B	11/05/14	5
Nickel	7440-02-0	6.1	3.5	7.2	14.	mg/kg	J	6010B	11/05/14	5
Selenium	7782-49-2	U	5.4	7.2	14.	mg/kg		6010B	11/05/14	5
Silver	7440-22-4	U	2	3.6	7.2	mg/kg		6010B	11/05/14	5
Thallium	7440-28-0	U	4.6	7.2	14.	mg/kg		6010B	11/04/14	5
Vanadium	7440-62-2	12.	1.7	7.2	14.	mg/kg	J	6010B	11/05/14	5
Zinc	7440-66-6	17.	4.3	18.	36.	mg/kg	J	6010B	11/05/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.36	0.85	1.7	mg/kg		8015D/GR	10/31/14	11.75
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	98.9				% Rec.		8015D/GR	10/31/14	11.75
Volatile Organics										
Acetone	67-64-1	0.020	.014	0.036	0.072	mg/kg	J	8260B	10/31/14	1
Benzene	71-43-2	0.00067	.00039	0.00072	0.0014	mg/kg	J	8260B	10/31/14	1
Bromobenzene	108-86-1	U	.0004	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Bromochloromethane	74-97-5	U	.00056	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Bromodichloromethane	75-27-4	U	.00036	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Bromoform	75-25-2	U	.00061	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Bromomethane	74-83-9	U	.0019	0.0036	0.0072	mg/kg		8260B	10/31/14	1
n-Butylbenzene	104-51-8	U	.00038	0.00072	0.0014	mg/kg		8260B	10/31/14	1
sec-Butylbenzene	135-98-8	U	.00029	0.00072	0.0014	mg/kg		8260B	10/31/14	1
tert-Butylbenzene	98-06-6	U	.0003	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Carbon Disulfide	75-15-0	U	.0004	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Carbon tetrachloride	56-23-5	U	.00048	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Chlorobenzene	108-90-7	U	.0003	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Chlorodibromomethane	124-48-1	U	.00054	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Chloroethane	75-00-3	U	.0014	0.0036	0.0072	mg/kg		8260B	10/31/14	1
Chloroform	67-66-3	U	.00033	0.0036	0.0072	mg/kg		8260B	10/31/14	1

Results listed are dry weight basis.

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Reported: 11/05/14 16:13 Revised: 11/18/14 11:05

L729563-02 (ICP METALS) - Diluted due to matrix.

L729563-02 (PH) - 6.3@21.0c

Handwritten notes:
KAZHS/HS
BMS 2/17/15
BMS 2/19/15
13 of 1553



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB04-NS02
Collected By :
Collection Date : 10/22/14 16:10

ESC Sample # : L729563-02

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00055	0.00072	0.0036	mg/kg		8260B	10/31/14	1
2-Chlorotoluene	95-49-8	U	.00043	0.00072	0.0014	mg/kg		8260B	10/31/14	1
4-Chlorotoluene	106-43-4	U	.00035	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0014	0.0036	0.0072	mg/kg		8260B	10/31/14	1
1,2-Dibromoethane	106-93-4	U	.00049	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Dibromomethane	74-95-3	U	.00055	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,2-Dichlorobenzene	95-50-1	U	.00043	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,3-Dichlorobenzene	541-73-1	U	.00035	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,4-Dichlorobenzene	106-46-7	U	.00033	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Dichlorodifluoromethane	75-71-8	U	.001	0.0036	0.0072	mg/kg		8260B	10/31/14	1
1,1-Dichloroethane	75-34-3	U	.00029	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,2-Dichloroethane	107-06-2	U	.00038	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,1-Dichloroethene	75-35-4	U	.00043	0.00072	0.0014	mg/kg		8260B	10/31/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00035	0.00072	0.0014	mg/kg		8260B	10/31/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00038	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,2-Dichloropropane	78-87-5	U	.00052	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,1-Dichloropropene	563-58-6	U	.00046	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,3-Dichloropropane	142-28-9	U	.0003	0.00072	0.0014	mg/kg		8260B	10/31/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00038	0.00072	0.0014	mg/kg		8260B	10/31/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00039	0.00072	0.0014	mg/kg		8260B	10/31/14	1
2,2-Dichloropropane	594-20-7	U	.0004	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Ethylbenzene	100-41-4	U	.00043	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00049	0.00072	0.0014	mg/kg		8260B	10/31/14	1
2-Hexanone	591-78-6	U	.0055	0.0072	0.014	mg/kg		8260B	10/31/14	1
Isopropylbenzene	98-82-8	U	.00035	0.00072	0.0014	mg/kg		8260B	10/31/14	1
p-Isopropyltoluene	99-87-6	U	.00029	0.00072	0.0014	mg/kg		8260B	10/31/14	1
2-Butanone (MEK)	78-93-3	U	.0068	0.0072	0.014	mg/kg		8260B	10/31/14	1
Methylene Chloride	75-09-2	U	.0014	0.0036	0.0072	mg/kg		8260B	10/31/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0028	0.0072	0.014	mg/kg		8260B	10/31/14	1
Methyl tert-butyl ether	1634-04-4	U	.0003	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Naphthalene	91-20-3	U	.0014	0.0036	0.0072	mg/kg		8260B	10/31/14	1
n-Propylbenzene	103-65-1	U	.0003	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Styrene	100-42-5	U	.00033	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00038	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00052	0.0011	0.0014	mg/kg		8260B	10/31/14	1
Tetrachloroethene	127-18-4	U	.0004	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Toluene	108-88-3	0.00062	.00062	0.0036	0.0072	mg/kg	J	8260B	10/31/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00045	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00056	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,1,1-Trichloroethane	71-55-6	U	.00041	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,1,2-Trichloroethane	79-00-5	U	.0004	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Trichloroethene	79-01-6	U	.0004	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Trichlorofluoromethane	75-69-4	U	.00055	0.0036	0.0072	mg/kg		8260B	10/31/14	1
1,2,3-Trichloropropane	96-18-4	U	.0011	0.0014	0.0036	mg/kg		8260B	10/31/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.0003	0.00072	0.0014	mg/kg		8260B	10/31/14	1

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Reported: 11/05/14 16:13 Revised: 11/18/14 11:05

L729563-02 (ICP METALS) - Diluted due to matrix.

L729563-02 (PH) - 6.3@21.0c

DNR - DO NOT REPORT

CAZ/11/15
BMS 2/17/15 14 of 1553



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-SB04-NS02
 Collected By :
 Collection Date : 10/22/14 16:10

ESC Sample # : L729563-02

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00049	0.00072	0.0014	mg/kg		8260B	10/31/14	1
m&p-Xylene	1330-20-7	U	.001	0.0014	0.0029	mg/kg		8260B	10/31/14	1
Vinyl chloride	75-01-4	U	.00042	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00039	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	104.				% Rec.		8260B	10/31/14	1
Dibromofluoromethane	1868-53-7	117.				% Rec.		8260B	10/31/14	1
4-Bromofluorobenzene	460-00-4	104.				% Rec.		8260B	10/31/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.3	2.9	5.8	mg/kg		8015	10/29/14	1
C28-C40 Oil Range		U	.39	2.9	5.8	mg/kg		8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	73.3				% Rec.		8015	10/29/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	10/29/14	1
Acenaphthene	83-32-9	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	10/29/14	1
Acenaphthylene	208-96-8	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	10/29/14	1
Benzo(a)anthracene	56-55-3	0.0022	.00087	0.0029	0.0087	mg/kg	J	8270C-SI	10/29/14	1
Benzo(a)pyrene	50-32-8	0.0017	.00087	0.0029	0.0087	mg/kg	J	8270C-SI	10/29/14	1
Benzo(b)fluoranthene	205-99-2	0.0026	.00087	0.0029	0.0087	mg/kg	J	8270C-SI	10/29/14	1
Benzo(g,h,i)perylene	191-24-2	0.0016	.00087	0.0029	0.0087	mg/kg	J	8270C-SI	10/29/14	1
Benzo(k)fluoranthene	207-08-9	0.0011	.00087	0.0029	0.0087	mg/kg	J	8270C-SI	10/29/14	1
Chrysene	218-01-9	0.0023	.00087	0.0029	0.0087	mg/kg	J	8270C-SI	10/29/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	10/29/14	1
Fluoranthene	206-44-0	0.0042	.00087	0.0029	0.0087	mg/kg	J	8270C-SI	10/29/14	1
Fluorene	86-73-7	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	10/29/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	0.0014	.00087	0.0029	0.0087	mg/kg	J	8270C-SI	10/29/14	1
Naphthalene	91-20-3	U	.00087	0.0087	0.029	mg/kg		8270C-SI	10/29/14	1
Phenanthrene	85-01-8	0.0022	.00087	0.0029	0.0087	mg/kg	J	8270C-SI	10/29/14	1
Pyrene	129-00-0	0.0038	.00087	0.0029	0.0087	mg/kg	J	8270C-SI	10/29/14	1
2-Methylnaphthalene	91-57-6	U	.00093	0.0087	0.029	mg/kg		8270C-SI	10/29/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	69.7				% Rec.		8270C-SI	10/29/14	1
Nitrobenzene-d5	4165-60-0	85.0				% Rec.		8270C-SI	10/29/14	1
2-Fluorobiphenyl	321-60-8	83.5				% Rec.		8270C-SI	10/29/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.011	0.24	0.48	mg/kg		8270C	10/29/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.013	0.24	0.48	mg/kg		8270C	10/29/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.011	0.24	0.48	mg/kg		8270C	10/29/14	1
Benzyl Alcohol	100-51-6	U	.011	0.24	0.48	mg/kg		8270C	10/29/14	1
Benzoic acid	65-85-0	U	.17	2.4	4.8	mg/kg		8270C	10/29/14	1
Carbazole	86-74-8	U	.0075	0.24	0.48	mg/kg		8270C	10/29/14	1

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L729563-02 (ICP METALS) - Diluted due to matrix.

L729563-02 (PH) - 6.3@21.0c

Handwritten notes:
 KA-0/20/15
 KA-2/15/15
 BMS 2/17/15
 15 of 1553
 0 ms 9/2/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB04-NS02
Collected By :
Collection Date : 10/22/14 16:10

ESC Sample # : L729563-02

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0075	0.24	0.48	mg/kg		8270C	10/29/14	1
4-Bromophenyl-phenylether	101-55-3	U	.016	0.24	0.48	mg/kg		8270C	10/29/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0091	0.24	0.48	mg/kg		8270C	10/29/14	1
2-Chloronaphthalene	91-58-7	U	.0093	0.24	0.48	mg/kg		8270C	10/29/14	1
3,3-Dichlorobenzidine	91-94-1	U	.11	0.24	0.48	mg/kg		8270C	10/29/14	1
2,4-Dinitrotoluene	121-14-2	U	.0088	0.24	0.48	mg/kg		8270C	10/29/14	1
2,6-Dinitrotoluene	606-20-2	U	.011	0.24	0.48	mg/kg		8270C	10/29/14	1
Hexachlorobenzene	118-74-1	U	.012	0.24	0.48	mg/kg		8270C	10/29/14	1
Hexachloro-1,3-butadiene DNR	87-68-3	U	.014	0.24	0.48	mg/kg		8270C	10/29/14	1
Hexachloroethane	67-72-1	U	.019	0.24	0.48	mg/kg		8270C	10/29/14	1
Isophorone	78-59-1	U	.0075	0.24	0.48	mg/kg		8270C	10/29/14	1
Nitrobenzene	98-95-3	U	.01	0.24	0.48	mg/kg		8270C	10/29/14	1
n-Nitrosodimethylamine	62-75-9	U	.094	0.24	0.48	mg/kg		8270C	10/29/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0086	0.24	0.48	mg/kg		8270C	10/29/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.013	0.24	0.48	mg/kg		8270C	10/29/14	1
Benzylbutyl phthalate	85-68-7	U	.014	0.24	0.48	mg/kg		8270C	10/29/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.017	0.24	0.48	mg/kg		8270C	10/29/14	1
Di-n-butyl phthalate	84-74-2	U	.016	0.24	0.48	mg/kg		8270C	10/29/14	1
Diethyl phthalate	84-66-2	U	.01	0.24	0.48	mg/kg		8270C	10/29/14	1
Dimethyl phthalate	131-11-3	U	.0078	0.24	0.48	mg/kg		8270C	10/29/14	1
Di-n-octyl phthalate	117-84-0	U	.013	0.24	0.48	mg/kg		8270C	10/29/14	1
1,2,4-Trichlorobenzene DNR	120-82-1	U	.013	0.24	0.48	mg/kg		8270C	10/29/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.007	0.24	0.48	mg/kg		8270C	10/29/14	1
2-Chlorophenol	95-57-8	U	.012	0.24	0.48	mg/kg		8270C	10/29/14	1
2,4-Dichlorophenol	120-83-2	U	.011	0.24	0.48	mg/kg		8270C	10/29/14	1
2,4-Dimethylphenol	105-67-9	U	.068	0.24	0.48	mg/kg		8270C	10/29/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.17	0.24	0.48	mg/kg		8270C	10/29/14	1
2,4-Dinitrophenol	51-28-5	U	.14	0.24	0.48	mg/kg		8270C	10/29/14	1
2-Methylphenol	95-48-7	U	.014	0.24	0.48	mg/kg		8270C	10/29/14	1
3&4-Methyl Phenol USCCAL-L	3&4-Methyl	U	.011	0.24	0.48	mg/kg		8270C	10/29/14	1
2-Nitrophenol	88-75-5	U	.019	0.24	0.48	mg/kg		8270C	10/29/14	1
4-Nitrophenol	100-02-7	U	.075	0.24	0.48	mg/kg		8270C	10/29/14	1
4-Chloroaniline	106-47-8	U	.0051	0.24	0.48	mg/kg		8270C	10/29/14	1
2-Nitroaniline	88-74-4	U	.011	0.24	0.48	mg/kg		8270C	10/29/14	1
1,2-Diphenylhydrazine	103-33-3	U	.002	0.24	0.48	mg/kg		8270C	10/29/14	1
3-Nitroaniline	99-09-2	U	.012	0.24	0.48	mg/kg		8270C	10/29/14	1
4-Nitroaniline	100-01-6	U	.0093	0.24	0.48	mg/kg		8270C	10/29/14	1
Pentachlorophenol	87-86-5	U	.07	0.24	0.48	mg/kg		8270C	10/29/14	1
Phenol	108-95-2	U	.01	0.24	0.48	mg/kg		8270C	10/29/14	1
2,4,5-Trichlorophenol	95-95-4	U	.014	0.24	0.48	mg/kg		8270C	10/29/14	1
2,4,6-Trichlorophenol	88-06-2	U	.011	0.24	0.48	mg/kg		8270C	10/29/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	60.3				% Rec.		8270C	10/29/14	1
Phenol-d5	4165-62-2	65.0				% Rec.		8270C	10/29/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/05/14 16:13 Revised: 11/18/14 11:05

L729563-02 (ICP METALS) - Diluted due to matrix.

L729563-02 (PH) - 6.3@21.0c

DNR - Do Not Report

KA zhs/lis
BMS 2/17/15
16 of 1553



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 Fax (615) 758-5859

Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-SB04-NS02
 Collected By :
 Collection Date : 10/22/14 16:10

ESC Sample # : L729563-02
 Site ID :
 Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	61.0				% Rec.		8270C	10/29/14	1
2-Fluorobiphenyl	321-60-8	63.5				% Rec.		8270C	10/29/14	1
2,4,6-Tribromophenol	118-79-6	70.7				% Rec.		8270C	10/29/14	1
p-Terphenyl-d14	1718-51-0	59.6				% Rec.		8270C	10/29/14	1

Results listed are dry weight basis.

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Reported: 11/05/14 16:13 Revised: 11/18/14 11:05

L729563-02 (ICP METALS) - Diluted due to matrix.

L729563-02 (PH) - 6.3@21.0c

KA 2/15/15
BMS 2/17/15
 17 of 1553



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-TRIPBLANK05-NT01
 Collected By :
 Collection Date : 10/23/14 12:00

ESC Sample # : L729563-03

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	11/04/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	95.3				% Rec.		8015D/G	11/04/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	10/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	10/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	10/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	10/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	10/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	10/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	10/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	10/26/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	10/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	10/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	10/26/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	10/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	10/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	10/26/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	10/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l	J4	8260B	10/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	10/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	10/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	10/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	10/26/14	1

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-TRIPBLANK05-NT01
 Collected By :
 Collection Date : 10/23/14 12:00

ESC Sample # : L729563-03

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	10/26/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	10/26/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	10/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	10/26/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	10/26/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	10/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	10/26/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	10/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	10/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	10/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	10/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	10/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	10/26/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	10/26/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	10/26/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	10/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	101.				% Rec.		8260B	10/26/14	1
Dibromofluoromethane	1868-53-7	96.8				% Rec.		8260B	10/26/14	1
4-Bromofluorobenzene	460-00-4	97.0				% Rec.		8260B	10/26/14	1

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB06-NS01
Collected By :
Collection Date : 10/22/14 17:00

ESC Sample # : L729563-04

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.3				su		9045D	10/27/14	1
Total Solids	TSOLIDS	83.4	.0333			%		2540 G-2	10/28/14	1
Mercury	7439-97-6	U	.0034	0.012	0.024	mg/kg		7471	10/28/14	1
Aluminum	7429-90-5	2600	.22	30.	60.	mg/kg		6010B	11/05/14	5
Antimony	7440-36-0	U	4.6	6.0	12.	mg/kg		6010B	11/05/14	5
Arsenic	7440-38-2	U	3.8	6.0	12.	mg/kg		6010B	11/05/14	5
Barium	7440-39-3	25.	1	1.5	3.0	mg/kg		6010B	11/05/14	5
Beryllium	7440-41-7	U	.42	0.60	1.2	mg/kg		6010B	11/05/14	5
Cadmium	7440-43-9	U	.42	1.5	3.0	mg/kg		6010B	11/05/14	5
Chromium	7440-47-3	2.6	.84	3.0	6.0	mg/kg	J	6010B	11/05/14	5
Cobalt	7440-48-4	U	1.4	3.0	6.0	mg/kg		6010B	11/05/14	5
Copper	7440-50-8	U	3.1	6.0	12.	mg/kg		6010B	11/05/14	5
Lead	7439-92-1	U	1.1	1.5	3.0	mg/kg		6010B	11/05/14	5
Manganese	7439-96-5	37.	.72	3.0	6.0	mg/kg		6010B	11/05/14	5
Nickel	7440-02-0	U	2.9	6.0	12.	mg/kg		6010B	11/05/14	5
Selenium	7782-49-2	U	4.4	6.0	12.	mg/kg		6010B	11/05/14	5
Silver	7440-22-4	U	1.7	3.0	6.0	mg/kg		6010B	11/05/14	5
Thallium	7440-28-0	U	3.8	6.0	12.	mg/kg		6010B	11/04/14	5
Vanadium	7440-62-2	7.3	1.4	6.0	12.	mg/kg	J	6010B	11/05/14	5
Zinc	7440-66-6	7.3	3.6	15.	30.	mg/kg	J	6010B	11/05/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.64	1.5	2.9	mg/kg		8015D/GR	10/31/14	24.5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	98.8				% Rec.		8015D/GR	10/31/14	24.5
Volatile Organics										
Acetone	67-64-1	0.030	.014	0.037	0.073	mg/kg	J	8260B	10/31/14	1.22
Benzene	71-43-2	0.0026	.0004	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
Bromobenzene	108-86-1	U	.00042	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
Bromochloromethane	74-97-5	U	.00058	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
Bromodichloromethane	75-27-4	U	.00037	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
Bromoform	75-25-2	U	.00062	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
Bromomethane	74-83-9	U	.0019	0.0037	0.0073	mg/kg		8260B	10/31/14	1.22
n-Butylbenzene	104-51-8	U	.00037	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
sec-Butylbenzene	135-98-8	U	.00029	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
tert-Butylbenzene	98-06-6	U	.0003	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
Carbon Disulfide	75-15-0	U	.00041	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
Carbon tetrachloride	56-23-5	U	.00048	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
Chlorobenzene	108-90-7	U	.00031	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
Chlorodibromomethane	124-48-1	U	.00055	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
Chloroethane	75-00-3	U	.0014	0.0037	0.0073	mg/kg		8260B	10/31/14	1.22
Chloroform	67-66-3	U	.00034	0.0037	0.0073	mg/kg		8260B	10/31/14	1.22

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/05/14 16:13 Revised: 11/18/14 11:05

L729563-04 (PH) - 6.3@20.9c

L729563-04 (ICP METALS) - Diluted due to matrix.

Handwritten notes:
KA 2/15/15
BMS 2/17/15
BMS 2/19/15
20 of 1553



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB06-NS01
Collected By :
Collection Date : 10/22/14 17:00

ESC Sample # : L729563-04

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00055	0.00073	0.0036	mg/kg		8260B	10/31/14	1.22
2-Chlorotoluene	95-49-8	U	.00044	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
4-Chlorotoluene	106-43-4	U	.00035	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0016	0.0037	0.0073	mg/kg		8260B	10/31/14	1.22
1,2-Dibromoethane	106-93-4	U	.0005	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
Dibromomethane	74-95-3	U	.00056	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
1,2-Dichlorobenzene	95-50-1	U	.00044	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
1,3-Dichlorobenzene	541-73-1	U	.00035	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
1,4-Dichlorobenzene	106-46-7	U	.00034	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
Dichlorodifluoromethane	75-71-8	U	.001	0.0037	0.0073	mg/kg		8260B	10/31/14	1.22
1,1-Dichloroethane	75-34-3	U	.00029	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
1,2-Dichloroethane	107-06-2	U	.00038	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
1,1-Dichloroethene	75-35-4	U	.00044	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
cis-1,2-Dichloroethene	156-59-2	U	.00035	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
trans-1,2-Dichloroethene	156-60-5	U	.00038	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
1,2-Dichloropropane	78-87-5	U	.00053	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
1,1-Dichloropropene	563-58-6	U	.00047	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
1,3-Dichloropropane	142-28-9	U	.0003	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
cis-1,3-Dichloropropene	10061-01-5	U	.00038	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
trans-1,3-Dichloropropene	10061-02-6	U	.00038	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
2,2-Dichloropropane	594-20-7	U	.00041	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
Ethylbenzene	100-41-4	U	.00043	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
Hexachloro-1,3-butadiene	87-68-3	U	.0005	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
2-Hexanone	591-78-6	U	.0055	0.0073	0.015	mg/kg		8260B	10/31/14	1.22
Isopropylbenzene	98-82-8	U	.00036	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
p-Isopropyltoluene	99-87-6	U	.0003	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
2-Butanone (MEK)	78-93-3	U	.0068	0.0073	0.015	mg/kg		8260B	10/31/14	1.22
Methylene Chloride	75-09-2	U	.0014	0.0037	0.0073	mg/kg		8260B	10/31/14	1.22
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0028	0.0073	0.015	mg/kg		8260B	10/31/14	1.22
Methyl tert-butyl ether	1634-04-4	U	.00031	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
Naphthalene	91-20-3	U	.0014	0.0037	0.0073	mg/kg		8260B	10/31/14	1.22
n-Propylbenzene	103-65-1	U	.0003	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
Styrene	100-42-5	U	.00034	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
1,1,1,2-Tetrachloroethane	630-20-6	U	.00038	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
1,1,2,2-Tetrachloroethane	79-34-5	U	.00053	0.0011	0.0015	mg/kg		8260B	10/31/14	1.22
Tetrachloroethene	127-18-4	U	.00041	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
Toluene	108-88-3	0.0023	.00064	0.0037	0.0073	mg/kg	J	8260B	10/31/14	1.22
1,2,3-Trichlorobenzene	87-61-6	U	.00044	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
1,2,4-Trichlorobenzene	120-82-1	U	.00056	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
1,1,1-Trichloroethane	71-55-6	U	.00042	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
1,1,2-Trichloroethane	79-00-5	U	.00041	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
Trichloroethene	79-01-6	U	.00041	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
Trichlorofluoromethane	75-69-4	U	.00056	0.0037	0.0073	mg/kg		8260B	10/31/14	1.22
1,2,3-Trichloropropane	96-18-4	U	.0011	0.0015	0.0036	mg/kg		8260B	10/31/14	1.22
1,2,4-Trimethylbenzene	95-63-6	U	.00031	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/05/14 16:13 Revised: 11/18/14 11:05

L729563-04 (PH) - 6.3@20.9c

L729563-04 (ICP METALS) - Diluted due to matrix.

DNR - Do Not Report

KA 2/15/15
BMS 2/17/15
21 of 1553



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB06-NS01
Collected By :
Collection Date : 10/22/14 17:00

ESC Sample # : L729563-04

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00049	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
m&p-Xylene	1330-20-7	U	.001	0.0015	0.0029	mg/kg		8260B	10/31/14	1.22
Vinyl chloride	75-01-4	U	.00043	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
1,3,5-Trimethylbenzene	108-67-8	U	.00038	0.00073	0.0015	mg/kg		8260B	10/31/14	1.22
Surrogate Recovery										
Toluene-d8	2037-26-5	103.				% Rec.		8260B	10/31/14	1.22
Dibromofluoromethane	1868-53-7	106.				% Rec.		8260B	10/31/14	1.22
4-Bromofluorobenzene	460-00-4	102.				% Rec.		8260B	10/31/14	1.22
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	1.9	2.4	4.8	mg/kg		8015	10/29/14	1
C28-C40 Oil Range		U	.32	2.4	4.8	mg/kg		8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	66.5				% Rec.		8015	10/29/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Acenaphthene	83-32-9	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Acenaphthylene	208-96-8	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Benzo(a)anthracene	56-55-3	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Benzo(a)pyrene	50-32-8	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Benzo(b)fluoranthene	205-99-2	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Benzo(k)fluoranthene	207-08-9	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Chrysene	218-01-9	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Fluoranthene	206-44-0	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Fluorene	86-73-7	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Naphthalene	91-20-3	U	.00072	0.0072	0.024	mg/kg		8270C-SI	10/29/14	1
Phenanthrene	85-01-8	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Pyrene	129-00-0	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
2-Methylnaphthalene	91-57-6	U	.00077	0.0072	0.024	mg/kg		8270C-SI	10/29/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	77.4				% Rec.		8270C-SI	10/29/14	1
Nitrobenzene-d5	4165-60-0	90.1				% Rec.		8270C-SI	10/29/14	1
2-Fluorobiphenyl	321-60-8	88.6				% Rec.		8270C-SI	10/29/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.0092	0.20	0.40	mg/kg		8270C	10/29/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.011	0.20	0.40	mg/kg		8270C	10/29/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.0091	0.20	0.40	mg/kg		8270C	10/29/14	1
Benzyl Alcohol	100-51-6	U	.009	0.20	0.40	mg/kg		8270C	10/29/14	1
Benzoic acid	65-85-0	U	.14	2.0	4.0	mg/kg		8270C	10/29/14	1
Carbazole	86-74-8	U	.0062	0.20	0.40	mg/kg		8270C	10/29/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/05/14 16:13 Revised: 11/18/14 11:05

L729563-04 (PH) - 6.3@20.9c

L729563-04 (ICP METALS) - Diluted due to matrix.

KA 8/20/15

KA 2/15/15
BMS 2/17/15
22 of 1553

BMS 9/2/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-SB06-NS01
 Collected By :
 Collection Date : 10/22/14 17:00

ESC Sample # : L729563-04

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0062	0.20	0.40	mg/kg	8270C	10/29/14	1	
4-Bromophenyl-phenylether	101-55-3	U	.013	0.20	0.40	mg/kg	8270C	10/29/14	1	
4-Chlorophenyl-phenylether	7005-72-3	U	.0076	0.20	0.40	mg/kg	8270C	10/29/14	1	
2-Chloronaphthalene	91-58-7	U	.0077	0.20	0.40	mg/kg	8270C	10/29/14	1	
3,3-Dichlorobenzidine	91-94-1	U	.095	0.20	0.40	mg/kg	8270C	10/29/14	1	
2,4-Dinitrotoluene	121-14-2	U	.0073	0.20	0.40	mg/kg	8270C	10/29/14	1	
2,6-Dinitrotoluene	606-20-2	U	.0089	0.20	0.40	mg/kg	8270C	10/29/14	1	
Hexachlorobenzene	118-74-1	U	.01	0.20	0.40	mg/kg	8270C	10/29/14	1	
Hexachloro-1,3-butadiene	87-68-3	U	.012	0.20	0.40	mg/kg	8270C	10/29/14	1	1
Hexachloroethane	67-72-1	U	.016	0.20	0.40	mg/kg	8270C	10/29/14	1	
Isophorone	78-59-1	U	.0062	0.20	0.40	mg/kg	8270C	10/29/14	1	
Nitrobenzene	98-95-3	U	.0084	0.20	0.40	mg/kg	8270C	10/29/14	1	
n-Nitrosodimethylamine	62-75-9	U	.078	0.20	0.40	mg/kg	8270C	10/29/14	1	
n-Nitrosodiphenylamine	86-30-6	U	.0071	0.20	0.40	mg/kg	8270C	10/29/14	1	
n-Nitrosodi-n-propylamine	621-64-7	U	.011	0.20	0.40	mg/kg	8270C	10/29/14	1	
Benzylbutyl phthalate	85-68-7	U	.012	0.20	0.40	mg/kg	8270C	10/29/14	1	
Bis(2-ethylhexyl)phthalate	117-81-7	U	.014	0.20	0.40	mg/kg	8270C	10/29/14	1	
Di-n-butyl phthalate	84-74-2	U	.013	0.20	0.40	mg/kg	8270C	10/29/14	1	
Diethyl phthalate	84-66-2	U	.0083	0.20	0.40	mg/kg	8270C	10/29/14	1	
Dimethyl phthalate	131-11-3	U	.0065	0.20	0.40	mg/kg	8270C	10/29/14	1	
Di-n-octyl phthalate	117-84-0	U	.011	0.20	0.40	mg/kg	8270C	10/29/14	1	
1,2,4-Trichlorobenzene	120-82-1	U	.01	0.20	0.40	mg/kg	8270C	10/29/14	1	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0058	0.20	0.40	mg/kg	8270C	10/29/14	1	
2-Chlorophenol	95-57-8	U	.01	0.20	0.40	mg/kg	8270C	10/29/14	1	
2,4-Dichlorophenol	120-83-2	U	.009	0.20	0.40	mg/kg	8270C	10/29/14	1	
2,4-Dimethylphenol	105-67-9	U	.056	0.20	0.40	mg/kg	8270C	10/29/14	1	
4,6-Dinitro-2-methylphenol	534-52-1	U	.14	0.20	0.40	mg/kg	8270C	10/29/14	1	
2,4-Dinitrophenol	51-28-5	U	.12	0.20	0.40	mg/kg	8270C	10/29/14	1	
2-Methylphenol	95-48-7	U	.012	0.20	0.40	mg/kg	8270C	10/29/14	1	
3&4-Methyl Phenol	US CCAL-L	U	.0094	0.20	0.40	mg/kg	8270C	10/29/14	1	1
2-Nitrophenol	88-75-5	U	.016	0.20	0.40	mg/kg	8270C	10/29/14	1	
4-Nitrophenol	100-02-7	U	.062	0.20	0.40	mg/kg	8270C	10/29/14	1	
4-Chloroaniline	106-47-8	U	.0042	0.20	0.40	mg/kg	8270C	10/29/14	1	
2-Nitroaniline	88-74-4	U	.0091	0.20	0.40	mg/kg	8270C	10/29/14	1	
1,2-Diphenylhydrazine	103-33-3	U	.0017	0.20	0.40	mg/kg	8270C	10/29/14	1	
3-Nitroaniline	99-09-2	U	.01	0.20	0.40	mg/kg	8270C	10/29/14	1	
4-Nitroaniline	100-01-6	U	.0077	0.20	0.40	mg/kg	8270C	10/29/14	1	
Pentachlorophenol	87-86-5	U	.058	0.20	0.40	mg/kg	8270C	10/29/14	1	
Phenol	108-95-2	U	.0084	0.20	0.40	mg/kg	8270C	10/29/14	1	
2,4,5-Trichlorophenol	95-95-4	U	.012	0.20	0.40	mg/kg	8270C	10/29/14	1	
2,4,6-Trichlorophenol	88-06-2	U	.0094	0.20	0.40	mg/kg	8270C	10/29/14	1	
Surrogate Recovery										
2-Fluorophenol	367-12-4	59.3				% Rec.	8270C	10/29/14	1	
Phenol-d5	4165-62-2	62.8				% Rec.	8270C	10/29/14	1	

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/05/14 16:13 Revised: 11/18/14 11:05

L729563-04 (PH) - 6.3@20.9c

L729563-04 (ICP METALS) - Diluted due to matrix.

PUR - Do Not Report

KA zllshis
BMS 2/17/15
 23 of 1553



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 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-SB06-NS01
 Collected By :
 Collection Date : 10/22/14 17:00

ESC Sample # : L729563-04
 Site ID :
 Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	59.7				% Rec.	8270C	10/29/14	1
2-Fluorobiphenyl	321-60-8	58.4				% Rec.	8270C	10/29/14	1
2,4,6-Tribromophenol	118-79-6	68.6				% Rec.	8270C	10/29/14	1
p-Terphenyl-d14	1718-51-0	61.0				% Rec.	8270C	10/29/14	1

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Reported: 11/05/14 16:13 Revised: 11/18/14 11:05

L729563-04 (PH) - 6.3@20.9c

L729563-04 (ICP METALS) - Diluted due to matrix.

KAZISTIS
BMS 2/17/15
 24 of 1553



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-SB07-NS01
 Collected By :
 Collection Date : 10/22/14 16:50

ESC Sample # : L729563-05

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.4				su		9045D	10/27/14	1
Total Solids	TSOLIDS	82.6	.0333			%		2540 G-2	10/28/14	1
Mercury	7439-97-6	U	.0034	0.012	0.024	mg/kg		7471	10/28/14	1
Aluminum	7429-90-5	3400	.22	30.	60.	mg/kg		6010B	11/05/14	5
Antimony	7440-36-0	U	4.6	6.1	12.	mg/kg		6010B	11/05/14	5
Arsenic	7440-38-2	U	3.9	6.1	12.	mg/kg		6010B	11/05/14	5
Barium	7440-39-3	33.	1	1.5	3.0	mg/kg		6010B	11/05/14	5
Beryllium	7440-41-7	U	.42	0.61	1.2	mg/kg		6010B	11/05/14	5
Cadmium	7440-43-9	U	.42	1.5	3.0	mg/kg		6010B	11/05/14	5
Chromium	7440-47-3	3.6	.85	3.0	6.0	mg/kg	J	6010B	11/05/14	5
Cobalt	7440-48-4	U	1.4	3.0	6.0	mg/kg		6010B	11/05/14	5
Copper	7440-50-8	U	3.1	6.1	12.	mg/kg		6010B	11/05/14	5
Lead	7439-92-1	U	1.2	1.5	3.0	mg/kg		6010B	11/05/14	5
Manganese	7439-96-5	38.	.73	3.0	6.0	mg/kg		6010B	11/05/14	5
Nickel	7440-02-0	3.5	2.9	6.1	12.	mg/kg	J	6010B	11/05/14	5
Selenium	7782-49-2	U	4.5	6.1	12.	mg/kg		6010B	11/05/14	5
Silver	7440-22-4	U	1.7	3.0	6.0	mg/kg		6010B	11/05/14	5
Thallium	7440-28-0	U	3.9	6.1	12.	mg/kg		6010B	11/04/14	5
Vanadium	7440-62-2	5.9	1.4	6.1	12.	mg/kg	J	6010B	11/05/14	5
Zinc	7440-66-6	8.8	3.6	15.	30.	mg/kg	J	6010B	11/05/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.68	1.6	3.1	mg/kg		8015D/GR	10/31/14	26
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	99.0				% Rec.		8015D/GR	10/31/14	26
Volatile Organics										
Acetone	67-64-1	0.030	.013	0.032	0.064	mg/kg	J	8260B	10/31/14	1.06
Benzene	71-43-2	0.0022	.00035	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
Bromobenzene	108-86-1	U	.00036	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
Bromochloromethane	74-97-5	U	.0005	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
Bromodichloromethane	75-27-4	U	.00033	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
Bromoform	75-25-2	U	.00054	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
Bromomethane	74-83-9	U	.0017	0.0032	0.0064	mg/kg		8260B	10/31/14	1.06
n-Butylbenzene	104-51-8	U	.00033	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
sec-Butylbenzene	135-98-8	U	.00025	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
tert-Butylbenzene	98-06-6	U	.00027	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
Carbon Disulfide	75-15-0	U	.00036	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
Carbon tetrachloride	56-23-5	U	.00042	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
Chlorobenzene	108-90-7	U	.00027	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
Chlorodibromomethane	124-48-1	U	.00048	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
Chloroethane	75-00-3	U	.0012	0.0032	0.0064	mg/kg		8260B	10/31/14	1.06
Chloroform	67-66-3	U	.00029	0.0032	0.0064	mg/kg		8260B	10/31/14	1.06

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/05/14 16:13 Revised: 11/18/14 11:05

L729563-05 (ICP METALS) - Diluted due to matrix.

L729563-05 (PH) - 6.4@20.8c

KA 2/15/15
 BMS 2/17/15
 25 of 1553
 BMS 2/19/15



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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB07-NS01
Collected By :
Collection Date : 10/22/14 16:50

ESC Sample # : L729563-05

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00048	0.00064	0.0032	mg/kg		8260B	10/31/14	1.06
2-Chlorotoluene	95-49-8	U	.00039	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
4-Chlorotoluene	106-43-4	U	.0003	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0013	0.0032	0.0064	mg/kg		8260B	10/31/14	1.06
1,2-Dibromoethane	106-93-4	U	.00044	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
Dibromomethane	74-95-3	U	.00048	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
1,2-Dichlorobenzene	95-50-1	U	.00039	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
1,3-Dichlorobenzene	541-73-1	U	.0003	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
1,4-Dichlorobenzene	106-46-7	U	.00029	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
Dichlorodifluoromethane	75-71-8	U	.00092	0.0032	0.0064	mg/kg		8260B	10/31/14	1.06
1,1-Dichloroethane	75-34-3	U	.00025	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
1,2-Dichloroethane	107-06-2	U	.00034	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
1,1-Dichloroethene	75-35-4	U	.00039	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
cis-1,2-Dichloroethene	156-59-2	U	.0003	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
trans-1,2-Dichloroethene	156-60-5	U	.00034	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
1,2-Dichloropropane	78-87-5	U	.00046	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
1,1-Dichloropropene	563-58-6	U	.00041	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
1,3-Dichloropropane	142-28-9	U	.00027	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
cis-1,3-Dichloropropene	10061-01-5	U	.00034	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
trans-1,3-Dichloropropene	10061-02-6	U	.00034	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
2,2-Dichloropropane	594-20-7	U	.00036	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
Ethylbenzene	100-41-4	U	.00038	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
Hexachloro-1,3-butadiene	87-68-3	U	.00044	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
2-Hexanone	591-78-6	U	.0048	0.0064	0.013	mg/kg		8260B	10/31/14	1.06
Isopropylbenzene	98-82-8	U	.00031	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
p-Isopropyltoluene	99-87-6	U	.00027	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
2-Butanone (MEK) F SQL-I	78-93-3	0.0073	.006	0.0064	0.013	mg/kg	J	8260B	10/31/14	1.06
Methylene Chloride	75-09-2	U	.0013	0.0032	0.0064	mg/kg		8260B	10/31/14	1.06
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0024	0.0064	0.013	mg/kg		8260B	10/31/14	1.06
Methyl tert-butyl ether	1634-04-4	U	.00027	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
Naphthalene DNR	91-20-3	U	.0013	0.0032	0.0064	mg/kg		8260B	10/31/14	1.06
n-Propylbenzene	103-65-1	U	.00027	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
Styrene	100-42-5	U	.0003	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
1,1,1,2-Tetrachloroethane	630-20-6	U	.00034	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
1,1,2,2-Tetrachloroethane	79-34-5	U	.00047	0.00096	0.0013	mg/kg		8260B	10/31/14	1.06
Tetrachloroethene	127-18-4	U	.00035	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
Toluene F SQL-I	108-88-3	0.0017	.00056	0.0032	0.0064	mg/kg	J	8260B	10/31/14	1.06
1,2,3-Trichlorobenzene	87-61-6	U	.00039	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
1,2,4-Trichlorobenzene	120-82-1	U	.0005	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
1,1,1-Trichloroethane	71-55-6	U	.00037	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
1,1,2-Trichloroethane	79-00-5	U	.00035	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
Trichloroethene	79-01-6	U	.00036	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
Trichlorofluoromethane	75-69-4	U	.00048	0.0032	0.0064	mg/kg		8260B	10/31/14	1.06
1,2,3-Trichloropropane	96-18-4	U	.00094	0.0013	0.0032	mg/kg		8260B	10/31/14	1.06
1,2,4-Trimethylbenzene	95-63-6	U	.00027	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06

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L729563-05 (ICP METALS) - Diluted due to matrix.

L729563-05 (PH) - 6.4@20.8c

DNR - Do Not Report

ICA 2/15/15
BMS 2/17/15
26 of 1553



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB07-NS01
Collected By :
Collection Date : 10/22/14 16:50

ESC Sample # : L729563-05

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00044	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
m&p-Xylene	1330-20-7	U	.00092	0.0013	0.0026	mg/kg		8260B	10/31/14	1.06
Vinyl chloride	75-01-4	U	.00038	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
1,3,5-Trimethylbenzene	108-67-8	U	.00034	0.00064	0.0013	mg/kg		8260B	10/31/14	1.06
Surrogate Recovery										
Toluene-d8	2037-26-5	101.				% Rec.		8260B	10/31/14	1.06
Dibromofluoromethane	1868-53-7	112.				% Rec.		8260B	10/31/14	1.06
4-Bromofluorobenzene	460-00-4	103.				% Rec.		8260B	10/31/14	1.06
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	1.9	2.4	4.8	mg/kg		8015	10/29/14	1
C28-C40 Oil Range		U	.33	2.4	4.8	mg/kg		8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	64.3				% Rec.		8015	10/29/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
Acenaphthene	83-32-9	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
Acenaphthylene	208-96-8	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
Benzo (a) anthracene	56-55-3	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
Benzo (a) pyrene <i>US LCS-L</i>	50-32-8	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
Benzo (b) fluoranthene <i>US MS-L</i>	205-99-2	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
Benzo (g, h, i) perylene	191-24-2	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
Benzo (k) fluoranthene	207-08-9	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
Chrysene	218-01-9	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
Dibenz (a, h) anthracene	53-70-3	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
Fluoranthene	206-44-0	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
Fluorene	86-73-7	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
Indeno (1,2,3-cd) pyrene	193-39-5	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
Naphthalene	91-20-3	U	.00073	0.0073	0.024	mg/kg		8270C-SI	10/29/14	1
Phenanthrene	85-01-8	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
Pyrene	129-00-0	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
2-Methylnaphthalene	91-57-6	U	.00077	0.0073	0.024	mg/kg		8270C-SI	10/29/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	69.6				% Rec.		8270C-SI	10/29/14	1
Nitrobenzene-d5	4165-60-0	85.2				% Rec.		8270C-SI	10/29/14	1
2-Fluorobiphenyl	321-60-8	82.7				% Rec.		8270C-SI	10/29/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.0093	0.20	0.40	mg/kg		8270C	10/29/14	1
Bis(2-chloroethyl) ether	111-44-4	U	.011	0.20	0.40	mg/kg		8270C	10/29/14	1
Bis(2-chloroisopropyl) ether	108-60-1	U	.0092	0.20	0.40	mg/kg		8270C	10/29/14	1
Benzyl Alcohol	100-51-6	U	.0091	0.20	0.40	mg/kg		8270C	10/29/14	1
Benzoic acid	65-85-0	U	.14	2.0	4.0	mg/kg		8270C	10/29/14	1
Carbazole	86-74-8	U	.0063	0.20	0.40	mg/kg		8270C	10/29/14	1

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L729563-05 (ICP METALS) - Diluted due to matrix.

L729563-05 (PH) - 6.4@20.8c

KA 8/26/15

KA 2/15/15
BMS 2/17/15
27 of 1553

BMS 9/2/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB07-NS01
Collected By :
Collection Date : 10/22/14 16:50

ESC Sample # : L729563-05

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0063	0.20	0.40	mg/kg		8270C	10/29/14	1
4-Bromophenyl-phenylether	101-55-3	U	.013	0.20	0.40	mg/kg		8270C	10/29/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0076	0.20	0.40	mg/kg		8270C	10/29/14	1
2-Chloronaphthalene	91-58-7	U	.0077	0.20	0.40	mg/kg		8270C	10/29/14	1
3,3-Dichlorobenzidine	91-94-1	U	.096	0.20	0.40	mg/kg		8270C	10/29/14	1
2,4-Dinitrotoluene	121-14-2	U	.0074	0.20	0.40	mg/kg		8270C	10/29/14	1
2,6-Dinitrotoluene	606-20-2	U	.009	0.20	0.40	mg/kg		8270C	10/29/14	1
Hexachlorobenzene	118-74-1	U	.01	0.20	0.40	mg/kg		8270C	10/29/14	1
Hexachloro-1,3-butadiene DNR	87-68-3	U	.012	0.20	0.40	mg/kg		8270C	10/29/14	1
Hexachloroethane	67-72-1	U	.016	0.20	0.40	mg/kg		8270C	10/29/14	1
Isophorone	78-59-1	U	.0063	0.20	0.40	mg/kg		8270C	10/29/14	1
Nitrobenzene	98-95-3	U	.0085	0.20	0.40	mg/kg		8270C	10/29/14	1
n-Nitrosodimethylamine	62-75-9	U	.079	0.20	0.40	mg/kg		8270C	10/29/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0071	0.20	0.40	mg/kg		8270C	10/29/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.011	0.20	0.40	mg/kg		8270C	10/29/14	1
Benzylbutyl phthalate	85-68-7	U	.012	0.20	0.40	mg/kg		8270C	10/29/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.014	0.20	0.40	mg/kg		8270C	10/29/14	1
Di-n-butyl phthalate	84-74-2	U	.013	0.20	0.40	mg/kg		8270C	10/29/14	1
Diethyl phthalate	84-66-2	U	.0084	0.20	0.40	mg/kg		8270C	10/29/14	1
Dimethyl phthalate	131-11-3	U	.0065	0.20	0.40	mg/kg		8270C	10/29/14	1
Di-n-octyl phthalate	117-84-0	U	.011	0.20	0.40	mg/kg		8270C	10/29/14	1
1,2,4-Trichlorobenzene DNR	120-82-1	U	.011	0.20	0.40	mg/kg		8270C	10/29/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0058	0.20	0.40	mg/kg		8270C	10/29/14	1
2-Chlorophenol	95-57-8	U	.01	0.20	0.40	mg/kg		8270C	10/29/14	1
2,4-Dichlorophenol	120-83-2	U	.0091	0.20	0.40	mg/kg		8270C	10/29/14	1
2,4-Dimethylphenol	105-67-9	U	.057	0.20	0.40	mg/kg		8270C	10/29/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.14	0.20	0.40	mg/kg		8270C	10/29/14	1
2,4-Dinitrophenol	51-28-5	U	.12	0.20	0.40	mg/kg		8270C	10/29/14	1
2-Methylphenol	95-48-7	U	.012	0.20	0.40	mg/kg		8270C	10/29/14	1
3&4-Methyl Phenol US CAL-L	3&4-Methyl	U	.0094	0.20	0.40	mg/kg		8270C	10/29/14	1
2-Nitrophenol	88-75-5	U	.016	0.20	0.40	mg/kg		8270C	10/29/14	1
4-Nitrophenol	100-02-7	U	.063	0.20	0.40	mg/kg		8270C	10/29/14	1
4-Chloroaniline	106-47-8	U	.0042	0.20	0.40	mg/kg		8270C	10/29/14	1
2-Nitroaniline	88-74-4	U	.0092	0.20	0.40	mg/kg		8270C	10/29/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0017	0.20	0.40	mg/kg		8270C	10/29/14	1
3-Nitroaniline	99-09-2	U	.01	0.20	0.40	mg/kg		8270C	10/29/14	1
4-Nitroaniline	100-01-6	U	.0077	0.20	0.40	mg/kg		8270C	10/29/14	1
Pentachlorophenol	87-86-5	U	.058	0.20	0.40	mg/kg		8270C	10/29/14	1
Phenol	108-95-2	U	.0085	0.20	0.40	mg/kg		8270C	10/29/14	1
2,4,5-Trichlorophenol	95-95-4	U	.012	0.20	0.40	mg/kg		8270C	10/29/14	1
2,4,6-Trichlorophenol	88-06-2	U	.0094	0.20	0.40	mg/kg		8270C	10/29/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	47.8				% Rec.		8270C	10/29/14	1
Phenol-d5	4165-62-2	48.9				% Rec.		8270C	10/29/14	1

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DNR - Do Not Report

CA 2/15/15
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Sheri Fling
 URS
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 Denver, CO 80237

November 18, 2014

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 Description : Holloman AFB
 Sample ID : TU904-SB07-NS01
 Collected By :
 Collection Date : 10/22/14 16:50

ESC Sample # : L729563-05

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	43.5				% Rec.		8270C	10/29/14	1
2-Fluorobiphenyl	321-60-8	48.9				% Rec.		8270C	10/29/14	1
2,4,6-Tribromophenol	118-79-6	59.6				% Rec.		8270C	10/29/14	1
p-Terphenyl-d14	1718-51-0	54.4				% Rec.		8270C	10/29/14	1

Results listed are dry weight basis.
 U = Not Detected at the LOD

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Reported: 11/05/14 16:13 Revised: 11/18/14 11:05
 L729563-05 (ICP METALS) - Diluted due to matrix.
 L729563-05 (PH) - 6.4@20.8c

KA 2/15/15
 BM 2/17/15
 29 of 1553



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB07-NS02
Collected By :
Collection Date : 10/22/14 18:30

ESC Sample # : L729563-06

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.4				su		9045D	10/27/14	1
Total Solids	TSOLIDS	81.6	.0333			%		2540 G-2	10/28/14	1
Mercury <i>F SQL-I</i>	7439-97-6	0.0048	.0034	0.012	0.024	mg/kg	J	7471	10/28/14	1
Aluminum <i>S LCS, H FD-H</i>	7429-90-5	10000	22	31.	61.	mg/kg		6010B	11/05/14	5
Antimony	7440-36-0	U	4.6	6.1	12.	mg/kg		6010B	11/05/14	5
Arsenic	7440-38-2	U	3.9	6.1	12.	mg/kg		6010B	11/05/14	5
Barium <i>J FD-HI</i>	7440-39-3	120	1	1.5	3.1	mg/kg		6010B	11/05/14	5
Beryllium	7440-41-7	U	.43	0.61	1.2	mg/kg		6010B	11/05/14	5
Cadmium <i>UJ ICS-L</i>	7440-43-9	U	.43	1.5	3.1	mg/kg		6010B	11/05/14	5
Chromium	7440-47-3	15.	.86	3.1	6.1	mg/kg		6010B	11/05/14	5
Cobalt <i>F SQL-I</i>	7440-48-4	4.2	1.5	3.1	6.1	mg/kg	J	6010B	11/05/14	5
Copper <i>F SQL-I</i>	7440-50-8	3.8	3.2	6.1	12.	mg/kg	J	6010B	11/05/14	5
Lead <i>S ICS-L</i>	7439-92-1	5.5	1.2	1.5	3.1	mg/kg		6010B	11/05/14	5
Manganese <i>J FD-I</i>	7439-96-5	170	.74	3.1	6.1	mg/kg		6010B	11/05/14	5
Nickel <i>F SQL-I</i>	7440-02-0	8.8	2.9	6.1	12.	mg/kg	J	6010B	11/05/14	5
Selenium	7782-49-2	U	4.5	6.1	12.	mg/kg		6010B	11/05/14	5
Silver <i>UJ MS-L</i>	7440-22-4	U	1.7	3.1	6.1	mg/kg		6010B	11/05/14	5
Thallium <i>UJ ICS-L</i>	7440-28-0	U	3.9	6.1	12.	mg/kg		6010B	11/04/14	5
Vanadium	7440-62-2	22.	1.5	6.1	12.	mg/kg		6010B	11/05/14	5
Zinc <i>F SQL-I</i>	7440-66-6	27.	3.7	15.	31.	mg/kg	J	6010B	11/05/14	5
TPH (GC/FID) Low Fraction <i>UJ MS-L</i>	8006-61-9	U	.53	1.2	2.4	mg/kg		8015D/GR	10/31/14	19.75
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	98.9				% Rec.		8015D/GR	10/31/14	19.75
Volatile Organics										
Acetone <i>F SQL-I</i>	67-64-1	0.020	.012	0.031	0.061	mg/kg	J	8260B	10/31/14	1
Benzene	71-43-2	0.0056	.00033	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Bromobenzene	108-86-1	U	.00034	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Bromochloromethane	74-97-5	U	.00048	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Bromodichloromethane	75-27-4	U	.00031	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Bromoform	75-25-2	U	.00051	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Bromomethane	74-83-9	U	.0016	0.0031	0.0061	mg/kg		8260B	10/31/14	1
n-Butylbenzene	104-51-8	U	.00032	0.00061	0.0012	mg/kg		8260B	10/31/14	1
sec-Butylbenzene	135-98-8	U	.00024	0.00061	0.0012	mg/kg		8260B	10/31/14	1
tert-Butylbenzene	98-06-6	U	.00026	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Carbon Disulfide	75-15-0	U	.00034	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Carbon tetrachloride	56-23-5	U	.0004	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Chlorobenzene	108-90-7	U	.00026	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Chlorodibromomethane	124-48-1	U	.00045	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Chloroethane	75-00-3	U	.0012	0.0031	0.0061	mg/kg		8260B	10/31/14	1
Chloroform	67-66-3	U	.00028	0.0031	0.0061	mg/kg		8260B	10/31/14	1

Results listed are dry weight basis.

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Reported: 11/05/14 16:13 Revised: 11/18/14 11:05

L729563-06 (PH) - 6.4@20.8c

L729563-06 (ICP METALS) - Diluted due to matrix.

CA 2/15/15
BMS 2/17/15
30 of 1553

BMS 2/19/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB07-NS02
Collected By :
Collection Date : 10/22/14 18:30

ESC Sample # : L729563-06

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00046	0.00061	0.0031	mg/kg		8260B	10/31/14	1
2-Chlorotoluene	95-49-8	U	.00037	0.00061	0.0012	mg/kg		8260B	10/31/14	1
4-Chlorotoluene	106-43-4	U	.00029	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0012	0.0031	0.0061	mg/kg		8260B	10/31/14	1
1,2-Dibromoethane	106-93-4	U	.00042	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Dibromomethane	74-95-3	U	.00046	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,2-Dichlorobenzene	95-50-1	U	.00037	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,3-Dichlorobenzene	541-73-1	U	.00029	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,4-Dichlorobenzene	106-46-7	U	.00028	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Dichlorodifluoromethane	75-71-8	U	.00087	0.0031	0.0061	mg/kg		8260B	10/31/14	1
1,1-Dichloroethane	75-34-3	U	.00024	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,2-Dichloroethane	107-06-2	U	.00032	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,1-Dichloroethene	75-35-4	U	.00037	0.00061	0.0012	mg/kg		8260B	10/31/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00029	0.00061	0.0012	mg/kg		8260B	10/31/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00032	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,2-Dichloropropane	78-87-5	U	.00044	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,1-Dichloropropene	563-58-6	U	.00039	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,3-Dichloropropane	142-28-9	U	.00026	0.00061	0.0012	mg/kg		8260B	10/31/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00032	0.00061	0.0012	mg/kg		8260B	10/31/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00033	0.00061	0.0012	mg/kg		8260B	10/31/14	1
2,2-Dichloropropane	594-20-7	U	.00034	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Ethylbenzene F SQL-I	100-41-4	0.00077	.00037	0.00061	0.0012	mg/kg	J	8260B	10/31/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00042	0.00061	0.0012	mg/kg		8260B	10/31/14	1
2-Hexanone	591-78-6	U	.0046	0.0061	0.012	mg/kg		8260B	10/31/14	1
Isopropylbenzene	98-82-8	U	.00029	0.00061	0.0012	mg/kg		8260B	10/31/14	1
p-Isopropyltoluene	99-87-6	U	.00024	0.00061	0.0012	mg/kg		8260B	10/31/14	1
2-Butanone (MEK)	78-93-3	U	.0058	0.0061	0.012	mg/kg		8260B	10/31/14	1
Methylene Chloride	75-09-2	U	.0012	0.0031	0.0061	mg/kg		8260B	10/31/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0023	0.0061	0.012	mg/kg		8260B	10/31/14	1
Methyl tert-butyl ether	1634-04-4	U	.00026	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Naphthalene DNR	91-20-3	U	.0012	0.0031	0.0061	mg/kg		8260B	10/31/14	1
n-Propylbenzene	103-65-1	U	.00026	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Styrene	100-42-5	U	.00028	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00032	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00044	0.00092	0.0012	mg/kg		8260B	10/31/14	1
Tetrachloroethene	127-18-4	U	.00034	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Toluene F SQL-I	108-88-3	0.00048	.00053	0.0031	0.0061	mg/kg	J	8260B	10/31/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00038	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00048	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,1,1-Trichloroethane	71-55-6	U	.00035	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,1,2-Trichloroethane	79-00-5	U	.00034	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Trichloroethene	79-01-6	U	.00034	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Trichlorofluoromethane	75-69-4	U	.00046	0.0031	0.0061	mg/kg		8260B	10/31/14	1
1,2,3-Trichloropropane	96-18-4	U	.00091	0.0012	0.0031	mg/kg		8260B	10/31/14	1
1,2,4-Trimethylbenzene F SQL-I	95-63-6	0.00078	.00026	0.00061	0.0012	mg/kg	J	8260B	10/31/14	1

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Reported: 11/05/14 16:13 Revised: 11/18/14 11:05
L729563-06 (PH) - 6.4@20.8c
L729563-06 (ICP METALS) - Diluted due to matrix.

DNR-Do Not Report -



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB07-NS02
Collected By :
Collection Date : 10/22/14 18:30

ESC Sample # : L729563-06

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene F SQL-I	95-47-6	0.00062	.00042	0.00061	0.0012	mg/kg	J	8260B	10/31/14	1
m&p-Xylene F SQL-I	1330-20-7	0.0018	.00088	0.0012	0.0024	mg/kg	J	8260B	10/31/14	1
Vinyl chloride	75-01-4	U	.00036	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,3,5-Trimethylbenzene F SQL-I	108-67-8	0.00038	.00033	0.00061	0.0012	mg/kg	J	8260B	10/31/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	102.				% Rec.		8260B	10/31/14	1
Dibromofluoromethane	1868-53-7	111.				% Rec.		8260B	10/31/14	1
4-Bromofluorobenzene	460-00-4	103.				% Rec.		8260B	10/31/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2	2.5	4.9	mg/kg		8015	10/29/14	1
C28-C40 Oil Range		U	.33	2.5	4.9	mg/kg		8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	75.7				% Rec.		8015	10/29/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
Acenaphthene	83-32-9	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
Acenaphthylene	208-96-8	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
Benzo(a)anthracene	56-55-3	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
Benzo(a)pyrene US LCS-L	50-32-8	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
Benzo(b)fluoranthene US MS-L	205-99-2	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
Benzo(k)fluoranthene	207-08-9	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
Chrysene	218-01-9	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
Fluoranthene	206-44-0	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
Fluorene	86-73-7	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
Naphthalene	91-20-3	U	.00074	0.0074	0.024	mg/kg		8270C-SI	10/29/14	1
Phenanthrene	85-01-8	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
Pyrene	129-00-0	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
2-Methylnaphthalene	91-57-6	U	.00078	0.0074	0.024	mg/kg		8270C-SI	10/29/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	67.9				% Rec.		8270C-SI	10/29/14	1
Nitrobenzene-d5	4165-60-0	86.0				% Rec.		8270C-SI	10/29/14	1
2-Fluorobiphenyl	321-60-8	82.4				% Rec.		8270C-SI	10/29/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.0094	0.20	0.41	mg/kg		8270C	10/29/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.011	0.20	0.41	mg/kg		8270C	10/29/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.0093	0.20	0.41	mg/kg		8270C	10/29/14	1
Benzyl Alcohol	100-51-6	U	.0092	0.20	0.41	mg/kg		8270C	10/29/14	1
Benzoic acid	65-85-0	U	.15	2.0	4.1	mg/kg		8270C	10/29/14	1
Carbazole	86-74-8	U	.0064	0.20	0.41	mg/kg		8270C	10/29/14	1

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L729563-06 (PH) - 6.4@20.8c

L729563-06 (ICP METALS) - Diluted due to matrix.

KA 8/20/15

KA 2/15/15
BMS 2/17/15
32 of 1553

BMS 9/2/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB07-NS02
Collected By :
Collection Date : 10/22/14 18:30

ESC Sample # : L729563-06

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0064	0.20	0.41	mg/kg	8270C	10/29/14	1	
4-Bromophenyl-phenylether	101-55-3	U	.013	0.20	0.41	mg/kg	8270C	10/29/14	1	
4-Chlorophenyl-phenylether	7005-72-3	U	.0077	0.20	0.41	mg/kg	8270C	10/29/14	1	
2-Chloronaphthalene	91-58-7	U	.0078	0.20	0.41	mg/kg	8270C	10/29/14	1	
3,3-Dichlorobenzidine	91-94-1	U	.097	0.20	0.41	mg/kg	8270C	10/29/14	1	
2,4-Dinitrotoluene	121-14-2	U	.0075	0.20	0.41	mg/kg	8270C	10/29/14	1	
2,6-Dinitrotoluene	606-20-2	U	.0091	0.20	0.41	mg/kg	8270C	10/29/14	1	
Hexachlorobenzene	118-74-1	U	.01	0.20	0.41	mg/kg	8270C	10/29/14	1	
Hexachloro-1,3-butadiene	87-68-3	U	.012	0.20	0.41	mg/kg	8270C	10/29/14	1	
Hexachloroethane	67-72-1	U	.016	0.20	0.41	mg/kg	8270C	10/29/14	1	
Isophorone	78-59-1	U	.0064	0.20	0.41	mg/kg	8270C	10/29/14	1	
Nitrobenzene	98-95-3	U	.0086	0.20	0.41	mg/kg	8270C	10/29/14	1	
n-Nitrosodimethylamine	62-75-9	U	.08	0.20	0.41	mg/kg	8270C	10/29/14	1	
n-Nitrosodiphenylamine	86-30-6	U	.0072	0.20	0.41	mg/kg	8270C	10/29/14	1	
n-Nitrosodi-n-propylamine	621-64-7	U	.011	0.20	0.41	mg/kg	8270C	10/29/14	1	
Benzylbutyl phthalate	85-68-7	U	.012	0.20	0.41	mg/kg	8270C	10/29/14	1	
Bis(2-ethylhexyl)phthalate	117-81-7	U	.015	0.20	0.41	mg/kg	8270C	10/29/14	1	
Di-n-butyl phthalate	84-74-2	U	.013	0.20	0.41	mg/kg	8270C	10/29/14	1	
Diethyl phthalate	84-66-2	U	.0084	0.20	0.41	mg/kg	8270C	10/29/14	1	
Dimethyl phthalate	131-11-3	U	.0066	0.20	0.41	mg/kg	8270C	10/29/14	1	
Di-n-octyl phthalate	117-84-0	U	.011	0.20	0.41	mg/kg	8270C	10/29/14	1	
1,2,4-Trichlorobenzene	120-82-1	U	.011	0.20	0.41	mg/kg	8270C	10/29/14	1	
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0059	0.20	0.41	mg/kg	8270C	10/29/14	1	
2-Chlorophenol	95-57-8	U	.01	0.20	0.41	mg/kg	8270C	10/29/14	1	
2,4-Dichlorophenol	120-83-2	U	.0092	0.20	0.41	mg/kg	8270C	10/29/14	1	
2,4-Dimethylphenol	105-67-9	U	.058	0.20	0.41	mg/kg	8270C	10/29/14	1	
4,6-Dinitro-2-methylphenol	534-52-1	U	.15	0.20	0.41	mg/kg	8270C	10/29/14	1	
2,4-Dinitrophenol	51-28-5	U	.12	0.20	0.41	mg/kg	8270C	10/29/14	1	
2-Methylphenol	95-48-7	U	.012	0.20	0.41	mg/kg	8270C	10/29/14	1	
3&4-Methyl Phenol	3&4-Methyl	U	.0096	0.20	0.41	mg/kg	8270C	10/29/14	1	
2-Nitrophenol	88-75-5	U	.016	0.20	0.41	mg/kg	8270C	10/29/14	1	
4-Nitrophenol	100-02-7	U	.064	0.20	0.41	mg/kg	8270C	10/29/14	1	
4-Chloroaniline	106-47-8	U	.0043	0.20	0.41	mg/kg	8270C	10/29/14	1	
2-Nitroaniline	88-74-4	U	.0093	0.20	0.41	mg/kg	8270C	10/29/14	1	
1,2-Diphenylhydrazine	103-33-3	U	.0017	0.20	0.41	mg/kg	8270C	10/29/14	1	
3-Nitroaniline	99-09-2	U	.01	0.20	0.41	mg/kg	8270C	10/29/14	1	
4-Nitroaniline	100-01-6	U	.0078	0.20	0.41	mg/kg	8270C	10/29/14	1	
Pentachlorophenol	87-86-5	U	.059	0.20	0.41	mg/kg	8270C	10/29/14	1	
Phenol	108-95-2	U	.0086	0.20	0.41	mg/kg	8270C	10/29/14	1	
2,4,5-Trichlorophenol	95-95-4	U	.012	0.20	0.41	mg/kg	8270C	10/29/14	1	
2,4,6-Trichlorophenol	88-06-2	U	.0096	0.20	0.41	mg/kg	8270C	10/29/14	1	
Surrogate Recovery										
2-Fluorophenol	367-12-4	54.3				% Rec.	8270C	10/29/14	1	
Phenol-d5	4165-62-2	62.0				% Rec.	8270C	10/29/14	1	

Results listed are dry weight basis.
U = Not Detected at the LOD

Note:

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The reported analytical results relate only to the sample submitted

Reported: 11/05/14 16:13 Revised: 11/18/14 11:05

L729563-06 (PH) - 6.4@20.8c

L729563-06 (ICP METALS) - Diluted due to matrix.

DNR - Do Not Report



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-SB07-NS02
 Collected By :
 Collection Date : 10/22/14 18:30

ESC Sample # : L729563-06

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	59.6				% Rec.		8270C	10/29/14	1
2-Fluorobiphenyl	321-60-8	61.3				% Rec.		8270C	10/29/14	1
2,4,6-Tribromophenol	118-79-6	65.2				% Rec.		8270C	10/29/14	1
p-Terphenyl-d14	1718-51-0	59.5				% Rec.		8270C	10/29/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

Note:

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The reported analytical results relate only to the sample submitted

Reported: 11/05/14 16:13 Revised: 11/18/14 11:05

L729563-06 (PH) - 6.4@20.8c

L729563-06 (ICP METALS) - Diluted due to matrix.

Handwritten signature: KA Zhishtis
 BMS 2/17/15
 34 of 1553

**Holloman AFB
Groundwater Monitoring
Data Review Summary**

Data Package Number: L729564
 Sampling Event Dates: October 23, 2014
 Sample-specific Parameter Review/Laboratory Performance Parameters: Yes
 Full Validation (e.g. result recalculation): No
 Data Reviewer: Katie Abbott, URS Project Chemist
 Date Completed: February 17, 2015
 Peer Reviewer: Sheri Fling, URS Project Quality Assurance Manager (QAM)

The table below summarizes the data package and sample identifications discussed in this data review.

Field Identification	Sample Type	Lab Identification	Matrix	Analyses						
				GRO	VOCs	PAHs	DRO/ORO	SVOCs	Total Metals	pH
L729564										
TU904-SB05-NS01	SA	L729564-01	Soil	X	X	X	X	X	X ^m	X
TU904-SB05-NS02	SA	L729564-02	Soil	X	X	X	X	X	X	X
TU904-TRIPBLANK06-NT01	TB	L729564-03	Water	X	X	---	---	---	---	---
TU904-SB08-NS01	SA	L729564-04	Soil	X	X	X	X	X	X	X
TU904-SB08-NS02	SA	L729564-05	Soil	X	X	X	X	X	X	X

Sample Type: SA – Sample TB – Trip Blank
 X^m - Matrix Spike/Matrix Spike Duplicate

Analyses: Analyses:

- DRO/ORO - Diesel and Oil Range Organics (8015)
- GRO – Gasoline Range Organics (8015D)
- TDS – Total Dissolved Solids (SM2540C)
- Total/ Metals – Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Manganese, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc, Mercury (6010B/7470A)
- PAHs – Polynuclear Aromatic Hydrocarbons (8270C SIM)
- SIM – Selective Ion Monitoring
- SVOCs – Semivolatile Organic Compounds (8270C)
- VOCs – Volatile Organic Compounds (8260B)

The data review was conducted in accordance with the Final Interim Measures Work Plan – Appendix A, Sampling and Analysis Plan/Quality Assurance Project Plan: Former Septic System Site TU904 (URS, September 2014); Group 2 Former Underground Storage Sites: AOC-UST-889 (TU515) (URS, September 2014); and Group 3 Former Underground Storage Tank Sites: AOC-UST-221 (TU503), AOC-UST-298 (TU508), AOC-UST-901 (TU506) and AOC-UST-7003 (TU518) (URS, August 2014); data validation standard operating procedure (SOP) 14; Department of Defense (DoD) Quality Systems Manual version 4.2 (DoD, 2010); and method requirements.

General Overall Assessment:

- Data are usable without qualification.
- Data are usable with qualification (noted below).
- Some or all data are unusable for any purpose (detailed below).

Case Narrative Comments: Any laboratory case narrative comments concerning data qualification were addressed in the table below.

Trace level detects, reported between the method detection limit (MDL) and the reporting limit (LOQ), have been qualified as estimated (F SQL-I). All other occurrences of data qualification are covered in the following table.

Review Parameter	Criteria Met?	Comment
Chain of Custody & Sample Receipt	Yes	The samples were received by ESC Lab Sciences in good condition and were consistent with the accompanying chain of custody (COC). The cooler temperatures upon receipt were within the recommended ≤6 degrees Celsius (°C) temperature range.
Reporting	Yes	<p>During review of a representative data package selected for full validation, it was noted that improper reference spectra were displayed in the printed version of the data package for Method 8260B. Due to a LIMS limitation, the data package reference spectra were not consistently representative of the actual spectra for the analytes detected. Because the laboratory data review involves the use of NBS reference spectra and not the reference spectra taken from the instrument calibration, the analyst was not seeing the improper alignment of spectra noted in the data package during his/her review at the instrument. The laboratory revised and reissued the data package with correct reference spectral data, consistent with method requirements, and no results were changed. Therefore, no further action is necessary as a result of this validation finding.</p> <p>Method 8270C Semivolatile Organic Compounds (SVOCs)</p> <p>The results for 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene are not reported by Method 8270C SVOCs but are reported by Method 8260B volatile organic compounds (VOCs). As the detection limits (DLs), limits of detection (LODs), and limits of quantitation (LOQs) are lower by Method 8260B, further action was not necessary.</p> <p>The laboratory noted 4-methylphenol cannot be reported as 3 & 4-methylphenol coelute during the analysis; therefore, the analytes are reported together and 3&4-methylphenol on the data sheets and in the electronic database.</p>
Holding Times	Yes	All samples were analyzed within the method required holding time.
Laboratory Blanks <ul style="list-style-type: none"> • Method Blank • Initial/Continuing Calibration Blank 	No	With the exception listed in Table 1, target analytes were not detected within the method or calibration blanks.
Matrix Quality Control <ul style="list-style-type: none"> • Matrix Spike/ Matrix Spike Duplicate TU904-SB05-NS01 (6010B Metals) • Laboratory Duplicate TU904-SB08-NS02 (Total Solids) 	No	<p>Matrix Spike/ Matrix Spike Duplicate (MS/MSD)</p> <p>The frequency of MS/MSDs met the QAPP requirement of one per twenty samples.</p> <p>With the exceptions listed in Table 2, the MS/MSD recoveries and relative percent differences (RPDs) met quality control criteria.</p>

Review Parameter	Criteria Met?	Comment
		<p>Results in the native sample greater than four times the concentration of the spike added during digestions/extractions are not considered to be a representative measure of accuracy. Further action with respect to spike recovery evaluation or qualification of data was not considered necessary.</p> <p>Consistent with standard operating procedure (SOP) 14, when MS/MSD issues accounted for less than 35% of the MS/MSD analyses conducted, applicable data qualification was limited to qualification of the parent sample of the affected analyte. When >35% of the MS/MSD results did not meet criteria, evaluation was extended to all associated samples. See Section 4.1 of the data validation report for overall qualifiers resulting from the MS/MSD evaluation.</p> <p>Laboratory Duplicate</p> <p>The comparison between results of the laboratory duplicate pair met the criteria listed below.</p> <ul style="list-style-type: none"> • When both the sample and duplicate values are >5x the LOQ acceptable sampling and analytical precision is indicated by an RPD between the results of ≤20% for water samples (≤35% for soil samples). • Where the result for one or both analytes of the laboratory duplicate pair is <5xLOQ, satisfactory precision is indicated if the absolute difference between the field duplicate results is <1xLOQ for water samples (<2xLOQ for soil samples).
<p>Metals Only</p> <ul style="list-style-type: none"> • Serial Dilution TU904-SB05-NS01 (6010B Metals) • Post Digestion Spike TU904-SB05-NS01 (6010B Metals) 	Yes	<p>Serial Dilution (Metals Only)</p> <p>Consistent with the method, only the results that were greater than 50 times their respective DLs were appropriate for comparing to the serial dilution evaluation criterion. All percent differences (%Ds) between the original sample results and the results obtained from the sample-diluted 1:5 were ≤10%.</p> <p>Post Digestion Spike (PDS) (Metals Only)</p> <p>All PDS recoveries were within the acceptance limits.</p>
<p>Method Quality Control</p> <ul style="list-style-type: none"> • Surrogates (VOCs, SVOCs, PAHs, GRO, DRO/ORO) 	Yes	<p>The surrogate recoveries were within the laboratory specified acceptance criteria.</p>
<p>Field Quality Control</p> <ul style="list-style-type: none"> • Trip Blank TU904-TRIPBLANK06-NT01 (GRO, VOCs) • Field Duplicate None in this package • Equipment Blank None in this package • Field Blank None in this package 	Yes	<p>Trip Blank</p> <p>Target analytes were not detected in the trip blank.</p> <p>Field Duplicate</p> <p>The frequency of field duplicates met the QAPP requirement of one per twenty samples.</p> <p>A field duplicate was not submitted with the data package.</p> <p>Consistent with SOP 14, when field duplicate issues accounted for less than 35% of the field duplicate analyses conducted, applicable data qualification was limited to qualification of the parent sample for the affected analyte. When >35% of the field duplicate results did not meet criteria, evaluation was extended to all associated samples. See Section 4.3 of the data validation report for overall qualifiers resulting from the field duplicate evaluation.</p>

Review Parameter	Criteria Met?	Comment
		<p>Equipment Blank</p> <p>As dedicated equipment was used to collect these samples, an equipment blank was not submitted for this sampling event. Further action was not necessary.</p> <p>Field Blank</p> <p>The frequency of field blanks met the QAPP requirement of one per twenty samples.</p> <p>A field blank was not submitted with this data package. See Section 4.4 of the data validation report for overall qualifiers resulting from the field blank evaluation.</p>
LODs met?	No	Due to dilutions, several of the 6010B metals and gasoline range organic (GRO) results for all samples were reported as non-detect at elevated LODs. See Section 3.7 of the validation report for further discussion.
Other Parameters	Yes	<p>Naphthalene (8260B and 8270C-PAHs) and hexachloro-1,3-butadiene and 1,2,4-trichlorobenzene (8260B and 8270C) were analyzed by multiple methods. Results were selected for reporting using the following criteria:</p> <ul style="list-style-type: none"> • If both results were non-detect, the non-detect result with the lower DL was selected. • If both results were reported as detected, the higher detected result was selected for reporting. • If one result was reported as non-detect and the other result was reported as detected, the detected result was selected for reporting.
Initial Calibration	Yes	<p>Methods 8260B VOCs & 8270C SVOCs</p> <p>A minimum relative response factor (RRF) of 0.05 was used for the system performance check compounds (SPCCs) and all SPCCs met this criterion. The percent relative standard deviations (%RSDs) over the initial calibration RRFs for all calibration check compounds (CCCs) satisfied the method requirement of <30%. For all other target compounds, a requirement of 15% was used. The %RSD values for all target analytes in the calibration were less than 15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)</p> <p>The %RSD values for all target analytes in the calibration were less than 20%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8015D Gasoline Range Organics (GRO)/DRO/ORO</p> <p>The relationship between instrument response and concentration was established with a blank and at least five standards for the entire carbon range of C10-C40. The %RSD over the initial calibrations curve satisfied the method requirement of <15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Methods 6010B (Inductively Coupled Plasma [ICP] Metals)</p> <p>The initial calibrations (ICALs) were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with a blank and at least one standard. The calibrations were verified with the analysis of an initial</p>

Review Parameter	Criteria Met?	Comment
		<p>calibration verification (ICV) standard. All metals were recovered within the method acceptance range of 90-110%.</p> <p>Method 7470A (Mercury)</p> <p>The ICALs were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with five standards. The correlation coefficient was >0.995. The calibration was verified with the analysis of an ICV standard. The analytes were recovered within the acceptance range of 90-110%. Response and linearity criteria were met and data qualification on the basis of initial calibration was not necessary.</p>
Initial Calibration Verification/Continuing Calibration Verification	No	<p>Method 8260B VOCs</p> <p>With the exceptions listed in Table 3, the percent differences (%Ds) for all CCCs in the ICVs and continuing calibrations (CCALs) were less than 20%, satisfying method requirements, and other target analytes satisfied the %D criterion of 20%.</p> <p>Methods 8270C PAHs/SVOCs</p> <p>With the exceptions listed in Table 3, the %D values for all target analytes in the calibration were less than 20%.</p> <p>Method 8015D GRO/DRO/ORO</p> <p>The %Ds for all target compounds in the ICVs and CCALs were less than 15%. Data qualification was not necessary.</p> <p>Methods 6010B (ICP Metals) & 7470A (Mercury)</p> <p>Calibration verification analyses were conducted at the proper frequency. All metals were recovered within the DOD QSM 4.2 low level acceptance range of 80-120% and the method medium/high acceptance range of 90-110%.</p>
Interference Check Standard (Metals Only)	No	<p>The interference check standard (ICS) AB solutions were analyzed at the proper frequency. The target analytes were recovered within the acceptance range of 80-120% in the ICS A solution. With the exceptions listed in Table 4, interferent elements were not present in the samples at concentrations greater than those in the ICSs.</p> <p>The interferent elements aluminum, calcium, iron, and magnesium were present in most samples in this data package at concentrations greater than or equal to those in the ICSs. As such, these samples were evaluated for positive and negative biases suggested by the ICS A. Data qualification was issued if the absolute value of the ICS A result was greater than the DL and it suggested a positive or negative bias which accounted for more than 25% of associated sample results or LODs. (Note: The ICS A solution only contains the interferent elements aluminum, calcium, iron, and magnesium so any positive or negative result for other analytes is inferred to be a bias potentially caused by one or more of the interferent elements present). Table 4 summarizes the resultant data qualification on the basis of the ICS results.</p>
Internal Standard (VOCs/SVOCs/PAHs/Metals (6020))	Yes	<p>Recoveries for the internal standards in field samples were within the applicable acceptance limits. Therefore, data qualification based on internal standards was not necessary.</p>

Review Parameter	Criteria Met?	Comment
Laboratory Control Sample/ Laboratory Control Sample Duplicate	No	One laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) per method per analytical batch was prepared and analyzed. With the exceptions listed in Table 4, all of the LCS recoveries and LCS/LCSD RPDs were within the QAPP acceptance limits. These results are indicative of an acceptable level of accuracy and precision with respect to the analytical method. Method 8015 DRO/ORO The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the method could not be assessed for ORO.
Package Completeness	Yes	The results are usable as qualified for the project objective. The data are 100% complete.

> - Greater Than

< - Less Than

≤ - Less Than or Equal to

°C – Degrees Celsius

% - Percent

%Ds – Percent Differences

%RSD – Percent Relative Standard Deviation

CCALs – Continuing Calibrations

CCBs – Continuing Calibration Blanks

CCCs – Calibration Check Compounds

COC – Chain of Custody

COD – Coefficient of Determination

DLs – Detection Limits

DRO – Diesel Range Organics

GRO – Gasoline Range Organics

ICAL – Initial Calibration

ICB – Initial Calibration Blank

ICP – Inductively Coupled Plasma

ICS – Interference Check Standard

ICV – Initial Calibration Verification

LCS – Laboratory Control Sample

LCSD – Laboratory Control Sample Duplicate

LOD – Limit of Detection

LOQ – Limit of Quantitation

MS/MSD – Matrix Spike/ Matrix Spike Duplicate

ORO – Oil Range Organics

PAHs – Polynuclear Aromatic Hydrocarbons

PDS – Post Digestion Spike

QAPP – Quality Assurance Project Plan

RPDs – Relative Percent Differences

RRF – Relative Response Factor

SOP – Standard Operating Procedure

SPCCs – System Performance Check Compounds

SVOCs – Semivolatile Organic Compounds

VOCs – Volatile Organic Compounds

Table 1: Blank Outliers and Resultant Data Qualification

Associated Samples	Analyte	Concentration	Qualification
Total Metals			
MB Batch WG750667 TU904-SB05-NS01 TU904-SB05-NS02 TU904-SB08-NS01 TU904-SB08-NS02	Thallium	1.65 mg/Kg	The associated results reported as non-detect.
VOCs			
MB Batch WG750700 TU904-SB05-NS01 TU904-SB05-NS02 TU904-SB08-NS01 TU904-SB08-NS02	Styrene	0.000322 mg/Kg	The associated results reported as non-detect.

Associated Samples	Analyte	Concentration	Qualification
DRO/ORO			
MB Batch WG751233 TU904-SB05-NS01 TU904-SB05-NS02 TU904-SB08-NS01 TU904-SB08-NS02	DRO	1.67 mg/Kg	The associated results reported as non-detect.
DRO – Diesel Range Organics ORO – Oil Range Organics		MB – Method Blank VOCs – Volatile Organic Compounds	mg/Kg – Milligrams per Kilogram

Table 2: MS/MSD Recovery and RPD Outliers and Resultant Data Qualification

Associated Sample	Analyte	%R (Limits)	RPD (Limit)	Qualification
Total Metals				
TU904-SB08-NS02	Antimony	54/60 (80-120)	10 (50)	As the potential bias was considered to be low, the associated antimony result was qualified as estimated (UJ MS-L).
	Barium	101/ 133 (80-120)	18 (50)	As the potential bias was considered to be high, the associated detected barium result was qualified as estimated (J MS-H).
	Manganese	46/95 (80-120)	22 (50)	As the potential bias was considered to be low, the associated manganese result was qualified as estimated (J MS-L).

%R – Percent Recoveries
RPD – Relative Percent Difference
Bold indicates a recovery or RPD outside of acceptance limit

L – Low Bias
UJ/J - Estimated
MS/MSD – Matrix Spike Matrix Spike Duplicate

Table 3: Initial/Continuing Calibration Verification Outliers and Resultant Data Qualification

Associated Samples	Analyte	%D (Limit)	Data Qualification
VOCs			
TU904-TRIPBLANK06-NT01	Chloroethane	+26.4 (±20)	As the potential bias was considered to be high, and the associated sample results were reported as non-detect, data qualification was not considered necessary.
	1,2,4-Trichlorobenzene	+23.9 (±20)	
SVOCs			
TU904-SB05-NS01 TU904-SB05-NS02 TU904-SB08-NS01 TU904-SB08-NS02	n-Nitrosodimethylamine	-25.2 (±20)	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ CCAL-L).
	Benzyl Alcohol	-25.7 (±20)	
	3&4-Methyl Phenol	-54.6 (±20)	

± - Plus or minus
L – Low Bias
VOCs – Volatile Organic Compounds

%D – Percent Difference
SVOCs – Semivolatile Organic Compounds

CCAL – Continuing Calibration
UJ – Estimated

Table 4: ICS Outliers and Resultant Data Qualification

Interferent Element	Analyte	ICS A (µg/L)	MDL (µg/L)	Qualified Samples	Qualification
Aluminum, Calcium, Iron, Magnesium	Cadmium	-0.9	0.7	TU904-SB05-NS01	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ/J ICS-L).
	Lead	-24.5	1.9	TU904-SB05-NS02	
	Nickel	-16.8	4.9	TU904-SB08-NS01	
	Thallium	-9.8	6.5		
	Cadmium	-0.9	0.7	TU904-SB08-NS02	
	Lead	-24.5	1.9		
	Thallium	-9.8	6.5		

µg/L – Micrograms per Liter
MDL – Method Detection Limit

ICS – Interference Check Standard
UJ/J - Estimated

L – Low Bias

Table 5: LCS Recovery Outliers and Resultant Data Qualification

Associated Samples	Analyte	%R (Limits)	RPD (Limits)	Qualification
Metals				
LCS WG750667 TU904-SB05-NS01 TU904-SB05-NS02 TU904-SB08-NS01 TU904-SB08-NS02	Aluminum	126/134 (80-120)	6 (50)	As the potential bias was considered to be high, the associated detected aluminum results for all samples were qualified as estimated (J LCS-H).

%R – Percent Recoveries

H – High Bias

J - Estimated

LCS – Laboratory Control Sample

Bold indicates a recovery outside of acceptance limits.



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB05-NS01
Collected By :
Collection Date : 10/23/14 09:00

ESC Sample # : L729564-01

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.5				su		9045D	10/27/14	1
Total Solids	TSOLIDS	81.9	.0333			%		2540 G-2	10/28/14	1
Mercury	7439-97-6	U	.0034	0.012	0.024	mg/kg		7471	10/28/14	1
Aluminum	7429-90-5	2900	.22	31.	61.	mg/kg		6010B	11/05/14	5
Antimony	7440-36-0	U	4.6	6.1	12.	mg/kg		6010B	11/05/14	5
Arsenic	7440-38-2	U	3.9	6.1	12.	mg/kg		6010B	11/05/14	5
Barium	7440-39-3	30.	1	1.5	3.0	mg/kg		6010B	11/05/14	5
Beryllium	7440-41-7	U	.43	0.61	1.2	mg/kg		6010B	11/05/14	5
Cadmium	7440-43-9	U	.43	1.5	3.0	mg/kg		6010B	11/05/14	5
Chromium	7440-47-3	3.7	.85	3.1	6.1	mg/kg	J	6010B	11/05/14	5
Cobalt	7440-48-4	U	1.5	3.1	6.1	mg/kg		6010B	11/05/14	5
Copper	7440-50-8	U	3.2	6.1	12.	mg/kg		6010B	11/05/14	5
Lead	7439-92-1	1.5	1.2	1.5	3.0	mg/kg	J	6010B	11/05/14	5
Manganese	7439-96-5	54.	.73	3.1	6.1	mg/kg		6010B	11/05/14	5
Nickel	7440-02-0	U	2.9	6.1	12.	mg/kg		6010B	11/05/14	5
Selenium	7782-49-2	U	4.5	6.1	12.	mg/kg		6010B	11/05/14	5
Silver	7440-22-4	U	1.7	3.1	6.1	mg/kg		6010B	11/05/14	5
Thallium	7440-28-0	U	3.9	6.1	12.	mg/kg		6010B	11/05/14	5
Vanadium	7440-62-2	4.4	1.5	6.1	12.	mg/kg	J	6010B	11/05/14	5
Zinc	7440-66-6	8.3	3.7	15.	30.	mg/kg	J	6010B	11/05/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.66	1.5	3.0	mg/kg		8015D/GR	10/31/14	25
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	99.2				% Rec.		8015D/GR	10/31/14	25
Volatile Organics										
Acetone	67-64-1	0.048	.012	0.031	0.061	mg/kg	J	8260B	10/31/14	1
Benzene	71-43-2	0.0012	.00033	0.00061	0.0012	mg/kg	J	8260B	10/31/14	1
Bromobenzene	108-86-1	U	.00034	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Bromochloromethane	74-97-5	U	.00048	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Bromodichloromethane	75-27-4	U	.0003	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Bromoform	75-25-2	U	.00051	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Bromomethane	74-83-9	U	.0016	0.0031	0.0061	mg/kg		8260B	10/31/14	1
n-Butylbenzene	104-51-8	U	.00032	0.00061	0.0012	mg/kg		8260B	10/31/14	1
sec-Butylbenzene	135-98-8	U	.00024	0.00061	0.0012	mg/kg		8260B	10/31/14	1
tert-Butylbenzene	98-06-6	U	.00026	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Carbon Disulfide	75-15-0	U	.00034	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Carbon tetrachloride	56-23-5	U	.0004	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Chlorobenzene	108-90-7	U	.00026	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Chlorodibromomethane	124-48-1	U	.00045	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Chloroethane	75-00-3	U	.0012	0.0031	0.0061	mg/kg		8260B	10/31/14	1
Chloroform	67-66-3	U	.00028	0.0031	0.0061	mg/kg		8260B	10/31/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/05/14 16:13 Revised: 11/18/14 11:05

L729564-01 (PH) - 6.5@20.8c

L729564-01 (ICP METALS) - Diluted due to matrix.

KA 2/17/15
BMS 2/17/15
BMS 2/19/15
8 of 1535



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB05-NS01
Collected By :
Collection Date : 10/23/14 09:00

ESC Sample # : L729564-01

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00046	0.00061	0.0030	mg/kg		8260B	10/31/14	1
2-Chlorotoluene	95-49-8	U	.00037	0.00061	0.0012	mg/kg		8260B	10/31/14	1
4-Chlorotoluene	106-43-4	U	.00029	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0012	0.0031	0.0061	mg/kg		8260B	10/31/14	1
1,2-Dibromoethane	106-93-4	U	.00042	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Dibromomethane	74-95-3	U	.00046	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,2-Dichlorobenzene	95-50-1	U	.00037	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,3-Dichlorobenzene	541-73-1	U	.00029	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,4-Dichlorobenzene	106-46-7	U	.00028	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Dichlorodifluoromethane	75-71-8	U	.00087	0.0031	0.0061	mg/kg		8260B	10/31/14	1
1,1-Dichloroethane	75-34-3	U	.00024	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,2-Dichloroethane	107-06-2	U	.00032	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,1-Dichloroethene	75-35-4	U	.00037	0.00061	0.0012	mg/kg		8260B	10/31/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00029	0.00061	0.0012	mg/kg		8260B	10/31/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00032	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,2-Dichloropropane	78-87-5	U	.00044	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,1-Dichloropropene	563-58-6	U	.00039	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,3-Dichloropropane	142-28-9	U	.00026	0.00061	0.0012	mg/kg		8260B	10/31/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00032	0.00061	0.0012	mg/kg		8260B	10/31/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00033	0.00061	0.0012	mg/kg		8260B	10/31/14	1
2,2-Dichloropropane	594-20-7	U	.00034	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Ethylbenzene	100-41-4	U	.00037	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00042	0.00061	0.0012	mg/kg		8260B	10/31/14	1
2-Hexanone	591-78-6	U	.0046	0.0061	0.012	mg/kg		8260B	10/31/14	1
Isopropylbenzene	98-82-8	U	.00029	0.00061	0.0012	mg/kg		8260B	10/31/14	1
p-Isopropyltoluene	99-87-6	U	.00024	0.00061	0.0012	mg/kg		8260B	10/31/14	1
2-Butanone (MEK) <i>F SQL-I</i>	78-93-3	0.011	.0057	0.0061	0.012	mg/kg	J	8260B	10/31/14	1
Methylene Chloride	75-09-2	U	.0012	0.0031	0.0061	mg/kg		8260B	10/31/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0023	0.0061	0.012	mg/kg		8260B	10/31/14	1
Methyl tert-butyl ether	1634-04-4	U	.00026	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Naphthalene <i>DNR</i>	91-20-3	U	.0012	0.0031	0.0061	mg/kg		8260B	10/31/14	1
n-Propylbenzene	103-65-1	U	.00026	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Styrene	100-42-5	U	.00028	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00032	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00044	0.00092	0.0012	mg/kg		8260B	10/31/14	1
Tetrachloroethene	127-18-4	U	.00034	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Toluene <i>F SQL-I</i>	108-88-3	0.00087	.00052	0.0031	0.0061	mg/kg	J	8260B	10/31/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00038	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00048	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,1,1-Trichloroethane	71-55-6	U	.00035	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,1,2-Trichloroethane	79-00-5	U	.00034	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Trichloroethene	79-01-6	U	.00034	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Trichlorofluoromethane	75-69-4	U	.00046	0.0031	0.0061	mg/kg		8260B	10/31/14	1
1,2,3-Trichloropropane	96-18-4	U	.0009	0.0012	0.0030	mg/kg		8260B	10/31/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.00026	0.00061	0.0012	mg/kg		8260B	10/31/14	1

Results listed are dry weight basis.

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Reported: 11/05/14 16:13 Revised: 11/18/14 11:05

L729564-01 (PH) - 6.5@20.8c

L729564-01 (ICP METALS) - Diluted due to matrix.

DNR - Do Not Report

*KA 2/11/15
BMS 2/17/15*



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB05-NS01
Collected By :
Collection Date : 10/23/14 09:00

ESC Sample # : L729564-01

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00042	0.00061	0.0012	mg/kg		8260B	10/31/14	1
m&p-Xylene	1330-20-7	U	.00088	0.0012	0.0024	mg/kg		8260B	10/31/14	1
Vinyl chloride	75-01-4	U	.00035	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00033	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	103.				% Rec.		8260B	10/31/14	1
Dibromofluoromethane	1868-53-7	112.				% Rec.		8260B	10/31/14	1
4-Bromofluorobenzene	460-00-4	100.				% Rec.		8260B	10/31/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2	2.4	4.9	mg/kg		8015	10/29/14	1
C28-C40 Oil Range		U	.33	2.4	4.9	mg/kg		8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	77.8				% Rec.		8015	10/29/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
Acenaphthene	83-32-9	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
Acenaphthylene	208-96-8	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
Benzo(a)anthracene	56-55-3	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
Benzo(a)pyrene <i>US LCO</i>	50-32-8	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
Benzo(b)fluoranthene <i>US AS-L</i>	205-99-2	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
Benzo(k)fluoranthene	207-08-9	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
Chrysene	218-01-9	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
Fluoranthene	206-44-0	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
Fluorene	86-73-7	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
Naphthalene	91-20-3	U	.00073	0.0073	0.024	mg/kg		8270C-SI	10/29/14	1
Phenanthrene	85-01-8	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
Pyrene	129-00-0	U	.00073	0.0024	0.0073	mg/kg		8270C-SI	10/29/14	1
2-Methylnaphthalene	91-57-6	U	.00078	0.0073	0.024	mg/kg		8270C-SI	10/29/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	70.5				% Rec.		8270C-SI	10/29/14	1
Nitrobenzene-d5	4165-60-0	84.9				% Rec.		8270C-SI	10/29/14	1
2-Fluorobiphenyl	321-60-8	84.6				% Rec.		8270C-SI	10/29/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.0094	0.20	0.41	mg/kg		8270C	10/29/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.011	0.20	0.41	mg/kg		8270C	10/29/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.0093	0.20	0.41	mg/kg		8270C	10/29/14	1
Benzyl Alcohol <i>US CAR-L</i>	100-51-6	U	.0092	0.20	0.41	mg/kg		8270C	10/29/14	1
Benzoic acid	65-85-0	U	.15	2.0	4.1	mg/kg		8270C	10/29/14	1
Carbazole	86-74-8	U	.0063	0.20	0.41	mg/kg		8270C	10/29/14	1

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L729564-01 (PH) - 6.5@20.8c

L729564-01 (ICP METALS) - Diluted due to matrix.

KA 9/1/15

KA 2/17/15
BMS 2/17/15
10 of 1535

BMS 9/2/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB05-NS01
Collected By :
Collection Date : 10/23/14 09:00

ESC Sample # : L729564-01

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0063	0.20	0.41	mg/kg	8270C	10/29/14	1	
4-Bromophenyl-phenylether	101-55-3	U	.013	0.20	0.41	mg/kg	8270C	10/29/14	1	
4-Chlorophenyl-phenylether	7005-72-3	U	.0077	0.20	0.41	mg/kg	8270C	10/29/14	1	
2-Chloronaphthalene	91-58-7	U	.0078	0.20	0.41	mg/kg	8270C	10/29/14	1	
3,3-Dichlorobenzidine	91-94-1	U	.096	0.20	0.41	mg/kg	8270C	10/29/14	1	
2,4-Dinitrotoluene	121-14-2	U	.0074	0.20	0.41	mg/kg	8270C	10/29/14	1	
2,6-Dinitrotoluene	606-20-2	U	.009	0.20	0.41	mg/kg	8270C	10/29/14	1	
Hexachlorobenzene	118-74-1	U	.01	0.20	0.41	mg/kg	8270C	10/29/14	1	
Hexachloro-1,3-butadiene	87-68-3	U	.012	0.20	0.41	mg/kg	8270C	10/29/14	1	
Hexachloroethane	67-72-1	U	.016	0.20	0.41	mg/kg	8270C	10/29/14	1	
Isophorone	78-59-1	U	.0063	0.20	0.41	mg/kg	8270C	10/29/14	1	
Nitrobenzene	98-95-3	U	.0085	0.20	0.41	mg/kg	8270C	10/29/14	1	
n-Nitrosodimethylamine	62-75-9	U	.079	0.20	0.41	mg/kg	8270C	10/29/14	1	
n-Nitrosodiphenylamine	86-30-6	U	.0072	0.20	0.41	mg/kg	8270C	10/29/14	1	
n-Nitrosodi-n-propylamine	621-64-7	U	.011	0.20	0.41	mg/kg	8270C	10/29/14	1	
Benzylbutyl phthalate	85-68-7	U	.012	0.20	0.41	mg/kg	8270C	10/29/14	1	
Bis(2-ethylhexyl)phthalate	117-81-7	U	.015	0.20	0.41	mg/kg	8270C	10/29/14	1	
Di-n-butyl phthalate	84-74-2	U	.013	0.20	0.41	mg/kg	8270C	10/29/14	1	
Diethyl phthalate	84-66-2	U	.0084	0.20	0.41	mg/kg	8270C	10/29/14	1	
Dimethyl phthalate	131-11-3	U	.0066	0.20	0.41	mg/kg	8270C	10/29/14	1	
Di-n-octyl phthalate	117-84-0	U	.011	0.20	0.41	mg/kg	8270C	10/29/14	1	
1,2,4-Trichlorobenzene	120-82-1	U	.011	0.20	0.41	mg/kg	8270C	10/29/14	1	
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0059	0.20	0.41	mg/kg	8270C	10/29/14	1	
2-Chlorophenol	95-57-8	U	.01	0.20	0.41	mg/kg	8270C	10/29/14	1	
2,4-Dichlorophenol	120-83-2	U	.0092	0.20	0.41	mg/kg	8270C	10/29/14	1	
2,4-Dimethylphenol	105-67-9	U	.057	0.20	0.41	mg/kg	8270C	10/29/14	1	
4,6-Dinitro-2-methylphenol	534-52-1	U	.15	0.20	0.41	mg/kg	8270C	10/29/14	1	
2,4-Dinitrophenol	51-28-5	U	.12	0.20	0.41	mg/kg	8270C	10/29/14	1	
2-Methylphenol	95-48-7	U	.012	0.20	0.41	mg/kg	8270C	10/29/14	1	
3&4-Methyl Phenol	3&4-Methyl	U	.0095	0.20	0.41	mg/kg	8270C	10/29/14	1	
2-Nitrophenol	88-75-5	U	.016	0.20	0.41	mg/kg	8270C	10/29/14	1	
4-Nitrophenol	100-02-7	U	.063	0.20	0.41	mg/kg	8270C	10/29/14	1	
4-Chloroaniline	106-47-8	U	.0043	0.20	0.41	mg/kg	8270C	10/29/14	1	
2-Nitroaniline	88-74-4	U	.0093	0.20	0.41	mg/kg	8270C	10/29/14	1	
1,2-Diphenylhydrazine	103-33-3	U	.0017	0.20	0.41	mg/kg	8270C	10/29/14	1	
3-Nitroaniline	99-09-2	U	.01	0.20	0.41	mg/kg	8270C	10/29/14	1	
4-Nitroaniline	100-01-6	U	.0078	0.20	0.41	mg/kg	8270C	10/29/14	1	
Pentachlorophenol	87-86-5	U	.059	0.20	0.41	mg/kg	8270C	10/29/14	1	
Phenol	108-95-2	U	.0085	0.20	0.41	mg/kg	8270C	10/29/14	1	
2,4,5-Trichlorophenol	95-95-4	U	.012	0.20	0.41	mg/kg	8270C	10/29/14	1	
2,4,6-Trichlorophenol	88-06-2	U	.0095	0.20	0.41	mg/kg	8270C	10/29/14	1	
Surrogate Recovery										
2-Fluorophenol	367-12-4	53.3				% Rec.	8270C	10/29/14	1	
Phenol-d5	4165-62-2	49.7				% Rec.	8270C	10/29/14	1	

Results listed are dry weight basis.

U = Not Detected at the LOD

Note:

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Reported: 11/05/14 16:13 Revised: 11/18/14 11:05

L729564-01 (PH) - 6.5@20.8c

L729564-01 (ICP METALS) - Diluted due to matrix.

DNR - Do Not Report

KA 2/1/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB05-NS01
Collected By :
Collection Date : 10/23/14 09:00

ESC Sample # : L729564-01

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	50.3				% Rec.		8270C	10/29/14	1
2-Fluorobiphenyl	321-60-8	57.5				% Rec.		8270C	10/29/14	1
2,4,6-Tribromophenol	118-79-6	61.4				% Rec.		8270C	10/29/14	1
p-Terphenyl-d14	1718-51-0	53.4				% Rec.		8270C	10/29/14	1

Results listed are dry weight basis.

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Reported: 11/05/14 16:13 Revised: 11/18/14 11:05

L729564-01 (PH) - 6.5@20.8c

L729564-01 (ICP METALS) - Diluted due to matrix.

KA 2/17/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB05-NS02
Collected By :
Collection Date : 10/23/14 09:35

ESC Sample # : L729564-02

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.6				su		9045D	10/27/14	1
Total Solids	TSOLIDS	77.1	.0333			%		2540 G-2	10/28/14	1
Mercury	7439-97-6	U	.0036	0.013	0.026	mg/kg		7471	10/28/14	1
Aluminum	7429-90-5	1600	.23	32.	65.	mg/kg		6010B	11/05/14	5
Antimony	7440-36-0	U	4.9	6.5	13.	mg/kg		6010B	11/05/14	5
Arsenic	7440-38-2	U	4.2	6.5	13.	mg/kg		6010B	11/05/14	5
Barium	7440-39-3	22.	1.1	1.6	3.2	mg/kg		6010B	11/05/14	5
Beryllium	7440-41-7	U	.45	0.65	1.3	mg/kg		6010B	11/05/14	5
Cadmium	7440-43-9	U	.45	1.6	3.2	mg/kg		6010B	11/05/14	5
Chromium	7440-47-3	2.1	.91	3.2	6.5	mg/kg	J	6010B	11/05/14	5
Cobalt	7440-48-4	U	1.6	3.2	6.5	mg/kg		6010B	11/05/14	5
Copper	7440-50-8	U	3.4	6.5	13.	mg/kg		6010B	11/05/14	5
Lead	7439-92-1	U	1.2	1.6	3.2	mg/kg		6010B	11/05/14	5
Manganese	7439-96-5	16.	.78	3.2	6.5	mg/kg		6010B	11/05/14	5
Nickel	7440-02-0	U	3.1	6.5	13.	mg/kg		6010B	11/05/14	5
Selenium	7782-49-2	U	4.8	6.5	13.	mg/kg		6010B	11/05/14	5
Silver	7440-22-4	U	1.8	3.2	6.5	mg/kg		6010B	11/05/14	5
Thallium	7440-28-0	U	4.2	6.5	13.	mg/kg		6010B	11/04/14	5
Vanadium	7440-62-2	3.5	1.6	6.5	13.	mg/kg	J	6010B	11/05/14	5
Zinc	7440-66-6	5.0	3.9	16.	32.	mg/kg	J	6010B	11/05/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.88	2.0	4.0	mg/kg		8015D/GR	10/31/14	31.25
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	99.2				% Rec.		8015D/GR	10/31/14	31.25
Volatile Organics										
Acetone	67-64-1	0.026	.013	0.032	0.065	mg/kg	J	8260B	10/31/14	1
Benzene	71-43-2	U	.00035	0.00065	0.0013	mg/kg		8260B	10/31/14	1
Bromobenzene	108-86-1	U	.00036	0.00065	0.0013	mg/kg		8260B	10/31/14	1
Bromochloromethane	74-97-5	U	.0005	0.00065	0.0013	mg/kg		8260B	10/31/14	1
Bromodichloromethane	75-27-4	U	.00032	0.00065	0.0013	mg/kg		8260B	10/31/14	1
Bromoform	75-25-2	U	.00054	0.00065	0.0013	mg/kg		8260B	10/31/14	1
Bromomethane	74-83-9	U	.0017	0.0032	0.0065	mg/kg		8260B	10/31/14	1
n-Butylbenzene	104-51-8	U	.00034	0.00065	0.0013	mg/kg		8260B	10/31/14	1
sec-Butylbenzene	135-98-8	U	.00026	0.00065	0.0013	mg/kg		8260B	10/31/14	1
tert-Butylbenzene	98-06-6	U	.00027	0.00065	0.0013	mg/kg		8260B	10/31/14	1
Carbon Disulfide	75-15-0	U	.00036	0.00065	0.0013	mg/kg		8260B	10/31/14	1
Carbon tetrachloride	56-23-5	U	.00043	0.00065	0.0013	mg/kg		8260B	10/31/14	1
Chlorobenzene	108-90-7	U	.00027	0.00065	0.0013	mg/kg		8260B	10/31/14	1
Chlorodibromomethane	124-48-1	U	.00048	0.00065	0.0013	mg/kg		8260B	10/31/14	1
Chloroethane	75-00-3	U	.0012	0.0032	0.0065	mg/kg		8260B	10/31/14	1
Chloroform	67-66-3	U	.0003	0.0032	0.0065	mg/kg		8260B	10/31/14	1

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Reported: 11/05/14 16:13 Revised: 11/18/14 11:05

L729564-02 (ICP METALS) - Diluted due to matrix.

L729564-02 (PH) - 6.6@20.8c

ICA 2/17/15
BMS 2/17/15
13 of 1535
BMS 2/19/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB05-NS02
Collected By :
Collection Date : 10/23/14 09:35

ESC Sample # : L729564-02

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00049	0.00065	0.0032	mg/kg	8260B	10/31/14	1	
2-Chlorotoluene	95-49-8	U	.00039	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
4-Chlorotoluene	106-43-4	U	.00031	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0013	0.0032	0.0065	mg/kg	8260B	10/31/14	1	
1,2-Dibromoethane	106-93-4	U	.00044	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
Dibromomethane	74-95-3	U	.00049	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
1,2-Dichlorobenzene	95-50-1	U	.00039	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
1,3-Dichlorobenzene	541-73-1	U	.00031	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
1,4-Dichlorobenzene	106-46-7	U	.0003	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
Dichlorodifluoromethane	75-71-8	U	.00092	0.0032	0.0065	mg/kg	8260B	10/31/14	1	
1,1-Dichloroethane	75-34-3	U	.00026	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
1,2-Dichloroethane	107-06-2	U	.00034	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
1,1-Dichloroethene	75-35-4	U	.00039	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
cis-1,2-Dichloroethene	156-59-2	U	.00031	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
trans-1,2-Dichloroethene	156-60-5	U	.00034	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
1,2-Dichloropropane	78-87-5	U	.00047	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
1,1-Dichloropropene	563-58-6	U	.00042	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
1,3-Dichloropropane	142-28-9	U	.00027	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
cis-1,3-Dichloropropene	10061-01-5	U	.00034	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
trans-1,3-Dichloropropene	10061-02-6	U	.00035	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
2,2-Dichloropropane	594-20-7	U	.00036	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
Ethylbenzene	100-41-4	U	.00039	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
Hexachloro-1,3-butadiene	87-68-3	U	.00044	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
2-Hexanone	591-78-6	U	.0049	0.0065	0.013	mg/kg	8260B	10/31/14	1	
Isopropylbenzene	98-82-8	U	.00031	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
p-Isopropyltoluene	99-87-6	U	.00026	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
2-Butanone (MEK)	78-93-3	U	.0061	0.0065	0.013	mg/kg	8260B	10/31/14	1	
Methylene Chloride	75-09-2	U	.0013	0.0032	0.0065	mg/kg	8260B	10/31/14	1	
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0025	0.0065	0.013	mg/kg	8260B	10/31/14	1	
Methyl tert-butyl ether	1634-04-4	U	.00027	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
Naphthalene	91-20-3	U	.0013	0.0032	0.0065	mg/kg	8260B	10/31/14	1	
n-Propylbenzene	103-65-1	U	.00027	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
Styrene	100-42-5	U	.0003	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
1,1,1,2-Tetrachloroethane	630-20-6	U	.00034	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
1,1,2,2-Tetrachloroethane	79-34-5	U	.00047	0.00097	0.0013	mg/kg	8260B	10/31/14	1	
Tetrachloroethene	127-18-4	U	.00036	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
Toluene	108-88-3	U	.00056	0.0032	0.0065	mg/kg	8260B	10/31/14	1	
1,2,3-Trichlorobenzene	87-61-6	U	.0004	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
1,2,4-Trichlorobenzene	120-82-1	U	.0005	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
1,1,1-Trichloroethane	71-55-6	U	.00037	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
1,1,2-Trichloroethane	79-00-5	U	.00036	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
Trichloroethene	79-01-6	U	.00036	0.00065	0.0013	mg/kg	8260B	10/31/14	1	
Trichlorofluoromethane	75-69-4	U	.00049	0.0032	0.0065	mg/kg	8260B	10/31/14	1	
1,2,3-Trichloropropane	96-18-4	U	.00096	0.0013	0.0032	mg/kg	8260B	10/31/14	1	
1,2,4-Trimethylbenzene	95-63-6	U	.00027	0.00065	0.0013	mg/kg	8260B	10/31/14	1	

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Reported: 11/05/14 16:13 Revised: 11/18/14 11:05

L729564-02 (ICP METALS) - Diluted due to matrix.

L729564-02 (PH) - 6.6@20.8c

DNR - Do Not Report

CA 2/17/15
BMS 2/17/15
14 of 1535



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB05-NS02
Collected By :
Collection Date : 10/23/14 09:35

ESC Sample # : L729564-02

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00044	0.00065	0.0013	mg/kg		8260B	10/31/14	1
m&p-Xylene	1330-20-7	U	.00093	0.0013	0.0026	mg/kg		8260B	10/31/14	1
Vinyl chloride	75-01-4	U	.00038	0.00065	0.0013	mg/kg		8260B	10/31/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00035	0.00065	0.0013	mg/kg		8260B	10/31/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	102.				% Rec.		8260B	10/31/14	1
Dibromofluoromethane	1868-53-7	113.				% Rec.		8260B	10/31/14	1
4-Bromofluorobenzene	460-00-4	99.6				% Rec.		8260B	10/31/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.1	2.6	5.2	mg/kg		8015	10/29/14	1
C28-C40 Oil Range		U	.35	2.6	5.2	mg/kg		8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	78.5				% Rec.		8015	10/29/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/29/14	1
Acenaphthene	83-32-9	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/29/14	1
Acenaphthylene	208-96-8	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/29/14	1
Benzo(a)anthracene	56-55-3	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/29/14	1
Benzo(a)pyrene <i>US LCS +</i>	50-32-8	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/29/14	1
Benzo(b)fluoranthene <i>US MS-L</i>	205-99-2	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/29/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/29/14	1
Benzo(k)fluoranthene	207-08-9	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/29/14	1
Chrysene	218-01-9	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/29/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/29/14	1
Fluoranthene	206-44-0	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/29/14	1
Fluorene	86-73-7	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/29/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/29/14	1
Naphthalene	91-20-3	U	.00078	0.0078	0.026	mg/kg		8270C-SI	10/29/14	1
Phenanthrene	85-01-8	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/29/14	1
Pyrene	129-00-0	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/29/14	1
2-Methylnaphthalene	91-57-6	U	.00083	0.0078	0.026	mg/kg		8270C-SI	10/29/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	69.1				% Rec.		8270C-SI	10/29/14	1
Nitrobenzene-d5	4165-60-0	83.7				% Rec.		8270C-SI	10/29/14	1
2-Fluorobiphenyl	321-60-8	82.6				% Rec.		8270C-SI	10/29/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	.01	0.22	0.43	mg/kg		8270C	10/29/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.012	0.22	0.43	mg/kg		8270C	10/29/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.0098	0.22	0.43	mg/kg		8270C	10/29/14	1
Benzyl Alcohol <i>US CCAL-L</i>	100-51-6	U	.0097	0.22	0.43	mg/kg		8270C	10/29/14	1
Benzoic acid	65-85-0	U	.16	2.2	4.3	mg/kg		8270C	10/29/14	1
Carbazole	86-74-8	U	.0067	0.22	0.43	mg/kg		8270C	10/29/14	1

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L729564-02 (ICP METALS) - Diluted due to matrix.

L729564-02 (PH) - 6.6@20.8c

KA 9/1/15

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AMS 2/17/15
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BMS 9/2/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB05-NS02
Collected By :
Collection Date : 10/23/14 09:35

ESC Sample # : L729564-02

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0067	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
4-Bromophenyl-phenylether	101-55-3	U	.014	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0082	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
2-Chloronaphthalene	91-58-7	U	.0083	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
3,3-Dichlorobenzidine	91-94-1	U	.1	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
2,4-Dinitrotoluene	121-14-2	U	.0079	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
2,6-Dinitrotoluene	606-20-2	U	.0096	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
Hexachlorobenzene	118-74-1	U	.011	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
Hexachloro-1,3-butadiene <i>DNR</i>	87-68-3	U	.013	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
Hexachloroethane	67-72-1	U	.017	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
Isophorone	78-59-1	U	.0067	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
Nitrobenzene	98-95-3	U	.0091	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
n-Nitrosodimethylamine <i>US CCAL-L</i>	62-75-9	U	.084	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0076	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.012	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
Benzylbutyl phthalate	85-68-7	U	.013	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.016	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
Di-n-butyl phthalate	84-74-2	U	.014	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
Diethyl phthalate	84-66-2	U	.0089	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
Dimethyl phthalate	131-11-3	U	.007	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
Di-n-octyl phthalate	117-84-0	U	.012	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
1,2,4-Trichlorobenzene <i>DNR</i>	120-82-1	U	.011	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0062	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
2-Chlorophenol	95-57-8	U	.011	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
2,4-Dichlorophenol	120-83-2	U	.0097	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
2,4-Dimethylphenol	105-67-9	U	.061	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.16	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
2,4-Dinitrophenol	51-28-5	U	.13	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
2-Methylphenol	95-48-7	U	.013	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
3&4-Methyl Phenol <i>US CCAL-L</i>	3&4-Methyl	U	.01	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
2-Nitrophenol	88-75-5	U	.017	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
4-Nitrophenol	100-02-7	U	.067	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
4-Chloroaniline	106-47-8	U	.0045	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
2-Nitroaniline	88-74-4	U	.0098	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0018	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
3-Nitroaniline	99-09-2	U	.011	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
4-Nitroaniline	100-01-6	U	.0083	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
Pentachlorophenol	87-86-5	U	.062	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
Phenol	108-95-2	U	.0091	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
2,4,5-Trichlorophenol	95-95-4	U	.013	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
2,4,6-Trichlorophenol	88-06-2	U	.01	0.22	0.43	mg/kg	8270C	8270C	10/29/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	54.9				% Rec.	8270C	8270C	10/29/14	1
Phenol-d5	4165-62-2	52.8				% Rec.	8270C	8270C	10/29/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/05/14 16:13 Revised: 11/18/14 11:05

L729564-02 (ICP METALS) - Diluted due to matrix.

L729564-02 (PH) - 6.6@20.8c

DNR - Do Not Report

KA 2/17/15
BUS 2/17/15
16 of 1535



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-SB05-NS02
 Collected By :
 Collection Date : 10/23/14 09:35

ESC Sample # : L729564-02

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	52.1				% Rec.	8270C	10/29/14	1
2-Fluorobiphenyl	321-60-8	60.1				% Rec.	8270C	10/29/14	1
2,4,6-Tribromophenol	118-79-6	64.2				% Rec.	8270C	10/29/14	1
p-Terphenyl-d14	1718-51-0	54.0				% Rec.	8270C	10/29/14	1

Results listed are dry weight basis.

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Reported: 11/05/14 16:13 Revised: 11/18/14 11:05

L729564-02 (ICP METALS) - Diluted due to matrix.

L729564-02 (PH) - 6.6@20.8c

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 BMS 2/17/15
 17 of 1535



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB

ESC Sample # : L729564-03

Sample ID : TU904-TRIPBLANK06-NT01

Site ID :

Collected By :
 Collection Date : 10/23/14 12:00

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/30/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	100.				% Rec.		8015D/G	10/30/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	10/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	10/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	10/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	10/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	10/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	10/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	10/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	10/26/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	10/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	10/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	10/26/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	10/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	10/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	10/26/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	10/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l	J4	8260B	10/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	10/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	10/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	10/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	10/26/14	1

U = Not Detected at the LOD

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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-TRIPBLANK06-NT01
 Collected By :
 Collection Date : 10/23/14 12:00

ESC Sample # : L729564-03

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	10/26/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	10/26/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	10/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	10/26/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	10/26/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	10/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	10/26/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	10/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	10/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	10/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	10/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	10/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	10/26/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	10/26/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	10/26/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	10/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	98.9				% Rec.		8260B	10/26/14	1
Dibromofluoromethane	1868-53-7	98.7				% Rec.		8260B	10/26/14	1
4-Bromofluorobenzene	460-00-4	99.6				% Rec.		8260B	10/26/14	1

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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB

ESC Sample # : L729564-04

Sample ID : TU904-SB08-NS01

Site ID :

Collected By :
Collection Date : 10/23/14 08:50

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.6				su		9045D	10/27/14	1
Total Solids	TSOLIDS	90.8	.0333			%		2540 G-2	10/28/14	1
Mercury <i>F SQL-I</i>	7439-97-6	0.0038	.0031	0.011	0.022	mg/kg	J	7471	10/28/14	1
Aluminum <i>J LCS-H, FD-H</i>	7429-90-5	7300	20	28.	55.	mg/kg		6010B	11/05/14	5
Antimony	7440-36-0	U	4.2	5.5	11.	mg/kg		6010B	11/05/14	5
Arsenic	7440-38-2	U	3.5	5.5	11.	mg/kg		6010B	11/05/14	5
Barium <i>J FD-I</i>	7440-39-3	73.	.94	1.4	2.8	mg/kg		6010B	11/05/14	5
Beryllium	7440-41-7	U	.38	0.55	1.1	mg/kg		6010B	11/05/14	5
Cadmium <i>U J ICS-L</i>	7440-43-9	U	.38	1.4	2.8	mg/kg		6010B	11/05/14	5
Chromium <i>F SQL-I</i>	7440-47-3	10.	.77	2.8	5.5	mg/kg		6010B	11/05/14	5
Cobalt <i>F SQL-I</i>	7440-48-4	3.3	1.3	2.8	5.5	mg/kg	J	6010B	11/05/14	5
Copper <i>F SQL-I</i>	7440-50-8	3.7	2.9	5.5	11.	mg/kg	J	6010B	11/05/14	5
Lead <i>J ICS-L</i>	7439-92-1	4.5	1	1.4	2.8	mg/kg		6010B	11/05/14	5
Manganese <i>J FD-I</i>	7439-96-5	160	.66	2.8	5.5	mg/kg		6010B	11/05/14	5
Nickel <i>F J ICS-L SQL, ICS-L</i>	7440-02-0	6.5	2.6	5.5	11.	mg/kg	J	6010B	11/05/14	5
Selenium	7782-49-2	U	4.1	5.5	11.	mg/kg		6010B	11/05/14	5
Silver <i>U J MS-L</i>	7440-22-4	U	1.5	2.8	5.5	mg/kg		6010B	11/05/14	5
Thallium <i>U J ICS-L</i>	7440-28-0	U	3.5	5.5	11.	mg/kg		6010B	11/04/14	5
Vanadium	7440-62-2	18.	1.3	5.5	11.	mg/kg		6010B	11/05/14	5
Zinc <i>F SQL-I</i>	7440-66-6	22.	3.3	14.	28.	mg/kg	J	6010B	11/05/14	5
TPH (GC/FID) Low Fraction <i>U J MS-L</i>	8006-61-9	U	.6	1.4	2.8	mg/kg		8015D/GR	10/31/14	25.25
Surrogate Recovery (70-130) a, a, a-Trifluorotoluene (FID)	98-08-8	99.1				% Rec.		8015D/GR	10/31/14	25.25
Volatile Organics										
Acetone <i>F SQL-I</i>	67-64-1	0.025	.011	0.028	0.055	mg/kg	J	8260B	10/31/14	1
Benzene	71-43-2	0.0073	.0003	0.00055	0.0011	mg/kg		8260B	10/31/14	1
Bromobenzene	108-86-1	U	.00031	0.00055	0.0011	mg/kg		8260B	10/31/14	1
Bromochloromethane	74-97-5	U	.00043	0.00055	0.0011	mg/kg		8260B	10/31/14	1
Bromodichloromethane	75-27-4	U	.00028	0.00055	0.0011	mg/kg		8260B	10/31/14	1
Bromoform	75-25-2	U	.00046	0.00055	0.0011	mg/kg		8260B	10/31/14	1
Bromomethane	74-83-9	U	.0014	0.0028	0.0055	mg/kg		8260B	10/31/14	1
n-Butylbenzene	104-51-8	U	.00029	0.00055	0.0011	mg/kg		8260B	10/31/14	1
sec-Butylbenzene	135-98-8	U	.00022	0.00055	0.0011	mg/kg		8260B	10/31/14	1
tert-Butylbenzene	98-06-6	U	.00023	0.00055	0.0011	mg/kg		8260B	10/31/14	1
Carbon Disulfide <i>F SQL-I</i>	75-15-0	0.00037	.00031	0.00055	0.0011	mg/kg	J	8260B	10/31/14	1
Carbon tetrachloride	56-23-5	U	.00036	0.00055	0.0011	mg/kg		8260B	10/31/14	1
Chlorobenzene	108-90-7	U	.00023	0.00055	0.0011	mg/kg		8260B	10/31/14	1
Chlorodibromomethane	124-48-1	U	.00041	0.00055	0.0011	mg/kg		8260B	10/31/14	1
Chloroethane	75-00-3	U	.001	0.0028	0.0055	mg/kg		8260B	10/31/14	1
Chloroform	67-66-3	U	.00025	0.0028	0.0055	mg/kg		8260B	10/31/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/05/14 16:13 Revised: 11/18/14 11:05

L729564-04 (ICP METALS) - Diluted due to matrix.

L729564-04 (PH) - 6.6@20.7c

KA 2/11/15
BMS 2/17/15
20 of 1535
BMS 2/19/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB08-NS01
Collected By :
Collection Date : 10/23/14 08:50

ESC Sample # : L729564-04

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00042	0.00055	0.0028	mg/kg		8260B	10/31/14	1
2-Chlorotoluene	95-49-8	U	.00033	0.00055	0.0011	mg/kg		8260B	10/31/14	1
4-Chlorotoluene	106-43-4	U	.00026	0.00055	0.0011	mg/kg		8260B	10/31/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0011	0.0028	0.0055	mg/kg		8260B	10/31/14	1
1,2-Dibromoethane	106-93-4	U	.00037	0.00055	0.0011	mg/kg		8260B	10/31/14	1
Dibromomethane	74-95-3	U	.00042	0.00055	0.0011	mg/kg		8260B	10/31/14	1
1,2-Dichlorobenzene	95-50-1	U	.00033	0.00055	0.0011	mg/kg		8260B	10/31/14	1
1,3-Dichlorobenzene	541-73-1	U	.00026	0.00055	0.0011	mg/kg		8260B	10/31/14	1
1,4-Dichlorobenzene	106-46-7	U	.00025	0.00055	0.0011	mg/kg		8260B	10/31/14	1
Dichlorodifluoromethane	75-71-8	U	.00078	0.0028	0.0055	mg/kg		8260B	10/31/14	1
1,1-Dichloroethane	75-34-3	U	.00022	0.00055	0.0011	mg/kg		8260B	10/31/14	1
1,2-Dichloroethane	107-06-2	U	.00029	0.00055	0.0011	mg/kg		8260B	10/31/14	1
1,1-Dichloroethene	75-35-4	U	.00033	0.00055	0.0011	mg/kg		8260B	10/31/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00026	0.00055	0.0011	mg/kg		8260B	10/31/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00029	0.00055	0.0011	mg/kg		8260B	10/31/14	1
1,2-Dichloropropane	78-87-5	U	.0004	0.00055	0.0011	mg/kg		8260B	10/31/14	1
1,1-Dichloropropene	563-58-6	U	.00035	0.00055	0.0011	mg/kg		8260B	10/31/14	1
1,3-Dichloropropane	142-28-9	U	.00023	0.00055	0.0011	mg/kg		8260B	10/31/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00029	0.00055	0.0011	mg/kg		8260B	10/31/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.0003	0.00055	0.0011	mg/kg		8260B	10/31/14	1
2,2-Dichloropropane	594-20-7	U	.00031	0.00055	0.0011	mg/kg		8260B	10/31/14	1
Ethylbenzene	100-41-4	0.0012	.00033	0.00055	0.0011	mg/kg		8260B	10/31/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00037	0.00055	0.0011	mg/kg		8260B	10/31/14	1
2-Hexanone	591-78-6	U	.0042	0.0055	0.011	mg/kg		8260B	10/31/14	1
Isopropylbenzene	98-82-8	U	.00026	0.00055	0.0011	mg/kg		8260B	10/31/14	1
p-Isopropyltoluene	99-87-6	U	.00022	0.00055	0.0011	mg/kg		8260B	10/31/14	1
2-Butanone (MEK) <i>F SQL-I</i>	78-93-3	0.0062	.0052	0.0055	0.011	mg/kg	J	8260B	10/31/14	1
Methylene Chloride	75-09-2	U	.0011	0.0028	0.0055	mg/kg		8260B	10/31/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0021	0.0055	0.011	mg/kg		8260B	10/31/14	1
Methyl tert-butyl ether	1634-04-4	U	.00023	0.00055	0.0011	mg/kg		8260B	10/31/14	1
Naphthalene <i>DNR</i>	91-20-3	U	.0011	0.0028	0.0055	mg/kg		8260B	10/31/14	1
n-Propylbenzene	103-65-1	U	.00023	0.00055	0.0011	mg/kg		8260B	10/31/14	1
Styrene	100-42-5	U	.00025	0.00055	0.0011	mg/kg		8260B	10/31/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00029	0.00055	0.0011	mg/kg		8260B	10/31/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.0004	0.00083	0.0011	mg/kg		8260B	10/31/14	1
Tetrachloroethene	127-18-4	U	.00031	0.00055	0.0011	mg/kg		8260B	10/31/14	1
Toluene	108-88-3	0.0067	.00047	0.0028	0.0055	mg/kg		8260B	10/31/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00034	0.00055	0.0011	mg/kg		8260B	10/31/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00043	0.00055	0.0011	mg/kg		8260B	10/31/14	1
1,1,1-Trichloroethane	71-55-6	U	.00031	0.00055	0.0011	mg/kg		8260B	10/31/14	1
1,1,2-Trichloroethane	79-00-5	U	.00031	0.00055	0.0011	mg/kg		8260B	10/31/14	1
Trichloroethene	79-01-6	U	.00031	0.00055	0.0011	mg/kg		8260B	10/31/14	1
Trichlorofluoromethane	75-69-4	U	.00042	0.0028	0.0055	mg/kg		8260B	10/31/14	1
1,2,3-Trichloropropane	96-18-4	U	.00081	0.0011	0.0028	mg/kg		8260B	10/31/14	1
1,2,4-Trimethylbenzene <i>F SQL-I</i>	95-63-6	0.00095	.00023	0.00055	0.0011	mg/kg	J	8260B	10/31/14	1

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L729564-04 (ICP METALS) - Diluted due to matrix.

L729564-04 (PH) - 6.6@20.7c

DNR - Do Not Report

CA 2/17/15
BMS 2/17/15
21 of 1535



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB08-NS01
Collected By :
Collection Date : 10/23/14 08:50

ESC Sample # : L729564-04
Site ID :
Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene <i>F SQL-I</i>	95-47-6	0.00091	.00037	0.00055	0.0011	mg/kg	J	8260B	10/31/14	1
m&p-Xylene	1330-20-7	0.0026	.00079	0.0011	0.0022	mg/kg		8260B	10/31/14	1
Vinyl chloride	75-01-4	U	.00032	0.00055	0.0011	mg/kg		8260B	10/31/14	1
1,3,5-Trimethylbenzene <i>F SQL-I</i>	108-67-8	0.00046	.0003	0.00055	0.0011	mg/kg	J	8260B	10/31/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	104.				% Rec.		8260B	10/31/14	1
Dibromofluoromethane	1868-53-7	111.				% Rec.		8260B	10/31/14	1
4-Bromofluorobenzene	460-00-4	102.				% Rec.		8260B	10/31/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	1.8	2.2	4.4	mg/kg		8015	10/29/14	1
C28-C40 Oil Range		U	.3	2.2	4.4	mg/kg		8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	74.4				% Rec.		8015	10/29/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00066	0.0022	0.0066	mg/kg		8270C-SI	10/29/14	1
Acenaphthene	83-32-9	U	.00066	0.0022	0.0066	mg/kg		8270C-SI	10/29/14	1
Acenaphthylene	208-96-8	U	.00066	0.0022	0.0066	mg/kg		8270C-SI	10/29/14	1
Benzo(a)anthracene	56-55-3	U	.00066	0.0022	0.0066	mg/kg		8270C-SI	10/29/14	1
Benzo(a)pyrene <i>U3 KCS-1</i>	50-32-8	U	.00066	0.0022	0.0066	mg/kg		8270C-SI	10/29/14	1
Benzo(b)fluoranthene <i>U3 MS-L</i>	205-99-2	U	.00066	0.0022	0.0066	mg/kg		8270C-SI	10/29/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00066	0.0022	0.0066	mg/kg		8270C-SI	10/29/14	1
Benzo(k)fluoranthene	207-08-9	U	.00066	0.0022	0.0066	mg/kg		8270C-SI	10/29/14	1
Chrysene	218-01-9	U	.00066	0.0022	0.0066	mg/kg		8270C-SI	10/29/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00066	0.0022	0.0066	mg/kg		8270C-SI	10/29/14	1
Fluoranthene	206-44-0	U	.00066	0.0022	0.0066	mg/kg		8270C-SI	10/29/14	1
Fluorene	86-73-7	U	.00066	0.0022	0.0066	mg/kg		8270C-SI	10/29/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00066	0.0022	0.0066	mg/kg		8270C-SI	10/29/14	1
Naphthalene	91-20-3	U	.00066	0.0066	0.022	mg/kg		8270C-SI	10/29/14	1
Phenanthrene	85-01-8	U	.00066	0.0022	0.0066	mg/kg		8270C-SI	10/29/14	1
Pyrene	129-00-0	U	.00066	0.0022	0.0066	mg/kg		8270C-SI	10/29/14	1
2-Methylnaphthalene	91-57-6	U	.0007	0.0066	0.022	mg/kg		8270C-SI	10/29/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	69.7				% Rec.		8270C-SI	10/29/14	1
Nitrobenzene-d5	4165-60-0	87.7				% Rec.		8270C-SI	10/29/14	1
2-Fluorobiphenyl	321-60-8	85.5				% Rec.		8270C-SI	10/29/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.0085	0.18	0.37	mg/kg		8270C	10/29/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.0099	0.18	0.37	mg/kg		8270C	10/29/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.0084	0.18	0.37	mg/kg		8270C	10/29/14	1
Benzyl Alcohol <i>U3 CAL-L</i>	100-51-6	U	.0082	0.18	0.37	mg/kg		8270C	10/29/14	1
Benzoic acid	65-85-0	U	.13	1.8	3.7	mg/kg		8270C	10/29/14	1
Carbazole	86-74-8	U	.0057	0.18	0.37	mg/kg		8270C	10/29/14	1

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L729564-04 (ICP METALS) - Diluted due to matrix.

L729564-04 (PH) - 6.6@20.7c

KA 9/1/15

*KA 2/17/15
BMS 2/17/15
22 of 1535*

RMS 9/2/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-SB08-NS01
 Collected By :
 Collection Date : 10/23/14 08:50

ESC Sample # : L729564-04

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0057	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
4-Bromophenyl-phenylether	101-55-3	U	.012	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0069	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
2-Chloronaphthalene	91-58-7	U	.007	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
3,3-Dichlorobenzidine	91-94-1	U	.087	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
2,4-Dinitrotoluene	121-14-2	U	.0067	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
2,6-Dinitrotoluene	606-20-2	U	.0081	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
Hexachlorobenzene	118-74-1	U	.0095	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.011	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
Hexachloroethane	67-72-1	U	.014	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
Isophorone	78-59-1	U	.0057	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
Nitrobenzene	98-95-3	U	.0077	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
n-Nitrosodimethylamine	62-75-9	U	.072	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0065	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.01	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
Benzylbutyl phthalate	85-68-7	U	.011	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.013	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
Di-n-butyl phthalate	84-74-2	U	.012	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
Diethyl phthalate	84-66-2	U	.0076	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
Dimethyl phthalate	131-11-3	U	.0059	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
Di-n-octyl phthalate	117-84-0	U	.01	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.0097	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0053	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
2-Chlorophenol	95-57-8	U	.0091	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
2,4-Dichlorophenol	120-83-2	U	.0082	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
2,4-Dimethylphenol	105-67-9	U	.052	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.13	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
2,4-Dinitrophenol	51-28-5	U	.11	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
2-Methylphenol	95-48-7	U	.011	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.0086	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
2-Nitrophenol	88-75-5	U	.014	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
4-Nitrophenol	100-02-7	U	.057	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
4-Chloroaniline	106-47-8	U	.0038	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
2-Nitroaniline	88-74-4	U	.0084	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0015	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
3-Nitroaniline	99-09-2	U	.0094	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
4-Nitroaniline	100-01-6	U	.007	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
Pentachlorophenol	87-86-5	U	.053	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
Phenol	108-95-2	U	.0077	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
2,4,5-Trichlorophenol	95-95-4	U	.011	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
2,4,6-Trichlorophenol	88-06-2	U	.0086	0.18	0.37	mg/kg	8270C	8270C	10/29/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	54.7				% Rec.	8270C	8270C	10/29/14	1
Phenol-d5	4165-62-2	51.5				% Rec.	8270C	8270C	10/29/14	1

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L729564-04 (ICP METALS) - Diluted due to matrix.

L729564-04 (PH) - 6.6@20.7c

DNR - Do Not Report

CA 2/17/15
BMS 2/17/15
 23 of 1535



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REPORT OF ANALYSIS

Sheri Fling
 URS
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 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-SB08-NS01
 Collected By :
 Collection Date : 10/23/14 08:50

ESC Sample # : L729564-04

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	48.9				% Rec.		8270C	10/29/14	1
2-Fluorobiphenyl	321-60-8	56.9				% Rec.		8270C	10/29/14	1
2,4,6-Tribromophenol	118-79-6	62.9				% Rec.		8270C	10/29/14	1
p-Terphenyl-d14	1718-51-0	53.6				% Rec.		8270C	10/29/14	1

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Reported: 11/05/14 16:13 Revised: 11/18/14 11:05

L729564-04 (ICP METALS) - Diluted due to matrix.

L729564-04 (PH) - 6.6@20.7c

KA24715



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB08-NS02
Collected By :
Collection Date : 10/23/14 09:50

ESC Sample # : L729564-05

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.7				su		9045D	10/27/14	1
Total Solids	TSOLIDS	84.2	.0333			%		2540 G-2	10/28/14	1
Mercury <i>F SQL-I</i>	7439-97-6	0.0045	.0033	0.012	0.024	mg/kg	J	7471	10/28/14	1
Aluminum <i>3 LCS-H, FD-H</i>	7429-90-5	13000	.21	30.	59.	mg/kg	O1V	6010B	11/05/14	5
Antimony <i>UJ MS-L</i>	7440-36-0	U	4.5	5.9	12.	mg/kg	O1J6	6010B	11/05/14	5
Arsenic	7440-38-2	U	3.8	5.9	12.	mg/kg		6010B	11/05/14	5
Barium <i>J MS-H, FD-H</i>	7440-39-3	75.	1	1.5	3.0	mg/kg	O1J5	6010B	11/05/14	5
Beryllium <i>F SQL-I</i>	7440-41-7	0.49	.42	0.59	1.2	mg/kg	J	6010B	11/05/14	5
Cadmium <i>UJ ICS-L</i>	7440-43-9	U	.42	1.5	3.0	mg/kg		6010B	11/05/14	5
Chromium	7440-47-3	14.	.83	3.0	5.9	mg/kg		6010B	11/05/14	5
Cobalt <i>F SQL-I</i>	7440-48-4	4.9	1.4	3.0	5.9	mg/kg	J	6010B	11/05/14	5
Copper <i>F SQL-I</i>	7440-50-8	6.5	3.1	5.9	12.	mg/kg	J	6010B	11/05/14	5
Lead <i>J ICS-L</i>	7439-92-1	5.3	1.1	1.5	3.0	mg/kg		6010B	11/05/14	5
Manganese <i>J MS-L, FD-L</i>	7439-96-5	180	.71	3.0	5.9	mg/kg	O1J6	6010B	11/05/14	5
Nickel <i>F SQL-I</i>	7440-02-0	10.	2.8	5.9	12.	mg/kg	J	6010B	11/05/14	5
Selenium	7782-49-2	U	4.4	5.9	12.	mg/kg		6010B	11/05/14	5
Silver <i>UJ MS-L</i>	7440-22-4	U	1.7	3.0	5.9	mg/kg		6010B	11/05/14	5
Thallium <i>UJ ICS-L</i>	7440-28-0	U	3.8	5.9	12.	mg/kg		6010B	11/04/14	5
Vanadium	7440-62-2	28.	1.4	5.9	12.	mg/kg		6010B	11/05/14	5
Zinc	7440-66-6	32.	3.6	15.	30.	mg/kg		6010B	11/05/14	5
TPH (GC/FID) Low Fraction <i>UJ MS-L</i>	8006-61-9	U	.5	1.1	2.3	mg/kg		8015D/GR	10/31/14	19.25
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	99.0				% Rec.		8015D/GR	10/31/14	19.25
Volatile Organics										
Acetone <i>F SQL-I</i>	67-64-1	0.017	.012	0.030	0.059	mg/kg	J	8260B	10/31/14	1
Benzene	71-43-2	0.0048	.00032	0.00059	0.0012	mg/kg		8260B	10/31/14	1
Bromobenzene	108-86-1	U	.00033	0.00059	0.0012	mg/kg		8260B	10/31/14	1
Bromochloromethane	74-97-5	U	.00046	0.00059	0.0012	mg/kg		8260B	10/31/14	1
Bromodichloromethane	75-27-4	U	.0003	0.00059	0.0012	mg/kg		8260B	10/31/14	1
Bromoform	75-25-2	U	.0005	0.00059	0.0012	mg/kg		8260B	10/31/14	1
Bromomethane	74-83-9	U	.0015	0.0030	0.0059	mg/kg		8260B	10/31/14	1
n-Butylbenzene	104-51-8	U	.00031	0.00059	0.0012	mg/kg		8260B	10/31/14	1
sec-Butylbenzene	135-98-8	U	.00024	0.00059	0.0012	mg/kg		8260B	10/31/14	1
tert-Butylbenzene	98-06-6	U	.00025	0.00059	0.0012	mg/kg		8260B	10/31/14	1
Carbon Disulfide	75-15-0	U	.00033	0.00059	0.0012	mg/kg		8260B	10/31/14	1
Carbon tetrachloride	56-23-5	U	.00039	0.00059	0.0012	mg/kg		8260B	10/31/14	1
Chlorobenzene	108-90-7	U	.00025	0.00059	0.0012	mg/kg		8260B	10/31/14	1
Chlorodibromomethane	124-48-1	U	.00044	0.00059	0.0012	mg/kg		8260B	10/31/14	1
Chloroethane	75-00-3	U	.0011	0.0030	0.0059	mg/kg		8260B	10/31/14	1
Chloroform	67-66-3	U	.00027	0.0030	0.0059	mg/kg		8260B	10/31/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/05/14 16:13 Revised: 11/18/14 11:06

L729564-05 (PH) - 6.7@20.7c

L729564-05 (ICP METALS) - Diluted due to matrix.

KA 2/17/15
BMS 2/17/15
25 of 1535
BMS 2/19/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB08-NS02
Collected By :
Collection Date : 10/23/14 09:50

ESC Sample # : L729564-05

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00045	0.00059	0.0030	mg/kg		8260B	10/31/14	1
2-Chlorotoluene	95-49-8	U	.00036	0.00059	0.0012	mg/kg		8260B	10/31/14	1
4-Chlorotoluene	106-43-4	U	.00028	0.00059	0.0012	mg/kg		8260B	10/31/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0012	0.0030	0.0059	mg/kg		8260B	10/31/14	1
1,2-Dibromoethane	106-93-4	U	.0004	0.00059	0.0012	mg/kg		8260B	10/31/14	1
Dibromomethane	74-95-3	U	.00045	0.00059	0.0012	mg/kg		8260B	10/31/14	1
1,2-Dichlorobenzene	95-50-1	U	.00036	0.00059	0.0012	mg/kg		8260B	10/31/14	1
1,3-Dichlorobenzene	541-73-1	U	.00028	0.00059	0.0012	mg/kg		8260B	10/31/14	1
1,4-Dichlorobenzene	106-46-7	U	.00027	0.00059	0.0012	mg/kg		8260B	10/31/14	1
Dichlorodifluoromethane	75-71-8	U	.00084	0.0030	0.0059	mg/kg		8260B	10/31/14	1
1,1-Dichloroethane	75-34-3	U	.00024	0.00059	0.0012	mg/kg		8260B	10/31/14	1
1,2-Dichloroethane	107-06-2	U	.00031	0.00059	0.0012	mg/kg		8260B	10/31/14	1
1,1-Dichloroethene	75-35-4	U	.00036	0.00059	0.0012	mg/kg		8260B	10/31/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00028	0.00059	0.0012	mg/kg		8260B	10/31/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00031	0.00059	0.0012	mg/kg		8260B	10/31/14	1
1,2-Dichloropropane	78-87-5	U	.00043	0.00059	0.0012	mg/kg		8260B	10/31/14	1
1,1-Dichloropropene	563-58-6	U	.00038	0.00059	0.0012	mg/kg		8260B	10/31/14	1
1,3-Dichloropropane	142-28-9	U	.00025	0.00059	0.0012	mg/kg		8260B	10/31/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00031	0.00059	0.0012	mg/kg		8260B	10/31/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00032	0.00059	0.0012	mg/kg		8260B	10/31/14	1
2,2-Dichloropropane	594-20-7	U	.00033	0.00059	0.0012	mg/kg		8260B	10/31/14	1
Ethylbenzene F SQL-I	100-41-4	0.00069	.00036	0.00059	0.0012	mg/kg	J	8260B	10/31/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.0004	0.00059	0.0012	mg/kg		8260B	10/31/14	1
2-Hexanone	591-78-6	U	.0045	0.0059	0.012	mg/kg		8260B	10/31/14	1
Isopropylbenzene	98-82-8	U	.00028	0.00059	0.0012	mg/kg		8260B	10/31/14	1
p-Isopropyltoluene	99-87-6	U	.00024	0.00059	0.0012	mg/kg		8260B	10/31/14	1
2-Butanone (MEK)	78-93-3	U	.0056	0.0059	0.012	mg/kg		8260B	10/31/14	1
Methylene Chloride	75-09-2	U	.0012	0.0030	0.0059	mg/kg		8260B	10/31/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0022	0.0059	0.012	mg/kg		8260B	10/31/14	1
Methyl tert-butyl ether	1634-04-4	U	.00025	0.00059	0.0012	mg/kg		8260B	10/31/14	1
Napthalene DNR	91-20-3	U	.0012	0.0030	0.0059	mg/kg		8260B	10/31/14	1
n-Propylbenzene	103-65-1	U	.00025	0.00059	0.0012	mg/kg		8260B	10/31/14	1
Styrene	100-42-5	U	.00027	0.00059	0.0012	mg/kg		8260B	10/31/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00031	0.00059	0.0012	mg/kg		8260B	10/31/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00043	0.00089	0.0012	mg/kg		8260B	10/31/14	1
Tetrachloroethene	127-18-4	U	.00033	0.00059	0.0012	mg/kg		8260B	10/31/14	1
Toluene F SQL-I	108-88-3	0.0040	.00051	0.0030	0.0059	mg/kg	J	8260B	10/31/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00037	0.00059	0.0012	mg/kg		8260B	10/31/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00046	0.00059	0.0012	mg/kg		8260B	10/31/14	1
1,1,1-Trichloroethane	71-55-6	U	.00034	0.00059	0.0012	mg/kg		8260B	10/31/14	1
1,1,2-Trichloroethane	79-00-5	U	.00033	0.00059	0.0012	mg/kg		8260B	10/31/14	1
Trichloroethene	79-01-6	U	.00033	0.00059	0.0012	mg/kg		8260B	10/31/14	1
Trichlorofluoromethane	75-69-4	U	.00045	0.0030	0.0059	mg/kg		8260B	10/31/14	1
1,2,3-Trichloropropane	96-18-4	U	.00088	0.0012	0.0030	mg/kg		8260B	10/31/14	1
1,2,4-Trimethylbenzene F SQL-I	95-63-6	0.00063	.00025	0.00059	0.0012	mg/kg	J	8260B	10/31/14	1

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L729564-05 (ICP METALS) - Diluted due to matrix.

DN R - Do Not Report

Page 20 of 25
KA 2/17/15
BMS 2/17/15
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REPORT OF ANALYSIS

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November 18, 2014

Date Received : October 24, 2014
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Sample ID : TU904-SB08-NS02
Collected By :
Collection Date : 10/23/14 09:50

ESC Sample # : L729564-05

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene <i>FSQL-I</i>	95-47-6	0.00046	.0004	0.00059	0.0012	mg/kg	J	8260B	10/31/14	1
m,p-Xylene <i>FSQL-I</i>	1330-20-7	0.0014	.00086	0.0012	0.0024	mg/kg	J	8260B	10/31/14	1
Vinyl chloride	75-01-4	U	.00034	0.00059	0.0012	mg/kg		8260B	10/31/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00032	0.00059	0.0012	mg/kg		8260B	10/31/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	102.				% Rec.		8260B	10/31/14	1
Dibromofluoromethane	1868-53-7	115.				% Rec.		8260B	10/31/14	1
4-Bromofluorobenzene	460-00-4	103.				% Rec.		8260B	10/31/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	1.9	2.4	4.8	mg/kg		8015	10/29/14	1
C28-C40 Oil Range		U	.32	2.4	4.8	mg/kg		8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	72.6				% Rec.		8015	10/29/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00071	0.0024	0.0071	mg/kg		8270C-SI	10/29/14	1
Acenaphthene	83-32-9	U	.00071	0.0024	0.0071	mg/kg		8270C-SI	10/29/14	1
Acenaphthylene	208-96-8	U	.00071	0.0024	0.0071	mg/kg		8270C-SI	10/29/14	1
Benzo(a)anthracene	56-55-3	U	.00071	0.0024	0.0071	mg/kg		8270C-SI	10/29/14	1
Benzo(a)pyrene <i>US LGS-L</i>	50-32-8	U	.00071	0.0024	0.0071	mg/kg		8270C-SI	10/29/14	1
Benzo(b)fluoranthene <i>US LGS-L</i>	205-99-2	U	.00071	0.0024	0.0071	mg/kg		8270C-SI	10/29/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00071	0.0024	0.0071	mg/kg		8270C-SI	10/29/14	1
Benzo(k)fluoranthene	207-08-9	U	.00071	0.0024	0.0071	mg/kg		8270C-SI	10/29/14	1
Chrysene	218-01-9	U	.00071	0.0024	0.0071	mg/kg		8270C-SI	10/29/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00071	0.0024	0.0071	mg/kg		8270C-SI	10/29/14	1
Fluoranthene	206-44-0	U	.00071	0.0024	0.0071	mg/kg		8270C-SI	10/29/14	1
Fluorene	86-73-7	U	.00071	0.0024	0.0071	mg/kg		8270C-SI	10/29/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00071	0.0024	0.0071	mg/kg		8270C-SI	10/29/14	1
Naphthalene	91-20-3	U	.00071	0.0071	0.024	mg/kg		8270C-SI	10/29/14	1
Phenanthrene	85-01-8	U	.00071	0.0024	0.0071	mg/kg		8270C-SI	10/29/14	1
Pyrene	129-00-0	U	.00071	0.0024	0.0071	mg/kg		8270C-SI	10/29/14	1
2-Methylnaphthalene	91-57-6	U	.00076	0.0071	0.024	mg/kg		8270C-SI	10/29/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	60.6				% Rec.		8270C-SI	10/29/14	1
Nitrobenzene-d5	4165-60-0	78.4				% Rec.		8270C-SI	10/29/14	1
2-Fluorobiphenyl	321-60-8	75.3				% Rec.		8270C-SI	10/29/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.0091	0.20	0.40	mg/kg		8270C	10/29/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.011	0.20	0.40	mg/kg		8270C	10/29/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.009	0.20	0.40	mg/kg		8270C	10/29/14	1
Benzyl Alcohol <i>US CCA-L-L</i>	100-51-6	U	.0089	0.20	0.40	mg/kg		8270C	10/29/14	1
Benzoic acid	65-85-0	U	.14	2.0	4.0	mg/kg		8270C	10/29/14	1
Carbazole	86-74-8	U	.0062	0.20	0.40	mg/kg		8270C	10/29/14	1

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L729564-05 (PH) - 6.7@20.7c

L729564-05 (ICP METALS) - Diluted due to matrix.

KA 9/1/15
BMS 9/2/15
KA 2/17/15
BMS 2/17/15
BMS 2/16/15
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November 18, 2014

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Collected By :
Collection Date : 10/23/14 09:50

ESC Sample # : L729564-05

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0062	0.20	0.40	mg/kg		8270C	10/29/14	1
4-Bromophenyl-phenylether	101-55-3	U	.013	0.20	0.40	mg/kg		8270C	10/29/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0075	0.20	0.40	mg/kg		8270C	10/29/14	1
2-Chloronaphthalene	91-58-7	U	.0076	0.20	0.40	mg/kg		8270C	10/29/14	1
3,3-Dichlorobenzidine	91-94-1	U	.094	0.20	0.40	mg/kg		8270C	10/29/14	1
2,4-Dinitrotoluene	121-14-2	U	.0072	0.20	0.40	mg/kg		8270C	10/29/14	1
2,6-Dinitrotoluene	606-20-2	U	.0088	0.20	0.40	mg/kg		8270C	10/29/14	1
Hexachlorobenzene	118-74-1	U	.01	0.20	0.40	mg/kg		8270C	10/29/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.012	0.20	0.40	mg/kg		8270C	10/29/14	1
Hexachloroethane	67-72-1	U	.015	0.20	0.40	mg/kg		8270C	10/29/14	1
Isophorone	78-59-1	U	.0062	0.20	0.40	mg/kg		8270C	10/29/14	1
Nitrobenzene	98-95-3	U	.0083	0.20	0.40	mg/kg		8270C	10/29/14	1
n-Nitrosodimethylamine	62-75-9	U	.077	0.20	0.40	mg/kg		8270C	10/29/14	1
n-Nitrosodiphenylamine	86-30-6	U	.007	0.20	0.40	mg/kg		8270C	10/29/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.011	0.20	0.40	mg/kg		8270C	10/29/14	1
Benzylbutyl phthalate	85-68-7	U	.012	0.20	0.40	mg/kg		8270C	10/29/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.014	0.20	0.40	mg/kg		8270C	10/29/14	1
Di-n-butyl phthalate	84-74-2	U	.013	0.20	0.40	mg/kg		8270C	10/29/14	1
Diethyl phthalate	84-66-2	U	.0082	0.20	0.40	mg/kg		8270C	10/29/14	1
Dimethyl phthalate	131-11-3	U	.0064	0.20	0.40	mg/kg		8270C	10/29/14	1
Di-n-octyl phthalate	117-84-0	U	.011	0.20	0.40	mg/kg		8270C	10/29/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.01	0.20	0.40	mg/kg		8270C	10/29/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0057	0.20	0.40	mg/kg		8270C	10/29/14	1
2-Chlorophenol	95-57-8	U	.0098	0.20	0.40	mg/kg		8270C	10/29/14	1
2,4-Dichlorophenol	120-83-2	U	.0089	0.20	0.40	mg/kg		8270C	10/29/14	1
2,4-Dimethylphenol	105-67-9	U	.056	0.20	0.40	mg/kg		8270C	10/29/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.14	0.20	0.40	mg/kg		8270C	10/29/14	1
2,4-Dinitrophenol	51-28-5	U	.12	0.20	0.40	mg/kg		8270C	10/29/14	1
2-Methylphenol	95-48-7	U	.012	0.20	0.40	mg/kg		8270C	10/29/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.0093	0.20	0.40	mg/kg		8270C	10/29/14	1
2-Nitrophenol	88-75-5	U	.015	0.20	0.40	mg/kg		8270C	10/29/14	1
4-Nitrophenol	100-02-7	U	.062	0.20	0.40	mg/kg		8270C	10/29/14	1
4-Chloroaniline	106-47-8	U	.0042	0.20	0.40	mg/kg		8270C	10/29/14	1
2-Nitroaniline	88-74-4	U	.009	0.20	0.40	mg/kg		8270C	10/29/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0017	0.20	0.40	mg/kg		8270C	10/29/14	1
3-Nitroaniline	99-09-2	U	.01	0.20	0.40	mg/kg		8270C	10/29/14	1
4-Nitroaniline	100-01-6	U	.0076	0.20	0.40	mg/kg		8270C	10/29/14	1
Pentachlorophenol	87-86-5	U	.057	0.20	0.40	mg/kg		8270C	10/29/14	1
Phenol	108-95-2	U	.0083	0.20	0.40	mg/kg		8270C	10/29/14	1
2,4,5-Trichlorophenol	95-95-4	U	.012	0.20	0.40	mg/kg		8270C	10/29/14	1
2,4,6-Trichlorophenol	88-06-2	U	.0093	0.20	0.40	mg/kg		8270C	10/29/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	60.8				% Rec.		8270C	10/29/14	1
Phenol-d5	4165-62-2	54.9				% Rec.		8270C	10/29/14	1

Results listed are dry weight basis.
U = Not Detected at the LOD

Note:

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The reported analytical results relate only to the sample submitted

Reported: 11/05/14 16:13 Revised: 11/18/14 11:06

L729564-05 (PH) - 6.7@20.7c

L729564-05 (ICP METALS) - Diluted due to matrix.

DNR - Do Not Report

KA 2/17/15
BWS 2/17/15
28 of 1535



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-SB08-NS02
 Collected By :
 Collection Date : 10/23/14 09:50

ESC Sample # : L729564-05
 Site ID :
 Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	57.8				% Rec.		8270C	10/29/14	1
2-Fluorobiphenyl	321-60-8	64.4				% Rec.		8270C	10/29/14	1
2,4,6-Tribromophenol	118-79-6	60.8				% Rec.		8270C	10/29/14	1
p-Terphenyl-d14	1718-51-0	56.3				% Rec.		8270C	10/29/14	1

Results listed are dry weight basis.
 U = Not Detected at the LOD

Note:

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 The reported analytical results relate only to the sample submitted

Reported: 11/05/14 16:13 Revised: 11/18/14 11:06
 L729564-05 (PH) - 6.7@20.7c
 L729564-05 (ICP METALS) - Diluted due to matrix.

KA2/11/15

**Holloman AFB
Groundwater Monitoring
Data Review Summary**

Data Package Number: L729566
 Sampling Event Dates: October 21-22, 2014
 Sample-specific Parameter Review/Laboratory Performance Parameters: Yes
 Full Validation (e.g. result recalculation): No
 Data Reviewer: Katie Abbott, URS Project Chemist
 Date Completed: February 17, 2015
 Peer Reviewer: Sheri Fling, URS Project Quality Assurance Manager (QAM)

The table below summarizes the data package and sample identifications discussed in this data review.

Field Identification	Sample Type	Lab Identification	Matrix	Analyses						
				GRO	VOCs	PAHs	DRO/ORO	SVOCs	Total Metals	pH
L729566										
TU904-SB01-DS01	FD	L729566-01	Soil	X	X	X	X	X	X	X
TU904-SB01-NS02	SA	L729566-02	Soil	X	X	X	X	X	X	X
TU904-SB01-NS01	SA	L729566-03	Soil	X	X	X	X	X	X	X
TU904-TRIPBLANK03-NT01	TB	L729566-04	Water	X	X	---	---	---	---	---
TU904-SB03-NS01	SA	L729566-05	Soil	X	X	X	X	X	X	X
TU904-SB03-NS02	SA	L729566-06	Soil	X	X	X	X	X	X	X

Sample Type: FD – Field Duplicate SA – Sample TB – Trip Blank
 X^m - Matrix Spike/Matrix Spike Duplicate

Analyses: Analyses:
 DRO/ORO - Diesel and Oil Range Organics (8015)
 GRO – Gasoline Range Organics (8015D)
 TDS – Total Dissolved Solids (SM2540C)
 Total/ Metals – Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Manganese, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc, Mercury (6010B/7470A)
 PAHs – Polynuclear Aromatic Hydrocarbons (8270C SIM)
 SIM – Selective Ion Monitoring
 SVOCs – Semivolatile Organic Compounds (8270C)
 VOCs – Volatile Organic Compounds (8260B)

The data review was conducted in accordance with the Final Interim Measures Work Plan – Appendix A, Sampling and Analysis Plan/Quality Assurance Project Plan: Former Septic System Site TU904 (URS, September 2014); Group 2 Former Underground Storage Sites: AOC-UST-889 (TU515) (URS, September 2014); and Group 3 Former Underground Storage Tank Sites: AOC-UST-221 (TU503), AOC-UST-298 (TU508), AOC-UST-901 (TU506) and AOC-UST-7003 (TU518) (URS, August 2014); data validation standard operating procedure (SOP) 14; Department of Defense (DoD) Quality Systems Manual version 4.2 (DoD, 2010); and method requirements.

General Overall Assessment:

- Data are usable without qualification.
- Data are usable with qualification (noted below).
- Some or all data are unusable for any purpose (detailed below).

Case Narrative Comments: Any laboratory case narrative comments concerning data qualification were addressed in the table below.

Trace level detects, reported between the method detection limit (MDL) and the reporting limit (LOQ), have been qualified as estimated (F SQL-I). All other occurrences of data qualification are covered in the following table.

Review Parameter	Criteria Met?	Comment
Chain of Custody & Sample Receipt	Yes	The samples were received by ESC Lab Sciences in good condition and were consistent with the accompanying chain of custody (COC). The cooler temperatures upon receipt were within the recommended ≤6 degrees Celsius (°C) temperature range.
Reporting	Yes	<p>During review of a representative data package selected for full validation, it was noted that improper reference spectra were displayed in the printed version of the data package for Method 8260B. Due to a LIMS limitation, the data package reference spectra were not consistently representative of the actual spectra for the analytes detected. Because the laboratory data review involves the use of NBS reference spectra and not the reference spectra taken from the instrument calibration, the analyst was not seeing the improper alignment of spectra noted in the data package during his/her review at the instrument. The laboratory revised and reissued the data package with correct reference spectral data, consistent with method requirements, and no results were changed. Therefore, no further action is necessary as a result of this validation finding.</p> <p>Method 8270C Semivolatile Organic Compounds (SVOCs)</p> <p>The results for 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene are not reported by Method 8270C SVOCs but are reported by Method 8260B volatile organic compounds (VOCs). As the detection limits (DLs), limits of detection (LODs), and limits of quantitation (LOQs) are lower by Method 8260B, further action was not necessary.</p> <p>The laboratory noted 4-methylphenol cannot be reported as 3 & 4-methylphenol coelute during the analysis; therefore, the analytes are reported together and 3&4-methylphenol on the data sheets and in the electronic database.</p>
Holding Times	Yes	All samples were analyzed within the method required holding time.
Laboratory Blanks <ul style="list-style-type: none"> • Method Blank • Initial/Continuing Calibration Blank 	No	With the exception listed in Table 1, target analytes were not detected within the method or calibration blanks.
Matrix Quality Control <ul style="list-style-type: none"> • Matrix Spike/ Matrix Spike Duplicate None in this package • Laboratory Duplicate None in this package 	NA	<p>Matrix Spike/ Matrix Spike Duplicate (MS/MSD)</p> <p>The frequency of MS/MSDs met the QAPP requirement of one per twenty samples.</p> <p>An MS/MSD was not performed on a sample from this data package.</p>

Review Parameter	Criteria Met?	Comment
		<p>Consistent with standard operating procedure (SOP) 14, when MS/MSD issues accounted for less than 35% of the MS/MSD analyses conducted, applicable data qualification was limited to qualification of the parent sample of the affected analyte. When >35% of the MS/MSD results did not meet criteria, evaluation was extended to all associated samples. See Section 4.1 of the data validation report for overall qualifiers resulting from the MS/MSD evaluation.</p> <p>Laboratory Duplicate</p> <p>A laboratory duplicate was not performed on a sample from this data package.</p>
<p>Metals Only</p> <ul style="list-style-type: none"> • Serial Dilution None in this package • Post Digestion Spike None in this package 	NA	<p>Serial Dilution (Metals Only)</p> <p>A serial dilution was not reported in association with the sample in this data package.</p> <p>Post Digestion Spike (PDS) (Metals Only)</p> <p>A post digestion spike was not reported in association with the sample in this data package.</p>
<p>Method Quality Control</p> <ul style="list-style-type: none"> • Surrogates (VOCs, SVOCs, PAHs, GRO, DRO/ORO) 	Yes	<p>The surrogate recoveries were within the laboratory specified acceptance criteria.</p>
<p>Field Quality Control</p> <ul style="list-style-type: none"> • Trip Blank TU904-TRIPBLANK03-NT01 (GRO, VOCs) • Field Duplicate TU904-SB01-NS01/TU904-SB01-DS01 • Equipment Blank None in this package • Field Blank None in this package 	Yes	<p>Trip Blank</p> <p>Target analytes were not detected in the trip blank.</p> <p>Field Duplicate</p> <p>The frequency of field duplicates met the QAPP requirement of one per twenty samples.</p> <p>The comparison between results of the field duplicate pair met the criteria listed below.</p> <ul style="list-style-type: none"> • When both the sample and duplicate values are >5x the LOQ acceptable sampling and analytical precision is indicated by an RPD between the results of ≤30% for water samples (≤50% for soil samples). • Where the result for one or both analytes of the field duplicate pair is <5xLOQ, satisfactory precision is indicated if the absolute difference between the field duplicate results is <2xLOQ for water samples (<3.5xLOQ for soil samples). <p>Consistent with SOP 14, when field duplicate issues accounted for less than 35% of the field duplicate analyses conducted, applicable data qualification was limited to qualification of the parent sample for the affected analyte. When >35% of the field duplicate results did not meet criteria, evaluation was extended to all associated samples. See Section 4.3 of the data validation report for overall qualifiers resulting from the field duplicate evaluation.</p> <p>Equipment Blank</p> <p>As dedicated equipment was used to collect these samples, an equipment blank was not submitted for this sampling event. Further action was not necessary.</p>

Review Parameter	Criteria Met?	Comment
		<p>Field Blank</p> <p>The frequency of field blanks met the QAPP requirement of one per twenty samples.</p> <p>A field blank was not submitted with this data package. See Section 4.4 of the data validation report for overall qualifiers resulting from the field blank evaluation.</p>
LODs met?	No	Due to dilutions, several of the 6010B metals and gasoline range organic (GRO) results for all samples were reported as non-detect at elevated LODs. See Section 3.7 of the validation report for further discussion.
Other Parameters	Yes	<p>Naphthalene (8260B and 8270C-PAHs) and hexachloro-1,3-butadiene and 1,2,4-trichlorobenzene (8260B and 8270C) were analyzed by multiple methods. Results were selected for reporting using the following criteria:</p> <ul style="list-style-type: none"> • If both results were non-detect, the non-detect result with the lower DL was selected. • If both results were reported as detected, the higher detected result was selected for reporting. • If one result was reported as non-detect and the other result was reported as detected, the detected result was selected for reporting.
Initial Calibration	Yes	<p>Methods 8260B VOCs & 8270C SVOCs</p> <p>A minimum relative response factor (RRF) of 0.05 was used for the system performance check compounds (SPCCs) and all SPCCs met this criterion. The percent relative standard deviations (%RSDs) over the initial calibration RRFs for all calibration check compounds (CCCs) satisfied the method requirement of <30%. For all other target compounds, a requirement of 15% was used. The %RSD values for all target analytes in the calibration were less than 15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)</p> <p>The %RSD values for all target analytes in the calibration were less than 20%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8015D Gasoline Range Organics (GRO)/DRO/ORO</p> <p>The relationship between instrument response and concentration was established with a blank and at least five standards for the entire carbon range of C10-C40. The %RSD over the initial calibrations curve satisfied the method requirement of <15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Methods 6010B (Inductively Coupled Plasma [ICP] Metals)</p> <p>The initial calibrations (ICALs) were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with a blank and at least one standard. The calibrations were verified with the analysis of an initial calibration verification (ICV) standard. All metals were recovered within the method acceptance range of 90-110%.</p>

Review Parameter	Criteria Met?	Comment
		<p>Method 7470A (Mercury)</p> <p>The ICALs were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with five standards. The correlation coefficient was >0.995. The calibration was verified with the analysis of an ICV standard. The analytes were recovered within the acceptance range of 90-110%. Response and linearity criteria were met and data qualification on the basis of initial calibration was not necessary.</p>
Initial Calibration Verification/Continuing Calibration Verification	No	<p>Method 8260B VOCs</p> <p>With the exceptions listed in Table 2, the percent differences (%Ds) for all CCCs in the ICVs and continuing calibrations (CCALs) were less than 20%, satisfying method requirements, and other target analytes satisfied the %D criterion of 20%.</p> <p>Methods 8270C PAHs/SVOCs</p> <p>With the exceptions listed in Table 2, the %D values for all target analytes in the calibration were less than 20%.</p> <p>Method 8015D GRO/DRO/ORO</p> <p>The %Ds for all target compounds in the ICVs and CCALs were less than 15%. Data qualification was not necessary.</p> <p>Methods 6010B (ICP Metals) & 7470A (Mercury)</p> <p>Calibration verification analyses were conducted at the proper frequency. All metals were recovered within the DOD QSM 4.2 low level acceptance range of 80-120% and the method medium/high acceptance range of 90-110%.</p>
Interference Check Standard (Metals Only)	No	<p>The interference check standard (ICS) AB solutions were analyzed at the proper frequency. The target analytes were recovered within the acceptance range of 80-120% in the ICS A solution. With the exceptions listed in Table 3, interferent elements were not present in the samples at concentrations greater than those in the ICSs.</p> <p>The interferent elements aluminum, calcium, iron, and magnesium were present in most samples in this data package at concentrations greater than or equal to those in the ICSs. As such, these samples were evaluated for positive and negative biases suggested by the ICS A. Data qualification was issued if the absolute value of the ICS A result was greater than the DL and it suggested a positive or negative bias which accounted for more than 25% of associated sample results or LODs. (Note: The ICS A solution only contains the interferent elements aluminum, calcium, iron, and magnesium so any positive or negative result for other analytes is inferred to be a bias potentially caused by one or more of the interferent elements present). Table 3 summarizes the resultant data qualification on the basis of the ICS results.</p>
Internal Standard (VOCs/SVOCs/PAHs/Metals (6020))	Yes	<p>Recoveries for the internal standards in field samples were within the applicable acceptance limits. Therefore, data qualification based on internal standards was not necessary.</p>

Review Parameter	Criteria Met?	Comment
Laboratory Control Sample/ Laboratory Control Sample Duplicate	No	One laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) per method per analytical batch was prepared and analyzed. With the exceptions listed in Table 4, all of the LCS recoveries and LCS/LCSD RPDs were within the QAPP acceptance limits. These results are indicative of an acceptable level of accuracy and precision with respect to the analytical method. Method 8015 DRO/ORO The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the method could not be assessed for ORO.
Package Completeness	Yes	The results are usable as qualified for the project objective. The data are 100% complete.

> - Greater Than

< - Less Than

≤ - Less Than or Equal to

°C – Degrees Celsius

% - Percent

%Ds – Percent Differences

%RSD – Percent Relative Standard Deviation

CCALs – Continuing Calibrations

CCBs – Continuing Calibration Blanks

CCCs – Calibration Check Compounds

COC – Chain of Custody

COD – Coefficient of Determination

DLs – Detection Limits

DRO – Diesel Range Organics

GRO – Gasoline Range Organics

ICAL – Initial Calibration

ICB – Initial Calibration Blank

ICP – Inductively Coupled Plasma

ICS – Interference Check Standard

ICV – Initial Calibration Verification

LCS – Laboratory Control Sample

LCSD – Laboratory Control Sample Duplicate

LOD – Limit of Detection

LOQ – Limit of Quantitation

MS/MSD – Matrix Spike/ Matrix Spike Duplicate

ORO – Oil Range Organics

PAHs – Polynuclear Aromatic Hydrocarbons

PDS – Post Digestion Spike

QAPP – Quality Assurance Project Plan

RPDs – Relative Percent Differences

RRF – Relative Response Factor

SOP – Standard Operating Procedure

SPCCs – System Performance Check Compounds

SVOCs – Semivolatile Organic Compounds

VOCs – Volatile Organic Compounds

Table 1: Blank Outliers and Resultant Data Qualification

Associated Samples	Analyte	Concentration	Qualification
VOCs			
MB Batch WG750700 TU904-SB01-DS01 TU904-SB01-NS01 TU904-SB01-NS02 TU904-SB03-NS01 TU904-SB03-NS02	Styrene	0.000322 mg/Kg	The associated results reported as non-detect.
DRO/ORO			
MB Batch WG751233 TU904-SB01-DS01 TU904-SB01-NS01 TU904-SB01-NS02 TU904-SB03-NS01 TU904-SB03-NS02	DRO	1.67 mg/Kg	The associated results reported as non-detect.

DRO – Diesel Range Organics

ORO – Oil Range Organics

MB – Method Blank

VOCs – Volatile Organic Compounds

mg/Kg – Milligrams per Kilogram

Table 2: Initial/Continuing Calibration Verification Outliers and Resultant Data Qualification

Associated Samples	Analyte	%D (Limit)	Data Qualification
VOCs			
TU904-TRIPBLANK03-NT01	Chloroethane	+26.4 (±20)	As the potential bias was considered to be high, and the associated sample results were reported as non-detect, data qualification was not considered necessary.
	1,2,4-Trichlorobenzene	+23.9 (±20)	
SVOCs			
TU904-SB01-DS01 TU904-SB01-NS01 TU904-SB01-NS02 TU904-SB03-NS01 TU904-SB03-NS02	n-Nitrosodimethylamine	-26.7 (±20)	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ CCAL-L).
	3&4-Methyl Phenol	-56.8 (±20)	

± - Plus or minus

L - Low Bias

VOCs - Volatile Organic Compounds

%D - Percent Difference

SVOCs - Semivolatile Organic Compounds

CCAL - Continuing Calibration

UJ - Estimated

Table 3: ICS Outliers and Resultant Data Qualification

Interferent Element	Analyte	ICS A (µg/L)	MDL (µg/L)	Qualified Samples	Qualification
Aluminum, Calcium, Iron, Magnesium	Antimony	-11.7	7.5	TU904-SB01-DS01 TU904-SB01-NS02 TU904-SB03-NS01	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ/J ICS-L).
	Cadmium	-1.0	0.7		
	Lead	-32.7	1.9		
	Nickel	-13.0	4.9		
	Thallium	-8.0	6.5		
	Antimony	-11.7	7.5	TU904-SB01-NS01 TU904-SB03-NS02	
	Cadmium	-1.0	0.7		
	Lead	-32.7	1.9		
	Thallium	-8.0	6.5		

µg/L - Micrograms per Liter

MDL - Method Detection Limit

ICS - Interference Check Standard

UJ/J - Estimated

L - Low Bias

Table 4: LCS Recovery Outliers and Resultant Data Qualification

Associated Samples	Analyte	%R (Limits)	RPD (Limits)	Qualification
Metals				
LCS WG750668 TU904-SB01-DS01 TU904-SB01-NS01 TU904-SB01-NS02 TU904-SB03-NS01 TU904-SB03-NS02	Aluminum	128/123 (80-120)	4 (50)	As the potential bias was considered to be high, the associated detected aluminum results were qualified as estimated (J LCS-H).
	Antimony	72/70 (80-120)	2 (50)	As the potential bias was considered to be low, the associated antimony results for were qualified as estimated (UJ LCS-L).

%R - Percent Recoveries

LCS - Laboratory Control Sample

Bold indicates a recovery outside of acceptance limits.

H - High Bias

UJ/J - Estimated

L - Low Bias



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB01-DS01
Collected By :
Collection Date : 10/21/14 17:45

ESC Sample # : L729566-01

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.7				su		9045D	10/27/14	1
Total Solids	TSOLIDS	81.5	.0333			%		2540 G-2	10/28/14	1
Mercury	7439-97-6	U	.0034	0.012	0.024	mg/kg		7471	10/28/14	1
Aluminum	7429-90-5	1700	.22	31.	61.	mg/kg		6010B	11/04/14	5
Antimony	7440-36-0	U	4.7	6.1	12.	mg/kg		6010B	11/04/14	5
Arsenic	7440-38-2	U	3.9	6.1	12.	mg/kg		6010B	11/04/14	5
Barium	7440-39-3	18.	1	1.5	3.1	mg/kg		6010B	11/04/14	5
Beryllium	7440-41-7	U	.43	0.61	1.2	mg/kg		6010B	11/04/14	5
Cadmium	7440-43-9	U	.43	1.5	3.1	mg/kg		6010B	11/04/14	5
Chromium	7440-47-3	2.0	.86	3.1	6.1	mg/kg	J	6010B	11/04/14	5
Cobalt	7440-48-4	U	1.5	3.1	6.1	mg/kg		6010B	11/04/14	5
Copper	7440-50-8	U	3.2	6.1	12.	mg/kg		6010B	11/04/14	5
Lead	7439-92-1	U	1.2	1.5	3.1	mg/kg		6010B	11/04/14	5
Manganese	7439-96-5	28.	.74	3.1	6.1	mg/kg		6010B	11/04/14	5
Nickel	7440-02-0	U	2.9	6.1	12.	mg/kg		6010B	11/04/14	5
Selenium	7782-49-2	U	4.5	6.1	12.	mg/kg		6010B	11/04/14	5
Silver	7440-22-4	U	1.7	3.1	6.1	mg/kg		6010B	11/04/14	5
Thallium	7440-28-0	U	3.9	6.1	12.	mg/kg		6010B	11/04/14	5
Vanadium	7440-62-2	3.7	1.5	6.1	12.	mg/kg	J	6010B	11/04/14	5
Zinc	7440-66-6	5.9	3.7	15.	31.	mg/kg	J	6010B	11/04/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.64	1.5	2.9	mg/kg		8015D/GR	10/31/14	23.75
Surrogate Recovery (70-130)										
a,a,a-Trifluorotoluene (FID)	98-08-8	99.3				% Rec.		8015D/GR	10/31/14	23.75
Volatile Organics										
Acetone	67-64-1	0.033	.012	0.031	0.061	mg/kg	J	8260B	10/31/14	1
Benzene	71-43-2	0.0027	.00033	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Bromobenzene	108-86-1	U	.00034	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Bromochloromethane	74-97-5	U	.00048	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Bromodichloromethane	75-27-4	U	.00031	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Bromoform	75-25-2	U	.00052	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Bromomethane	74-83-9	U	.0016	0.0031	0.0061	mg/kg		8260B	10/31/14	1
n-Butylbenzene	104-51-8	U	.00032	0.00061	0.0012	mg/kg		8260B	10/31/14	1
sec-Butylbenzene	135-98-8	U	.00024	0.00061	0.0012	mg/kg		8260B	10/31/14	1
tert-Butylbenzene	98-06-6	U	.00026	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Carbon Disulfide	75-15-0	U	.00034	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Carbon tetrachloride	56-23-5	U	.0004	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Chlorobenzene	108-90-7	U	.00026	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Chlorodibromomethane	124-48-1	U	.00045	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Chloroethane	75-00-3	U	.0012	0.0031	0.0061	mg/kg		8260B	10/31/14	1
Chloroform	67-66-3	U	.00028	0.0031	0.0061	mg/kg		8260B	10/31/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/04/14 15:31 Revised: 11/18/14 11:05

L729566-01 (ICP METALS) - Diluted due to matrix.

L729566-01 (PH) - 6.7@20.5c

KA-2/17/15
BMS 2/18/15 8 of 1550



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-SB01-DS01
 Collected By :
 Collection Date : 10/21/14 17:45

ESC Sample # : L729566-01

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00047	0.00061	0.0031	mg/kg		8260B	10/31/14	1
2-Chlorotoluene	95-49-8	U	.00037	0.00061	0.0012	mg/kg		8260B	10/31/14	1
4-Chlorotoluene	106-43-4	U	.00029	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0012	0.0031	0.0061	mg/kg		8260B	10/31/14	1
1,2-Dibromoethane	106-93-4	U	.00042	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Dibromomethane	74-95-3	U	.00047	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,2-Dichlorobenzene	95-50-1	U	.00037	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,3-Dichlorobenzene	541-73-1	U	.00029	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,4-Dichlorobenzene	106-46-7	U	.00028	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Dichlorodifluoromethane	75-71-8	U	.00087	0.0031	0.0061	mg/kg		8260B	10/31/14	1
1,1-Dichloroethane	75-34-3	U	.00024	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,2-Dichloroethane	107-06-2	U	.00032	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,1-Dichloroethene	75-35-4	U	.00037	0.00061	0.0012	mg/kg		8260B	10/31/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00029	0.00061	0.0012	mg/kg		8260B	10/31/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00032	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,2-Dichloropropane	78-87-5	U	.00044	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,1-Dichloropropene	563-58-6	U	.00039	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,3-Dichloropropane	142-28-9	U	.00026	0.00061	0.0012	mg/kg		8260B	10/31/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00032	0.00061	0.0012	mg/kg		8260B	10/31/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00033	0.00061	0.0012	mg/kg		8260B	10/31/14	1
2,2-Dichloropropane	594-20-7	U	.00034	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Ethylbenzene	100-41-4	U	.00037	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00042	0.00061	0.0012	mg/kg		8260B	10/31/14	1
2-Hexanone	591-78-6	U	.0047	0.0061	0.012	mg/kg		8260B	10/31/14	1
Isopropylbenzene	98-82-8	U	.00029	0.00061	0.0012	mg/kg		8260B	10/31/14	1
p-Isopropyltoluene	99-87-6	U	.00024	0.00061	0.0012	mg/kg		8260B	10/31/14	1
2-Butanone (MEK)	78-93-3	U	.0058	0.0061	0.012	mg/kg		8260B	10/31/14	1
Methylene Chloride	75-09-2	U	.0012	0.0031	0.0061	mg/kg		8260B	10/31/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0023	0.0061	0.012	mg/kg		8260B	10/31/14	1
Methyl tert-butyl ether	1634-04-4	U	.00026	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Naphthalene DNR	91-20-3	U	.0012	0.0031	0.0061	mg/kg		8260B	10/31/14	1
n-Propylbenzene	103-65-1	U	.00026	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Styrene	100-42-5	U	.00028	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00032	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00044	0.00092	0.0012	mg/kg		8260B	10/31/14	1
Tetrachloroethene	127-18-4	U	.00034	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Toluene F SPL-I	108-88-3	0.0024	.00053	0.0031	0.0061	mg/kg	J	8260B	10/31/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00038	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00048	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,1,1-Trichloroethane	71-55-6	U	.00035	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,1,2-Trichloroethane	79-00-5	U	.00034	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Trichloroethene	79-01-6	U	.00034	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Trichlorofluoromethane	75-69-4	U	.00047	0.0031	0.0061	mg/kg		8260B	10/31/14	1
1,2,3-Trichloropropane	96-18-4	U	.00091	0.0012	0.0031	mg/kg		8260B	10/31/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.00026	0.00061	0.0012	mg/kg		8260B	10/31/14	1

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Reported: 11/04/14 15:31 Revised: 11/18/14 11:05

L729566-01 (ICP METALS) - Diluted due to matrix.

L729566-01 (PH) - 6.7@20.5c

DNR - Do Not Report

Handwritten notes:
 KA 2/11/15
 BMS 2/18/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB01-DS01
Collected By :
Collection Date : 10/21/14 17:45

ESC Sample # : L729566-01

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00042	0.00061	0.0012	mg/kg		8260B	10/31/14	1
m&p-Xylene	1330-20-7	U	.00088	0.0012	0.0024	mg/kg		8260B	10/31/14	1
Vinyl chloride	75-01-4	U	.00036	0.00061	0.0012	mg/kg		8260B	10/31/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00033	0.00061	0.0012	mg/kg		8260B	10/31/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	103.				% Rec.		8260B	10/31/14	1
Dibromofluoromethane	1868-53-7	115.				% Rec.		8260B	10/31/14	1
4-Bromofluorobenzene	460-00-4	99.2				% Rec.		8260B	10/31/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2	2.5	4.9	mg/kg		8015	10/29/14	1
C28-C40 Oil Range		U	.33	2.5	4.9	mg/kg		8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	71.8				% Rec.		8015	10/29/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
Acenaphthene	83-32-9	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
Acenaphthylene	208-96-8	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
Benzo(a)anthracene	56-55-3	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
Benzo(a)pyrene	50-32-8	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
Benzo(b)fluoranthene	205-99-2	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
Benzo(k)fluoranthene	207-08-9	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
Chrysene	218-01-9	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
Fluoranthene	206-44-0	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
Fluorene	86-73-7	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
Naphthalene	91-20-3	U	.00074	0.0074	0.024	mg/kg		8270C-SI	10/29/14	1
Phenanthrene	85-01-8	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
Pyrene	129-00-0	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	10/29/14	1
2-Methylnaphthalene	91-57-6	U	.00078	0.0074	0.024	mg/kg		8270C-SI	10/29/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	60.7				% Rec.		8270C-SI	10/29/14	1
Nitrobenzene-d5	4165-60-0	72.6				% Rec.		8270C-SI	10/29/14	1
2-Fluorobiphenyl	321-60-8	72.9				% Rec.		8270C-SI	10/29/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.0094	0.20	0.41	mg/kg		8270C	10/31/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.011	0.20	0.41	mg/kg		8270C	10/31/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.0093	0.20	0.41	mg/kg		8270C	10/31/14	1
Benzyl Alcohol	100-51-6	U	.0092	0.20	0.41	mg/kg		8270C	10/31/14	1
Benzoic acid	65-85-0	U	.15	2.0	4.1	mg/kg		8270C	10/31/14	1
Carbazole	86-74-8	U	.0064	0.20	0.41	mg/kg		8270C	10/31/14	1

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Reported: 11/04/14 15:31 Revised: 11/18/14 11:05

L729566-01 (ICP METALS) - Diluted due to matrix.

L729566-01 (PH) - 6.7@20.5c

KA 2/17/15
BMS 2/18/15
10 of 1550
BMS 9/1/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB01-DS01
Collected By :
Collection Date : 10/21/14 17:45

ESC Sample # : L729566-01

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0064	0.20	0.41	mg/kg		8270C	10/31/14	1
4-Bromophenyl-phenylether	101-55-3	U	.013	0.20	0.41	mg/kg		8270C	10/31/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0077	0.20	0.41	mg/kg		8270C	10/31/14	1
2-Chloronaphthalene	91-58-7	U	.0078	0.20	0.41	mg/kg		8270C	10/31/14	1
3,3-Dichlorobenzidine	91-94-1	U	.097	0.20	0.41	mg/kg		8270C	10/31/14	1
2,4-Dinitrotoluene	121-14-2	U	.0075	0.20	0.41	mg/kg		8270C	10/31/14	1
2,6-Dinitrotoluene	606-20-2	U	.0091	0.20	0.41	mg/kg		8270C	10/31/14	1
Hexachlorobenzene	118-74-1	U	.01	0.20	0.41	mg/kg		8270C	10/31/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.012	0.20	0.41	mg/kg		8270C	10/31/14	1
Hexachloroethane	67-72-1	U	.016	0.20	0.41	mg/kg		8270C	10/31/14	1
Isophorone	78-59-1	U	.0064	0.20	0.41	mg/kg		8270C	10/31/14	1
Nitrobenzene	98-95-3	U	.0086	0.20	0.41	mg/kg		8270C	10/31/14	1
n-Nitrosodimethylamine	62-75-9	U	.08	0.20	0.41	mg/kg		8270C	10/31/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0072	0.20	0.41	mg/kg		8270C	10/31/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.011	0.20	0.41	mg/kg		8270C	10/31/14	1
Benzylbutyl phthalate	85-68-7	U	.012	0.20	0.41	mg/kg		8270C	10/31/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.015	0.20	0.41	mg/kg		8270C	10/31/14	1
Di-n-butyl phthalate	84-74-2	U	.013	0.20	0.41	mg/kg		8270C	10/31/14	1
Diethyl phthalate	84-66-2	U	.0085	0.20	0.41	mg/kg		8270C	10/31/14	1
Dimethyl phthalate	131-11-3	U	.0066	0.20	0.41	mg/kg		8270C	10/31/14	1
Di-n-octyl phthalate	117-84-0	U	.011	0.20	0.41	mg/kg		8270C	10/31/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.011	0.20	0.41	mg/kg		8270C	10/31/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0059	0.20	0.41	mg/kg		8270C	10/31/14	1
2-Chlorophenol	95-57-8	U	.01	0.20	0.41	mg/kg		8270C	10/31/14	1
2,4-Dichlorophenol	120-83-2	U	.0092	0.20	0.41	mg/kg		8270C	10/31/14	1
2,4-Dimethylphenol	105-67-9	U	.058	0.20	0.41	mg/kg		8270C	10/31/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.15	0.20	0.41	mg/kg		8270C	10/31/14	1
2,4-Dinitrophenol	51-28-5	U	.12	0.20	0.41	mg/kg		8270C	10/31/14	1
2-Methylphenol	95-48-7	U	.012	0.20	0.41	mg/kg		8270C	10/31/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.0096	0.20	0.41	mg/kg		8270C	10/31/14	1
2-Nitrophenol	88-75-5	U	.016	0.20	0.41	mg/kg		8270C	10/31/14	1
4-Nitrophenol	100-02-7	U	.064	0.20	0.41	mg/kg		8270C	10/31/14	1
4-Chloroaniline	106-47-8	U	.0043	0.20	0.41	mg/kg		8270C	10/31/14	1
2-Nitroaniline	88-74-4	U	.0093	0.20	0.41	mg/kg		8270C	10/31/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0017	0.20	0.41	mg/kg		8270C	10/31/14	1
3-Nitroaniline	99-09-2	U	.01	0.20	0.41	mg/kg		8270C	10/31/14	1
4-Nitroaniline	100-01-6	U	.0078	0.20	0.41	mg/kg		8270C	10/31/14	1
Pentachlorophenol	87-86-5	U	.059	0.20	0.41	mg/kg		8270C	10/31/14	1
Phenol	108-95-2	U	.0086	0.20	0.41	mg/kg		8270C	10/31/14	1
2,4,5-Trichlorophenol	95-95-4	U	.012	0.20	0.41	mg/kg		8270C	10/31/14	1
2,4,6-Trichlorophenol	88-06-2	U	.0096	0.20	0.41	mg/kg		8270C	10/31/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	58.5				% Rec.		8270C	10/31/14	1
Phenol-d5	4165-62-2	56.0				% Rec.		8270C	10/31/14	1

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L729566-01 (ICP METALS) - Diluted due to matrix.

L729566-01 (PH) - 6.7@20.5c

DNR - Do Not Report

*CA-2/11/15
BAS 2/18/15*



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-SB01-DS01
 Collected By :
 Collection Date : 10/21/14 17:45

ESC Sample # : L729566-01
 Site ID :
 Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	57.5				% Rec.		8270C	10/31/14	1
2-Fluorobiphenyl	321-60-8	69.7				% Rec.		8270C	10/31/14	1
2,4,6-Tribromophenol	118-79-6	77.1				% Rec.		8270C	10/31/14	1
p-Terphenyl-d14	1718-51-0	62.5				% Rec.		8270C	10/31/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/04/14 15:31 Revised: 11/18/14 11:05

L729566-01 (ICP METALS) - Diluted due to matrix.

L729566-01 (PH) - 6.7@20.5c

KA 2/17/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB01-NS02
Collected By :
Collection Date : 10/22/14 10:35

ESC Sample # : L729566-02

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.7				su		9045D	10/27/14	1
Total Solids	TSOLIDS	82.9	.0333			%		2540 G-2	10/28/14	1
Mercury F SQL-I	7439-97-6	0.0040	.0034	0.012	0.024	mg/kg	J	7471	10/28/14	1
Aluminum J LCS-H, FD-H	7429-90-5	7600	.22	30.	60.	mg/kg		6010B	11/04/14	5
Antimony US ICS-L	7440-36-0	U	4.6	6.0	12.	mg/kg		6010B	11/04/14	5
Arsenic	7440-38-2	U	3.9	6.0	12.	mg/kg		6010B	11/04/14	5
Barium J FD-I	7440-39-3	78.	1	1.5	3.0	mg/kg		6010B	11/04/14	5
Beryllium F SQL-I	7440-41-7	0.70	.42	0.60	1.2	mg/kg	J	6010B	11/04/14	5
Cadmium US ICS-L	7440-43-9	U	.42	1.5	3.0	mg/kg		6010B	11/04/14	5
Chromium	7440-47-3	10.	.84	3.0	6.0	mg/kg		6010B	11/04/14	5
Cobalt F SQL-I	7440-48-4	4.1	1.4	3.0	6.0	mg/kg	J	6010B	11/04/14	5
Copper F SQL-I	7440-50-8	5.4	3.1	6.0	12.	mg/kg	J	6010B	11/04/14	5
Lead J ICS-L	7439-92-1	5.3	1.1	1.5	3.0	mg/kg		6010B	11/04/14	5
Manganese J FD-I	7439-96-5	170	.72	3.0	6.0	mg/kg		6010B	11/04/14	5
Nickel F SQL-I	7440-02-0	9.5	2.9	6.0	12.	mg/kg	J	6010B	11/04/14	5
Selenium	7782-49-2	U	4.5	6.0	12.	mg/kg		6010B	11/04/14	5
Silver US MS-L	7440-22-4	U	1.7	3.0	6.0	mg/kg		6010B	11/04/14	5
Thallium US ICS-L	7440-28-0	U	3.9	6.0	12.	mg/kg		6010B	11/04/14	5
Vanadium	7440-62-2	17.	1.4	6.0	12.	mg/kg		6010B	11/04/14	5
Zinc F SQL-I	7440-66-6	25.	3.6	15.	30.	mg/kg	J	6010B	11/04/14	5
TPH (GC/FID) Low Fraction US MS-L	8006-61-9	U	.49	1.1	2.3	mg/kg		8015D/GR	10/31/14	19
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	99.4				% Rec.		8015D/GR	10/31/14	19
Volatile Organics										
Acetone F SQL-I	67-64-1	0.014	.012	0.030	0.060	mg/kg	J	8260B	10/31/14	1
Benzene	71-43-2	0.0037	.00032	0.00060	0.0012	mg/kg		8260B	10/31/14	1
Bromobenzene	108-86-1	U	.00034	0.00060	0.0012	mg/kg		8260B	10/31/14	1
Bromochloromethane	74-97-5	U	.00047	0.00060	0.0012	mg/kg		8260B	10/31/14	1
Bromodichloromethane	75-27-4	U	.0003	0.00060	0.0012	mg/kg		8260B	10/31/14	1
Bromoform	75-25-2	U	.00051	0.00060	0.0012	mg/kg		8260B	10/31/14	1
Bromomethane	74-83-9	U	.0016	0.0030	0.0060	mg/kg		8260B	10/31/14	1
n-Butylbenzene	104-51-8	U	.00031	0.00060	0.0012	mg/kg		8260B	10/31/14	1
sec-Butylbenzene	135-98-8	U	.00024	0.00060	0.0012	mg/kg		8260B	10/31/14	1
tert-Butylbenzene	98-06-6	U	.00025	0.00060	0.0012	mg/kg		8260B	10/31/14	1
Carbon Disulfide	75-15-0	U	.00034	0.00060	0.0012	mg/kg		8260B	10/31/14	1
Carbon tetrachloride	56-23-5	U	.0004	0.00060	0.0012	mg/kg		8260B	10/31/14	1
Chlorobenzene	108-90-7	U	.00025	0.00060	0.0012	mg/kg		8260B	10/31/14	1
Chlorodibromomethane	124-48-1	U	.00045	0.00060	0.0012	mg/kg		8260B	10/31/14	1
Chloroethane	75-00-3	U	.0011	0.0030	0.0060	mg/kg		8260B	10/31/14	1
Chloroform	67-66-3	U	.00028	0.0030	0.0060	mg/kg		8260B	10/31/14	1

Results listed are dry weight basis.
U = Not Detected at the LOD

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Reported: 11/04/14 15:31 Revised: 11/18/14 11:05

L729566-02 (ICP METALS) - Diluted due to matrix.

L729566-02 (PH) - 6.7@20.6c

CA 2/17/15
BMS 2/18/15
13 of 1550
BMS 2/18/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

November 18, 2014

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB01-NS02
Collected By :
Collection Date : 10/22/14 10:35

ESC Sample # : L729566-02

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00046	0.00060	0.0030	mg/kg		8260B	10/31/14	1
2-Chlorotoluene	95-49-8	U	.00036	0.00060	0.0012	mg/kg		8260B	10/31/14	1
4-Chlorotoluene	106-43-4	U	.00029	0.00060	0.0012	mg/kg		8260B	10/31/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0012	0.0030	0.0060	mg/kg		8260B	10/31/14	1
1,2-Dibromoethane	106-93-4	U	.00041	0.00060	0.0012	mg/kg		8260B	10/31/14	1
Dibromomethane	74-95-3	U	.00046	0.00060	0.0012	mg/kg		8260B	10/31/14	1
1,2-Dichlorobenzene	95-50-1	U	.00036	0.00060	0.0012	mg/kg		8260B	10/31/14	1
1,3-Dichlorobenzene	541-73-1	U	.00029	0.00060	0.0012	mg/kg		8260B	10/31/14	1
1,4-Dichlorobenzene	106-46-7	U	.00028	0.00060	0.0012	mg/kg		8260B	10/31/14	1
Dichlorodifluoromethane	75-71-8	U	.00086	0.0030	0.0060	mg/kg		8260B	10/31/14	1
1,1-Dichloroethane	75-34-3	U	.00024	0.00060	0.0012	mg/kg		8260B	10/31/14	1
1,2-Dichloroethane	107-06-2	U	.00031	0.00060	0.0012	mg/kg		8260B	10/31/14	1
1,1-Dichloroethene	75-35-4	U	.00036	0.00060	0.0012	mg/kg		8260B	10/31/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00029	0.00060	0.0012	mg/kg		8260B	10/31/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00031	0.00060	0.0012	mg/kg		8260B	10/31/14	1
1,2-Dichloropropane	78-87-5	U	.00043	0.00060	0.0012	mg/kg		8260B	10/31/14	1
1,1-Dichloropropene	563-58-6	U	.00039	0.00060	0.0012	mg/kg		8260B	10/31/14	1
1,3-Dichloropropane	142-28-9	U	.00025	0.00060	0.0012	mg/kg		8260B	10/31/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00031	0.00060	0.0012	mg/kg		8260B	10/31/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00032	0.00060	0.0012	mg/kg		8260B	10/31/14	1
2,2-Dichloropropane	594-20-7	U	.00034	0.00060	0.0012	mg/kg		8260B	10/31/14	1
Ethylbenzene F SQL-I	100-41-4	0.00043	.00036	0.00060	0.0012	mg/kg	J	8260B	10/31/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00041	0.00060	0.0012	mg/kg		8260B	10/31/14	1
2-Hexanone	591-78-6	U	.0046	0.0060	0.012	mg/kg		8260B	10/31/14	1
Isopropylbenzene	98-82-8	U	.00029	0.00060	0.0012	mg/kg		8260B	10/31/14	1
p-Isopropyltoluene	99-87-6	U	.00024	0.00060	0.0012	mg/kg		8260B	10/31/14	1
2-Butanone (MEK)	78-93-3	U	.0057	0.0060	0.012	mg/kg		8260B	10/31/14	1
Methylene Chloride	75-09-2	U	.0012	0.0030	0.0060	mg/kg		8260B	10/31/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0023	0.0060	0.012	mg/kg		8260B	10/31/14	1
Methyl tert-butyl ether	1634-04-4	U	.00025	0.00060	0.0012	mg/kg		8260B	10/31/14	1
Naphthalene DNR	91-20-3	U	.0012	0.0030	0.0060	mg/kg		8260B	10/31/14	1
n-Propylbenzene	103-65-1	U	.00025	0.00060	0.0012	mg/kg		8260B	10/31/14	1
Styrene	100-42-5	U	.00028	0.00060	0.0012	mg/kg		8260B	10/31/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00031	0.00060	0.0012	mg/kg		8260B	10/31/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00043	0.00090	0.0012	mg/kg		8260B	10/31/14	1
Tetrachloroethene	127-18-4	U	.00034	0.00060	0.0012	mg/kg		8260B	10/31/14	1
Toluene F SQL-I	108-88-3	0.0030	.00052	0.0030	0.0060	mg/kg	J	8260B	10/31/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00037	0.00060	0.0012	mg/kg		8260B	10/31/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00047	0.00060	0.0012	mg/kg		8260B	10/31/14	1
1,1,1-Trichloroethane	71-55-6	U	.00034	0.00060	0.0012	mg/kg		8260B	10/31/14	1
1,1,2-Trichloroethane	79-00-5	U	.00034	0.00060	0.0012	mg/kg		8260B	10/31/14	1
Trichloroethene	79-01-6	U	.00034	0.00060	0.0012	mg/kg		8260B	10/31/14	1
Trichlorofluoromethane	75-69-4	U	.00046	0.0030	0.0060	mg/kg		8260B	10/31/14	1
1,2,3-Trichloropropane	96-18-4	U	.00089	0.0012	0.0030	mg/kg		8260B	10/31/14	1
1,2,4-Trimethylbenzene F SQL-I	95-63-6	0.00047	.00025	0.00060	0.0012	mg/kg	J	8260B	10/31/14	1

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Reported: 11/04/14 15:31 Revised: 11/18/14 11:05

L729566-02 (ICP METALS) - Diluted due to matrix.

L729566-02 (PH) - 6.7@20.6c

DNR - Do Not Report

KA 2/17/15
BMS 2/18/15
14 of 1550



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB01-NS02
Collected By :
Collection Date : 10/22/14 10:35

ESC Sample # : L729566-02
Site ID :
Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00041	0.00060	0.0012	mg/kg		8260B	10/31/14	1
m&p-Xylene <i>F 504-1</i>	1330-20-7	0.0010	.00087	0.0012	0.0024	mg/kg	J	8260B	10/31/14	1
Vinyl chloride	75-01-4	U	.00035	0.00060	0.0012	mg/kg		8260B	10/31/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00032	0.00060	0.0012	mg/kg		8260B	10/31/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	103.				% Rec.		8260B	10/31/14	1
Dibromofluoromethane	1868-53-7	115.				% Rec.		8260B	10/31/14	1
4-Bromofluorobenzene	460-00-4	102.				% Rec.		8260B	10/31/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	1.9	2.4	4.8	mg/kg		8015	10/29/14	1
C28-C40 Oil Range		U	.32	2.4	4.8	mg/kg		8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	64.2				% Rec.		8015	10/29/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Acenaphthene	83-32-9	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Acenaphthylene	208-96-8	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Benzo(a)anthracene	56-55-3	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Benzo(a)pyrene <i>US LCS 1</i>	50-32-8	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Benzo(b)fluoranthene <i>US LCS 1</i>	205-99-2	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Benzo(k)fluoranthene	207-08-9	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Chrysene	218-01-9	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Fluoranthene	206-44-0	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Fluorene	86-73-7	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Naphthalene	91-20-3	U	.00072	0.0072	0.024	mg/kg		8270C-SI	10/29/14	1
Phenanthrene	85-01-8	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Pyrene	129-00-0	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
2-Methylnaphthalene	91-57-6	U	.00077	0.0072	0.024	mg/kg		8270C-SI	10/29/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	62.8				% Rec.		8270C-SI	10/29/14	1
Nitrobenzene-d5	4165-60-0	80.3				% Rec.		8270C-SI	10/29/14	1
2-Fluorobiphenyl	321-60-8	78.3				% Rec.		8270C-SI	10/29/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.0093	0.20	0.40	mg/kg		8270C	10/31/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.011	0.20	0.40	mg/kg		8270C	10/31/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.0092	0.20	0.40	mg/kg		8270C	10/31/14	1
Benzyl Alcohol	100-51-6	U	.009	0.20	0.40	mg/kg		8270C	10/31/14	1
Benzoic acid	65-85-0	U	.14	2.0	4.0	mg/kg		8270C	10/31/14	1
Carbazole	86-74-8	U	.0063	0.20	0.40	mg/kg		8270C	10/31/14	1

Results listed are dry weight basis.
U = Not Detected at the LOD

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Reported: 11/04/14 15:31 Revised: 11/18/14 11:05
L729566-02 (ICP METALS) - Diluted due to matrix.
L729566-02 (PH) - 6.7@20.6c

EA 2/17/15
BWS 2/18/15
BWS 9/1/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB01-NS02
Collected By :
Collection Date : 10/22/14 10:35

ESC Sample # : L729566-02

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0063	0.20	0.40	mg/kg		8270C	10/31/14	1
4-Bromophenyl-phenylether	101-55-3	U	.013	0.20	0.40	mg/kg		8270C	10/31/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0076	0.20	0.40	mg/kg		8270C	10/31/14	1
2-Chloronaphthalene	91-58-7	U	.0077	0.20	0.40	mg/kg		8270C	10/31/14	1
3,3-Dichlorobenzidine	91-94-1	U	.095	0.20	0.40	mg/kg		8270C	10/31/14	1
2,4-Dinitrotoluene	121-14-2	U	.0074	0.20	0.40	mg/kg		8270C	10/31/14	1
2,6-Dinitrotoluene	606-20-2	U	.0089	0.20	0.40	mg/kg		8270C	10/31/14	1
Hexachlorobenzene	118-74-1	U	.01	0.20	0.40	mg/kg		8270C	10/31/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.012	0.20	0.40	mg/kg		8270C	10/31/14	1
Hexachloroethane	67-72-1	U	.016	0.20	0.40	mg/kg		8270C	10/31/14	1
Isophorone	78-59-1	U	.0063	0.20	0.40	mg/kg		8270C	10/31/14	1
Nitrobenzene	98-95-3	U	.0084	0.20	0.40	mg/kg		8270C	10/31/14	1
n-Nitrosodimethylamine	62-75-9	U	.078	0.20	0.40	mg/kg		8270C	10/31/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0071	0.20	0.40	mg/kg		8270C	10/31/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.011	0.20	0.40	mg/kg		8270C	10/31/14	1
Benzylbutyl phthalate	85-68-7	U	.012	0.20	0.40	mg/kg		8270C	10/31/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.014	0.20	0.40	mg/kg		8270C	10/31/14	1
Di-n-butyl phthalate	84-74-2	U	.013	0.20	0.40	mg/kg		8270C	10/31/14	1
Diethyl phthalate	84-66-2	U	.0083	0.20	0.40	mg/kg		8270C	10/31/14	1
Dimethyl phthalate	131-11-3	U	.0065	0.20	0.40	mg/kg		8270C	10/31/14	1
Di-n-octyl phthalate	117-84-0	U	.011	0.20	0.40	mg/kg		8270C	10/31/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.011	0.20	0.40	mg/kg		8270C	10/31/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0058	0.20	0.40	mg/kg		8270C	10/31/14	1
2-Chlorophenol	95-57-8	U	.01	0.20	0.40	mg/kg		8270C	10/31/14	1
2,4-Dichlorophenol	120-83-2	U	.009	0.20	0.40	mg/kg		8270C	10/31/14	1
2,4-Dimethylphenol	105-67-9	U	.057	0.20	0.40	mg/kg		8270C	10/31/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.14	0.20	0.40	mg/kg		8270C	10/31/14	1
2,4-Dinitrophenol	51-28-5	U	.12	0.20	0.40	mg/kg		8270C	10/31/14	1
2-Methylphenol	95-48-7	U	.012	0.20	0.40	mg/kg		8270C	10/31/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.0094	0.20	0.40	mg/kg		8270C	10/31/14	1
2-Nitrophenol	88-75-5	U	.016	0.20	0.40	mg/kg		8270C	10/31/14	1
4-Nitrophenol	100-02-7	U	.063	0.20	0.40	mg/kg		8270C	10/31/14	1
4-Chloroaniline	106-47-8	U	.0042	0.20	0.40	mg/kg		8270C	10/31/14	1
2-Nitroaniline	88-74-4	U	.0092	0.20	0.40	mg/kg		8270C	10/31/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0017	0.20	0.40	mg/kg		8270C	10/31/14	1
3-Nitroaniline	99-09-2	U	.01	0.20	0.40	mg/kg		8270C	10/31/14	1
4-Nitroaniline	100-01-6	U	.0077	0.20	0.40	mg/kg		8270C	10/31/14	1
Pentachlorophenol	87-86-5	U	.058	0.20	0.40	mg/kg		8270C	10/31/14	1
Phenol	108-95-2	U	.0084	0.20	0.40	mg/kg		8270C	10/31/14	1
2,4,5-Trichlorophenol	95-95-4	U	.012	0.20	0.40	mg/kg		8270C	10/31/14	1
2,4,6-Trichlorophenol	88-06-2	U	.0094	0.20	0.40	mg/kg		8270C	10/31/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	66.4				µ Rec.		8270C	10/31/14	1
Phenol-d5	4165-62-2	61.9				µ Rec.		8270C	10/31/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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The reported analytical results relate only to the sample submitted

Reported: 11/04/14 15:31 Revised: 11/18/14 11:05

L729566-02 (ICP METALS) - Diluted due to matrix.

L729566-02 (PH) - 6.7@20.6c

DNR - Do Not Report

KA 2/17/15
BMS 2/18/15
16 of 1550



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 Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-SB01-NS02
 Collected By :
 Collection Date : 10/22/14 10:35

ESC Sample # : L729566-02
 Site ID :
 Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	63.0				% Rec.		8270C	10/31/14	1
2-Fluorobiphenyl	321-60-8	73.3				% Rec.		8270C	10/31/14	1
2,4,6-Tribromophenol	118-79-6	81.6				% Rec.		8270C	10/31/14	1
p-Terphenyl-d14	1718-51-0	65.5				% Rec.		8270C	10/31/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/04/14 15:31 Revised: 11/18/14 11:05

L729566-02 (ICP METALS) - Diluted due to matrix.

L729566-02 (PH) - 6.7@20.6c

CA 2/17/15
 BMS 2/18/15
 17 of 1550



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB01-NS01
Collected By :
Collection Date : 10/21/14 17:45

ESC Sample # : L729566-03

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.8				su		9045D	10/27/14	1
Total Solids	TSOLIDS	79.8	.0333			%		2540 G-2	10/28/14	1
Mercury	7439-97-6	U	.0035	0.013	0.025	mg/kg		7471	10/28/14	1
Aluminum	7429-90-5	2000	.22	31.	63.	mg/kg		6010B	11/04/14	5
Antimony	7440-36-0	U	4.8	6.3	12.	mg/kg		6010B	11/04/14	5
Arsenic	7440-38-2	U	4	6.3	12.	mg/kg		6010B	11/04/14	5
Barium	7440-39-3	22.	1.1	1.6	3.1	mg/kg		6010B	11/04/14	5
Beryllium	7440-41-7	U	.44	0.63	1.2	mg/kg		6010B	11/04/14	5
Cadmium	7440-43-9	U	.44	1.6	3.1	mg/kg		6010B	11/04/14	5
Chromium	7440-47-3	2.4	.88	3.1	6.3	mg/kg	J	6010B	11/04/14	5
Cobalt	7440-48-4	U	1.5	3.1	6.3	mg/kg		6010B	11/04/14	5
Copper	7440-50-8	U	3.2	6.3	12.	mg/kg		6010B	11/04/14	5
Lead	7439-92-1	U	1.2	1.6	3.1	mg/kg		6010B	11/04/14	5
Manganese	7439-96-5	32.	.75	3.1	6.3	mg/kg		6010B	11/04/14	5
Nickel	7440-02-0	U	3	6.3	12.	mg/kg		6010B	11/04/14	5
Selenium	7782-49-2	U	4.6	6.3	12.	mg/kg		6010B	11/04/14	5
Silver	7440-22-4	U	1.8	3.1	6.3	mg/kg		6010B	11/04/14	5
Thallium	7440-28-0	U	4	6.3	12.	mg/kg		6010B	11/04/14	5
Vanadium	7440-62-2	5.5	1.5	6.3	12.	mg/kg	J	6010B	11/04/14	5
Zinc	7440-66-6	6.9	3.8	16.	31.	mg/kg	J	6010B	11/04/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.63	1.5	2.9	mg/kg		8015D/GR	10/31/14	23.25
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	99.3				% Rec.		8015D/GR	10/31/14	23.25
Volatile Organics										
Acetone	67-64-1	0.031	.012	0.031	0.063	mg/kg	J	8260B	10/31/14	1
Benzene	71-43-2	0.0032	.00034	0.00063	0.0012	mg/kg		8260B	10/31/14	1
Bromobenzene	108-86-1	U	.00035	0.00063	0.0012	mg/kg		8260B	10/31/14	1
Bromochloromethane	74-97-5	U	.00049	0.00063	0.0012	mg/kg		8260B	10/31/14	1
Bromodichloromethane	75-27-4	U	.00031	0.00063	0.0012	mg/kg		8260B	10/31/14	1
Bromoform	75-25-2	U	.00053	0.00063	0.0012	mg/kg		8260B	10/31/14	1
Bromomethane	74-83-9	U	.0016	0.0031	0.0063	mg/kg		8260B	10/31/14	1
n-Butylbenzene	104-51-8	U	.00032	0.00063	0.0012	mg/kg		8260B	10/31/14	1
sec-Butylbenzene	135-98-8	U	.00025	0.00063	0.0012	mg/kg		8260B	10/31/14	1
tert-Butylbenzene	98-06-6	U	.00026	0.00063	0.0012	mg/kg		8260B	10/31/14	1
Carbon Disulfide	75-15-0	U	.00035	0.00063	0.0012	mg/kg		8260B	10/31/14	1
Carbon tetrachloride	56-23-5	U	.00041	0.00063	0.0012	mg/kg		8260B	10/31/14	1
Chlorobenzene	108-90-7	U	.00026	0.00063	0.0012	mg/kg		8260B	10/31/14	1
Chlorodibromomethane	124-48-1	U	.00046	0.00063	0.0012	mg/kg		8260B	10/31/14	1
Chloroethane	75-00-3	U	.0012	0.0031	0.0063	mg/kg		8260B	10/31/14	1
Chloroform	67-66-3	U	.00029	0.0031	0.0063	mg/kg		8260B	10/31/14	1

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Reported: 11/04/14 15:31 Revised: 11/18/14 11:06

L729566-03 (PH) - 6.8@20.4c

L729566-03 (ICP METALS) - Diluted due to matrix.

KA 2/17/15
BMS 2/18/15
18 of 1550



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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB01-NS01
Collected By :
Collection Date : 10/21/14 17:45

ESC Sample # : L729566-03

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00048	0.00063	0.0031	mg/kg		8260B	10/31/14	1
2-Chlorotoluene	95-49-8	U	.00038	0.00063	0.0012	mg/kg		8260B	10/31/14	1
4-Chlorotoluene	106-43-4	U	.0003	0.00063	0.0012	mg/kg		8260B	10/31/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0012	0.0031	0.0063	mg/kg		8260B	10/31/14	1
1,2-Dibromoethane	106-93-4	U	.00043	0.00063	0.0012	mg/kg		8260B	10/31/14	1
Dibromomethane	74-95-3	U	.00048	0.00063	0.0012	mg/kg		8260B	10/31/14	1
1,2-Dichlorobenzene	95-50-1	U	.00038	0.00063	0.0012	mg/kg		8260B	10/31/14	1
1,3-Dichlorobenzene	541-73-1	U	.0003	0.00063	0.0012	mg/kg		8260B	10/31/14	1
1,4-Dichlorobenzene	106-46-7	U	.00029	0.00063	0.0012	mg/kg		8260B	10/31/14	1
Dichlorodifluoromethane	75-71-8	U	.00089	0.0031	0.0063	mg/kg		8260B	10/31/14	1
1,1-Dichloroethane	75-34-3	U	.00025	0.00063	0.0012	mg/kg		8260B	10/31/14	1
1,2-Dichloroethane	107-06-2	U	.00032	0.00063	0.0012	mg/kg		8260B	10/31/14	1
1,1-Dichloroethene	75-35-4	U	.00038	0.00063	0.0012	mg/kg		8260B	10/31/14	1
cis-1,2-Dichloroethene	156-59-2	U	.0003	0.00063	0.0012	mg/kg		8260B	10/31/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00032	0.00063	0.0012	mg/kg		8260B	10/31/14	1
1,2-Dichloropropane	78-87-5	U	.00045	0.00063	0.0012	mg/kg		8260B	10/31/14	1
1,1-Dichloropropene	563-58-6	U	.0004	0.00063	0.0012	mg/kg		8260B	10/31/14	1
1,3-Dichloropropane	142-28-9	U	.00026	0.00063	0.0012	mg/kg		8260B	10/31/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00032	0.00063	0.0012	mg/kg		8260B	10/31/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00034	0.00063	0.0012	mg/kg		8260B	10/31/14	1
2,2-Dichloropropane	594-20-7	U	.00035	0.00063	0.0012	mg/kg		8260B	10/31/14	1
Ethylbenzene	100-41-4	U	.00038	0.00063	0.0012	mg/kg		8260B	10/31/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00043	0.00063	0.0012	mg/kg		8260B	10/31/14	1
2-Hexanone	591-78-6	U	.0048	0.0063	0.012	mg/kg		8260B	10/31/14	1
Isopropylbenzene	98-82-8	U	.0003	0.00063	0.0012	mg/kg		8260B	10/31/14	1
p-Isopropyltoluene	99-87-6	U	.00025	0.00063	0.0012	mg/kg		8260B	10/31/14	1
2-Butanone (MEK)	78-93-3	U	.0059	0.0063	0.012	mg/kg		8260B	10/31/14	1
Methylene Chloride	75-09-2	U	.0012	0.0031	0.0063	mg/kg		8260B	10/31/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0024	0.0063	0.012	mg/kg		8260B	10/31/14	1
Methyl tert-butyl ether	1634-04-4	U	.00026	0.00063	0.0012	mg/kg		8260B	10/31/14	1
Naphthalene DNR	91-20-3	U	.0012	0.0031	0.0063	mg/kg		8260B	10/31/14	1
n-Propylbenzene	103-65-1	U	.00026	0.00063	0.0012	mg/kg		8260B	10/31/14	1
Styrene	100-42-5	U	.00029	0.00063	0.0012	mg/kg		8260B	10/31/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00032	0.00063	0.0012	mg/kg		8260B	10/31/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00045	0.00094	0.0012	mg/kg		8260B	10/31/14	1
Tetrachloroethene	127-18-4	U	.00035	0.00063	0.0012	mg/kg		8260B	10/31/14	1
Toluene F SQL-I	108-88-3	0.0028	.00054	0.0031	0.0063	mg/kg	J	8260B	10/31/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00039	0.00063	0.0012	mg/kg		8260B	10/31/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00049	0.00063	0.0012	mg/kg		8260B	10/31/14	1
1,1,1-Trichloroethane	71-55-6	U	.00036	0.00063	0.0012	mg/kg		8260B	10/31/14	1
1,1,2-Trichloroethane	79-00-5	U	.00035	0.00063	0.0012	mg/kg		8260B	10/31/14	1
Trichloroethene	79-01-6	U	.00035	0.00063	0.0012	mg/kg		8260B	10/31/14	1
Trichlorofluoromethane	75-69-4	U	.00048	0.0031	0.0063	mg/kg		8260B	10/31/14	1
1,2,3-Trichloropropane	96-18-4	U	.00093	0.0013	0.0031	mg/kg		8260B	10/31/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.00026	0.00063	0.0012	mg/kg		8260B	10/31/14	1

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Reported: 11/04/14 15:31 Revised: 11/18/14 11:06

L729566-03 (PH) - 6.8@20.4c

L729566-03 (ICP METALS) - Diluted due to matrix.

DNR - Do Not Report

CA 2/17/15
BMS 2/18/15
19 of 1550



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-SB01-NS01
 Collected By :
 Collection Date : 10/21/14 17:45

ESC Sample # : L729566-03

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00043	0.00063	0.0012	mg/kg		8260B	10/31/14	1
m&p-Xylene	1330-20-7	U	.0009	0.0013	0.0025	mg/kg		8260B	10/31/14	1
Vinyl chloride	75-01-4	U	.00036	0.00063	0.0012	mg/kg		8260B	10/31/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00034	0.00063	0.0012	mg/kg		8260B	10/31/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	105.				% Rec.		8260B	10/31/14	1
Dibromofluoromethane	1868-53-7	110.				% Rec.		8260B	10/31/14	1
4-Bromofluorobenzene	460-00-4	97.2				% Rec.		8260B	10/31/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2	2.5	5.0	mg/kg		8015	10/29/14	1
C28-C40 Oil Range		U	.34	2.5	5.0	mg/kg		8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	74.8				% Rec.		8015	10/29/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Acenaphthene	83-32-9	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Acenaphthylene	208-96-8	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Benzo(a)anthracene	56-55-3	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Benzo(a)pyrene	50-32-8	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Benzo(b)fluoranthene	205-99-2	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Benzo(k)fluoranthene	207-08-9	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Chrysene	218-01-9	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Fluoranthene	206-44-0	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Fluorene	86-73-7	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Naphthalene	91-20-3	U	.00075	0.0075	0.025	mg/kg		8270C-SI	10/29/14	1
Phenanthrene	85-01-8	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Pyrene	129-00-0	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
2-Methylnaphthalene	91-57-6	U	.0008	0.0075	0.025	mg/kg		8270C-SI	10/29/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	72.0				% Rec.		8270C-SI	10/29/14	1
Nitrobenzene-d5	4165-60-0	88.2				% Rec.		8270C-SI	10/29/14	1
2-Fluorobiphenyl	321-60-8	87.2				% Rec.		8270C-SI	10/29/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.0096	0.21	0.42	mg/kg		8270C	10/31/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.011	0.21	0.42	mg/kg		8270C	10/31/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.0095	0.21	0.42	mg/kg		8270C	10/31/14	1
Benzyl Alcohol	100-51-6	U	.0094	0.21	0.42	mg/kg		8270C	10/31/14	1
Benzoic acid	65-85-0	U	.15	2.1	4.2	mg/kg		8270C	10/31/14	1
Carbazole	86-74-8	U	.0065	0.21	0.42	mg/kg		8270C	10/31/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

Note:

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The reported analytical results relate only to the sample submitted

Reported: 11/04/14 15:31 Revised: 11/18/14 11:06

L729566-03 (PH) - 6.8@20.4c

L729566-03 (ICP METALS) - Diluted due to matrix.

KA 2/11/15
 BMS 2/18/15
 20 of 1550
 BMS 9/11/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-SB01-NS01
 Collected By :
 Collection Date : 10/21/14 17:45

ESC Sample # : L729566-03

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0065	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
4-Bromophenyl-phenylether	101-55-3	U	.014	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0079	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
2-Chloronaphthalene	91-58-7	U	.008	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
3,3-Dichlorobenzidine	91-94-1	U	.099	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
2,4-Dinitrotoluene	121-14-2	U	.0076	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
2,6-Dinitrotoluene	606-20-2	U	.0093	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
Hexachlorobenzene	118-74-1	U	.011	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.012	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
Hexachloroethane	67-72-1	U	.016	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
Isophorone	78-59-1	U	.0065	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
Nitrobenzene	98-95-3	U	.0088	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
n-Nitrosodimethylamine	62-75-9	U	.081	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0074	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.011	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
Benzylbutyl phthalate	85-68-7	U	.012	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.015	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
Di-n-butyl phthalate	84-74-2	U	.014	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
Diethyl phthalate	84-66-2	U	.0086	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
Dimethyl phthalate	131-11-3	U	.0068	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
Di-n-octyl phthalate	117-84-0	U	.011	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.011	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.006	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
2-Chlorophenol	95-57-8	U	.01	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
2,4-Dichlorophenol	120-83-2	U	.0094	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
2,4-Dimethylphenol	105-67-9	U	.059	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.15	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
2,4-Dinitrophenol	51-28-5	U	.12	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
2-Methylphenol	95-48-7	U	.012	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.0098	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
2-Nitrophenol	88-75-5	U	.016	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
4-Nitrophenol	100-02-7	U	.065	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
4-Chloroaniline	106-47-8	U	.0044	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
2-Nitroaniline	88-74-4	U	.0095	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0018	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
3-Nitroaniline	99-09-2	U	.011	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
4-Nitroaniline	100-01-6	U	.008	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
Pentachlorophenol	87-86-5	U	.06	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
Phenol	108-95-2	U	.0088	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
2,4,5-Trichlorophenol	95-95-4	U	.012	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
2,4,6-Trichlorophenol	88-06-2	U	.0098	0.21	0.42	mg/kg	8270C	8270C	10/31/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	60.6				% Rec.	8270C	8270C	10/31/14	1
Phenol-d5	4165-62-2	55.9				% Rec.	8270C	8270C	10/31/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/04/14 15:31 Revised: 11/18/14 11:06

L729566-03 (PH) - 6.8@20.4c

L729566-03 (ICP METALS) - Diluted due to matrix.

DNR - Do Not Report

KA 2/17/15
 BMS 2/18/15
 21 of 1550



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-SB01-NS01
 Collected By :
 Collection Date : 10/21/14 17:45

ESC Sample # : L729566-03

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	56.1				% Rec.		8270C	10/31/14	1
2-Fluorobiphenyl	321-60-8	66.2				% Rec.		8270C	10/31/14	1
2,4,6-Tribromophenol	118-79-6	72.8				% Rec.		8270C	10/31/14	1
p-Terphenyl-d14	1718-51-0	60.9				% Rec.		8270C	10/31/14	1

Results listed are dry weight basis.
 U = Not Detected at the LOD

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Reported: 11/04/14 15:31 Revised: 11/18/14 11:06

L729566-03 (PH) - 6.8@20.4c

L729566-03 (ICP METALS) - Diluted due to matrix.

KA2/17/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-TRIPBLANK03-NT01
Collected By :
Collection Date : 10/23/14 12:10

ESC Sample # : L729566-04

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/30/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	101.				% Rec.		8015D/G	10/30/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	10/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	10/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	10/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	10/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	10/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	10/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	10/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	10/26/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	10/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	10/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	10/26/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	10/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	10/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	10/26/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	10/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l	J4	8260B	10/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	10/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	10/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	10/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	10/26/14	1

U = Not Detected at the LOD

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Reported: 11/04/14 15:31 Revised: 11/18/14 11:06

KA 2/17/15
BMS 2/18/15
23 of 1550



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-TRIPBLANK03-NT01
 Collected By :
 Collection Date : 10/23/14 12:10

ESC Sample # : L729566-04

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	10/26/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	10/26/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	10/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	10/26/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	10/26/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	10/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	10/26/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	10/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	10/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	10/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	10/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	10/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	10/26/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	10/26/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	10/26/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	10/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	99.4				% Rec.		8260B	10/26/14	1
Dibromofluoromethane	1868-53-7	99.0				% Rec.		8260B	10/26/14	1
4-Bromofluorobenzene	460-00-4	99.7				% Rec.		8260B	10/26/14	1

U = Not Detected at the LOD

Note:

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Reported: 11/04/14 15:31 Revised: 11/18/14 11:06

CA 2/17/15
BMS 2/18/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB03-NS01
Collected By :
Collection Date : 10/22/14 12:30

ESC Sample # : L729566-05

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.8				su		9045D	10/27/14	1
Total Solids	TSOLIDS	83.5	.0333			%		2540 G-2	10/28/14	1
Mercury	7439-97-6	U	.0034	0.012	0.024	mg/kg		7471	10/28/14	1
Aluminum	7429-90-5	2300	.22	30.	60.	mg/kg		6010B	11/04/14	5
Antimony	7440-36-0	U	4.6	6.0	12.	mg/kg		6010B	11/04/14	5
Arsenic	7440-38-2	U	3.8	6.0	12.	mg/kg		6010B	11/04/14	5
Barium	7440-39-3	31.	1	1.5	3.0	mg/kg		6010B	11/04/14	5
Beryllium	7440-41-7	U	.42	0.60	1.2	mg/kg		6010B	11/04/14	5
Cadmium	7440-43-9	U	.42	1.5	3.0	mg/kg		6010B	11/04/14	5
Chromium	7440-47-3	2.5	.84	3.0	6.0	mg/kg	J	6010B	11/04/14	5
Cobalt	7440-48-4	U	1.4	3.0	6.0	mg/kg		6010B	11/04/14	5
Copper	7440-50-8	U	3.1	6.0	12.	mg/kg		6010B	11/04/14	5
Lead	7439-92-1	1.2	1.1	1.5	3.0	mg/kg	J	6010B	11/04/14	5
Manganese	7439-96-5	46.	.72	3.0	6.0	mg/kg		6010B	11/04/14	5
Nickel	7440-02-0	3.0	2.9	6.0	12.	mg/kg	J	6010B	11/04/14	5
Selenium	7782-49-2	U	4.4	6.0	12.	mg/kg		6010B	11/04/14	5
Silver	7440-22-4	U	1.7	3.0	6.0	mg/kg		6010B	11/04/14	5
Thallium	7440-28-0	U	3.8	6.0	12.	mg/kg		6010B	11/04/14	5
Vanadium	7440-62-2	8.9	1.4	6.0	12.	mg/kg	J	6010B	11/04/14	5
Zinc	7440-66-6	7.2	3.6	15.	30.	mg/kg	J	6010B	11/04/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.62	1.4	2.8	mg/kg		8015D/GR	10/31/14	23.75
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	99.4				% Rec.		8015D/GR	10/31/14	23.75
Volatile Organics										
Acetone	67-64-1	0.047	.012	0.031	0.061	mg/kg	J	8260B	10/31/14	1.02
Benzene	71-43-2	0.0067	.00034	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
Bromobenzene	108-86-1	U	.00035	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
Bromochloromethane	74-97-5	U	.00048	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
Bromodichloromethane	75-27-4	U	.00031	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
Bromoform	75-25-2	U	.00051	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
Bromomethane	74-83-9	U	.0017	0.0031	0.0061	mg/kg		8260B	10/31/14	1.02
n-Butylbenzene	104-51-8	U	.00031	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
sec-Butylbenzene	135-98-8	U	.00024	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
tert-Butylbenzene	98-06-6	U	.00025	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
Carbon Disulfide	75-15-0	U	.00034	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
Carbon tetrachloride	56-23-5	U	.0004	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
Chlorobenzene	108-90-7	U	.00026	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
Chlorodibromomethane	124-48-1	U	.00046	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
Chloroethane	75-00-3	U	.0011	0.0031	0.0061	mg/kg		8260B	10/31/14	1.02
Chloroform	67-66-3	U	.00028	0.0031	0.0061	mg/kg		8260B	10/31/14	1.02

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/04/14 15:31 Revised: 11/18/14 11:06

L729566-05 (PH) - 6.8@20.4c

L729566-05 (ICP METALS) - Diluted due to matrix.

BA 2/17/15
BMS 2/18/15
25 of 1550
BMS 2/19/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB03-NS01
Collected By :
Collection Date : 10/22/14 12:30

ESC Sample # : L729566-05

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00046	0.00061	0.0030	mg/kg		8260B	10/31/14	1.02
2-Chlorotoluene	95-49-8	U	.00037	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
4-Chlorotoluene	106-43-4	U	.00029	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0013	0.0031	0.0061	mg/kg		8260B	10/31/14	1.02
1,2-Dibromoethane	106-93-4	U	.00042	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
Dibromomethane	74-95-3	U	.00047	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
1,2-Dichlorobenzene	95-50-1	U	.00037	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
1,3-Dichlorobenzene	541-73-1	U	.00029	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
1,4-Dichlorobenzene	106-46-7	U	.00028	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
Dichlorodifluoromethane	75-71-8	U	.00087	0.0031	0.0061	mg/kg		8260B	10/31/14	1.02
1,1-Dichloroethane	75-34-3	U	.00024	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
1,2-Dichloroethane	107-06-2	U	.00032	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
1,1-Dichloroethene	75-35-4	U	.00037	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
cis-1,2-Dichloroethene	156-59-2	U	.00029	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
trans-1,2-Dichloroethene	156-60-5	U	.00032	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
1,2-Dichloropropane	78-87-5	U	.00043	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
1,1-Dichloropropene	563-58-6	U	.00038	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
1,3-Dichloropropane	142-28-9	U	.00025	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
cis-1,3-Dichloropropene	10061-01-5	U	.00032	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
trans-1,3-Dichloropropene	10061-02-6	U	.00032	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
2,2-Dichloropropane	594-20-7	U	.00034	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
Ethylbenzene F SQL-I	100-41-4	0.00051	.00036	0.00061	0.0012	mg/kg	J	8260B	10/31/14	1.02
Hexachloro-1,3-butadiene	87-68-3	U	.00042	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
2-Hexanone	591-78-6	U	.0047	0.0061	0.012	mg/kg		8260B	10/31/14	1.02
Isopropylbenzene	98-82-8	U	.0003	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
p-Isopropyltoluene	99-87-6	U	.00025	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
2-Butanone (MEK) F SQL-I	78-93-3	0.011	.0057	0.0061	0.012	mg/kg	J	8260B	10/31/14	1.02
Methylene Chloride	75-09-2	U	.0012	0.0031	0.0061	mg/kg		8260B	10/31/14	1.02
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0023	0.0061	0.012	mg/kg		8260B	10/31/14	1.02
Methyl tert-butyl ether	1634-04-4	U	.00026	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
Naphthalene DNR	91-20-3	U	.0012	0.0031	0.0061	mg/kg		8260B	10/31/14	1.02
n-Propylbenzene	103-65-1	U	.00025	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
Styrene	100-42-5	U	.00029	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
1,1,1,2-Tetrachloroethane	630-20-6	U	.00032	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
1,1,2,2-Tetrachloroethane	79-34-5	U	.00044	0.00092	0.0012	mg/kg		8260B	10/31/14	1.02
Tetrachloroethene	127-18-4	U	.00034	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
Toluene F SQL-I	108-88-3	0.0042	.00053	0.0031	0.0061	mg/kg	J	8260B	10/31/14	1.02
1,2,3-Trichlorobenzene	87-61-6	U	.00037	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
1,2,4-Trichlorobenzene	120-82-1	U	.00048	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
1,1,1-Trichloroethane	71-55-6	U	.00035	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
1,1,2-Trichloroethane	79-00-5	U	.00034	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
Trichloroethene	79-01-6	U	.00034	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
Trichlorofluoromethane	75-69-4	U	.00047	0.0031	0.0061	mg/kg		8260B	10/31/14	1.02
1,2,3-Trichloropropane	96-18-4	U	.00091	0.0012	0.0030	mg/kg		8260B	10/31/14	1.02
1,2,4-Trimethylbenzene F SQL-I	95-63-6	0.00036	.00026	0.00061	0.0012	mg/kg	J	8260B	10/31/14	1.02

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Reported: 11/04/14 15:31 Revised: 11/18/14 11:06

L729566-05 (PH) - 6.8@20.4c

L729566-05 (ICP METALS) - Diluted due to matrix.

DNR - Do Not Report

KA 2/17/15
BMS 2/18/15
26 of 1550



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB03-NS01
Collected By :
Collection Date : 10/22/14 12:30

ESC Sample # : L729566-05

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00042	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
m&p-Xylene F SQL-I	1330-20-7	0.00096	.00087	0.0012	0.0024	mg/kg	J	8260B	10/31/14	1.02
Vinyl chloride	75-01-4	U	.00036	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
1,3,5-Trimethylbenzene	108-67-8	U	.00032	0.00061	0.0012	mg/kg		8260B	10/31/14	1.02
Surrogate Recovery										
Toluene-d8	2037-26-5	104.				% Rec.		8260B	10/31/14	1.02
Dibromofluoromethane	1868-53-7	113.				% Rec.		8260B	10/31/14	1.02
4-Bromofluorobenzene	460-00-4	100.				% Rec.		8260B	10/31/14	1.02
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	1.9	2.4	4.8	mg/kg		8015	10/29/14	1
C28-C40 Oil Range		U	.32	2.4	4.8	mg/kg		8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	67.7				% Rec.		8015	10/29/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Acenaphthene	83-32-9	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Acenaphthylene	208-96-8	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Benzo(a)anthracene	56-55-3	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Benzo(a)pyrene US LCS	50-32-8	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Benzo(b)fluoranthene US ASL	205-99-2	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Benzo(k)fluoranthene	207-08-9	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Chrysene	218-01-9	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Fluoranthene	206-44-0	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Fluorene	86-73-7	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Naphthalene	91-20-3	U	.00072	0.0072	0.024	mg/kg		8270C-SI	10/29/14	1
Phenanthrene	85-01-8	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
Pyrene	129-00-0	U	.00072	0.0024	0.0072	mg/kg		8270C-SI	10/29/14	1
2-Methylnaphthalene	91-57-6	U	.00077	0.0072	0.024	mg/kg		8270C-SI	10/29/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	62.7				% Rec.		8270C-SI	10/29/14	1
Nitrobenzene-d5	4165-60-0	77.7				% Rec.		8270C-SI	10/29/14	1
2-Fluorobiphenyl	321-60-8	75.8				% Rec.		8270C-SI	10/29/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	.0092	0.20	0.40	mg/kg		8270C	10/31/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.011	0.20	0.40	mg/kg		8270C	10/31/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.0091	0.20	0.40	mg/kg		8270C	10/31/14	1
Benzyl Alcohol	100-51-6	U	.009	0.20	0.40	mg/kg		8270C	10/31/14	1
Benzoic acid	65-85-0	U	.14	2.0	4.0	mg/kg		8270C	10/31/14	1
Carbazole	86-74-8	U	.0062	0.20	0.40	mg/kg		8270C	10/31/14	1

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Reported: 11/04/14 15:31 Revised: 11/18/14 11:06

L729566-05 (PH) - 6.8@20.4c

L729566-05 (ICP METALS) - Diluted due to matrix.

Handwritten notes:
CA 2/17/15
BMS 2/18/15
27 of 1550
DMS 9/1/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-SB03-NS01
 Collected By :
 Collection Date : 10/22/14 12:30

ESC Sample # : L729566-05

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0062	0.20	0.40	mg/kg		8270C	10/31/14	1
4-Bromophenyl-phenylether	101-55-3	U	.013	0.20	0.40	mg/kg		8270C	10/31/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0075	0.20	0.40	mg/kg		8270C	10/31/14	1
2-Chloronaphthalene	91-58-7	U	.0077	0.20	0.40	mg/kg		8270C	10/31/14	1
3,3-Dichlorobenzidine	91-94-1	U	.095	0.20	0.40	mg/kg		8270C	10/31/14	1
2,4-Dinitrotoluene	121-14-2	U	.0073	0.20	0.40	mg/kg		8270C	10/31/14	1
2,6-Dinitrotoluene	606-20-2	U	.0089	0.20	0.40	mg/kg		8270C	10/31/14	1
Hexachlorobenzene	118-74-1	U	.01	0.20	0.40	mg/kg		8270C	10/31/14	1
Hexachloro-1,3-butadiene <i>DNR</i>	87-68-3	U	.012	0.20	0.40	mg/kg		8270C	10/31/14	1
Hexachloroethane	67-72-1	U	.016	0.20	0.40	mg/kg		8270C	10/31/14	1
Isophorone	78-59-1	U	.0062	0.20	0.40	mg/kg		8270C	10/31/14	1
Nitrobenzene	98-95-3	U	.0084	0.20	0.40	mg/kg		8270C	10/31/14	1
n-Nitrosodimethylamine	62-75-9	U	.078	0.20	0.40	mg/kg		8270C	10/31/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0071	0.20	0.40	mg/kg		8270C	10/31/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.011	0.20	0.40	mg/kg		8270C	10/31/14	1
Benzylbutyl phthalate	85-68-7	U	.012	0.20	0.40	mg/kg		8270C	10/31/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.014	0.20	0.40	mg/kg		8270C	10/31/14	1
Di-n-butyl phthalate	84-74-2	U	.013	0.20	0.40	mg/kg		8270C	10/31/14	1
Diethyl phthalate	84-66-2	U	.0083	0.20	0.40	mg/kg		8270C	10/31/14	1
Dimethyl phthalate	131-11-3	U	.0065	0.20	0.40	mg/kg		8270C	10/31/14	1
Di-n-octyl phthalate	117-84-0	U	.011	0.20	0.40	mg/kg		8270C	10/31/14	1
1,2,4-Trichlorobenzene <i>DNR</i>	120-82-1	U	.01	0.20	0.40	mg/kg		8270C	10/31/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0057	0.20	0.40	mg/kg		8270C	10/31/14	1
2-Chlorophenol	95-57-8	U	.0099	0.20	0.40	mg/kg		8270C	10/31/14	1
2,4-Dichlorophenol	120-83-2	U	.009	0.20	0.40	mg/kg		8270C	10/31/14	1
2,4-Dimethylphenol	105-67-9	U	.056	0.20	0.40	mg/kg		8270C	10/31/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.14	0.20	0.40	mg/kg		8270C	10/31/14	1
2,4-Dinitrophenol	51-28-5	U	.12	0.20	0.40	mg/kg		8270C	10/31/14	1
2-Methylphenol	95-48-7	U	.012	0.20	0.40	mg/kg		8270C	10/31/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.0093	0.20	0.40	mg/kg		8270C	10/31/14	1
2-Nitrophenol	88-75-5	U	.016	0.20	0.40	mg/kg		8270C	10/31/14	1
4-Nitrophenol	100-02-7	U	.062	0.20	0.40	mg/kg		8270C	10/31/14	1
4-Chloroaniline	106-47-8	U	.0042	0.20	0.40	mg/kg		8270C	10/31/14	1
2-Nitroaniline	88-74-4	U	.0091	0.20	0.40	mg/kg		8270C	10/31/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0017	0.20	0.40	mg/kg		8270C	10/31/14	1
3-Nitroaniline	99-09-2	U	.01	0.20	0.40	mg/kg		8270C	10/31/14	1
4-Nitroaniline	100-01-6	U	.0077	0.20	0.40	mg/kg		8270C	10/31/14	1
Pentachlorophenol	87-86-5	U	.057	0.20	0.40	mg/kg		8270C	10/31/14	1
Phenol	108-95-2	U	.0084	0.20	0.40	mg/kg		8270C	10/31/14	1
2,4,5-Trichlorophenol	95-95-4	U	.012	0.20	0.40	mg/kg		8270C	10/31/14	1
2,4,6-Trichlorophenol	88-06-2	U	.0093	0.20	0.40	mg/kg		8270C	10/31/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	58.9				% Rec.		8270C	10/31/14	1
Phenol-d5	4165-62-2	55.4				% Rec.		8270C	10/31/14	1

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L729566-05 (PH) - 6.8@20.4c

L729566-05 (ICP METALS) - Diluted due to matrix.

DNR - Do Not Report



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 Mt. Juliet, TN 37122
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 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-SB03-NS01
 Collected By :
 Collection Date : 10/22/14 12:30

ESC Sample # : L729566-05

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	56.5				% Rec.	8270C	10/31/14	1
2-Fluorobiphenyl	321-60-8	66.9				% Rec.	8270C	10/31/14	1
2,4,6-Tribromophenol	118-79-6	74.3				% Rec.	8270C	10/31/14	1
p-Terphenyl-d14	1718-51-0	65.4				% Rec.	8270C	10/31/14	1

Results listed are dry weight basis.
 U = Not Detected at the LOD

Note:

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Reported: 11/04/14 15:31 Revised: 11/18/14 11:06
 L729566-05 (PH) - 6.8@20.4c
 L729566-05 (ICP METALS) - Diluted due to matrix.

KA 2/17/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB03-NS02
Collected By :
Collection Date : 10/22/14 15:55

ESC Sample # : L729566-06

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.8				su		9045D	10/27/14	1
Total Solids	TSOLIDS	80.3	.0333			%		2540 G-2	10/28/14	1
Mercury	7439-97-6	U	.0035	0.012	0.025	mg/kg		7471	10/28/14	1
Aluminum	7429-90-5	5400	22	31.	62.	mg/kg		6010B	11/04/14	5
Antimony	7440-36-0	U	4.7	6.2	12.	mg/kg		6010B	11/04/14	5
Arsenic	7440-38-2	U	4	6.2	12.	mg/kg		6010B	11/04/14	5
Barium	7440-39-3	51.	1	1.6	3.1	mg/kg		6010B	11/04/14	5
Beryllium	7440-41-7	U	.44	0.62	1.2	mg/kg		6010B	11/04/14	5
Cadmium	7440-43-9	U	.44	1.6	3.1	mg/kg		6010B	11/04/14	5
Chromium	7440-47-3	6.7	.87	3.1	6.2	mg/kg		6010B	11/04/14	5
Cobalt	7440-48-4	2.4	1.5	3.1	6.2	mg/kg	J	6010B	11/04/14	5
Copper	7440-50-8	3.9	3.2	6.2	12.	mg/kg	J	6010B	11/04/14	5
Lead	7439-92-1	2.9	1.2	1.6	3.1	mg/kg	J	6010B	11/04/14	5
Manganese	7439-96-5	91.	.75	3.1	6.2	mg/kg		6010B	11/04/14	5
Nickel	7440-02-0	11.	3	6.2	12.	mg/kg	J	6010B	11/04/14	5
Selenium	7782-49-2	U	4.6	6.2	12.	mg/kg		6010B	11/04/14	5
Silver	7440-22-4	U	1.7	3.1	6.2	mg/kg		6010B	11/04/14	5
Thallium	7440-28-0	U	4	6.2	12.	mg/kg		6010B	11/04/14	5
Vanadium	7440-62-2	15.	1.5	6.2	12.	mg/kg		6010B	11/04/14	5
Zinc	7440-66-6	17.	3.7	16.	31.	mg/kg	J	6010B	11/04/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.47	1.1	2.2	mg/kg		8015D/GR	10/31/14	17.75
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	98-08-8	99.3				% Rec.		8015D/GR	10/31/14	17.75
Volatile Organics										
Acetone	67-64-1	0.020	.012	0.031	0.062	mg/kg	J	8260B	10/31/14	1
Benzene	71-43-2	0.0020	.00034	0.0062	0.0012	mg/kg		8260B	10/31/14	1
Bromobenzene	108-86-1	U	.00035	0.0062	0.0012	mg/kg		8260B	10/31/14	1
Bromochloromethane	74-97-5	U	.00048	0.0062	0.0012	mg/kg		8260B	10/31/14	1
Bromodichloromethane	75-27-4	U	.00031	0.0062	0.0012	mg/kg		8260B	10/31/14	1
Bromoform	75-25-2	U	.00052	0.0062	0.0012	mg/kg		8260B	10/31/14	1
Bromomethane	74-83-9	U	.0016	0.0031	0.0062	mg/kg		8260B	10/31/14	1
n-Butylbenzene	104-51-8	U	.00032	0.0062	0.0012	mg/kg		8260B	10/31/14	1
sec-Butylbenzene	135-98-8	U	.00025	0.0062	0.0012	mg/kg		8260B	10/31/14	1
tert-Butylbenzene	98-06-6	U	.00026	0.0062	0.0012	mg/kg		8260B	10/31/14	1
Carbon Disulfide	75-15-0	U	.00035	0.0062	0.0012	mg/kg		8260B	10/31/14	1
Carbon tetrachloride	56-23-5	U	.00041	0.0062	0.0012	mg/kg		8260B	10/31/14	1
Chlorobenzene	108-90-7	U	.00026	0.0062	0.0012	mg/kg		8260B	10/31/14	1
Chlorodibromomethane	124-48-1	U	.00046	0.0062	0.0012	mg/kg		8260B	10/31/14	1
Chloroethane	75-00-3	U	.0012	0.0031	0.0062	mg/kg		8260B	10/31/14	1
Chloroform	67-66-3	U	.00029	0.0031	0.0062	mg/kg		8260B	10/31/14	1

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Reported: 11/04/14 15:31 Revised: 11/18/14 11:06

L729566-06 (PH) - 6.8@20.6c

L729566-06 (ICP METALS) - Diluted due to matrix.

KA 2/17/15
BMS 2/18/15
30 of 1550
DWH 2/20/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-SB03-NS02
 Collected By :
 Collection Date : 10/22/14 15:55

ESC Sample # : L729566-06

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00047	0.00062	0.0031	mg/kg		8260B	10/31/14	1
2-Chlorotoluene	95-49-8	U	.00037	0.00062	0.0012	mg/kg		8260B	10/31/14	1
4-Chlorotoluene	106-43-4	U	.0003	0.00062	0.0012	mg/kg		8260B	10/31/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0012	0.0031	0.0062	mg/kg		8260B	10/31/14	1
1,2-Dibromoethane	106-93-4	U	.00042	0.00062	0.0012	mg/kg		8260B	10/31/14	1
Dibromomethane	74-95-3	U	.00047	0.00062	0.0012	mg/kg		8260B	10/31/14	1
1,2-Dichlorobenzene	95-50-1	U	.00037	0.00062	0.0012	mg/kg		8260B	10/31/14	1
1,3-Dichlorobenzene	541-73-1	U	.0003	0.00062	0.0012	mg/kg		8260B	10/31/14	1
1,4-Dichlorobenzene	106-46-7	U	.00029	0.00062	0.0012	mg/kg		8260B	10/31/14	1
Dichlorodifluoromethane	75-71-8	U	.00088	0.0031	0.0062	mg/kg		8260B	10/31/14	1
1,1-Dichloroethane	75-34-3	U	.00025	0.00062	0.0012	mg/kg		8260B	10/31/14	1
1,2-Dichloroethane	107-06-2	U	.00032	0.00062	0.0012	mg/kg		8260B	10/31/14	1
1,1-Dichloroethene	75-35-4	U	.00037	0.00062	0.0012	mg/kg		8260B	10/31/14	1
cis-1,2-Dichloroethene	156-59-2	U	.0003	0.00062	0.0012	mg/kg		8260B	10/31/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00032	0.00062	0.0012	mg/kg		8260B	10/31/14	1
1,2-Dichloropropane	78-87-5	U	.00045	0.00062	0.0012	mg/kg		8260B	10/31/14	1
1,1-Dichloropropene	563-58-6	U	.0004	0.00062	0.0012	mg/kg		8260B	10/31/14	1
1,3-Dichloropropane	142-28-9	U	.00026	0.00062	0.0012	mg/kg		8260B	10/31/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00032	0.00062	0.0012	mg/kg		8260B	10/31/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00034	0.00062	0.0012	mg/kg		8260B	10/31/14	1
2,2-Dichloropropane	594-20-7	U	.00035	0.00062	0.0012	mg/kg		8260B	10/31/14	1
Ethylbenzene	100-41-4	U	.00037	0.00062	0.0012	mg/kg		8260B	10/31/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00042	0.00062	0.0012	mg/kg		8260B	10/31/14	1
2-Hexanone	591-78-6	U	.0047	0.0062	0.012	mg/kg		8260B	10/31/14	1
Isopropylbenzene	98-82-8	U	.0003	0.00062	0.0012	mg/kg		8260B	10/31/14	1
p-Isopropyltoluene	99-87-6	U	.00025	0.00062	0.0012	mg/kg		8260B	10/31/14	1
2-Butanone (MEK)	78-93-3	U	.0058	0.0062	0.012	mg/kg		8260B	10/31/14	1
Methylene Chloride	75-09-2	U	.0012	0.0031	0.0062	mg/kg		8260B	10/31/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0024	0.0062	0.012	mg/kg		8260B	10/31/14	1
Methyl tert-butyl ether	1634-04-4	U	.00026	0.00062	0.0012	mg/kg		8260B	10/31/14	1
Naphthalene	91-20-3	U	.0012	0.0031	0.0062	mg/kg		8260B	10/31/14	1
n-Propylbenzene	103-65-1	U	.00026	0.00062	0.0012	mg/kg		8260B	10/31/14	1
Styrene	100-42-5	U	.00029	0.00062	0.0012	mg/kg		8260B	10/31/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00032	0.00062	0.0012	mg/kg		8260B	10/31/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00045	0.00093	0.0012	mg/kg		8260B	10/31/14	1
Tetrachloroethene	127-18-4	U	.00035	0.00062	0.0012	mg/kg		8260B	10/31/14	1
Toluene	108-88-3	0.0017	.00054	0.0031	0.0062	mg/kg	J	8260B	10/31/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00039	0.00062	0.0012	mg/kg		8260B	10/31/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00048	0.00062	0.0012	mg/kg		8260B	10/31/14	1
1,1,1-Trichloroethane	71-55-6	U	.00036	0.00062	0.0012	mg/kg		8260B	10/31/14	1
1,1,2-Trichloroethane	79-00-5	U	.00035	0.00062	0.0012	mg/kg		8260B	10/31/14	1
Trichloroethene	79-01-6	U	.00035	0.00062	0.0012	mg/kg		8260B	10/31/14	1
Trichlorofluoromethane	75-69-4	U	.00047	0.0031	0.0062	mg/kg		8260B	10/31/14	1
1,2,3-Trichloropropane	96-18-4	U	.00092	0.0012	0.0031	mg/kg		8260B	10/31/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.00026	0.00062	0.0012	mg/kg		8260B	10/31/14	1

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Reported: 11/04/14 15:31 Revised: 11/18/14 11:06

L729566-06 (PH) - 6.8@20.6c

L729566-06 (ICP METALS) - Diluted due to matrix.

DNR - Do Not Report



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Tax I.D. 62-0814289
Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB03-NS02
Collected By :
Collection Date : 10/22/14 15:55

ESC Sample # : L729566-06
Site ID :
Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00042	0.00062	0.0012	mg/kg		8260B	10/31/14	1
m&p-Xylene	1330-20-7	U	.0009	0.0012	0.0025	mg/kg		8260B	10/31/14	1
Vinyl chloride	75-01-4	U	.00036	0.00062	0.0012	mg/kg		8260B	10/31/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00034	0.00062	0.0012	mg/kg		8260B	10/31/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	102.				% Rec.		8260B	10/31/14	1
Dibromofluoromethane	1868-53-7	117.				% Rec.		8260B	10/31/14	1
4-Bromofluorobenzene	460-00-4	98.9				% Rec.		8260B	10/31/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2	2.5	5.0	mg/kg		8015	10/29/14	1
C28-C40 Oil Range		U	.34	2.5	5.0	mg/kg		8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	70.1				% Rec.		8015	10/29/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Acenaphthene	83-32-9	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Acenaphthylene	208-96-8	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Benzo(a)anthracene	56-55-3	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Benzo(a)pyrene	50-32-8	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Benzo(b)fluoranthene	205-99-2	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Benzo(k)fluoranthene	207-08-9	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Chrysene	218-01-9	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Fluoranthene	206-44-0	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Fluorene	86-73-7	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Naphthalene	91-20-3	U	.00075	0.0075	0.025	mg/kg		8270C-SI	10/29/14	1
Phenanthrene	85-01-8	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Pyrene	129-00-0	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
2-Methylnaphthalene	91-57-6	U	.0008	0.0075	0.025	mg/kg		8270C-SI	10/29/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	64.6				% Rec.		8270C-SI	10/29/14	1
Nitrobenzene-d5	4165-60-0	84.0				% Rec.		8270C-SI	10/29/14	1
2-Fluorobiphenyl	321-60-8	80.5				% Rec.		8270C-SI	10/29/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.0096	0.21	0.41	mg/kg		8270C	10/31/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.011	0.21	0.41	mg/kg		8270C	10/31/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.0095	0.21	0.41	mg/kg		8270C	10/31/14	1
Benzyl Alcohol	100-51-6	U	.0093	0.21	0.41	mg/kg		8270C	10/31/14	1
Benzoic acid	65-85-0	U	.15	2.1	4.1	mg/kg		8270C	10/31/14	1
Carbazole	86-74-8	U	.0065	0.21	0.41	mg/kg		8270C	10/31/14	1

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Reported: 11/04/14 15:31 Revised: 11/18/14 11:06
L729566-06 (PH) - 6.8@20.6c
L729566-06 (ICP METALS) - Diluted due to matrix.

Handwritten:
K.A. 11/15
BMS 2/18/15
32 of 1550
BMS 9/11/15



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REPORT OF ANALYSIS

Sheri Fling
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November 18, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB03-NS02
Collected By :
Collection Date : 10/22/14 15:55

ESC Sample # : L729566-06

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0065	0.21	0.41	mg/kg		8270C	10/31/14	1
4-Bromophenyl-phenylether	101-55-3	U	.014	0.21	0.41	mg/kg		8270C	10/31/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0078	0.21	0.41	mg/kg		8270C	10/31/14	1
2-Chloronaphthalene	91-58-7	U	.008	0.21	0.41	mg/kg		8270C	10/31/14	1
3,3-Dichlorobenzidine	91-94-1	U	.098	0.21	0.41	mg/kg		8270C	10/31/14	1
2,4-Dinitrotoluene	121-14-2	U	.0076	0.21	0.41	mg/kg		8270C	10/31/14	1
2,6-Dinitrotoluene	606-20-2	U	.0092	0.21	0.41	mg/kg		8270C	10/31/14	1
Hexachlorobenzene	118-74-1	U	.011	0.21	0.41	mg/kg		8270C	10/31/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.012	0.21	0.41	mg/kg		8270C	10/31/14	1
Hexachloroethane	67-72-1	U	.016	0.21	0.41	mg/kg		8270C	10/31/14	1
Isophorone	78-59-1	U	.0065	0.21	0.41	mg/kg		8270C	10/31/14	1
Nitrobenzene	98-95-3	U	.0087	0.21	0.41	mg/kg		8270C	10/31/14	1
n-Nitrosodimethylamine	62-75-9	U	.081	0.21	0.41	mg/kg		8270C	10/31/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0073	0.21	0.41	mg/kg		8270C	10/31/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.011	0.21	0.41	mg/kg		8270C	10/31/14	1
Benzylbutyl phthalate	85-68-7	U	.012	0.21	0.41	mg/kg		8270C	10/31/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.015	0.21	0.41	mg/kg		8270C	10/31/14	1
Di-n-butyl phthalate	84-74-2	U	.014	0.21	0.41	mg/kg		8270C	10/31/14	1
Diethyl phthalate	84-66-2	U	.0086	0.21	0.41	mg/kg		8270C	10/31/14	1
Dimethyl phthalate	131-11-3	U	.0067	0.21	0.41	mg/kg		8270C	10/31/14	1
Di-n-octyl phthalate	117-84-0	U	.011	0.21	0.41	mg/kg		8270C	10/31/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.011	0.21	0.41	mg/kg		8270C	10/31/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.006	0.21	0.41	mg/kg		8270C	10/31/14	1
2-Chlorophenol	95-57-8	U	.01	0.21	0.41	mg/kg		8270C	10/31/14	1
2,4-Dichlorophenol	120-83-2	U	.0093	0.21	0.41	mg/kg		8270C	10/31/14	1
2,4-Dimethylphenol	105-67-9	U	.058	0.21	0.41	mg/kg		8270C	10/31/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.15	0.21	0.41	mg/kg		8270C	10/31/14	1
2,4-Dinitrophenol	51-28-5	U	.12	0.21	0.41	mg/kg		8270C	10/31/14	1
2-Methylphenol	95-48-7	U	.012	0.21	0.41	mg/kg		8270C	10/31/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.0097	0.21	0.41	mg/kg		8270C	10/31/14	1
2-Nitrophenol	88-75-5	U	.016	0.21	0.41	mg/kg		8270C	10/31/14	1
4-Nitrophenol	100-02-7	U	.065	0.21	0.41	mg/kg		8270C	10/31/14	1
4-Chloroaniline	106-47-8	U	.0044	0.21	0.41	mg/kg		8270C	10/31/14	1
2-Nitroaniline	88-74-4	U	.0095	0.21	0.41	mg/kg		8270C	10/31/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0017	0.21	0.41	mg/kg		8270C	10/31/14	1
3-Nitroaniline	99-09-2	U	.01	0.21	0.41	mg/kg		8270C	10/31/14	1
4-Nitroaniline	100-01-6	U	.008	0.21	0.41	mg/kg		8270C	10/31/14	1
Pentachlorophenol	87-86-5	U	.06	0.21	0.41	mg/kg		8270C	10/31/14	1
Phenol	108-95-2	U	.0087	0.21	0.41	mg/kg		8270C	10/31/14	1
2,4,5-Trichlorophenol	95-95-4	U	.012	0.21	0.41	mg/kg		8270C	10/31/14	1
2,4,6-Trichlorophenol	88-06-2	U	.0097	0.21	0.41	mg/kg		8270C	10/31/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	65.6				% Rec.		8270C	10/31/14	1
Phenol-d5	4165-62-2	61.2				% Rec.		8270C	10/31/14	1

Results listed are dry weight basis.
U = Not Detected at the LOD

Note:

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The reported analytical results relate only to the sample submitted

Reported: 11/04/14 15:31 Revised: 11/18/14 11:06

L729566-06 (PH) - 6.8@20.6c

L729566-06 (ICP METALS) - Diluted due to matrix.

DNR - Do Not Report



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-SB03-NS02
 Collected By :
 Collection Date : 10/22/14 15:55

ESC Sample # : L729566-06
 Site ID :
 Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	62.7				% Rec.		8270C	10/31/14	1
2-Fluorobiphenyl	321-60-8	71.6				% Rec.		8270C	10/31/14	1
2,4,6-Tribromophenol	118-79-6	80.2				% Rec.		8270C	10/31/14	1
p-Terphenyl-d14	1718-51-0	62.4				% Rec.		8270C	10/31/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

Note:

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The reported analytical results relate only to the sample submitted

Reported: 11/04/14 15:31 Revised: 11/18/14 11:06

L729566-06 (PH) - 6.8@20.6c

L729566-06 (ICP METALS) - Diluted due to matrix.

KA 2/17/15

**Holloman AFB
Groundwater Monitoring
Data Review Summary**

Data Package Number: L729568
 Sampling Event Dates: October 21-22, 2014
 Sample-specific Parameter Review/ Laboratory Performance Parameters: Yes
 Full Validation (e.g., result recalculation): No
 Data Reviewer: Katie Abbott, URS Project Chemist
 Date Completed: February 3, 2015
 Peer Reviewer: Sheri Fling, URS Project Quality Assurance Manager (QAM)

The table below summarizes the data package and sample identifications discussed in this data review.

Field Identification	Sample Type	Lab Identification	Matrix	Analyses						
				GRO	VOCs	PAHs	DRO/ORO	SVOCs	Total Metals	pH
L729568										
TU904-SB02-NS02	SA	L729568-01	Soil	X	X	X	X	X	X	X
TU904-SB02-NS01	SA	L729568-02	Soil	X ^m	X ^m	X	X ^m	X ^m	X ^m	X
TU904-TRIPBLANK04-NT01	TB	L729568-03	Water	X	X	---	---	---	---	---
TU503-SB14-NS01	SA	L729568-04	Soil	X	X	X	X	X	X	X
TU503-SB14-NS02	SA	L729568-05	Soil	X	X	X	X	X	X	X

Sample Type: SA – Sample TB – Trip Blank
 X^m - Matrix Spike/Matrix Spike Duplicate

Analyses:

DRO/ORO - Diesel and Oil Range Organics (8015)
 GRO – Gasoline Range Organics (8015D)
 TDS – Total Dissolved Solids (SM2540C)
 Total/ Metals – Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Manganese, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc, Mercury (6010B/7470A)
 PAHs – Polynuclear Aromatic Hydrocarbons (8270C SIM)
 SIM – Selective Ion Monitoring
 SVOCs – Semivolatile Organic Compounds (8270C)
 VOCs – Volatile Organic Compounds (8260B)

The data review was conducted in accordance with the Final Interim Measures Work Plan – Appendix A, Sampling and Analysis Plan/Quality Assurance Project Plan: Former Septic System Site TU904 (URS, September 2014); Group 2 Former Underground Storage Sites: AOC-UST-889 (TU515) (URS, September 2014); and Group 3 Former Underground Storage Tank Sites: AOC-UST-221 (TU503), AOC-UST-298 (TU508), AOC-UST-901 (TU506) and AOC-UST-7003 (TU518) (URS, August 2014); data validation standard operating procedure (SOP) 14; Department of Defense (DoD) Quality Systems Manual version 4.2 (DoD, 2010); and method requirements.

General Overall Assessment:

- _____ Data are usable without qualification.
 Data are usable with qualification (noted below).
 _____ Some or all data are unusable for any purpose (detailed below).

Case Narrative Comments: Any laboratory case narrative comments concerning data qualification were addressed in the table below.

Trace level detects, reported between the method detection limit (MDL) and the reporting limit (LOQ), have been qualified as estimated (F SQL-I). All other occurrences of data qualification are covered in the following table.

Review Parameter	Criteria Met?	Comment
Chain of Custody & Sample Receipt	No	<p>The samples were received by ESC Lab Sciences in good condition and were consistent with the accompanying chain of custody (COC). The cooler temperatures upon receipt were within the recommended ≤ 6 degrees Celsius ($^{\circ}\text{C}$) temperature range.</p> <p>Samples TU503-SB14-NS01 and TU503-SB14-NS02 were incorrectly identified as TU904-SB02-NS01 and TU904-SB02-NS02 on the COC and container labels. The laboratory was instructed to log the samples as TU503-SB14-NS01 and TU503-SB14-NS02 to reflect the proper nomenclature; therefore, further action was not necessary.</p>
Reporting	Yes	<p>During review of a representative data package selected for full validation, it was noted that improper reference spectra were displayed in the printed version of the data package for Method 8260B. Due to a LIMS limitation, the data package reference spectra were not consistently representative of the actual spectra for the analytes detected. Because the laboratory data review involves the use of NBS reference spectra and not the reference spectra taken from the instrument calibration, the analyst was not seeing the improper alignment of spectra noted in the data package during his/her review at the instrument. The laboratory revised and reissued the data package with correct reference spectral data, consistent with method requirements, and no results were changed. Therefore, no further action is necessary as a result of this validation finding.</p> <p>Method 8270C Semivolatile Organic Compounds (SVOCs)</p> <p>The results for 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene are not reported by Method 8270C SVOCs but are reported by Method 8260B volatile organic compounds (VOCs). As the detection limits (DLs), limits of detection (LODs), and limits of quantitation (LOQs) are lower by Method 8260B, further action was not necessary.</p> <p>The laboratory noted 4-methylphenol cannot be reported as 3 & 4-methylphenol coelute during the analysis; therefore, the analytes are reported together and 3&4-methylphenol on the data sheets and in the electronic database.</p>
Holding Times	Yes	All samples were analyzed within the method required holding time.
Laboratory Blanks <ul style="list-style-type: none"> • Method Blank • Initial/Continuing Calibration Blank 	No	With the exceptions listed in Table 1, target analytes were not detected within the method or calibration blanks.

Review Parameter	Criteria Met?	Comment
<p>Matrix Quality Control</p> <ul style="list-style-type: none"> Matrix Spike/ Matrix Spike Duplicate TU904-SB02-NS01 (Metals, GRO, VOCs, DRO/ORO, SVOCs) Method Duplicate TU503-SB14-NS02 (pH) 	No	<p>Matrix Spike/ Matrix Spike Duplicate (MS/MSD)</p> <p>The frequency of MS/MSDs met the QAPP requirement of one per twenty samples.</p> <p>With the exceptions listed in Table 2, the MS/MSD recoveries and relative percent differences (RPDs) met quality control criteria.</p> <p>The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the sample matrix could not be assessed for oil range organics (ORO).</p> <p>Results in the native sample greater than four times the concentration of the spike added during digestions/extractions are not considered to be a representative measure of accuracy. Further action with respect to spike recovery evaluation or qualification of data was not considered necessary.</p> <p>Consistent with standard operating procedure (SOP) 14, when MS/MSD issues accounted for less than 35% of the MS/MSD analyses conducted, applicable data qualification was limited to qualification of the parent sample of the affected analyte. When >35% of the MS/MSD results did not meet criteria, evaluation was extended to all associated samples. See Section 4.1 of the data validation report for overall qualifiers resulting from the MS/MSD evaluation.</p> <p>Laboratory Duplicate</p> <p>The comparison between results of the laboratory duplicate pair met the criteria listed below.</p> <ul style="list-style-type: none"> When both the sample and duplicate values are >5x the LOQ acceptable sampling and analytical precision is indicated by a relative percent difference (RPD) between the results of ≤20% for water samples (≤35% for soil samples). Where the result for one or both analytes of the laboratory duplicate pair is <5xLOQ, satisfactory precision is indicated if the absolute difference between the laboratory duplicate results is <1xLOQ for water samples (<2xLOQ for soil samples).
<p>Metals Only</p> <ul style="list-style-type: none"> Serial Dilution TU904-SB02-NS01 (Metals) Post Digestion Spike TU904-SB02-NS01 (6010B Metals) 	No	<p>Serial Dilution (Metals Only)</p> <p>Consistent with the method, only the results that were greater than 50 times their respective detection limits (DLs) were appropriate for comparing to the serial dilution evaluation criterion. With the exceptions listed in Table 3, all percent differences (%Ds) between the original sample results and the results obtained from the sample-diluted 1:5 were ≤10%.</p> <p>Post Digestion Spike (PDS) (Metals Only)</p> <p>All PDS recoveries were within the acceptance limits.</p>
<p>Method Quality Control</p> <ul style="list-style-type: none"> Surrogates (VOCs, SVOCs, PAHs, GRO, DRO/ORO) 	Yes	<p>The surrogate recoveries were within the laboratory specified acceptance criteria.</p>

Review Parameter	Criteria Met?	Comment
Field Quality Control <ul style="list-style-type: none"> • Trip Blank TU904-TRIPBLANK04-NT01 (GRO, VOCs) • Field Duplicate None in this package • Equipment Blank None in this package • Field Blank None in this package 	Yes	<p>Trip Blank Target analytes were not detected in the trip blank.</p> <p>Field Duplicate The frequency of field duplicates met the QAPP requirement of one per twenty samples. A field duplicate was not submitted with the data package. Consistent with SOP 14, when field duplicate issues accounted for less than 35% of the field duplicate analyses conducted, applicable data qualification was limited to qualification of the parent sample for the affected analyte. When >35% of the field duplicate results did not meet criteria, evaluation was extended to all associated samples. See Section 4.3 of the data validation report for overall qualifiers resulting from the field duplicate evaluation.</p> <p>Equipment Blank As dedicated equipment was used to collect these samples, an equipment blank was not submitted for this sampling event. Further action was not necessary.</p> <p>Field Blank The frequency of field blanks met the QAPP requirement of one per twenty samples. A field blank was not submitted with this data package. See Section 4.4 of the data validation report for overall qualifiers resulting from the field blank evaluation.</p>
LODs met?	No	Due to dilutions, the 6010B metals results for all samples and the gasoline range organics (GRO) results for samples TU904-SB02-NS02 and TU904-SB02-NS01 were reported as non-detect at elevated LODs. See Section 3.7 of the validation report for further discussion.
Other Parameters	Yes	Naphthalene (8260B and 8270C-PAHs) and hexachloro-1,3-butadiene and 1,2,4-trichlorobenzene (8260B and 8270C) were analyzed by multiple methods. Results were selected for reporting using the following criteria: <ul style="list-style-type: none"> • If both results were non-detect, the non-detect result with the lower DL was selected. • If both results were reported as detected, the higher detected result was selected for reporting. • If one result was reported as non-detect and the other result was reported as detected, the detected result was selected for reporting.
Initial Calibration	Yes	<p>Methods 8260B VOCs & 8270C SVOCs</p> <p>A minimum relative response factor (RRF) of 0.05 was used for the system performance check compounds (SPCCs) and all SPCCs met this criterion. The percent relative standard deviations (%RSDs) over the initial calibration RRFs for all calibration check compounds (CCCs) satisfied the method requirement of <30%. For all other target compounds, a requirement of 15% was used. The %RSD values for all target analytes in the calibration were less than 15%. Therefore, the initial calibration met method acceptance criteria.</p>

Review Parameter	Criteria Met?	Comment
		<p>Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs) The %RSD values for all target analytes in the calibration were less than 20%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8015D Gasoline Range Organics (GRO)/DRO/ORO The relationship between instrument response and concentration was established with a blank and at least five standards for the entire carbon range of C10-C40. The %RSD over the initial calibrations curve satisfied the method requirement of <15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Methods 6010B (Inductively Coupled Plasma [ICP] Metals) The initial calibrations (ICALs) were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with a blank and at least one standard. The calibrations were verified with the analysis of an initial calibration verification (ICV) standard. All metals were recovered within the method acceptance range of 90-110%.</p> <p>Method 7470A (Mercury) The ICALs were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with five standards. The correlation coefficient was >0.995. The calibration was verified with the analysis of an ICV standard. The analytes were recovered within the acceptance range of 90-110%. Response and linearity criteria were met and data qualification on the basis of initial calibration was not necessary.</p>
Initial Calibration Verification/Continuing Calibration Verification	No	<p>Method 8260B VOCs With the exceptions listed in Table 4, the percent differences (%Ds) for all CCCs in the ICVs and continuing calibrations (CCALs) were less than 20%, satisfying method requirements, and other target analytes satisfied the %D criterion of 20%.</p> <p>Methods 8270C PAHs/SVOCs With the exceptions listed in Table 4, the %D values for all target analytes in the calibration were less than 20%.</p> <p>Method 8015D GRO/DRO/ORO The %Ds for all target compounds in the ICVs and CCALs were less than 15%. Data qualification was not necessary.</p> <p>Methods 6010B (ICP Metals) & 7470A (Mercury) Calibration verification analyses were conducted at the proper frequency. All metals were recovered within the DOD QSM 4.2 low level acceptance range of 80-120% and the method medium/high acceptance range of 90-110%.</p>
Interference Check Standard (Metals Only)	No	The interference check standard (ICS) AB solutions were analyzed at the proper frequency. The target analytes were recovered within the acceptance range of 90-10% in the ICS AB solution. With the exceptions listed in Table 5, interferent elements were not present in the samples at concentrations greater than those in the ICSs.

Review Parameter	Criteria Met?	Comment
		The interferent elements aluminum, calcium, iron, and magnesium were present in most samples in this data package at concentrations greater than or equal to those in the ICSs. As such, these samples were evaluated for positive and negative biases suggested by the ICS A. Data qualification was issued if the absolute value of the ICS A result was greater than the DL and it suggested a positive or negative bias which accounted for more than 25% of associated sample results or LODs. (Note: The ICS A solution only contains the interferent elements aluminum, calcium, iron, and magnesium so any positive or negative result for other analytes is inferred to be a bias potentially caused by one or more of the interferent elements present). Table 5 summarizes the resultant data qualification on the basis of the ICS results.
Internal Standard (VOCs/SVOCs/PAHs/Metals (6020))	Yes	Recoveries for the internal standards in field samples were within the applicable acceptance limits. Therefore, data qualification based on internal standards was not necessary.
Laboratory Control Sample/ Laboratory Control Sample Duplicate	No	<p>One laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) per method per analytical batch was prepared and analyzed. With the exceptions listed in Table 6, all of the LCS recoveries and LCS/LCSD RPDs were within the QAPP acceptance limits. These results are indicative of an acceptable level of accuracy and precision with respect to the analytical method.</p> <p>Method 8015 DRO/ORO</p> <p>The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the method could not be assessed for ORO.</p>
Package Completeness	No	With the exception of the silver result for sample TU904-SB02-NS01, which was qualified as unusable due to MS/MSD recoveries <30%, the results are usable as qualified for the project objective. The data are 99% complete.

< - Less Than
 ≤ - Less Than or Equal to
 °C – Degrees Celsius
 % - Percent
 %Ds – Percent Differences
 %RSD – Percent Relative Standard Deviation
 CCALs – Continuing Calibrations
 CCBs – Continuing Calibration Blanks
 CCCs – Calibration Check Compounds
 COC – Chain of Custody
 COD – Coefficient of Determination
 DLs – Detection Limits
 DRO – Diesel Range Organics
 GRO – Gasoline Range Organics
 ICAL – Initial Calibration
 ICB – Initial Calibration Blank
 ICP – Inductively Coupled Plasma

ICS – Interference Check Standard
 ICV – Initial Calibration Verification
 LCS – Laboratory Control Sample
 LCSD – Laboratory Control Sample Duplicate
 LOD – Limit of Detection
 LOQ – Limit of Quantitation
 MS/MSD – Matrix Spike/ Matrix Spike Duplicate
 ORO – Oil Range Organics
 PAHs – Polynuclear Aromatic Hydrocarbons
 PDS – Post Digestion Spike
 QAPP – Quality Assurance Project Plan
 RPDs – Relative Percent Differences
 RRF – Relative Response Factor
 SOP – Standard Operating Procedure
 SPCCs – System Performance Check Compounds
 SVOCs – Semivolatile Organic Compounds
 VOCs – Volatile Organic Compounds

Table 1: Blank Outliers and Resultant Data Qualification

Associated Samples	Analyte	Concentration	Qualification
VOCs			
MB Batch WG750700 TU904-SB02-NS02 TU904-SB02-NS01 TU503-SB14-NS02	Styrene	0.000322 mg/Kg	None. The associated results were reported as non-detect.
DRO/ORO			
MB Batch WG751233 TU904-SB02-NS02 TU904-SB02-NS01 TU503-SB14-NS01 TU503-SB14-NS02	DRO	1.67 mg/Kg	None. The associated results were reported as non-detect.

DRO – Diesel Range Organics
ORO – Oil Range Organics

MB – Method Blank
VOCs – Volatile Organic Compounds

mg/Kg – Milligrams per Kilogram

Table 2: MS/MSD Recovery and RPD Outliers and Resultant Data Qualification

Associated Sample	Analyte	%R (Limits)	RPD (Limit)	Qualification
Metals				
TU904-SB02-NS01	Barium	53/85 (80-120)	18 (50)	As the potential bias was considered to be low, the associated results for sample TU904-SB02-NS01 were qualified as estimated (J MS-L).
	Manganese	64/76 (80-120)	6 (50)	
	Silver	29/37 (80-120)	25 (50)	As the potential bias was considered to be low, and the average between the MS and MSD was >30%, the associated silver result was qualified as estimated (UJ MS-L).

> – Greater Than

MS/MSD – Matrix Spike Matrix Spike Duplicate

Bold indicates a recovery or RPD outside of acceptance limit

%R – Percent Recoveries

RPD – Relative Percent Difference

L – Low Bias

UJ/J - Estimated

Table 3: Serial Dilution Outliers and Resultant Data Qualification

Associated Sample	Analyte	Parent Sample Result (µg/L)	Serial Dilution Result (µg/L)	%D (Limits)	Qualification
Metals					
TU904-SB02-NS01	Aluminum	4667	4026	14 (0-10)	The associated sample results were qualified as estimated (J DL-H). The bias is considered to be high as the native sample concentration is greater than the diluted result.

µg/L – Micrograms per Liter

L – Low Bias

Bold indicates a recovery or RPD outside of acceptance limits

%D – Percent Difference

DL – Serial Dilution

Table 4: Initial/Continuing Calibration Verification Outliers and Resultant Data Qualification

Associated Samples	Analyte	%D (Limit)	Data Qualification
VOCs			
TU904-TRIPBLANK04-NT01	Chloroethane	+26.4 (±20)	As the potential bias was considered to be high, and the associated samples were reported as non-detect, data qualification was not considered necessary.
	1,2,4-Trichlorobenzene	+23.9 (±20)	
TU503-SB14-NS01	2-Hexanone	+22.5 (±20)	
SVOCs			
TU904-SB02-NS02 TU904-SB02-NS01 TU503-SB14-NS01 TU503-SB14-NS02	n-Nitrosodimethylamine	-26.7 (±20)	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ/J CCAL-L).
	Bis(2-chloroethyl)ether	-26 (±20)	

± - Plus or minus

L - Low Bias

VOCs - Volatile Organic Compounds

%D - Percent Difference

SVOCs - Semivolatile Organic Compounds

CCAL - Continuing Calibration

UJ/J - Estimated

Table 5: ICS Outliers and Resultant Data Qualification

Interferent Element	Analyte	ICS A (µg/L)	MDL (µg/L)	Qualified Samples	Qualification
Aluminum, Calcium, Iron, Magnesium	Cadmium	-0.9	0.7	TU904-SB02-NS02	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ/J ICS-L).
	Lead	-24.5	1.9	TU904-SB02-NS01	
	Nickel	-16.8	4.9	TU503-SB14-NS01	
			TU503-SB14-NS02		

µg/L - Micrograms per Liter

MDL - Method Detection Limit

ICS - Interference Check Standard

UJ/J - Estimated

L - Low Bias

Table 6: LCS Recovery Outliers and Resultant Data Qualification

Associated Samples	Analyte	%R (Limits)	RPD (Limits)	Qualification
Metals				
LCS WG751923 TU904-SB02-NS02 TU904-SB02-NS01 TU503-SB14-NS01 TU503-SB14-NS02	Aluminum	132/134 (80-120)	1 (50)	As the potential bias was considered to be high, the associated detected aluminum results for all samples were qualified as estimated (J LCS-H).
PAHs				
LCS WG751923 TU904-SB02-NS02 TU904-SB02-NS01 TU503-SB14-NS01 TU503-SB14-NS02	Benzo(a)pyrene	60.7/69.2 (66.3-123)	13 (30)	As the potential bias was considered to be low, the associated benzo(a)pyrene results were qualified as estimated (UJ/J LCS-L).

%R - Percent Recoveries

LCS - Laboratory Control Sample

Bold indicates a recovery outside of acceptance limits.

H - High Bias

PAHs - Polynuclear Aromatic Hydrocarbons

L - Low Bias

UJ/J - Estimated



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REPORT OF ANALYSIS

November 20, 2014

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB02-NS02
Collected By :
Collection Date : 10/22/14 12:45

ESC Sample # : L729568-01

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.8				su		9045D	10/27/14	1
Total Solids	TSOLIDS	78.6	.0333			%		2540 G-2	10/28/14	1
Mercury	7439-97-6	U	.0036	0.013	0.025	mg/kg		7471	10/28/14	1
Aluminum	7429-90-5	740	23	32.	64.	mg/kg		6010B	11/05/14	5
Antimony	7440-36-0	U	4.8	6.4	13.	mg/kg		6010B	11/05/14	5
Arsenic	7440-38-2	U	4.1	6.4	13.	mg/kg		6010B	11/05/14	5
Barium	7440-39-3	23.	1.1	1.6	3.2	mg/kg		6010B	11/05/14	5
Beryllium	7440-41-7	U	.44	0.64	1.3	mg/kg		6010B	11/05/14	5
Cadmium	7440-43-9	U	.44	1.6	3.2	mg/kg		6010B	11/05/14	5
Chromium	7440-47-3	1.5	.89	3.2	6.4	mg/kg	J	6010B	11/05/14	5
Cobalt	7440-48-4	U	1.5	3.2	6.4	mg/kg		6010B	11/05/14	5
Copper	7440-50-8	U	3.3	6.4	13.	mg/kg		6010B	11/05/14	5
Lead	7439-92-1	U	1.2	1.6	3.2	mg/kg		6010B	11/05/14	5
Manganese	7439-96-5	12.	.76	3.2	6.4	mg/kg		6010B	11/05/14	5
Nickel	7440-02-0	U	3	6.4	13.	mg/kg		6010B	11/05/14	5
Selenium	7782-49-2	U	4.7	6.4	13.	mg/kg		6010B	11/05/14	5
Silver	7440-22-4	U	1.8	3.2	6.4	mg/kg		6010B	11/05/14	5
Thallium	7440-28-0	U	4.1	6.4	13.	mg/kg		6010B	11/03/14	5
Vanadium	7440-62-2	U	1.5	6.4	13.	mg/kg		6010B	11/05/14	5
Zinc	7440-66-6	U	3.8	16.	32.	mg/kg		6010B	11/05/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.58	1.3	2.7	mg/kg		8015D/GR	10/31/14	21
Surrogate Recovery (70-130)										
a,a,a-Trifluorotoluene (FID)	98-08-8	99.4				% Rec.		8015D/GR	10/31/14	21
Volatile Organics										
Acetone	67-64-1	0.033	.013	0.032	0.064	mg/kg	J	8260B	10/31/14	1
Benzene	71-43-2	0.0012	.00034	0.00064	0.0013	mg/kg	J	8260B	10/31/14	1
Bromobenzene	108-86-1	U	.00036	0.00064	0.0013	mg/kg		8260B	10/31/14	1
Bromochloromethane	74-97-5	U	.0005	0.00064	0.0013	mg/kg		8260B	10/31/14	1
Bromodichloromethane	75-27-4	U	.00032	0.00064	0.0013	mg/kg		8260B	10/31/14	1
Bromoform	75-25-2	U	.00053	0.00064	0.0013	mg/kg		8260B	10/31/14	1
Bromomethane	74-83-9	U	.0016	0.0032	0.0064	mg/kg		8260B	10/31/14	1
n-Butylbenzene	104-51-8	U	.00033	0.00064	0.0013	mg/kg		8260B	10/31/14	1
sec-Butylbenzene	135-98-8	U	.00025	0.00064	0.0013	mg/kg		8260B	10/31/14	1
tert-Butylbenzene	98-06-6	U	.00027	0.00064	0.0013	mg/kg		8260B	10/31/14	1
Carbon Disulfide	75-15-0	U	.00036	0.00064	0.0013	mg/kg		8260B	10/31/14	1
Carbon tetrachloride	56-23-5	U	.00042	0.00064	0.0013	mg/kg		8260B	10/31/14	1
Chlorobenzene	108-90-7	U	.00027	0.00064	0.0013	mg/kg		8260B	10/31/14	1
Chlorodibromomethane	124-48-1	U	.00047	0.00064	0.0013	mg/kg		8260B	10/31/14	1
Chloroethane	75-00-3	U	.0012	0.0032	0.0064	mg/kg		8260B	10/31/14	1
Chloroform	67-66-3	U	.00029	0.0032	0.0064	mg/kg		8260B	10/31/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/05/14 16:21 Revised: 11/20/14 10:56

L729568-01 (ICP METALS) - Dilution due to matrix

L729568-01 (PH) - 6.8@20.4c

L729568-01 (ICP METALS) - Diluted due to matrix interference.

KA 2/14/15
BMS 2/19/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 24, 2014
Description : Holloman AFB

ESC Sample # : L729568-01

Sample ID : TU904-SB02-NS02

Site ID :

Collected By :
Collection Date : 10/22/14 12:45

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00048	0.00064	0.0032	mg/kg		8260B	10/31/14	1
2-Chlorotoluene	95-49-8	U	.00038	0.00064	0.0013	mg/kg		8260B	10/31/14	1
4-Chlorotoluene	106-43-4	U	.0003	0.00064	0.0013	mg/kg		8260B	10/31/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0013	0.0032	0.0064	mg/kg		8260B	10/31/14	1
1,2-Dibromoethane	106-93-4	U	.00043	0.00064	0.0013	mg/kg		8260B	10/31/14	1
Dibromomethane	74-95-3	U	.00048	0.00064	0.0013	mg/kg		8260B	10/31/14	1
1,2-Dichlorobenzene	95-50-1	U	.00038	0.00064	0.0013	mg/kg		8260B	10/31/14	1
1,3-Dichlorobenzene	541-73-1	U	.0003	0.00064	0.0013	mg/kg		8260B	10/31/14	1
1,4-Dichlorobenzene	106-46-7	U	.00029	0.00064	0.0013	mg/kg		8260B	10/31/14	1
Dichlorodifluoromethane	75-71-8	U	.0009	0.0032	0.0064	mg/kg		8260B	10/31/14	1
1,1-Dichloroethane	75-34-3	U	.00025	0.00064	0.0013	mg/kg		8260B	10/31/14	1
1,2-Dichloroethane	107-06-2	U	.00033	0.00064	0.0013	mg/kg		8260B	10/31/14	1
1,1-Dichloroethene	75-35-4	U	.00038	0.00064	0.0013	mg/kg		8260B	10/31/14	1
cis-1,2-Dichloroethene	156-59-2	U	.0003	0.00064	0.0013	mg/kg		8260B	10/31/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00033	0.00064	0.0013	mg/kg		8260B	10/31/14	1
1,2-Dichloropropane	78-87-5	U	.00046	0.00064	0.0013	mg/kg		8260B	10/31/14	1
1,1-Dichloropropene	563-58-6	U	.00041	0.00064	0.0013	mg/kg		8260B	10/31/14	1
1,3-Dichloropropane	142-28-9	U	.00027	0.00064	0.0013	mg/kg		8260B	10/31/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00033	0.00064	0.0013	mg/kg		8260B	10/31/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00034	0.00064	0.0013	mg/kg		8260B	10/31/14	1
2,2-Dichloropropane	594-20-7	U	.00036	0.00064	0.0013	mg/kg		8260B	10/31/14	1
Ethylbenzene	100-41-4	U	.00038	0.00064	0.0013	mg/kg		8260B	10/31/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00043	0.00064	0.0013	mg/kg		8260B	10/31/14	1
2-Hexanone	591-78-6	U	.0048	0.0064	0.013	mg/kg		8260B	10/31/14	1
Isopropylbenzene	98-82-8	U	.0003	0.00064	0.0013	mg/kg		8260B	10/31/14	1
p-Isopropyltoluene	99-87-6	U	.00025	0.00064	0.0013	mg/kg		8260B	10/31/14	1
2-Butanone (MEK) <i>FSOL-I</i>	78-93-3	0.0071	.006	0.0064	0.013	mg/kg	J	8260B	10/31/14	1
Methylene Chloride	75-09-2	U	.0013	0.0032	0.0064	mg/kg		8260B	10/31/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0024	0.0064	0.013	mg/kg		8260B	10/31/14	1
Methyl tert-butyl ether	1634-04-4	U	.00027	0.00064	0.0013	mg/kg		8260B	10/31/14	1
Naphthalene <i>DNR</i>	91-20-3	U	.0013	0.0032	0.0064	mg/kg		8260B	10/31/14	1
n-Propylbenzene	103-65-1	U	.00027	0.00064	0.0013	mg/kg		8260B	10/31/14	1
Styrene	100-42-5	U	.00029	0.00064	0.0013	mg/kg		8260B	10/31/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00033	0.00064	0.0013	mg/kg		8260B	10/31/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00046	0.00095	0.0013	mg/kg		8260B	10/31/14	1
Tetrachloroethene	127-18-4	U	.00036	0.00064	0.0013	mg/kg		8260B	10/31/14	1
Toluene <i>FSOL-I</i>	108-88-3	0.0012	.00055	0.0032	0.0064	mg/kg	J	8260B	10/31/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00039	0.00064	0.0013	mg/kg		8260B	10/31/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.0005	0.00064	0.0013	mg/kg		8260B	10/31/14	1
1,1,1-Trichloroethane	71-55-6	U	.00036	0.00064	0.0013	mg/kg		8260B	10/31/14	1
1,1,2-Trichloroethane	79-00-5	U	.00036	0.00064	0.0013	mg/kg		8260B	10/31/14	1
Trichloroethene	79-01-6	U	.00036	0.00064	0.0013	mg/kg		8260B	10/31/14	1
Trichlorofluoromethane	75-69-4	U	.00048	0.0032	0.0064	mg/kg		8260B	10/31/14	1
1,2,3-Trichloropropane	96-18-4	U	.00094	0.0013	0.0032	mg/kg		8260B	10/31/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.00027	0.00064	0.0013	mg/kg		8260B	10/31/14	1

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Reported: 11/05/14 16:21 Revised: 11/20/14 10:56

L729568-01 (ICP METALS) - Dilution due to matrix

L729568-01 (PH) - 6.8@20.4c

L729568-01 (ICP METALS) - Diluted due to matrix interference.

KA 2/1/15 Page 3 of 25

DNR: DO NOT REPORT



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 24, 2014
Description : Holloman AFB

ESC Sample # : L729568-01

Sample ID : TU904-SB02-NS02

Site ID :

Collected By :
Collection Date : 10/22/14 12:45

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00043	0.00064	0.0013	mg/kg		8260B	10/31/14	1
m&p-Xylene	1330-20-7	U	.00092	0.0013	0.0025	mg/kg		8260B	10/31/14	1
Vinyl chloride	75-01-4	U	.00037	0.00064	0.0013	mg/kg		8260B	10/31/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00034	0.00064	0.0013	mg/kg		8260B	10/31/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	102.				% Rec.		8260B	10/31/14	1
Dibromofluoromethane	1868-53-7	110.				% Rec.		8260B	10/31/14	1
4-Bromofluorobenzene	460-00-4	102.				% Rec.		8260B	10/31/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2	2.5	5.1	mg/kg		8015	10/29/14	1
C28-C40 Oil Range		U	.34	2.5	5.1	mg/kg		8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	80.5				% Rec.		8015	10/29/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	10/29/14	1
Acenaphthene	83-32-9	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	10/29/14	1
Acenaphthylene	208-96-8	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	10/29/14	1
Benzo (a) anthracene	56-55-3	0.0046	.00076	0.0025	0.0076	mg/kg	J	8270C-SI	10/29/14	1
Benzo (a) pyrene	50-32-8	0.0044	.00076	0.0025	0.0076	mg/kg	J	8270C-SI	10/29/14	1
Benzo (b) fluoranthene	205-99-2	0.0066	.00076	0.0025	0.0076	mg/kg	J	8270C-SI	10/29/14	1
Benzo (g, h, i) perylene	191-24-2	0.0038	.00076	0.0025	0.0076	mg/kg	J	8270C-SI	10/29/14	1
Benzo (k) fluoranthene	207-08-9	0.0022	.00076	0.0025	0.0076	mg/kg	J	8270C-SI	10/29/14	1
Chrysene	218-01-9	0.0061	.00076	0.0025	0.0076	mg/kg	J	8270C-SI	10/29/14	1
Dibenz (a, h) anthracene	53-70-3	0.00086	.00076	0.0025	0.0076	mg/kg	J	8270C-SI	10/29/14	1
Fluoranthene	206-44-0	0.012	.00076	0.0025	0.0076	mg/kg	J	8270C-SI	10/29/14	1
Fluorene	86-73-7	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	10/29/14	1
Indeno (1,2,3-cd) pyrene	193-39-5	0.0030	.00076	0.0025	0.0076	mg/kg	J	8270C-SI	10/29/14	1
Naphthalene	91-20-3	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	10/29/14	1
Phenanthrene	85-01-8	0.0072	.00076	0.0025	0.0076	mg/kg	J	8270C-SI	10/29/14	1
Pyrene	129-00-0	0.011	.00076	0.0025	0.0076	mg/kg	J	8270C-SI	10/29/14	1
2-Methylnaphthalene	91-57-6	U	.00081	0.0076	0.025	mg/kg		8270C-SI	10/29/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	69.3				% Rec.		8270C-SI	10/29/14	1
Nitrobenzene-d5	4165-60-0	87.5				% Rec.		8270C-SI	10/29/14	1
2-Fluorobiphenyl	321-60-8	83.3				% Rec.		8270C-SI	10/29/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.0098	0.21	0.42	mg/kg		8270C	10/31/14	1
Bis(2-chloroethyl) ether	111-44-4	U	.011	0.21	0.42	mg/kg		8270C	10/31/14	1
Bis(2-chloroisopropyl) ether	108-60-1	U	.0097	0.21	0.42	mg/kg		8270C	10/31/14	1
Benzyl Alcohol	100-51-6	U	.0095	0.21	0.42	mg/kg		8270C	10/31/14	1
Benzoic acid	65-85-0	U	.15	2.1	4.2	mg/kg		8270C	10/31/14	1
Carbazole	86-74-8	U	.0066	0.21	0.42	mg/kg		8270C	10/31/14	1

Results listed are dry weight basis.

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Reported: 11/05/14 16:21 Revised: 11/20/14 10:56

L729568-01 (ICP METALS) - Dilution due to matrix

L729568-01 (PH) - 6.8@20.4c

L729568-01 (ICP METALS) - Diluted due to matrix interference.

Handwritten notes:
KA-2/4/15
OJS 9/2/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB02-NS02
Collected By :
Collection Date : 10/22/14 12:45

ESC Sample # : L729568-01
Site ID :
Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0066	0.21	0.42	mg/kg		8270C	10/31/14	1
4-Bromophenyl-phenylether	101-55-3	U	.014	0.21	0.42	mg/kg		8270C	10/31/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.008	0.21	0.42	mg/kg		8270C	10/31/14	1
2-Chloronaphthalene	91-58-7	U	.0081	0.21	0.42	mg/kg		8270C	10/31/14	1
3,3-Dichlorobenzidine	91-94-1	U	.1	0.21	0.42	mg/kg		8270C	10/31/14	1
2,4-Dinitrotoluene	121-14-2	U	.0078	0.21	0.42	mg/kg		8270C	10/31/14	1
2,6-Dinitrotoluene	606-20-2	U	.0094	0.21	0.42	mg/kg		8270C	10/31/14	1
Hexachlorobenzene	118-74-1	U	.011	0.21	0.42	mg/kg		8270C	10/31/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.013	0.21	0.42	mg/kg		8270C	10/31/14	1
Hexachloroethane	67-72-1	U	.016	0.21	0.42	mg/kg		8270C	10/31/14	1
Isophorone	78-59-1	U	.0066	0.21	0.42	mg/kg		8270C	10/31/14	1
Nitrobenzene	98-95-3	U	.0089	0.21	0.42	mg/kg		8270C	10/31/14	1
n-Nitrosodimethylamine	62-75-9	U	.083	0.21	0.42	mg/kg		8270C	10/31/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0075	0.21	0.42	mg/kg		8270C	10/31/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.012	0.21	0.42	mg/kg		8270C	10/31/14	1
Benzylbutyl phthalate	85-68-7	U	.013	0.21	0.42	mg/kg		8270C	10/31/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.015	0.21	0.42	mg/kg		8270C	10/31/14	1
Di-n-butyl phthalate	84-74-2	U	.014	0.21	0.42	mg/kg		8270C	10/31/14	1
Diethyl phthalate	84-66-2	U	.0088	0.21	0.42	mg/kg		8270C	10/31/14	1
Dimethyl phthalate	131-11-3	U	.0069	0.21	0.42	mg/kg		8270C	10/31/14	1
Di-n-octyl phthalate	117-84-0	U	.012	0.21	0.42	mg/kg		8270C	10/31/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.011	0.21	0.42	mg/kg		8270C	10/31/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0061	0.21	0.42	mg/kg		8270C	10/31/14	1
2-Chlorophenol	95-57-8	U	.01	0.21	0.42	mg/kg		8270C	10/31/14	1
2,4-Dichlorophenol	120-83-2	U	.0095	0.21	0.42	mg/kg		8270C	10/31/14	1
2,4-Dimethylphenol	105-67-9	U	.06	0.21	0.42	mg/kg		8270C	10/31/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.15	0.21	0.42	mg/kg		8270C	10/31/14	1
2,4-Dinitrophenol	51-28-5	U	.12	0.21	0.42	mg/kg		8270C	10/31/14	1
2-Methylphenol	95-48-7	U	.012	0.21	0.42	mg/kg		8270C	10/31/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.0099	0.21	0.42	mg/kg		8270C	10/31/14	1
2-Nitrophenol	88-75-5	U	.016	0.21	0.42	mg/kg		8270C	10/31/14	1
4-Nitrophenol	100-02-7	U	.066	0.21	0.42	mg/kg		8270C	10/31/14	1
4-Chloroaniline	106-47-8	U	.0044	0.21	0.42	mg/kg		8270C	10/31/14	1
2-Nitroaniline	88-74-4	U	.0097	0.21	0.42	mg/kg		8270C	10/31/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0018	0.21	0.42	mg/kg		8270C	10/31/14	1
3-Nitroaniline	99-09-2	U	.011	0.21	0.42	mg/kg		8270C	10/31/14	1
4-Nitroaniline	100-01-6	U	.0081	0.21	0.42	mg/kg		8270C	10/31/14	1
Pentachlorophenol	87-86-5	U	.061	0.21	0.42	mg/kg		8270C	10/31/14	1
Phenol	108-95-2	U	.0089	0.21	0.42	mg/kg		8270C	10/31/14	1
2,4,5-Trichlorophenol	95-95-4	U	.013	0.21	0.42	mg/kg		8270C	10/31/14	1
2,4,6-Trichlorophenol	88-06-2	U	.0099	0.21	0.42	mg/kg		8270C	10/31/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	66.4				% Rec.		8270C	10/31/14	1
Phenol-d5	4165-62-2	60.1				% Rec.		8270C	10/31/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

Note:

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Reported: 11/05/14 16:21 Revised: 11/20/14 10:56

L729568-01 (ICP METALS) - Dilution due to matrix

L729568-01 (PH) - 6.8@20.4c

L729568-01 (ICP METALS) - Diluted due to matrix interference.

DNR = do not report

*KA 2/11/15
BMS 2/17/15*



12065 Lebanon Rd.
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 Fax (615) 758-5859

Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-SB02-NS02
 Collected By :
 Collection Date : 10/22/14 12:45

ESC Sample # : L729568-01
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	60.7				% Rec.		8270C	10/31/14	1
2-Fluorobiphenyl	321-60-8	70.5				% Rec.		8270C	10/31/14	1
2,4,6-Tribromophenol	118-79-6	77.3				% Rec.		8270C	10/31/14	1
p-Terphenyl-d14	1718-51-0	64.5				% Rec.		8270C	10/31/14	1

Results listed are dry weight basis.
 U = Not Detected at the LOD

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Reported: 11/05/14 16:21 Revised: 11/20/14 10:56

L729568-01 (ICP METALS) - Dilution due to matrix

L729568-01 (PH) - 6.8@20.4c

L729568-01 (ICP METALS) - Diluted due to matrix interference.

KA z/ulis



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB02-NS01
Collected By :
Collection Date : 10/21/14 16:00

ESC Sample # : L729568-02

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.8				su		9045D	10/27/14	1
Total Solids	TSOLIDS	80.3	.0333			%		2540 G-2	10/28/14	1
Mercury <i>F SOL-I</i>	7439-97-6	0.0040	.0035	0.012	0.025	mg/kg	J	7471	10/28/14	1
Aluminum <i>J DL, LCS - # FD-I</i>	7429-90-5	5800	22	31.	62.	mg/kg	01V	6010B	11/05/14	5
Antimony	7440-36-0	U	4.7	6.2	12.	mg/kg		6010B	11/05/14	5
Arsenic	7440-38-2	U	4	6.2	12.	mg/kg		6010B	11/05/14	5
Barium <i>J MS - K FD-I</i>	7440-39-3	120	1	1.6	3.1	mg/kg	J6	6010B	11/05/14	5
Beryllium <i>F SOL-I</i>	7440-41-7	0.45	.44	0.62	1.2	mg/kg	J	6010B	11/05/14	5
Cadmium <i>US ICS - L</i>	7440-43-9	U	.44	1.6	3.1	mg/kg		6010B	11/05/14	5
Chromium	7440-47-3	7.6	.87	3.1	6.2	mg/kg		6010B	11/05/14	5
Cobalt <i>F SOL-I</i>	7440-48-4	1.9	1.5	3.1	6.2	mg/kg	J	6010B	11/05/14	5
Copper <i>F SOL-I</i>	7440-50-8	4.5	3.2	6.2	12.	mg/kg	J	6010B	11/05/14	5
Lead <i>US ICS - L J ICS - L</i>	7439-92-1	4.8	1.2	1.6	3.1	mg/kg		6010B	11/05/14	5
Manganese <i>J MS - L FD - L</i>	7439-96-5	160	.75	3.1	6.2	mg/kg	J6	6010B	11/05/14	5
Nickel <i>F SOL-I ICS - L</i>	7440-02-0	6.2	3	6.2	12.	mg/kg	J	6010B	11/05/14	5
Selenium <i>US ICS - L</i>	7782-49-2	U	4.6	6.2	12.	mg/kg		6010B	11/05/14	5
Silver <i>X US MS - L</i>	7440-22-4	U	1.7	3.1	6.2	mg/kg	J6	6010B	11/05/14	5
Thallium	7440-28-0	U	4	6.2	12.	mg/kg		6010B	11/03/14	5
Vanadium	7440-62-2	14.	1.5	6.2	12.	mg/kg		6010B	11/05/14	5
Zinc <i>F SOL-I</i>	7440-66-6	15.	3.7	16.	31.	mg/kg	J	6010B	11/05/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.61	1.4	2.8	mg/kg		8015D/GR	10/31/14	22.75
Surrogate Recovery (70-130)										
a,a,a-Trifluorotoluene (FID)	98-08-8	98.9				% Rec.		8015D/GR	10/31/14	22.75
Volatile Organics										
Acetone	67-64-1	0.062	.012	0.031	0.062	mg/kg		8260B	10/30/14	1
Benzene	71-43-2	U	.00034	0.00062	0.0012	mg/kg		8260B	10/30/14	1
Bromobenzene	108-86-1	U	.00035	0.00062	0.0012	mg/kg		8260B	10/30/14	1
Bromochloromethane	74-97-5	U	.00048	0.00062	0.0012	mg/kg		8260B	10/30/14	1
Bromodichloromethane	75-27-4	U	.00031	0.00062	0.0012	mg/kg		8260B	10/30/14	1
Bromoform	75-25-2	U	.00052	0.00062	0.0012	mg/kg		8260B	10/30/14	1
Bromomethane	74-83-9	U	.0016	0.0031	0.0062	mg/kg		8260B	10/30/14	1
n-Butylbenzene	104-51-8	U	.00032	0.00062	0.0012	mg/kg		8260B	10/30/14	1
sec-Butylbenzene	135-98-8	U	.00025	0.00062	0.0012	mg/kg		8260B	10/30/14	1
tert-Butylbenzene	98-06-6	U	.00026	0.00062	0.0012	mg/kg		8260B	10/30/14	1
Carbon Disulfide	75-15-0	U	.00035	0.00062	0.0012	mg/kg		8260B	10/30/14	1
Carbon tetrachloride	56-23-5	U	.00041	0.00062	0.0012	mg/kg		8260B	10/30/14	1
Chlorobenzene	108-90-7	U	.00026	0.00062	0.0012	mg/kg		8260B	10/30/14	1
Chlorodibromomethane	124-48-1	U	.00046	0.00062	0.0012	mg/kg		8260B	10/30/14	1
Chloroethane	75-00-3	U	.0012	0.0031	0.0062	mg/kg		8260B	10/30/14	1
Chloroform	67-66-3	U	.00029	0.0031	0.0062	mg/kg		8260B	10/30/14	1

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Reported: 11/05/14 16:21 Revised: 11/20/14 10:56

L729568-02 (ICP METALS) - Diluted due to matrix interference.

L729568-02 (ICP METALS) - Dilution due to matrix

L729568-02 (PH) - 6.8@20.6c

KA 2/11/15
KA 2/27/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-SB02-NS01
 Collected By :
 Collection Date : 10/21/14 16:00

ESC Sample # : L729568-02

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00047	0.00062	0.0031	mg/kg	8260B	10/30/14	1	
2-Chlorotoluene	95-49-8	U	.00037	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
4-Chlorotoluene	106-43-4	U	.0003	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0012	0.0031	0.0062	mg/kg	8260B	10/30/14	1	
1,2-Dibromoethane	106-93-4	U	.00042	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
Dibromomethane	74-95-3	U	.00047	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
1,2-Dichlorobenzene	95-50-1	U	.00037	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
1,3-Dichlorobenzene	541-73-1	U	.0003	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
1,4-Dichlorobenzene	106-46-7	U	.00029	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
Dichlorodifluoromethane	75-71-8	U	.00088	0.0031	0.0062	mg/kg	8260B	10/30/14	1	
1,1-Dichloroethane	75-34-3	U	.00025	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
1,2-Dichloroethane	107-06-2	U	.00032	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
1,1-Dichloroethene	75-35-4	U	.00037	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
cis-1,2-Dichloroethene	156-59-2	U	.0003	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
trans-1,2-Dichloroethene	156-60-5	U	.00032	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
1,2-Dichloropropane	78-87-5	U	.00045	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
1,1-Dichloropropene	563-58-6	U	.0004	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
1,3-Dichloropropane	142-28-9	U	.00026	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
cis-1,3-Dichloropropene	10061-01-5	U	.00032	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
trans-1,3-Dichloropropene	10061-02-6	U	.00034	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
2,2-Dichloropropane	594-20-7	U	.00035	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
Ethylbenzene	100-41-4	U	.00037	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
Hexachloro-1,3-butadiene	87-68-3	U	.00042	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
2-Hexanone	591-78-6	U	.0047	0.0062	0.012	mg/kg	8260B	10/30/14	1	
Isopropylbenzene	98-82-8	U	.0003	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
p-Isopropyltoluene	99-87-6	U	.00025	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
2-Butanone (MEK)	78-93-3	U	.0058	0.0062	0.012	mg/kg	8260B	10/30/14	1	
Methylene Chloride	75-09-2	U	.0012	0.0031	0.0062	mg/kg	8260B	10/30/14	1	
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0024	0.0062	0.012	mg/kg	8260B	10/30/14	1	
Methyl tert-butyl ether	1634-04-4	U	.00026	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
Naphthalene DNR	91-20-3	U	.0012	0.0031	0.0062	mg/kg	8260B	10/30/14	1	
n-Propylbenzene	103-65-1	U	.00026	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
Styrene	100-42-5	U	.00029	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
1,1,1,2-Tetrachloroethane	630-20-6	U	.00032	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
1,1,2,2-Tetrachloroethane	79-34-5	U	.00045	0.00093	0.0012	mg/kg	8260B	10/30/14	1	
Tetrachloroethene	127-18-4	U	.00035	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
Toluene	108-88-3	U	.00054	0.0031	0.0062	mg/kg	8260B	10/30/14	1	
1,2,3-Trichlorobenzene	87-61-6	U	.00039	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
1,2,4-Trichlorobenzene	120-82-1	U	.00048	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
1,1,1-Trichloroethane	71-55-6	U	.00036	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
1,1,2-Trichloroethane	79-00-5	U	.00035	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
Trichloroethene	79-01-6	0.0020	.00035	0.00062	0.0012	mg/kg	8260B	10/30/14	1	
Trichlorofluoromethane	75-69-4	U	.00047	0.0031	0.0062	mg/kg	8260B	10/30/14	1	
1,2,3-Trichloropropane	96-18-4	U	.00092	0.0012	0.0031	mg/kg	8260B	10/30/14	1	
1,2,4-Trimethylbenzene	95-63-6	U	.00026	0.00062	0.0012	mg/kg	8260B	10/30/14	1	

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Reported: 11/05/14 16:21 Revised: 11/20/14 10:56

L729568-02 (ICP METALS) - Diluted due to matrix interference.

L729568-02 (ICP METALS) - Dilution due to matrix

L729568-02 (PH) - 6.8@20.6c

DNR: Do Not Report

KAZ/jll/s



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB02-NS01
Collected By :
Collection Date : 10/21/14 16:00

ESC Sample # : L729568-02

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00042	0.00062	0.0012	mg/kg		8260B	10/30/14	1
m&p-Xylene	1330-20-7	U	.0009	0.0012	0.0025	mg/kg		8260B	10/30/14	1
Vinyl chloride	75-01-4	U	.00036	0.00062	0.0012	mg/kg		8260B	10/30/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00034	0.00062	0.0012	mg/kg		8260B	10/30/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	102.				% Rec.		8260B	10/30/14	1
Dibromofluoromethane	1868-53-7	107.				% Rec.		8260B	10/30/14	1
4-Bromofluorobenzene	460-00-4	103.				% Rec.		8260B	10/30/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2	2.5	5.0	mg/kg		8015	10/29/14	1
C28-C40 Oil Range		U	.34	2.5	5.0	mg/kg		8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	77.0				% Rec.		8015	10/29/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Acenaphthene	83-32-9	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Acenaphthylene	208-96-8	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Benzo(a)anthracene	56-55-3	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Benzo(a)pyrene	50-32-8	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Benzo(b)fluoranthene	205-99-2	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Benzo(k)fluoranthene	207-08-9	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Chrysene	218-01-9	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Fluoranthene	206-44-0	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Fluorene	86-73-7	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Naphthalene	91-20-3	U	.00075	0.0075	0.025	mg/kg		8270C-SI	10/29/14	1
Phenanthrene	85-01-8	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
Pyrene	129-00-0	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	10/29/14	1
2-Methylnaphthalene	91-57-6	U	.0008	0.0075	0.025	mg/kg		8270C-SI	10/29/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	55.5				% Rec.		8270C-SI	10/29/14	1
Nitrobenzene-d5	4165-60-0	74.2				% Rec.		8270C-SI	10/29/14	1
2-Fluorobiphenyl	321-60-8	70.1				% Rec.		8270C-SI	10/29/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.0096	0.21	0.41	mg/kg		8270C	10/31/14	1
Bis(2-chloroethyl) ether	111-44-4	U	.011	0.21	0.41	mg/kg		8270C	10/31/14	1
Bis(2-chloroisopropyl) ether	108-60-1	U	.0095	0.21	0.41	mg/kg		8270C	10/31/14	1
Benzyl Alcohol	100-51-6	U	.0093	0.21	0.41	mg/kg		8270C	10/31/14	1
Benzoic acid	65-85-0	U	.15	2.1	4.1	mg/kg		8270C	10/31/14	1
Carbazole	86-74-8	U	.0065	0.21	0.41	mg/kg		8270C	10/31/14	1

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L729568-02 (ICP METALS) - Diluted due to matrix interference.

L729568-02 (ICP METALS) - Dilution due to matrix

L729568-02 (PH) - 6.8@20.6c

KA2/11/15

BRS 9/2/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU904-SB02-NS01
Collected By :
Collection Date : 10/21/14 16:00

ESC Sample # : L729568-02

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0065	0.21	0.41	mg/kg		8270C	10/31/14	1
4-Bromophenyl-phenylether	101-55-3	U	.014	0.21	0.41	mg/kg		8270C	10/31/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0078	0.21	0.41	mg/kg		8270C	10/31/14	1
2-Chloronaphthalene	91-58-7	U	.008	0.21	0.41	mg/kg		8270C	10/31/14	1
3,3-Dichlorobenzidine	91-94-1	U	.098	0.21	0.41	mg/kg		8270C	10/31/14	1
2,4-Dinitrotoluene	121-14-2	U	.0076	0.21	0.41	mg/kg		8270C	10/31/14	1
2,6-Dinitrotoluene	606-20-2	U	.0092	0.21	0.41	mg/kg		8270C	10/31/14	1
Hexachlorobenzene	118-74-1	U	.011	0.21	0.41	mg/kg		8270C	10/31/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.012	0.21	0.41	mg/kg		8270C	10/31/14	1
Hexachloroethane	67-72-1	U	.016	0.21	0.41	mg/kg		8270C	10/31/14	1
Isophorone	78-59-1	U	.0065	0.21	0.41	mg/kg		8270C	10/31/14	1
Nitrobenzene	98-95-3	U	.0087	0.21	0.41	mg/kg		8270C	10/31/14	1
n-Nitrosodimethylamine	62-75-9	U	.081	0.21	0.41	mg/kg		8270C	10/31/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0073	0.21	0.41	mg/kg		8270C	10/31/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.011	0.21	0.41	mg/kg		8270C	10/31/14	1
Benzylbutyl phthalate	85-68-7	U	.012	0.21	0.41	mg/kg		8270C	10/31/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.015	0.21	0.41	mg/kg		8270C	10/31/14	1
Di-n-butyl phthalate	84-74-2	U	.014	0.21	0.41	mg/kg		8270C	10/31/14	1
Diethyl phthalate	84-66-2	U	.0086	0.21	0.41	mg/kg		8270C	10/31/14	1
Dimethyl phthalate	131-11-3	U	.0067	0.21	0.41	mg/kg		8270C	10/31/14	1
Di-n-octyl phthalate	117-84-0	U	.011	0.21	0.41	mg/kg		8270C	10/31/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.011	0.21	0.41	mg/kg		8270C	10/31/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.006	0.21	0.41	mg/kg		8270C	10/31/14	1
2-Chlorophenol	95-57-8	U	.01	0.21	0.41	mg/kg		8270C	10/31/14	1
2,4-Dichlorophenol	120-83-2	U	.0093	0.21	0.41	mg/kg		8270C	10/31/14	1
2,4-Dimethylphenol	105-67-9	U	.058	0.21	0.41	mg/kg		8270C	10/31/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.15	0.21	0.41	mg/kg		8270C	10/31/14	1
2,4-Dinitrophenol	51-28-5	U	.12	0.21	0.41	mg/kg		8270C	10/31/14	1
2-Methylphenol	95-48-7	U	.012	0.21	0.41	mg/kg		8270C	10/31/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.0097	0.21	0.41	mg/kg		8270C	10/31/14	1
2-Nitrophenol	88-75-5	U	.016	0.21	0.41	mg/kg		8270C	10/31/14	1
4-Nitrophenol	100-02-7	U	.065	0.21	0.41	mg/kg		8270C	10/31/14	1
4-Chloroaniline	106-47-8	U	.0044	0.21	0.41	mg/kg		8270C	10/31/14	1
2-Nitroaniline	88-74-4	U	.0095	0.21	0.41	mg/kg		8270C	10/31/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0017	0.21	0.41	mg/kg		8270C	10/31/14	1
3-Nitroaniline	99-09-2	U	.01	0.21	0.41	mg/kg		8270C	10/31/14	1
4-Nitroaniline	100-01-6	U	.008	0.21	0.41	mg/kg		8270C	10/31/14	1
Pentachlorophenol	87-86-5	U	.06	0.21	0.41	mg/kg		8270C	10/31/14	1
Phenol	108-95-2	U	.0087	0.21	0.41	mg/kg		8270C	10/31/14	1
2,4,5-Trichlorophenol	95-95-4	U	.012	0.21	0.41	mg/kg		8270C	10/31/14	1
2,4,6-Trichlorophenol	88-06-2	U	.0097	0.21	0.41	mg/kg		8270C	10/31/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	71.1				% Rec.		8270C	10/31/14	1
Phenol-d5	4165-62-2	65.2				% Rec.		8270C	10/31/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/05/14 16:21 Revised: 11/20/14 10:56

L729568-02 (ICP METALS) - Diluted due to matrix interference.

L729568-02 (ICP METALS) - Dilution due to matrix

L729568-02 (PH) - 6.8@20.6c

DNR = do not report

*KA 2/11/15
BMS 2/17/15*



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-SB02-NS01
 Collected By :
 Collection Date : 10/21/14 16:00

ESC Sample # : L729568-02

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	63.4				% Rec.		8270C	10/31/14	1
2-Fluorobiphenyl	321-60-8	74.4				% Rec.		8270C	10/31/14	1
2,4,6-Tribromophenol	118-79-6	84.8				% Rec.		8270C	10/31/14	1
p-Terphenyl-d14	1718-51-0	70.5				% Rec.		8270C	10/31/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/05/14 16:21 Revised: 11/20/14 10:56

L729568-02 (ICP METALS) - Diluted due to matrix interference.

L729568-02 (ICP METALS) - Dilution due to matrix

L729568-02 (PH) - 6.8@20.6c

KA 2/1/15



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-TRIPBLANK04-NT01
 Collected By :
 Collection Date : 10/21/14 12:00

ESC Sample # : L729568-03

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/30/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98-08-8	101.				% Rec.		8015D/G	10/30/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	10/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	10/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	10/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	10/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	10/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	10/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	10/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	10/26/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	10/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	10/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	10/26/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	10/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	10/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	10/26/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	10/26/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	10/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l	J4	8260B	10/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	10/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	10/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	10/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	10/26/14	1

U = Not Detected at the LOD

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KA 2/11/15



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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU904-TRIPBLANK04-NT01
 Collected By :
 Collection Date : 10/21/14 12:00

ESC Sample # : L729568-03
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	10/26/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	10/26/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	10/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	10/26/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	10/26/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	10/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	10/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	10/26/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	10/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	10/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	10/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	10/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	10/26/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	10/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	10/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	10/26/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	10/26/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	10/26/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	10/26/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	10/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	10/26/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	99.6				‰ Rec.		8260B	10/26/14	1
Dibromofluoromethane	1868-53-7	99.3				‰ Rec.		8260B	10/26/14	1
4-Bromofluorobenzene	460-00-4	98.5				‰ Rec.		8260B	10/26/14	1

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Reported: 11/05/14 16:21 Revised: 11/20/14 10:56

KA2/uk5



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 24, 2014
Description : Holloman AFB

ESC Sample # : L729568-04

Sample ID : TU503-SB14-NS01

Site ID :

Collected By :
Collection Date : 10/21/14 14:30

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.8				su		9045D	10/27/14	1
Total Solids	TSOLIDS	77.3	.0333			%		2540 G-2	10/28/14	1
Mercury <i>F SOL-I</i>	7439-97-6	0.0079	.0036	0.013	0.026	mg/kg	J	7471	10/28/14	1
Aluminum <i>J FO-I</i>	7429-90-5	3000	23	32.	65.	mg/kg		6010B	11/05/14	5
Antimony	7440-36-0	U	4.9	6.5	13.	mg/kg		6010B	11/05/14	5
Arsenic	7440-38-2	U	4.1	6.5	13.	mg/kg		6010B	11/05/14	5
Barium <i>J FO-I</i>	7440-39-3	240	1.1	1.6	3.2	mg/kg		6010B	11/05/14	5
Beryllium	7440-41-7	U	.45	0.65	1.3	mg/kg		6010B	11/05/14	5
Cadmium <i>VS ICS-L</i>	7440-43-9	U	.45	1.6	3.2	mg/kg		6010B	11/05/14	5
Chromium <i>F SOL-I</i>	7440-47-3	3.4	.9	3.2	6.5	mg/kg	J	6010B	11/05/14	5
Cobalt <i>F SOL-I</i>	7440-48-4	1.6	1.6	3.2	6.5	mg/kg	J	6010B	11/05/14	5
Copper <i>F SOL-I</i>	7440-50-8	3.6	3.4	6.5	13.	mg/kg	J	6010B	11/05/14	5
Lead <i>FJ SOL, ICS-L</i>	7439-92-1	1.8	1.2	1.6	3.2	mg/kg	J	6010B	11/05/14	5
Manganese <i>J FO-I</i>	7439-96-5	39.	.78	3.2	6.5	mg/kg		6010B	11/05/14	5
Nickel <i>FJ SOL, ICS-L</i>	7440-02-0	3.5	3.1	6.5	13.	mg/kg	J	6010B	11/05/14	5
Selenium <i>VS ICS-L</i>	7782-49-2	U	4.8	6.5	13.	mg/kg		6010B	11/05/14	5
Silver <i>VS MS-L</i>	7440-22-4	U	1.8	3.2	6.5	mg/kg		6010B	11/05/14	5
Thallium	7440-28-0	U	4.1	6.5	13.	mg/kg		6010B	11/03/14	5
Vanadium <i>F SOL-I</i>	7440-62-2	12.	1.6	6.5	13.	mg/kg	J	6010B	11/05/14	5
Zinc <i>F SOL-I</i>	7440-66-6	8.7	3.9	16.	32.	mg/kg	J	6010B	11/05/14	5
TPH (GC/FID) Low Fraction <i>VS MS-L</i>	8006-61-9	U	.028	0.065	0.13	mg/kg		8015D/GR	11/03/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	94.2				% Rec.		8015D/GR	11/03/14	1
Volatile Organics										
Acetone <i>F SOL-I</i>	67-64-1	0.023	.013	0.032	0.065	mg/kg	J	8260B	11/01/14	1
Benzene	71-43-2	U	.00035	0.00065	0.0013	mg/kg		8260B	11/01/14	1
Bromobenzene	108-86-1	U	.00036	0.00065	0.0013	mg/kg		8260B	11/01/14	1
Bromochloromethane	74-97-5	U	.0005	0.00065	0.0013	mg/kg		8260B	11/01/14	1
Bromodichloromethane	75-27-4	U	.00032	0.00065	0.0013	mg/kg		8260B	11/01/14	1
Bromoform	75-25-2	U	.00054	0.00065	0.0013	mg/kg		8260B	11/01/14	1
Bromomethane	74-83-9	U	.0017	0.0032	0.0065	mg/kg		8260B	11/01/14	1
n-Butylbenzene	104-51-8	U	.00034	0.00065	0.0013	mg/kg		8260B	11/01/14	1
sec-Butylbenzene	135-98-8	U	.00026	0.00065	0.0013	mg/kg		8260B	11/01/14	1
tert-Butylbenzene	98-06-6	U	.00027	0.00065	0.0013	mg/kg		8260B	11/01/14	1
Carbon Disulfide	75-15-0	U	.00036	0.00065	0.0013	mg/kg		8260B	11/01/14	1
Carbon tetrachloride	56-23-5	U	.00043	0.00065	0.0013	mg/kg		8260B	11/01/14	1
Chlorobenzene	108-90-7	U	.00027	0.00065	0.0013	mg/kg		8260B	11/01/14	1
Chlorodibromomethane	124-48-1	U	.00048	0.00065	0.0013	mg/kg		8260B	11/01/14	1
Chloroethane	75-00-3	U	.0012	0.0032	0.0065	mg/kg		8260B	11/01/14	1
Chloroform	67-66-3	U	.0003	0.0032	0.0065	mg/kg		8260B	11/01/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/05/14 16:21 Revised: 11/20/14 10:56

L729568-04 (ICP METALS) - Diluted due to matrix interference.

L729568-04 (ICP METALS) - Dilution due to matrix

L729568-04 (PH) - 6.8@20.5c

CA 2/14/15

BMS 2/19/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 24, 2014
Description : Holloman AFB

ESC Sample # : L729568-04

Sample ID : TU503-SB14-NS01

Site ID :

Collected By :
Collection Date : 10/21/14 14:30

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00049	0.00065	0.0032	mg/kg		8260B	11/01/14	1
2-Chlorotoluene	95-49-8	U	.00039	0.00065	0.0013	mg/kg		8260B	11/01/14	1
4-Chlorotoluene	106-43-4	U	.00031	0.00065	0.0013	mg/kg		8260B	11/01/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0013	0.0032	0.0065	mg/kg		8260B	11/01/14	1
1,2-Dibromoethane	106-93-4	U	.00044	0.00065	0.0013	mg/kg		8260B	11/01/14	1
Dibromomethane	74-95-3	U	.00049	0.00065	0.0013	mg/kg		8260B	11/01/14	1
1,2-Dichlorobenzene	95-50-1	U	.00039	0.00065	0.0013	mg/kg		8260B	11/01/14	1
1,3-Dichlorobenzene	541-73-1	U	.00031	0.00065	0.0013	mg/kg		8260B	11/01/14	1
1,4-Dichlorobenzene	106-46-7	U	.0003	0.00065	0.0013	mg/kg		8260B	11/01/14	1
Dichlorodifluoromethane	75-71-8	U	.00092	0.0032	0.0065	mg/kg		8260B	11/01/14	1
1,1-Dichloroethane	75-34-3	U	.00026	0.00065	0.0013	mg/kg		8260B	11/01/14	1
1,2-Dichloroethane	107-06-2	U	.00034	0.00065	0.0013	mg/kg		8260B	11/01/14	1
1,1-Dichloroethene	75-35-4	U	.00039	0.00065	0.0013	mg/kg		8260B	11/01/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00031	0.00065	0.0013	mg/kg		8260B	11/01/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00034	0.00065	0.0013	mg/kg		8260B	11/01/14	1
1,2-Dichloropropane	78-87-5	U	.00046	0.00065	0.0013	mg/kg		8260B	11/01/14	1
1,1-Dichloropropene	563-58-6	U	.00041	0.00065	0.0013	mg/kg		8260B	11/01/14	1
1,3-Dichloropropane	142-28-9	U	.00027	0.00065	0.0013	mg/kg		8260B	11/01/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00034	0.00065	0.0013	mg/kg		8260B	11/01/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00035	0.00065	0.0013	mg/kg		8260B	11/01/14	1
2,2-Dichloropropane	594-20-7	U	.00036	0.00065	0.0013	mg/kg		8260B	11/01/14	1
Ethylbenzene	100-41-4	U	.00039	0.00065	0.0013	mg/kg		8260B	11/01/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00044	0.00065	0.0013	mg/kg		8260B	11/01/14	1
2-Hexanone	591-78-6	U	.0049	0.0065	0.013	mg/kg		8260B	11/01/14	1
Isopropylbenzene	98-82-8	U	.00031	0.00065	0.0013	mg/kg		8260B	11/01/14	1
p-Isopropyltoluene	99-87-6	U	.00026	0.00065	0.0013	mg/kg		8260B	11/01/14	1
2-Butanone (MEK)	78-93-3	U	.0061	0.0065	0.013	mg/kg		8260B	11/01/14	1
Methylene Chloride	75-09-2	U	.0013	0.0032	0.0065	mg/kg		8260B	11/01/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0024	0.0065	0.013	mg/kg		8260B	11/01/14	1
Methyl tert-butyl ether	1634-04-4	U	.00027	0.00065	0.0013	mg/kg		8260B	11/01/14	1
Naphthalene DNR	91-20-3	U	.0013	0.0032	0.0065	mg/kg		8260B	11/01/14	1
n-Propylbenzene	103-65-1	U	.00027	0.00065	0.0013	mg/kg		8260B	11/01/14	1
Styrene	100-42-5	U	.0003	0.00065	0.0013	mg/kg		8260B	11/01/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00034	0.00065	0.0013	mg/kg		8260B	11/01/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00046	0.00097	0.0013	mg/kg		8260B	11/01/14	1
Tetrachloroethene	127-18-4	U	.00036	0.00065	0.0013	mg/kg		8260B	11/01/14	1
Toluene	108-88-3	U	.00056	0.0032	0.0065	mg/kg		8260B	11/01/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.0004	0.00065	0.0013	mg/kg		8260B	11/01/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.0005	0.00065	0.0013	mg/kg		8260B	11/01/14	1
1,1,1-Trichloroethane	71-55-6	U	.00037	0.00065	0.0013	mg/kg		8260B	11/01/14	1
1,1,2-Trichloroethane	79-00-5	U	.00036	0.00065	0.0013	mg/kg		8260B	11/01/14	1
Trichloroethene	79-01-6	U	.00036	0.00065	0.0013	mg/kg		8260B	11/01/14	1
Trichlorofluoromethane	75-69-4	U	.00049	0.0032	0.0065	mg/kg		8260B	11/01/14	1
1,2,3-Trichloropropane	96-18-4	U	.00096	0.0013	0.0032	mg/kg		8260B	11/01/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.00027	0.00065	0.0013	mg/kg		8260B	11/01/14	1

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Reported: 11/05/14 16:21 Revised: 11/20/14 10:56

L729568-04 (ICP METALS) - Diluted due to matrix interference.

L729568-04 (ICP METALS) - Dilution due to matrix

L729568-04 (PH) - 6.8@20.5c

DNR: Do Not Report

KA 2/1/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU503-SB14-NS01
Collected By :
Collection Date : 10/21/14 14:30

ESC Sample # : L729568-04

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00044	0.00065	0.0013	mg/kg		8260B	11/01/14	1
m&p-Xylene	1330-20-7	U	.00093	0.0013	0.0026	mg/kg		8260B	11/01/14	1
Vinyl chloride	75-01-4	U	.00038	0.00065	0.0013	mg/kg		8260B	11/01/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00035	0.00065	0.0013	mg/kg		8260B	11/01/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	96.4				% Rec.		8260B	11/01/14	1
Dibromofluoromethane	1868-53-7	104.				% Rec.		8260B	11/01/14	1
4-Bromofluorobenzene	460-00-4	90.2				% Rec.		8260B	11/01/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.1	2.6	5.2	mg/kg		8015	10/29/14	1
C28-C40 Oil Range		U	.35	2.6	5.2	mg/kg		8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	66.4				% Rec.		8015	10/29/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/29/14	1
Acenaphthene	83-32-9	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/29/14	1
Acenaphthylene	208-96-8	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/29/14	1
Benzo(a)anthracene	56-55-3	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/29/14	1
Benzo(a)pyrene	50-32-8	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/29/14	1
Benzo(b)fluoranthene	205-99-2	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/29/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/29/14	1
Benzo(k)fluoranthene	207-08-9	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/29/14	1
Chrysene	218-01-9	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/29/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/29/14	1
Fluoranthene	206-44-0	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/29/14	1
Fluorene	86-73-7	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/29/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/29/14	1
Naphthalene	91-20-3	U	.00078	0.0078	0.026	mg/kg		8270C-SI	10/29/14	1
Phenanthrene	85-01-8	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	10/29/14	1
Pyrene	129-00-0	0.00085	.00078	0.0026	0.0078	mg/kg	J	8270C-SI	10/29/14	1
2-Methylnaphthalene	91-57-6	U	.00083	0.0078	0.026	mg/kg		8270C-SI	10/29/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	64.6				% Rec.		8270C-SI	10/29/14	1
Nitrobenzene-d5	4165-60-0	83.2				% Rec.		8270C-SI	10/29/14	1
2-Fluorobiphenyl	321-60-8	81.3				% Rec.		8270C-SI	10/29/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.01	0.22	0.43	mg/kg		8270C	10/31/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.012	0.22	0.43	mg/kg		8270C	10/31/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.0098	0.22	0.43	mg/kg		8270C	10/31/14	1
Benzyl Alcohol	100-51-6	U	.0097	0.22	0.43	mg/kg		8270C	10/31/14	1
Benzoic acid	65-85-0	U	.16	2.2	4.3	mg/kg		8270C	10/31/14	1
Carbazole	86-74-8	U	.0067	0.22	0.43	mg/kg		8270C	10/31/14	1

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Reported: 11/05/14 16:21 Revised: 11/20/14 10:56
L729568-04 (ICP METALS) - Diluted due to matrix interference.
L729568-04 (ICP METALS) - Dilution due to matrix
L729568-04 (PH) - 6.8@20.5c

CA 2/1/15

BMS 9/2/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB14-NS01
 Collected By :
 Collection Date : 10/21/14 14:30

ESC Sample # : L729568-04

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0067	0.22	0.43	mg/kg		8270C	10/31/14	1
4-Bromophenyl-phenylether	101-55-3	U	.014	0.22	0.43	mg/kg		8270C	10/31/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0082	0.22	0.43	mg/kg		8270C	10/31/14	1
2-Chloronaphthalene	91-58-7	U	.0083	0.22	0.43	mg/kg		8270C	10/31/14	1
3,3-Dichlorobenzidine	91-94-1	U	.1	0.22	0.43	mg/kg		8270C	10/31/14	1
2,4-Dinitrotoluene	121-14-2	U	.0079	0.22	0.43	mg/kg		8270C	10/31/14	1
2,6-Dinitrotoluene	606-20-2	U	.0096	0.22	0.43	mg/kg		8270C	10/31/14	1
Hexachlorobenzene	118-74-1	U	.011	0.22	0.43	mg/kg		8270C	10/31/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.013	0.22	0.43	mg/kg		8270C	10/31/14	1
Hexachloroethane	67-72-1	U	.017	0.22	0.43	mg/kg		8270C	10/31/14	1
Isophorone	78-59-1	U	.0067	0.22	0.43	mg/kg		8270C	10/31/14	1
Nitrobenzene	98-95-3	U	.009	0.22	0.43	mg/kg		8270C	10/31/14	1
n-Nitrosodimethylamine	62-75-9	U	.084	0.22	0.43	mg/kg		8270C	10/31/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0076	0.22	0.43	mg/kg		8270C	10/31/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.012	0.22	0.43	mg/kg		8270C	10/31/14	1
Benzylbutyl phthalate	85-68-7	U	.013	0.22	0.43	mg/kg		8270C	10/31/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.016	0.22	0.43	mg/kg		8270C	10/31/14	1
Di-n-butyl phthalate	84-74-2	U	.014	0.22	0.43	mg/kg		8270C	10/31/14	1
Diethyl phthalate	84-66-2	U	.0089	0.22	0.43	mg/kg		8270C	10/31/14	1
Dimethyl phthalate	131-11-3	U	.007	0.22	0.43	mg/kg		8270C	10/31/14	1
Di-n-octyl phthalate	117-84-0	U	.012	0.22	0.43	mg/kg		8270C	10/31/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.011	0.22	0.43	mg/kg		8270C	10/31/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0062	0.22	0.43	mg/kg		8270C	10/31/14	1
2-Chlorophenol	95-57-8	U	.011	0.22	0.43	mg/kg		8270C	10/31/14	1
2,4-Dichlorophenol	120-83-2	U	.0097	0.22	0.43	mg/kg		8270C	10/31/14	1
2,4-Dimethylphenol	105-67-9	U	.061	0.22	0.43	mg/kg		8270C	10/31/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.16	0.22	0.43	mg/kg		8270C	10/31/14	1
2,4-Dinitrophenol	51-28-5	U	.13	0.22	0.43	mg/kg		8270C	10/31/14	1
2-Methylphenol	95-48-7	U	.013	0.22	0.43	mg/kg		8270C	10/31/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.01	0.22	0.43	mg/kg		8270C	10/31/14	1
2-Nitrophenol	88-75-5	U	.017	0.22	0.43	mg/kg		8270C	10/31/14	1
4-Nitrophenol	100-02-7	U	.067	0.22	0.43	mg/kg		8270C	10/31/14	1
4-Chloroaniline	106-47-8	U	.0045	0.22	0.43	mg/kg		8270C	10/31/14	1
2-Nitroaniline	88-74-4	U	.0098	0.22	0.43	mg/kg		8270C	10/31/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0018	0.22	0.43	mg/kg		8270C	10/31/14	1
3-Nitroaniline	99-09-2	U	.011	0.22	0.43	mg/kg		8270C	10/31/14	1
4-Nitroaniline	100-01-6	U	.0083	0.22	0.43	mg/kg		8270C	10/31/14	1
Pentachlorophenol	87-86-5	U	.062	0.22	0.43	mg/kg		8270C	10/31/14	1
Phenol	108-95-2	U	.009	0.22	0.43	mg/kg		8270C	10/31/14	1
2,4,5-Trichlorophenol	95-95-4	U	.013	0.22	0.43	mg/kg		8270C	10/31/14	1
2,4,6-Trichlorophenol	88-06-2	U	.01	0.22	0.43	mg/kg		8270C	10/31/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	68.2				% Rec.		8270C	10/31/14	1
Phenol-d5	4165-62-2	62.7				% Rec.		8270C	10/31/14	1

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 L729568-04 (ICP METALS) - Diluted due to matrix interference.
 L729568-04 (ICP METALS) - Dilution due to matrix
 L729568-04 (PH) - 6.8@20.5c

DNR: do not report

*CA 2/1/15
 BMS 2/17/15*



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB14-NS01
 Collected By :
 Collection Date : 10/21/14 14:30

ESC Sample # : L729568-04
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	63.4				% Rec.		8270C	10/31/14	1
2-Fluorobiphenyl	321-60-8	76.9				% Rec.		8270C	10/31/14	1
2,4,6-Tribromophenol	118-79-6	86.1				% Rec.		8270C	10/31/14	1
p-Terphenyl-d14	1718-51-0	51.7				% Rec.		8270C	10/31/14	1

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L729568-04 (ICP METALS) - Dilution due to matrix

L729568-04 (PH) - 6.8@20.5c

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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 24, 2014
Description : Holloman AFB

ESC Sample # : L729568-05

Sample ID : TU503-SB14-NS02

Site ID :

Collected By :
Collection Date : 10/21/14 14:35

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.8				su		9045D	10/27/14	1
Total Solids	TSOLIDS	69.0	.0333			%		2540 G-2	10/28/14	1
Mercury <i>F SOL-I</i>	7439-97-6	0.0042	.004	0.014	0.029	mg/kg	J	7471	10/28/14	1
Aluminum <i>J FA-I</i>	7429-90-5	2200	26	36.	72.	mg/kg		6010B	11/05/14	5
Antimony	7440-36-0	U	5.5	7.2	14.	mg/kg		6010B	11/05/14	5
Arsenic	7440-38-2	U	4.6	7.2	14.	mg/kg		6010B	11/05/14	5
Barium <i>J FA-I</i>	7440-39-3	55.	1.2	1.8	3.6	mg/kg		6010B	11/05/14	5
Beryllium	7440-41-7	U	.51	0.72	1.4	mg/kg		6010B	11/05/14	5
Cadmium <i>UJ ICS-L</i>	7440-43-9	U	.51	1.8	3.6	mg/kg		6010B	11/05/14	5
Chromium <i>F SOL-I</i>	7440-47-3	2.9	1	3.6	7.2	mg/kg	J	6010B	11/05/14	5
Cobalt	7440-48-4	U	1.7	3.6	7.2	mg/kg		6010B	11/05/14	5
Copper	7440-50-8	U	3.8	7.2	14.	mg/kg		6010B	11/05/14	5
Lead <i>FJ SOL, ICS-L</i>	7439-92-1	2.0	1.4	1.8	3.6	mg/kg	J	6010B	11/05/14	5
Manganese <i>J PD-I</i>	7439-96-5	43.	.87	3.6	7.2	mg/kg		6010B	11/05/14	5
Nickel <i>UJ ICS-L</i>	7440-02-0	U	3.5	7.2	14.	mg/kg		6010B	11/05/14	5
Selenium <i>UJ ICS-L</i>	7782-49-2	U	5.4	7.2	14.	mg/kg		6010B	11/05/14	5
Silver <i>UJ MS-L</i>	7440-22-4	U	2	3.6	7.2	mg/kg		6010B	11/05/14	5
Thallium	7440-28-0	U	4.6	7.2	14.	mg/kg		6010B	11/03/14	5
Vanadium <i>F SOL-I</i>	7440-62-2	8.6	1.7	7.2	14.	mg/kg	J	6010B	11/05/14	5
Zinc <i>F SOL-I</i>	7440-66-6	7.2	4.3	18.	36.	mg/kg	J	6010B	11/05/14	5
TPH (GC/FID) Low Fraction <i>F SOL, MS-L</i>	8006-61-9	0.048	.032	0.072	0.14	mg/kg	J	8015D/GR	11/03/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	93.9				% Rec.		8015D/GR	11/03/14	1
Volatile Organics										
Acetone <i>F SOL-I</i>	67-64-1	0.039	.014	0.036	0.072	mg/kg	J	8260B	10/31/14	1
Benzene	71-43-2	0.0019	.00039	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Bromobenzene	108-86-1	U	.0004	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Bromochloromethane	74-97-5	U	.00056	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Bromodichloromethane	75-27-4	U	.00036	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Bromoform	75-25-2	U	.00061	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Bromomethane	74-83-9	U	.0019	0.0036	0.0072	mg/kg		8260B	10/31/14	1
n-Butylbenzene	104-51-8	U	.00038	0.00072	0.0014	mg/kg		8260B	10/31/14	1
sec-Butylbenzene	135-98-8	U	.00029	0.00072	0.0014	mg/kg		8260B	10/31/14	1
tert-Butylbenzene	98-06-6	U	.0003	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Carbon Disulfide	75-15-0	U	.0004	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Carbon tetrachloride	56-23-5	U	.00048	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Chlorobenzene	108-90-7	U	.0003	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Chlorodibromomethane	124-48-1	U	.00054	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Chloroethane	75-00-3	U	.0014	0.0036	0.0072	mg/kg		8260B	10/31/14	1
Chloroform	67-66-3	U	.00033	0.0036	0.0072	mg/kg		8260B	10/31/14	1

Results listed are dry weight basis.

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Reported: 11/05/14 16:21 Revised: 11/20/14 10:56

L729568-05 (ICP METALS) - Dilution due to matrix

L729568-05 (ICP METALS) - Diluted due to matrix interference.

L729568-05 (PH) - 6.8@20.3c

Handwritten signatures:
KA 2/11/15
BMS 2/19/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 24, 2014
 Description : Holloman AFB

ESC Sample # : L729568-05

Sample ID : TU503-SB14-NS02

Site ID :

Collected By :
 Collection Date : 10/21/14 14:35

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00055	0.00072	0.0036	mg/kg		8260B	10/31/14	1
2-Chlorotoluene	95-49-8	U	.00043	0.00072	0.0014	mg/kg		8260B	10/31/14	1
4-Chlorotoluene	106-43-4	U	.00035	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0014	0.0036	0.0072	mg/kg		8260B	10/31/14	1
1,2-Dibromoethane	106-93-4	U	.00049	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Dibromomethane	74-95-3	U	.00055	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,2-Dichlorobenzene	95-50-1	U	.00043	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,3-Dichlorobenzene	541-73-1	U	.00035	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,4-Dichlorobenzene	106-46-7	U	.00033	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Dichlorodifluoromethane	75-71-8	U	.001	0.0036	0.0072	mg/kg		8260B	10/31/14	1
1,1-Dichloroethane	75-34-3	U	.00029	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,2-Dichloroethane	107-06-2	U	.00038	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,1-Dichloroethene	75-35-4	U	.00043	0.00072	0.0014	mg/kg		8260B	10/31/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00035	0.00072	0.0014	mg/kg		8260B	10/31/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00038	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,2-Dichloropropane	78-87-5	U	.00052	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,1-Dichloropropene	563-58-6	U	.00046	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,3-Dichloropropane	142-28-9	U	.0003	0.00072	0.0014	mg/kg		8260B	10/31/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00038	0.00072	0.0014	mg/kg		8260B	10/31/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00039	0.00072	0.0014	mg/kg		8260B	10/31/14	1
2,2-Dichloropropane	594-20-7	U	.0004	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Ethylbenzene	100-41-4	U	.00043	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00049	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Hexanone	591-78-6	U	.0055	0.0072	0.014	mg/kg		8260B	10/31/14	1
Isopropylbenzene	98-82-8	U	.00035	0.00072	0.0014	mg/kg		8260B	10/31/14	1
p-Isopropyltoluene	99-87-6	U	.00029	0.00072	0.0014	mg/kg		8260B	10/31/14	1
2-Butanone (MEK) <i>F SOL-I</i>	78-93-3	0.0087	.0068	0.0072	0.014	mg/kg	J	8260B	10/31/14	1
Methylene Chloride	75-09-2	U	.0014	0.0036	0.0072	mg/kg		8260B	10/31/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0028	0.0072	0.014	mg/kg		8260B	10/31/14	1
Methyl tert-butyl ether	1634-04-4	U	.0003	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Naphthalene <i>DNE</i>	91-20-3	U	.0014	0.0036	0.0072	mg/kg		8260B	10/31/14	1
n-Propylbenzene	103-65-1	U	.0003	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Styrene	100-42-5	U	.00033	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00038	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00052	0.0011	0.0014	mg/kg		8260B	10/31/14	1
Tetrachloroethene	127-18-4	U	.0004	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Toluene <i>F SOL-I</i>	108-88-3	0.0016	.00062	0.0036	0.0072	mg/kg	J	8260B	10/31/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00045	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00056	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,1,1-Trichloroethane	71-55-6	U	.00041	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,1,2-Trichloroethane	79-00-5	U	.0004	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Trichloroethene	79-01-6	U	.0004	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Trichlorofluoromethane	75-69-4	U	.00055	0.0036	0.0072	mg/kg		8260B	10/31/14	1
1,2,3-Trichloropropane	96-18-4	U	.0011	0.0014	0.0036	mg/kg		8260B	10/31/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.0003	0.00072	0.0014	mg/kg		8260B	10/31/14	1

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DNE! Do Not Report

KA 2/11/15



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Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 24, 2014
Description : Holloman AFB

ESC Sample # : L729568-05

Sample ID : TU503-SB14-NS02

Site ID :

Collected By :
Collection Date : 10/21/14 14:35

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00049	0.00072	0.0014	mg/kg		8260B	10/31/14	1
m&p-Xylene	1330-20-7	U	.001	0.0014	0.0029	mg/kg		8260B	10/31/14	1
Vinyl chloride	75-01-4	U	.00042	0.00072	0.0014	mg/kg		8260B	10/31/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00039	0.00072	0.0014	mg/kg		8260B	10/31/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	102.				% Rec.		8260B	10/31/14	1
Dibromofluoromethane	1868-53-7	113.				% Rec.		8260B	10/31/14	1
4-Bromofluorobenzene	460-00-4	102.				% Rec.		8260B	10/31/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.3	2.9	5.8	mg/kg		8015	10/29/14	1
C28-C40 Oil Range		U	.39	2.9	5.8	mg/kg		8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	78.8				% Rec.		8015	10/29/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	10/29/14	1
Acenaphthene	83-32-9	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	10/29/14	1
Acenaphthylene	208-96-8	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	10/29/14	1
Benzo (a) anthracene	56-55-3	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	10/29/14	1
Benzo (a) pyrene <i>VS LCS-L</i>	50-32-8	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	10/29/14	1
Benzo (b) fluoranthene <i>MS</i>	205-99-2	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	10/29/14	1
Benzo (g, h, i) perylene	191-24-2	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	10/29/14	1
Benzo (k) fluoranthene	207-08-9	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	10/29/14	1
Chrysene	218-01-9	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	10/29/14	1
Dibenz (a, h) anthracene	53-70-3	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	10/29/14	1
Fluoranthene	206-44-0	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	10/29/14	1
Fluorene	86-73-7	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	10/29/14	1
Indeno (1,2,3-cd) pyrene	193-39-5	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	10/29/14	1
Naphthalene	91-20-3	U	.00087	0.0087	0.029	mg/kg		8270C-SI	10/29/14	1
Phenanthrene	85-01-8	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	10/29/14	1
Pyrene	129-00-0	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	10/29/14	1
2-Methylnaphthalene	91-57-6	U	.00093	0.0087	0.029	mg/kg		8270C-SI	10/29/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	49.6				% Rec.		8270C-SI	10/29/14	1
Nitrobenzene-d5	4165-60-0	76.9				% Rec.		8270C-SI	10/29/14	1
2-Fluorobiphenyl	321-60-8	76.3				% Rec.		8270C-SI	10/29/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.011	0.24	0.48	mg/kg		8270C	10/31/14	1
Bis(2-chloroethyl) ether <i>VS CCAL-L</i>	111-44-4	U	.013	0.24	0.48	mg/kg		8270C	10/31/14	1
Bis(2-chloroisopropyl) ether	108-60-1	U	.011	0.24	0.48	mg/kg		8270C	10/31/14	1
Benzyl Alcohol	100-51-6	U	.011	0.24	0.48	mg/kg		8270C	10/31/14	1
Benzoic acid	65-85-0	U	.17	2.4	4.8	mg/kg		8270C	10/31/14	1
Carbazole	86-74-8	U	.0075	0.24	0.48	mg/kg		8270C	10/31/14	1

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L729568-05 (PH) - 6.8@20.3c

KA 2/1/15
BMS 9/2/15
28 of 1619



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REPORT OF ANALYSIS

Sheri Fling
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Denver, CO 80237

November 20, 2014

Date Received : October 24, 2014
Description : Holloman AFB
Sample ID : TU503-SB14-NS02
Collected By :
Collection Date : 10/21/14 14:35

ESC Sample # : L729568-05

Site ID :

Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0075	0.24	0.48	mg/kg		8270C	10/31/14	1
4-Bromophenyl-phenylether	101-55-3	U	.016	0.24	0.48	mg/kg		8270C	10/31/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0091	0.24	0.48	mg/kg		8270C	10/31/14	1
2-Chloronaphthalene	91-58-7	U	.0093	0.24	0.48	mg/kg		8270C	10/31/14	1
3,3-Dichlorobenzidine	91-94-1	U	.11	0.24	0.48	mg/kg		8270C	10/31/14	1
2,4-Dinitrotoluene	121-14-2	U	.0088	0.24	0.48	mg/kg		8270C	10/31/14	1
2,6-Dinitrotoluene	606-20-2	U	.011	0.24	0.48	mg/kg		8270C	10/31/14	1
Hexachlorobenzene	118-74-1	U	.012	0.24	0.48	mg/kg		8270C	10/31/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.014	0.24	0.48	mg/kg		8270C	10/31/14	1
Hexachloroethane	67-72-1	U	.019	0.24	0.48	mg/kg		8270C	10/31/14	1
Isophorone	78-59-1	U	.0075	0.24	0.48	mg/kg		8270C	10/31/14	1
Nitrobenzene	98-95-3	U	.01	0.24	0.48	mg/kg		8270C	10/31/14	1
n-Nitrosodimethylamine	62-75-9	U	.094	0.24	0.48	mg/kg		8270C	10/31/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0086	0.24	0.48	mg/kg		8270C	10/31/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.013	0.24	0.48	mg/kg		8270C	10/31/14	1
Benzylbutyl phthalate	85-68-7	U	.014	0.24	0.48	mg/kg		8270C	10/31/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.017	0.24	0.48	mg/kg		8270C	10/31/14	1
Di-n-butyl phthalate	84-74-2	U	.016	0.24	0.48	mg/kg		8270C	10/31/14	1
Diethyl phthalate	84-66-2	U	.01	0.24	0.48	mg/kg		8270C	10/31/14	1
Dimethyl phthalate	131-11-3	U	.0078	0.24	0.48	mg/kg		8270C	10/31/14	1
Di-n-octyl phthalate	117-84-0	U	.013	0.24	0.48	mg/kg		8270C	10/31/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.013	0.24	0.48	mg/kg		8270C	10/31/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.007	0.24	0.48	mg/kg		8270C	10/31/14	1
2-Chlorophenol	95-57-8	U	.012	0.24	0.48	mg/kg		8270C	10/31/14	1
2,4-Dichlorophenol	120-83-2	U	.011	0.24	0.48	mg/kg		8270C	10/31/14	1
2,4-Dimethylphenol	105-67-9	U	.068	0.24	0.48	mg/kg		8270C	10/31/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.17	0.24	0.48	mg/kg		8270C	10/31/14	1
2,4-Dinitrophenol	51-28-5	U	.14	0.24	0.48	mg/kg		8270C	10/31/14	1
2-Methylphenol	95-48-7	U	.014	0.24	0.48	mg/kg		8270C	10/31/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.011	0.24	0.48	mg/kg		8270C	10/31/14	1
2-Nitrophenol	88-75-5	U	.019	0.24	0.48	mg/kg		8270C	10/31/14	1
4-Nitrophenol	100-02-7	U	.075	0.24	0.48	mg/kg		8270C	10/31/14	1
4-Chloroaniline	106-47-8	U	.0051	0.24	0.48	mg/kg		8270C	10/31/14	1
2-Nitroaniline	88-74-4	U	.011	0.24	0.48	mg/kg		8270C	10/31/14	1
1,2-Diphenylhydrazine	103-33-3	U	.002	0.24	0.48	mg/kg		8270C	10/31/14	1
3-Nitroaniline	99-09-2	U	.012	0.24	0.48	mg/kg		8270C	10/31/14	1
4-Nitroaniline	100-01-6	U	.0093	0.24	0.48	mg/kg		8270C	10/31/14	1
Pentachlorophenol	87-86-5	U	.07	0.24	0.48	mg/kg		8270C	10/31/14	1
Phenol	108-95-2	U	.01	0.24	0.48	mg/kg		8270C	10/31/14	1
2,4,5-Trichlorophenol	95-95-4	U	.014	0.24	0.48	mg/kg		8270C	10/31/14	1
2,4,6-Trichlorophenol	88-06-2	U	.011	0.24	0.48	mg/kg		8270C	10/31/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	61.1				% Rec.		8270C	10/31/14	1
Phenol-d5	4165-62-2	53.9				% Rec.		8270C	10/31/14	1

Results listed are dry weight basis.
U = Not Detected at the LOD

Note:

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The reported analytical results relate only to the sample submitted

Reported: 11/05/14 16:21 Revised: 11/20/14 10:56

L729568-05 (ICP METALS) - Dilution due to matrix

L729568-05 (ICP METALS) - Diluted due to matrix interference.

L729568-05 (PH) - 6.8@20.3c

DNR = do not replace

*BAJ/WJK
BMS 2/17/15*



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 24, 2014
 Description : Holloman AFB
 Sample ID : TU503-SB14-NS02
 Collected By :
 Collection Date : 10/21/14 14:35

ESC Sample # : L729568-05
 Site ID :
 Project # : 23446543.0055AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	60.0				% Rec.		8270C	10/31/14	1
2-Fluorobiphenyl	321-60-8	70.0				% Rec.		8270C	10/31/14	1
2,4,6-Tribromophenol	118-79-6	63.9				% Rec.		8270C	10/31/14	1
p-Terphenyl-d14	1718-51-0	51.2				% Rec.		8270C	10/31/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

Note:

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The reported analytical results relate only to the sample submitted

Reported: 11/05/14 16:21 Revised: 11/20/14 10:56

L729568-05 (ICP METALS) - Dilution due to matrix

L729568-05 (ICP METALS) - Diluted due to matrix interference.

L729568-05 (PH) - 6.8@20.3c

KA 2/1/15

General Overall Assessment:

- Data are usable without qualification.
- Data are usable with qualification (noted below).
- Some or all data are unusable for any purpose (detailed below).

Case Narrative Comments: Any laboratory case narrative comments concerning data qualification were addressed in the table below.

Trace level detects, reported between the method detection limit (MDL) and the reporting limit (LOQ), have been qualified as estimated (F SQL-I). All other occurrences of data qualification are covered in the following table.

Review Parameter	Criteria Met?	Comment
Chain of Custody & Sample Receipt	Yes	The samples were received by ESC Lab Sciences in good condition and were consistent with the accompanying chain of custody (COC). The cooler temperatures upon receipt were within the recommended ≤6 degrees Celsius (°C) temperature range.
Reporting	Yes	<p>Method 8270C Semivolatile Organic Compounds (SVOCs)</p> <p>The results for 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene are not reported by Method 8270C SVOCs but are reported by Method 8260B volatile organic compounds (VOCs). As the detection limits (DLs), limits of detection (LODs), and limits of quantitation (LOQs) are lower by Method 8260B, further action was not necessary.</p> <p>The laboratory noted 4-methylphenol cannot be reported as 3 & 4-methylphenol coelute during the analysis; therefore, the analytes are reported together and 3&4-methylphenol on the data sheets and in the electronic database.</p>
Holding Times	Yes	All samples were analyzed within the method required holding time.
Laboratory Blanks <ul style="list-style-type: none"> • Method Blank • Continuing Calibration Blank 	No	With the exceptions listed in Table 1, target analytes were not detected within the method or calibration blanks.
Matrix Quality Control <ul style="list-style-type: none"> • Matrix Spike/ Matrix Spike Duplicate H-TU904-GW01-DD01 (Dissolved 6010B Metals) • Total vs. Partial Analyses (Metals) 	Yes	<p>Matrix Spike/ Matrix Spike Duplicate (MS/MSD)</p> <p>The frequency of MS/MSDs met the QAPP requirement of one per twenty samples.</p> <p>The MS/MSD recoveries and relative percent differences (RPDs) met quality control criteria.</p> <p>Results in the native sample greater than four times the concentration of the spike added during digestions/extractions are not considered to be a representative measure of accuracy. Further action with respect to spike recovery evaluation or qualification of data was not considered necessary.</p> <p>Consistent with standard operating procedure (SOP) 14, when MS/MSD issues accounted for less than 35% of the MS/MSD analyses conducted, applicable data qualification was limited to qualification of the parent sample of the affected analyte. When >35% of the MS/MSD results did not meet criteria, evaluation was extended to all associated samples. See Section 4.1 of the data validation report for overall qualifiers resulting from the MS/MSD evaluation.</p>

Review Parameter	Criteria Met?	Comment
		<p>Total vs. Partial Analyses (Metals)</p> <p>Consistent with SOP 14, results for the total analysis of a particular analyte should be greater than the results for a partial analyte of that analyte. The following criteria were used to evaluate the total versus dissolved results:</p> <ul style="list-style-type: none"> In instances where the value for a partial analysis exceed that for a total analysis and both of the results are >5xLOQ, the criterion utilized is that the two values should agree within $\pm 30\%$. In instances where the value for a partial analysis exceeds that for a total analysis and either of the results is 5x the LOQ, the absolute difference between the results is compared against an evaluation criterion of 2xLOQ. <p>The total metal sample results were compared with the associated dissolved sample results against the concentration-dependent criteria set forth in SOP 14.</p>
<p>Metals Only</p> <ul style="list-style-type: none"> Post Digestion Spike None in this package Serial Dilution H-TU904-GW01-DD01 (Dissolved 6010B Metals) 	Yes	<p>Post Digestion Spike (PDS) (Metals Only)</p> <p>A post digestion spike was not reported in association with the sample in this data package.</p> <p>Serial Dilution (Metals Only)</p> <p>Only the results that were greater than 50 times their respective DLs were appropriate for comparing to the evaluation criterion. All percent differences (%Ds) between the original sample results and the results obtained from the sample-diluted 1:5 were $\leq 10\%$.</p>
<p>Method Quality Control</p> <ul style="list-style-type: none"> Surrogates (PAHs, SVOCs, DRO/ORO) 	Yes	<p>The surrogate recoveries were within the laboratory specified acceptance criteria.</p>
<p>Field Quality Control</p> <ul style="list-style-type: none"> Trip Blank None Field Duplicate H-TU904-GW01-ND01/ H-TU904-GW01-DD01/ H-TU904-GW01-NT01/ H-TU904-GW01-DT01 Equipment Blank None in this package Field Blank None in this package 	Yes	<p>Trip Blank</p> <p>As VOCs and GROs were not analyzed in this data package, a trip blank was not required. Further action was not necessary.</p> <p>Field Duplicate</p> <p>The frequency of field duplicates met the QAPP requirement of one per twenty samples.</p> <p>With the exceptions listed in Table 2, the comparison between results of the field duplicate pair met the criteria listed below.</p> <ul style="list-style-type: none"> When both the sample and duplicate values are >5x the LOQ acceptable sampling and analytical precision is indicated by an RPD between the results of $\leq 30\%$ for water samples ($\leq 50\%$ for soil samples). Where the result for one or both analytes of the field duplicate pair is <5xLOQ, satisfactory precision is indicated if the absolute difference between the field duplicate results is <2xLOQ for water samples (<3.5xLOQ for soil samples). <p>Consistent with SOP 14, when field duplicate issues accounted for less than 35% of the field duplicate analyses conducted, applicable data qualification was limited to qualification of the parent sample for the affected analyte. When >35% of the field duplicate results did not meet criteria, evaluation</p>

Review Parameter	Criteria Met?	Comment
		<p>was extended to all associated samples. See Section 4.3 of the data validation report for overall qualifiers resulting from the field duplicate evaluation.</p> <p>Equipment Blank</p> <p>As dedicated equipment was used to collect these samples, an equipment blank was not submitted for this sampling event. Further action was not necessary.</p> <p>Field Blank</p> <p>The frequency of field blanks met the QAPP requirement of one per twenty samples.</p> <p>A field blank was not submitted with this data package. See Section 4.4 of the data validation report for overall qualifiers resulting from the field blank evaluation.</p>
LODs met?	No	Due to dilutions, several of the dissolved metals by Method 6020 for all samples, as well as several of the total metals by Methods 6010B and 6020 were reported as non-detect at elevated LODs. See Section 3.7 of the validation report for further discussion.
Other Parameters	Yes	<p>Naphthalene (8260B and 8270C-PAHs) and hexachloro-1,3-butadiene and 1,2,4-trichlorobenzene (8260B and 8270C) were analyzed by multiple methods. Results were selected for reporting using the following criteria:</p> <ul style="list-style-type: none"> • If both results were non-detect, the non-detect result with the lower DL was selected. • If both results were reported as detected, the higher detected result was selected for reporting. • If one result was reported as non-detect and the other result was reported as detected, the detected result was selected for reporting.
Initial Calibration	Yes	<p>Method 8270C SVOCs</p> <p>A minimum relative response factor (RRF) of 0.05 was used for the system performance check compounds (SPCCs) and all SPCCs met this criterion. The percent relative standard deviations (%RSDs) over the initial calibration RRFs for all calibration check compounds (CCCs) satisfied the method requirement of <30%. For all other target compounds, a requirement of 15% was used. The %RSD values for all target analytes in the calibration were less than 15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)</p> <p>The %RSD values for all target analytes in the calibration were less than 20%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8015D DRO/ORO</p> <p>The relationship between instrument response and concentration was established with a blank and at least five standards for each analyte. The %RSD over the initial calibrations curve satisfied the method requirement of <15%. Therefore, the initial calibration met method acceptance criteria.</p>

Review Parameter	Criteria Met?	Comment
		<p>Methods 6010B (Inductively Coupled Plasma [ICP] Metals) and 6020 (ICPMS Metals)</p> <p>The initial calibrations (ICALs) were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with a blank and at least five standards. The calibrations were verified with the analysis of an initial calibration verification (ICV) standard. All metals were recovered within the method acceptance range of 90-110%.</p> <p>7470A (Mercury)</p> <p>The ICALs were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with five standards. The correlation coefficient was >0.995. The calibration was verified with the analysis of an ICV standard. The analytes were recovered within the acceptance range of 90-110%. Response and linearity criteria were met and data qualification on the basis of initial calibration was not necessary.</p>
Initial Calibration Verification/Continuing Calibration Verification	No	<p>Methods 8270C SVOCs/8270C PAHs</p> <p>With the exception listed in Table 3, the percent differences (%Ds) for all CCCs in the ICVs and continuing calibrations (CCALs) were less than 20%, satisfying method requirements, and other target analytes satisfied the %D criterion of 20%.</p> <p>Method 8015 DRO/ORO</p> <p>The %Ds for DRO/ORO in the ICVs and CCALs were less than 15%. Data qualification was not necessary.</p> <p>Methods 6010B (ICP Metals), 6020 (ICPMS Metals), and 7470A (Mercury)</p> <p>Calibration verification analyses were conducted at the proper frequency. All metals were recovered within the DOD QSM 4.2 low level acceptance range of 80-120% and the method medium/high acceptance range of 90-110%.</p>
Interference Check Standard (Metals Only)	No	<p>The interference check standard (ICS) AB solutions were analyzed at the proper frequency. The target analytes were recovered within the acceptance range of 90-10% in the ICS AB solution. With the exceptions listed in Table 4, interferent elements were not present in the samples at concentrations greater than those in the ICSs.</p> <p>The interferent elements aluminum, calcium, iron, and magnesium were present in most samples in this data package at concentrations greater than or equal to those in the ICSs. As such, these samples were evaluated for positive and negative biases suggested by the ICS A. Data qualification was issued if the absolute value of the ICS A result was greater than the MDL and it suggested a positive or negative bias which accounted for more than 25% of associated sample results or reporting limits. (Note: The ICS A solution only contains the interferent elements aluminum, calcium, iron, and magnesium so any positive or negative result for other analytes is inferred to be a bias potentially caused by one or more of the interferent elements present.) Table 4 summarizes the resultant data qualification on the basis of the ICS results.</p>

Review Parameter	Criteria Met?	Comment
Internal Standard (SVOCs/PAHs/Metals (6020))	Yes	Recoveries for the internal standards in field samples were within the applicable acceptance limits. Therefore, data qualification based on internal standards was not necessary.
Laboratory Control Sample/ Laboratory Control Sample Duplicate	Yes	One laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) per method per analytical batch was prepared and analyzed. All of the LCS recoveries and LCS/LCSD RPDs were within the QAPP acceptance limits. These results are indicative of an acceptable level of accuracy and precision with respect to the analytical method. Method 8015 DRO/ORO The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the method could not be assessed for ORO.
Package Completeness	Yes	The results are usable as qualified for the project objective. The data are 100% complete.

> - Greater Than

< - Less Than

≤ - Less Than or Equal to

± - Plus or Minus

°C – Degrees Celsius

% - Percent

%Ds – Percent Differences

%RSD – Percent Relative Standard Deviation

CCALs – Continuing Calibrations

CCBs – Continuing Calibration Blanks

CCCs – Calibration Check Compounds

COC – Chain of Custody

COD – Coefficient of Determination

DLs – Detection Limits

DRO – Diesel Range Organics

GRO – Gasoline Range Organics

I – Indeterminate Bias

ICAL – Initial Calibration

ICB – Initial Calibration Blank

ICP – Inductively Coupled Plasma

ICPMS - Inductively Coupled Plasma Mass Spectrometry

ICS – Interference Check Standard

ICV – Initial Calibration Verification

ID – Identification

J - Estimated

LCS – Laboratory Control Sample

LCSD – Laboratory Control Sample Duplicate

LOD – Limit of Detection

LOQ – Limit of Quantitation

MS/MSD – Matrix Spike/ Matrix Spike Duplicate

ORO – Oil Range Organics

P – Preservation requirement(s) not met

PAHs – Polynuclear Aromatic Hydrocarbons

PDS – Post Digestion Spike

QAPP – Quality Assurance Project Plan

RPDs – Relative Percent Differences

RRF – Relative Response Factor

SOP – Standard Operating Procedure

SPCCs – System Performance Check Compounds

VOCs – Volatile Organic Compounds

Table 1: Blank Outliers and Resultant Data Qualification

Associated Samples	Analyte	Concentration	Qualification
Total Metals			
MB Batch WG751220 H-TU904-GW01-DT01 H-TU904-GW01-NT01 H-TU904-GW07-NT01	Nickel	0.502 µg/L	None. The associated results were reported at concentrations >5x the concentration of the blank contamination.
	Selenium	0.399 µg/L	
CCB 10/28/2014 5:14PM H-TU904-GW01-DT01 H-TU904-GW01-NT01 H-TU904-GW07-NT01	Mercury	0.084 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U CCB-I).
CCB 10/28/2014 5:14PM H-TU904-GW07-NT01	Aluminum	0.0407 µg/L	None. The associated result was reported at a concentration >5x the concentration of the blank contamination.

Associated Samples	Analyte	Concentration	Qualification
Dissolved Metals			
MB Batch WG75136 H-TU904-GW01-ND01 H-TU904-GW01-DD01 H-TU904-GW07-ND01	Mercury	0.0853 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).
MB Batch WG751198 H-TU904-GW01-ND01 H-TU904-GW01-DD01 H-TU904-GW07-ND01	Copper	9.11 µg/L	None. The associated results were reported as non-detect or at concentrations >5x the concentration of the blank contamination.
	Manganese	1.24 µg/L	
	Zinc	5.98 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).
MB Batch WG751129 H-TU904-GW01-ND01 H-TU904-GW01-DD01 H-TU904-GW07-ND01	Lead	0.323 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).
MB Batch WG751220 H-TU904-GW01-ND01 H-TU904-GW01-DD01 H-TU904-GW07-ND01	Chromium	0.768 µg/L	
CCB 10/28/2014 5:43PM H-TU904-GW01-ND01 H-TU904-GW01-DD01 H-TU904-GW07-ND01	Copper	9.07 µg/L	None. The associated results were reported as non-detect or at concentrations >5x the concentration of the blank contamination.
PAHs			
MB Batch WG750797 H-TU904-GW01-DT01 H-TU904-GW01-NT01 H-TU904-GW07-NT01	Naphthalene	0.0182 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).

> - Greater Than
CCB – Continuing Calibration Blank
PAHs – Polynuclear Aromatic Hydrocarbons

< - Less Than
I – Indeterminate Bias
U – Non-detect

µg/L – Micrograms per Liter
MB – Method Blank

Table 2: Field Duplicate Outliners and Resultant Data Qualification

Field Duplicate Pair	Analyte	Parent Result (µg/L)	FD Result (µg/L)	Criteria not Met	Qualification
Total Metals					
H-TU904-GW01-NT01/ H-TU904-GW01-DT01	Arsenic	28	13	Absolute Difference >2x the LOQ	As the absolute difference between the field duplicate pair results exceeded 2x the LOQ, the associated results were qualified as estimated (J FD-I).
	Cobalt	52	19		
	Chromium	280	86	RPD > 30%	As the RPD between the field duplicate pair results exceeded 30%, the associated results were qualified as estimated (J FD-I).
	Lead	90	32		
	Aluminum	25000	13000		
	Barium	270	180		
Manganese	4100	1400			

Field Duplicate Pair	Analyte	Parent Result (µg/L)	FD Result (µg/L)	Criteria not Met	Qualification
Dissolved Metals					
H-TU904-GW01-ND01/ H-TU904-GW01-DD01	Nickel	38	11	Absolute Difference >2x the LOQ	As the absolute difference between the field duplicate pair results exceeded 2x the LOQ, the associated results were qualified as estimated (J FD-I).

µg/L – Micrograms per Liter
FD – Field Duplicate
LOQ – Limit of Quantitation

% - Percent
I – Indeterminate Bias
RPD – Relative Percent Difference

> - Greater Than
J – Estimated

Table 3: Initial/Continuing Calibration Verification Outliers and Resultant Data Qualification

Associated Samples	Analyte	%D (Limit)	Data Qualification
SVOCs			
H-TU904-GW01-DT01 H-TU904-GW01-NT01 H-TU904-GW07-NT01	3&4-Methyl Phenol	-50.2 (±20)	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ CCAL-L).

± - Plus or minus
H – Low Bias

%D – Percent Difference
SVOCs – Semivolatile Organic Compounds

CCAL – Continuing Calibration
UJ – Estimated

Table 4: ICS Outliers and Resultant Data Qualification

Interferent Element	Analyte	ICS A (µg/L)	MDL (µg/L)	Qualified Samples	Qualification
Calcium	Copper	-8.6	5.3	H-TU904-GW07-ND01	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ/J ICS-L).
	Zinc	-14.8	5.9		
	Antimony	1	0.4		As the potential bias was considered to be high, the associated result was qualified as estimated (J ICS-H).

µg/L – Micrograms per Liter
L – Low Bias

H – High Bias
MDL – Method Detection Limit

ICS – Interference Check Standard
UJ/J - Estimated



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 25, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-GW01-ND01
 Collected By : Jon Mallonee
 Collection Date : 10/23/14 10:45

ESC Sample # : L729798-01

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved <i>F SQL-I</i>	7440-36-0	0.35	0.21	0.50	1	ug/l	J	6020	10/30/14	1
Arsenic, Dissolved <i>F SQL-I</i>	7440-38-2	0.70	0.25	0.50	1	ug/l	J	6020	10/30/14	1
Cadmium, Dissolved	7440-43-9	U	0.16	0.25	0.5	ug/l		6020	10/30/14	1
Chromium, Dissolved <i>U MB-I</i>	7440-47-3	3.6 <i>5.0</i>	2.7 <i>3.6</i>	5.0	10	ug/l	J	6020	10/31/14	5
Cobalt, Dissolved	7440-48-4	5.9	0.26	0.50	1	ug/l		6020	10/30/14	1
Lead, Dissolved <i>U MB-I</i>	7439-92-1	2.0 <i>2.5</i>	1.2 <i>2.0</i>	2.5	5	ug/l	J	6020	10/31/14	5
Nickel, Dissolved <i>J FO-I, MS-I</i>	7440-02-0	38.	1.8	2.5	5	ug/l		6020	10/31/14	5
Selenium, Dissolved	7782-49-2	6.3	1.9	2.5	5	ug/l		6020	10/31/14	5
Silver, Dissolved	7440-22-4	U	0.31	0.50	1	ug/l		6020	10/30/14	1
Thallium, Dissolved	7440-28-0	U	0.95	2.5	5	ug/l		6020	10/31/14	5
Mercury, Dissolved <i>U MB-I</i>	7439-97-6	0.082	0.049 <i>0.082</i>	0.080 <i>0.082</i>	0.2	ug/l	J	7470A	10/28/14	1
Aluminum, Dissolved <i>F SQL-I</i>	7429-90-5	89.	35	50.	100	ug/l	J	6010B	10/28/14	1
Barium, Dissolved	7440-39-3	41.	1.7	2.5	5	ug/l		6010B	10/28/14	1
Beryllium, Dissolved	7440-41-7	U	0.7	1.0	2	ug/l		6010B	10/28/14	1
Copper, Dissolved	7440-50-8	U	5.3	10.	20	ug/l		6010B	10/28/14	1
Manganese, Dissolved	7439-96-5	570	1.2	5.0	10	ug/l		6010B	10/28/14	1
Vanadium, Dissolved <i>F SQL-I</i>	7440-62-2	3.1	2.4	10.	20	ug/l	J	6010B	10/28/14	1
Zinc, Dissolved <i>U MB-I</i>	7440-66-6	21. <i>25</i>	5.9 <i>21</i>	25.	50	ug/l	J	6010B	10/28/14	1

U = Not Detected at the LOD

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 12/03/14 14:36 Printed: 12/03/14 14:37

L729798-01 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

CA 2/18/15
BMS 2/18/15
 8 of 1549



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 25, 2014
Description : Holloman AFB
Sample ID : H-TU904-GW01-DT01
Collected By : Jon Mallonee
Collection Date : 10/23/14 10:45

ESC Sample # : L729798-02

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony <i>MS-I</i>	7440-36-0	U	1	2.5	5	ug/l		6020	10/31/14	5
Arsenic <i>J FO-I</i>	7440-38-2	13.	1.2	2.5	5	ug/l		6020	10/31/14	5
Cadmium <i>F SQL-I</i>	7440-43-9	1.9	0.8	1.3	2.5	ug/l	J	6020	10/31/14	5
Chromium <i>J FO-I</i>	7440-47-3	86.	2.7	5.0	10	ug/l		6020	10/31/14	5
Cobalt <i>J FO-I</i>	7440-48-4	19.	1.3	2.5	5	ug/l		6020	10/31/14	5
Lead <i>J FO-I</i>	7439-92-1	42.	1.2	2.5	5	ug/l		6020	10/31/14	5
Nickel <i>J FO-I</i>	7440-02-0	32.	1.8	2.5	5	ug/l	B	6020	10/31/14	5
Selenium <i>MS-I</i>	7782-49-2	18.	1.9	2.5	10	ug/l		6020	11/05/14	5
Silver	7440-22-4	U	1.6	2.5	5	ug/l		6020	10/31/14	5
Thallium	7440-28-0	U	0.95	2.5	5	ug/l		6020	10/31/14	5
Mercury <i>U CCB-I</i>	7439-97-6	0.12	0.049 0.12	0.088 0.12	0.2	ug/l	J	7470A	10/28/14	1
Aluminum <i>J FO, MS-H</i>	7429-90-5	13000	180	250	500	ug/l		6010B	10/29/14	5
Barium <i>J FO-I</i>	7440-39-3	180	8.5	13.	25	ug/l		6010B	10/29/14	5
Beryllium	7440-41-7	U	3.5	5.0	10	ug/l		6010B	10/29/14	5
Copper	7440-50-8	U	26	50.	100	ug/l		6010B	10/29/14	5
Manganese <i>J FO-I</i>	7439-96-5	1400	6	25.	50	ug/l		6010B	10/29/14	5
Vanadium <i>F SQL-I</i>	7440-62-2	75.	12	50.	100	ug/l	J	6010B	10/29/14	5
Zinc	7440-66-6	260	30	130	250	ug/l		6010B	10/29/14	5
Diesel and Oil Ranges										
C10-C28 Diesel Range		200	22	33.	100	ug/l		8015	10/29/14	1
C28-C40 Oil Range		130	12	33.	100	ug/l		8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	107.				% Rec.		8015	10/29/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene <i>MS-I</i>	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	10/29/14	1
Acenaphthene <i>MS-I</i>	83-32-9	U	0.0082	0.025	0.05	ug/l		8270 C-	10/29/14	1
Acenaphthylene <i>MS, MS-I</i>	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo(a)anthracene <i>MS, MS-I</i>	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo(a)pyrene <i>MS, MS-I</i>	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo(b)fluoranthene <i>F SQL, MS-I</i>	205-99-2	0.027	0.019	0.025	0.05	ug/l	J	8270 C-	10/29/14	1
Benzo(g,h,i)perylene <i>F SQL-I</i>	191-24-2	0.020	0.016	0.025	0.05	ug/l	J	8270 C-	10/29/14	1
Benzo(k)fluoranthene <i>MS, MS-I</i>	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	10/29/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	10/29/14	1
Dibenz(a,h)anthracene	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	10/29/14	1
Fluoranthene <i>F SQL, MS, MS-I</i>	206-44-0	0.032	0.016	0.025	0.05	ug/l	J	8270 C-	10/29/14	1
Fluorene <i>MS, MS-I</i>	86-73-7	U	0.009	0.025	0.05	ug/l		8270 C-	10/29/14	1
Indeno(1,2,3-cd)pyrene <i>F SQL, MS-I</i>	193-39-5	0.013	0.0074	0.025	0.05	ug/l	J	8270 C-	10/29/14	1
Naphthalene <i>MS, MS-I</i>	123-20-3	0.089	0.032	0.05	0.05	ug/l	J	8270 C-	10/29/14	1
Phenanthrene <i>F SQL, MS, MS-I</i>	85-01-8	0.019	0.018	0.025	0.05	ug/l	J	8270 C-	10/29/14	1
Pyrene <i>F SQL, MS, MS-I</i>	129-00-0	0.028	0.016	0.025	0.05	ug/l	J	8270 C-	10/29/14	1
2-Methylnaphthalene <i>F SQL, MS, MS-I</i>	91-57-6	0.042	0.016	0.025	0.25	ug/l	J	8270 C-	10/29/14	1
Surrogate Recovery										

U = Not Detected at the LOD

Note:

The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.
Reported: 12/03/14 14:36 Printed: 12/03/14 14:37
L729798-02 (ICP METALS) - Non-target compounds too high to run at a lower dilution.
L729798-02 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

Handwritten notes:
BMS 9/4/15
BMS 2/18/15
AMS 2/19/15
BMS 2/19/15
9 of 1549



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 25, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-GW01-DT01
 Collected By : Jon Mallonee
 Collection Date : 10/23/14 10:45

ESC Sample # : L729798-02

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	89.9				% Rec.		8270 C-	10/29/14	1
2-Fluorobiphenyl	321-60-8	86.4				% Rec.		8270 C-	10/29/14	1
p-Terphenyl-d14	1718-51-0	96.1				% Rec.		8270 C-	10/29/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	10/29/14	1
Bis(2-chloroethyl)ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	10/29/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	10/29/14	1
Benzyl Alcohol	100-51-6	U	0.39	5.0	10	ug/l		8270C	10/29/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	10/29/14	1
Benzoic acid <i>F SQL-I</i>	65-85-0	6.6	0.44	5.0	10	ug/l	J	8270C	10/29/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	10/29/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	10/29/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	10/29/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	10/29/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	10/29/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	10/29/14	1
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	10/29/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	10/29/14	1
Hexachloro-1,3-butadiene <i>DNR</i>	87-68-3	U	0.33	5.0	10	ug/l		8270C	10/29/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	10/29/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	10/29/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	10/29/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	10/29/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	10/29/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	10/29/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	10/29/14	1
Bis(2-ethylhexyl)phthalate <i>F SQL-I</i>	117-81-7	0.83	0.71	1.0	3	ug/l	J	8270C	10/29/14	1
Di-n-butyl phthalate <i>F SQL-I</i>	84-74-2	0.37	0.27	1.0	3	ug/l	J	8270C	10/29/14	1
Diethyl phthalate <i>F SQL-I</i>	84-66-2	1.2	0.28	1.0	3	ug/l	J	8270C	10/29/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	10/29/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	10/29/14	1
1,2,4-Trichlorobenzene <i>DNR</i>	120-82-1	U	0.36	5.0	10	ug/l		8270C	10/29/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	10/29/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	10/29/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	10/29/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	10/29/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	10/29/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	10/29/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	10/29/14	1
3&4-Methyl Phenol <i>US CCAL-L</i>	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	10/29/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	10/29/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	10/29/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	10/29/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	10/29/14	1

U = Not Detected at the LOD

Note:

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 Reported: 12/03/14 14:36 Printed: 12/03/14 14:37
 L729798-02 (ICP METALS) - Non-target compounds too high to run at a lower dilution.
 L729798-02 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

DNR - Do Not Report

KA 2/18/15
BMS 2/19/15
BMS 2/19/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 25, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-GW01-DT01
 Collected By : Jon Mallonee
 Collection Date : 10/23/14 10:45

ESC Sample # : L729798-02

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	10/29/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	10/29/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	10/29/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	10/29/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	10/29/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	10/29/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	10/29/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	46.1				% Rec.		8270C	10/29/14	1
Phenol-d5	4165-62-2	33.4				% Rec.		8270C	10/29/14	1
Nitrobenzene-d5	4165-60-0	59.1				% Rec.		8270C	10/29/14	1
2-Fluorobiphenyl	321-60-8	62.5				% Rec.		8270C	10/29/14	1
2,4,6-Tribromophenol	118-79-6	85.4				% Rec.		8270C	10/29/14	1
p-Terphenyl-d14	1718-51-0	62.5				% Rec.		8270C	10/29/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 14:36 Printed: 12/03/14 14:37

L729798-02 (ICP METALS) - Non-target compounds too high to run at a lower dilution.

L729798-02 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KA 2/10/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 25, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-GW01-DD01
 Collected By : Jon Mallonee
 Collection Date : 10/23/14 10:45

ESC Sample # : L729798-03

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved <i>F SQL-I</i>	7440-36-0	0.26	0.21	0.50	1	ug/l	J	6020	10/30/14	1
Arsenic, Dissolved <i>F SQL-I</i>	7440-38-2	0.96	0.25	0.50	1	ug/l	J	6020	10/30/14	1
Cadmium, Dissolved	7440-43-9	U	0.16	0.25	0.5	ug/l		6020	10/30/14	1
Chromium, Dissolved <i>U MB-I</i>	7440-47-3	2.8 5.0	2.7 2.8	5.0	10	ug/l	J	6020	10/31/14	5
Cobalt, Dissolved	7440-48-4	6.3	0.26	0.50	1	ug/l		6020	10/30/14	1
Lead, Dissolved <i>U MB-I</i>	7439-92-1	3.8	1.2 3.8	2.5 3.8	5	ug/l	J	6020	10/31/14	5
Nickel, Dissolved <i>J PO-I, MS-I</i>	7440-02-0	11.	1.8	2.5	5	ug/l		6020	10/31/14	5
Selenium, Dissolved <i>F SQL-I</i>	7782-49-2	4.9	1.9	2.5	5	ug/l	J	6020	10/31/14	5
Silver, Dissolved	7440-22-4	U	0.31	0.50	1	ug/l		6020	10/30/14	1
Thallium, Dissolved	7440-28-0	U	0.95	2.5	5	ug/l		6020	10/31/14	5
Mercury, Dissolved <i>U MB-I</i>	7439-97-6	0.085	0.049	0.085	0.2	ug/l	J	7470A	10/28/14	1
Aluminum, Dissolved <i>F SQL-I</i>	7429-90-5	U	35	50.	100	ug/l		6010B	10/28/14	1
Barium, Dissolved	7440-39-3	50.	1.7	2.5	5	ug/l		6010B	10/28/14	1
Beryllium, Dissolved	7440-41-7	U	0.7	1.0	2	ug/l		6010B	10/28/14	1
Copper, Dissolved	7440-50-8	U	5.3	10.	20	ug/l		6010B	10/28/14	1
Manganese, Dissolved	7439-96-5	450	1.2	5.0	10	ug/l		6010B	10/28/14	1
Vanadium, Dissolved <i>F SQL-I</i>	7440-62-2	3.4	2.4	10.	20	ug/l	J	6010B	10/28/14	1
Zinc, Dissolved <i>U MB-I</i>	7440-66-6	18. 25	5.9 18	25.	50	ug/l	J	6010B	10/28/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 14:36 Printed: 12/03/14 14:37

L729798-03 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KA 2/18/15
BAS 2/19/15
 12 of 1549



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 25, 2014
Description : Holloman AFB
Sample ID : H-TU904-GW01-NT01
Collected By : Jon Mallonee
Collection Date : 10/23/14 10:45

ESC Sample # : L729798-04

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony MS-L	7440-36-0	U	1	2.5	5	ug/l		6020	10/31/14	5
Arsenic MS-L	7440-38-2	28.	1.2	2.5	5	ug/l		6020	10/31/14	5
Cadmium	7440-43-9	4.3	0.8	1.3	2.5	ug/l		6020	10/31/14	5
Chromium MS-L	7440-47-3	280	2.7	5.0	10	ug/l		6020	10/31/14	5
Cobalt MS-L	7440-48-4	52.	1.3	2.5	5	ug/l		6020	10/31/14	5
Lead MS-L	7439-92-1	90.	1.2	2.5	5	ug/l		6020	10/31/14	5
Nickel MS-L	7440-02-0	71.	1.8	2.5	5	ug/l	B	6020	10/31/14	5
Selenium MS-L	7782-49-2	45.	1.9	2.5	10	ug/l		6020	11/05/14	5
Silver	7440-22-4	U	1.6	2.5	5	ug/l		6020	10/31/14	5
Thallium	7440-28-0	U	0.95	2.5	5	ug/l		6020	10/31/14	5
Mercury MS-L	7439-97-6	0.13	0.049 0.13	0.080 0.13	0.2	ug/l	J	7470A	10/28/14	1
Aluminum MS-L	7429-90-5	25000	180	250	500	ug/l		6010B	10/29/14	5
Barium MS-L	7440-39-3	270	8.5	13.	25	ug/l		6010B	10/29/14	5
Beryllium MS-L	7440-41-7	7.3	3.5	5.0	10	ug/l	J	6010B	10/29/14	5
Copper MS-L	7440-50-8	83.	26	50.	100	ug/l	J	6010B	10/29/14	5
Manganese MS-L	7439-96-5	4100	6	25.	50	ug/l		6010B	10/29/14	5
Vanadium	7440-62-2	240	12	50.	100	ug/l		6010B	10/29/14	5
Zinc	7440-66-6	250	30	130	250	ug/l		6010B	10/29/14	5
Diesel and Oil Ranges										
C10-C28 Diesel Range		190	22	33.	100	ug/l		8015	10/29/14	1
C28-C40 Oil Range MS-L		84.	12	33.	100	ug/l	J	8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	107.				% Rec.		8015	10/29/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene MS-L	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	10/29/14	1
Acenaphthene MS-L	83-32-9	0.013	0.0082	0.025	0.05	ug/l	J	8270 C-	10/29/14	1
Acenaphthylene MS-L	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo(a)anthracene MS-L	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo(a)pyrene MS-L	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo(b)fluoranthene MS-L	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo(g,h,i)perylene	191-24-2	U	0.016	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo(k)fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	10/29/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	10/29/14	1
Dibenz(a,h)anthracene	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	10/29/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/29/14	1
Fluorene MS-L	86-73-7	0.017	0.009	0.025	0.05	ug/l	J	8270 C-	10/29/14	1
Indeno(1,2,3-cd)pyrene MS-L	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	10/29/14	1
Naphthalene MS-L	81-20-3	0.10	0.012	0.025	0.25	ug/l	J	8270 C-	10/29/14	1
Phenanthrene MS-L	85-01-8	0.021	0.018	0.025	0.05	ug/l	J	8270 C-	10/29/14	1
Pyrene MS-L	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/29/14	1
2-Methylnaphthalene MS-L	91-57-6	0.21	0.016	0.025	0.25	ug/l	J	8270 C-	10/29/14	1
Surrogate Recovery										

U = Not Detected at the LOD

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 12/03/14 14:36 Printed: 12/03/14 14:37

L729798-04 (ICP METALS) - Non-target compounds too high to run at a lower dilution.

L729798-04 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

BMS 9/21/15
BMS 2/18/15
BMS 2/19/15
3 of 1549



12065 Lebanon Rd.
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 Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 25, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-GW01-NT01
 Collected By : Jon Mallonee
 Collection Date : 10/23/14 10:45

ESC Sample # : L729798-04
 Site ID :
 Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	75.9				% Rec.		8270 C-	10/29/14	1
2-Fluorobiphenyl	321-60-8	81.5				% Rec.		8270 C-	10/29/14	1
p-Terphenyl-d14	1718-51-0	89.8				% Rec.		8270 C-	10/29/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	10/29/14	1
Bis(2-chloroethyl)ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	10/29/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	10/29/14	1
Benzyl Alcohol	100-51-6	U	0.39	5.0	10	ug/l		8270C	10/29/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	10/29/14	1
Benzoic acid <i>FSQL-I</i>	65-85-0	7.1	0.44	5.0	10	ug/l	J	8270C	10/29/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	10/29/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	10/29/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	10/29/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	10/29/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	10/29/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	10/29/14	1
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	10/29/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	10/29/14	1
Hexachloro-1,3-butadiene <i>DNR</i>	87-68-2	U	0.33	5.0	10	ug/l		8270C	10/29/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	10/29/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	10/29/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	10/29/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	10/29/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	10/29/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	10/29/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	10/29/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	0.71	1.0	3	ug/l		8270C	10/29/14	1
Di-n-butyl phthalate <i>FSQL-I</i>	84-74-2	0.37	0.27	1.0	3	ug/l	J	8270C	10/29/14	1
Diethyl phthalate <i>FSQL-I</i>	84-66-2	2.5	0.28	1.0	3	ug/l	J	8270C	10/29/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	10/29/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	10/29/14	1
1,2,4-Trichlorobenzene <i>DNR</i>	120-82-1	U	0.26	5.0	10	ug/l		8270C	10/29/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	10/29/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	10/29/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	10/29/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	10/29/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	10/29/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	10/29/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	10/29/14	1
3&4-Methyl Phenol <i>USCCAL-L</i>	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	10/29/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	10/29/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	10/29/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	10/29/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	10/29/14	1

U = Not Detected at the LOD

Note:

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 Reported: 12/03/14 14:36 Printed: 12/03/14 14:37
 L729798-04 (ICP METALS) - Non-target compounds too high to run at a lower dilution.
 L729798-04 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

DNR - Do Not Report

KA 2/19/15
BMS 2/19/15
 14 of 1549
BMS 2/19/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 25, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-GW01-NT01
 Collected By : Jon Mallonee
 Collection Date : 10/23/14 10:45

ESC Sample # : L729798-04

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	10/29/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	10/29/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	10/29/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	10/29/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	10/29/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	10/29/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	10/29/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	49.2				% Rec.		8270C	10/29/14	1
Phenol-d5	4165-62-2	35.7				% Rec.		8270C	10/29/14	1
Nitrobenzene-d5	4165-60-0	53.8				% Rec.		8270C	10/29/14	1
2-Fluorobiphenyl	321-60-8	57.6				% Rec.		8270C	10/29/14	1
2,4,6-Tribromophenol	118-79-6	76.4				% Rec.		8270C	10/29/14	1
p-Terphenyl-d14	1718-51-0	57.6				% Rec.		8270C	10/29/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 14:36 Printed: 12/03/14 14:37

L729798-04 (ICP METALS) - Non-target compounds too high to run at a lower dilution.

L729798-04 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KAZ/10/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 25, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-GW07-ND01
 Collected By : Jon Mallonee
 Collection Date : 10/23/14 16:56

ESC Sample # : L729798-05

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved <i>FS SOLIC-H</i>	7440-36-0	0.51	0.21	0.50	1	ug/l	J	6020	10/30/14	1
Arsenic, Dissolved	7440-38-2	1.0	0.25	0.50	1	ug/l		6020	10/30/14	1
Cadmium, Dissolved	7440-43-9	U	0.16	0.25	0.5	ug/l		6020	10/30/14	1
Chromium, Dissolved <i>U MB-I</i>	7440-47-3	3.2 5.0	2.7 3.2	5.0	10	ug/l	J	6020	10/31/14	5
Cobalt, Dissolved	7440-48-4	3.6	0.26	0.50	1	ug/l		6020	10/30/14	1
Lead, Dissolved	7439-92-1	U	1.2	2.5	5	ug/l		6020	10/31/14	5
Nickel, Dissolved <i>JMS FD-I</i>	7440-02-0	5.0	1.8	2.5	5	ug/l		6020	10/31/14	5
Selenium, Dissolved FAI-I	7782-49-2	8.2	1.9	2.5	5	ug/l		6020	10/31/14	5
Silver, Dissolved	7440-22-4	U	0.31	0.50	1	ug/l		6020	10/30/14	1
Thallium, Dissolved	7440-28-0	U	0.95	2.5	5	ug/l		6020	10/31/14	5
Mercury, Dissolved <i>U MB-I</i>	7439-97-6	0.090	0.049	0.080	0.2	ug/l	J	7470A	10/28/14	1
Aluminum, Dissolved	7429-90-5	U	35	50.	100	ug/l		6010B	10/28/14	1
Barium, Dissolved	7440-39-3	18.	1.7	2.5	5	ug/l		6010B	10/28/14	1
Beryllium, Dissolved	7440-41-7	U	0.7	1.0	2	ug/l		6010B	10/28/14	1
Copper, Dissolved <i>UJ ICS-L</i>	7440-50-8	U	5.3	10.	20	ug/l		6010B	10/28/14	1
Manganese, Dissolved	7439-96-5	180	1.2	5.0	10	ug/l		6010B	10/28/14	1
Vanadium, Dissolved <i>F SOL-I</i>	7440-62-2	5.6	2.4	10.	20	ug/l	J	6010B	10/28/14	1
Zinc, Dissolved <i>UJ ICS-L</i>	7440-66-6	U	5.9	25.	50	ug/l		6010B	10/28/14	1

U = Not Detected at the LOD

Note:

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 Reported: 12/03/14 14:36 Printed: 12/03/14 14:37

L729798-05 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KA Zlobis
BMS 2/19/15
 16 of 1549
BMS 2/17/15



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 Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 25, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-GW07-NT01
 Collected By : Jon Mallonee
 Collection Date : 10/23/14 16:56

ESC Sample # : L729798-06

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony <i>MS-L</i>	7440-36-0	U	1	2.5	5	ug/l		6020	10/31/14	5
Arsenic <i>J FD-I</i>	7440-38-2	23.	1.2	2.5	5	ug/l		6020	10/31/14	5
Cadmium	7440-43-9	6.6	0.8	1.3	2.5	ug/l		6020	10/31/14	5
Chromium <i>J FD-I</i>	7440-47-3	70.	2.7	5.0	10	ug/l		6020	10/31/14	5
Cobalt <i>J FD-I</i>	7440-48-4	33.	1.3	2.5	5	ug/l		6020	10/31/14	5
Lead	7439-92-1	85.	1.2	2.5	5	ug/l		6020	10/31/14	5
Nickel <i>J FD-I</i>	7440-02-0	33.	1.8	2.5	5	ug/l	B	6020	10/31/14	5
Selenium <i>J MS-L</i>	7782-49-2	78.	1.9	2.5	10	ug/l		6020	11/05/14	5
Silver	7440-22-4	U	1.6	2.5	5	ug/l		6020	10/31/14	5
Thallium	7440-28-0	U	0.95	2.5	5	ug/l		6020	10/31/14	5
Mercury <i>U CCB-I</i>	7439-97-6	0.18	0.049 <i>0.18</i>	0.080 <i>0.18</i>	0.2	ug/l	J	7470A	10/28/14	1
Aluminum <i>J MS, FD-H</i>	7429-90-5	22000	180	250	500	ug/l		6010B	10/29/14	5
Barium <i>J FD-I</i>	7440-39-3	420	8.5	13.	25	ug/l		6010B	10/29/14	5
Beryllium <i>F SQL-I</i>	7440-41-7	6.0	3.5	5.0	10	ug/l	J	6010B	10/29/14	5
Copper	7440-50-8	U	26	50.	100	ug/l		6010B	10/29/14	5
Manganese	7439-96-5	5100	6	25.	50	ug/l		6010B	10/29/14	5
Vanadium	7440-62-2	170	12	50.	100	ug/l		6010B	10/29/14	5
Zinc <i>F SQL-I</i>	7440-66-6	120	30	130	250	ug/l	J	6010B	10/29/14	5
Diesel and Oil Ranges										
C10-C28 Diesel Range <i>F SQL-I</i>		69.	22	33.	100	ug/l	J	8015	10/29/14	1
C28-C40 Oil Range		U	12	33.	100	ug/l		8015	10/29/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	108.				% Rec.		8015	10/29/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene <i>MS-L</i>	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	10/29/14	1
Acenaphthene <i>MS-L</i>	83-32-9	0.058	0.0082	0.025	0.05	ug/l		8270 C-	10/29/14	1
Acenaphthylene <i>F SQL-I</i>	208-96-8	0.012	0.011	0.025	0.05	ug/l	J	8270 C-	10/29/14	1
Benzo(a)anthracene <i>MS-L</i>	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo(a)pyrene <i>MS-L</i>	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo(b)fluoranthene <i>MS-L</i>	205-99-2	0.029	0.019	0.025	0.05	ug/l	J	8270 C-	10/29/14	1
Benzo(g,h,i)perylene <i>MS-L</i>	191-24-2	U	0.016	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo(k)fluoranthene <i>MS-L</i>	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	10/29/14	1
Chrysene <i>MS-L</i>	218-01-9	0.017	0.014	0.025	0.05	ug/l	J	8270 C-	10/29/14	1
Dibenz(a,h)anthracene <i>MS-L</i>	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	10/29/14	1
Fluoranthene <i>F SQL-I</i>	206-44-0	0.034	0.016	0.025	0.05	ug/l	J	8270 C-	10/29/14	1
Fluorene <i>F SQL-I</i>	86-73-7	0.026	0.009	0.025	0.05	ug/l	J	8270 C-	10/29/14	1
Indeno(1,2,3-cd)pyrene <i>MS-L</i>	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	10/29/14	1
Naphthalene <i>MS-L</i>	91-20-3	0.046	0.012 <i>0.046</i>	0.025 <i>0.046</i>	0.25	ug/l	J	8270 C-	10/29/14	1
Phenanthrene <i>F SQL-I</i>	85-01-8	0.027	0.018	0.025	0.05	ug/l	J	8270 C-	10/29/14	1
Pyrene <i>F SQL-I</i>	129-00-0	0.031	0.016	0.025	0.05	ug/l	J	8270 C-	10/29/14	1
2-Methylnaphthalene <i>F SQL-I</i>	91-57-6	0.091	0.016	0.025	0.25	ug/l	J	8270 C-	10/29/14	1
Surrogate Recovery										

U = Not Detected at the LOD

Note:

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 Reported: 12/03/14 14:36 Printed: 12/03/14 14:37
 L729798-06 (ICP METALS) - Non-target compounds too high to run at a lower dilution.
 L729798-06 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

Handwritten signatures and dates:
 KA 2/18/15
 BMS 2/19/15
 BMS 2/18/15
 17 of 1549
 - lead 1 -



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 25, 2014
Description : Holloman AFB
Sample ID : H-TU904-GW07-NT01
Collected By : Jon Mallonee
Collection Date : 10/23/14 16:56

ESC Sample # : L729798-06

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	79.1				% Rec.		8270 C-	10/29/14	1
2-Fluorobiphenyl	321-60-8	83.4				% Rec.		8270 C-	10/29/14	1
p-Terphenyl-d14	1718-51-0	92.6				% Rec.		8270 C-	10/29/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	10/29/14	1
Bis(2-chloroethyl)ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	10/29/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	10/29/14	1
Benzyl Alcohol	100-51-6	0.58	0.39	5.0	10	ug/l	J	8270C	10/29/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	10/29/14	1
Benzoic acid	65-85-0	6.4	0.44	5.0	10	ug/l	J	8270C	10/29/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	10/29/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	10/29/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	10/29/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	10/29/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	10/29/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	10/29/14	1
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	10/29/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	10/29/14	1
Hexachloro-1,3-butadiene	87-68-2	U	0.33	5.0	10	ug/l		8270C	10/29/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	10/29/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	10/29/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	10/29/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	10/29/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	10/29/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	10/29/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	10/29/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	0.71	1.0	3	ug/l		8270C	10/29/14	1
Di-n-butyl phthalate	84-74-2	U	0.27	1.0	3	ug/l		8270C	10/29/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	10/29/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	10/29/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	10/29/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.36	5.0	10	ug/l		8270C	10/29/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	10/29/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	10/29/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	10/29/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	10/29/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	10/29/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	10/29/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	10/29/14	1
3&4-Methyl Phenol	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	10/29/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	10/29/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	10/29/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	10/29/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	10/29/14	1

U = Not Detected at the LOD

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 12/03/14 14:36 Printed: 12/03/14 14:37

L729798-06 (ICP METALS) - Non-target compounds too high to run at a lower dilution.

L729798-06 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

DNR - Do Not Report

ICA 2/10/15
Bms 2/19/15
18 of 1549
Bms 2/19/15



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 25, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-GW07-NT01
 Collected By : Jon Mallonee
 Collection Date : 10/23/14 16:56

ESC Sample # : L729798-06

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	10/29/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	10/29/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	10/29/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	10/29/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	10/29/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	10/29/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	10/29/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	49.2				% Rec.		8270C	10/29/14	1
Phenol-d5	4165-62-2	37.7				% Rec.		8270C	10/29/14	1
Nitrobenzene-d5	4165-60-0	58.9				% Rec.		8270C	10/29/14	1
2-Fluorobiphenyl	321-60-8	58.4				% Rec.		8270C	10/29/14	1
2,4,6-Tribromophenol	118-79-6	75.2				% Rec.		8270C	10/29/14	1
p-Terphenyl-d14	1718-51-0	59.4				% Rec.		8270C	10/29/14	1

U = Not Detected at the LOD

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 12/03/14 14:36 Printed: 12/03/14 14:37

L729798-06 (ICP METALS) - Non-target compounds too high to run at a lower dilution.

L729798-06 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KA 2/18/15

**Holloman AFB
Groundwater Monitoring
Data Review Summary**

Data Package Number: L729800
 Sampling Event Dates: October 23, 2014
 Sample-specific Parameter Review/Laboratory Performance Parameters: Yes
 Full Validation (e.g. result recalculation): No
 Data Reviewer: Katie Abbott, URS Project Chemist
 Date Completed: February 18, 2015
 Peer Reviewer: Sheri Fling, URS Project Quality Assurance Manager (QAM)

The table below summarizes the data package and sample identifications discussed in this data review.

Field Identification	Sample Type	Lab Identification	Matrix	Analyses				
				DRO/ORO	PAHs	SVOCs	Dissolved Metals	Total Metals
L729800								
H-TU904-GW03-NT01	SA	L729800-01	Water	X ^m	X ^m	X ^m	---	X ^m
H-TU904-GW03-ND01	SA	L729800-02	Water	---	---	---	X ^m	---

Sample Type: SA – Sample
 X^m - Matrix Spike/Matrix Spike Duplicate

Analyses:
 DRO/ORO - Diesel and Oil Range Organics (8015D)
 Total/Dissolved Metals – Antimony, Arsenic, Cadmium, Chromium, Cobalt, Lead, Nickel, Selenium, Silver, Thallium, Mercury, Aluminum, Barium, Beryllium, Copper, Manganese, Vanadium, Zinc (6010B/6020/7470A)
 PAH – Polynuclear Aromatic Hydrocarbons (8270C SIM)
 SIM – Selective Ion Monitoring
 SVOCs – Semivolatile Organic Compounds (8270C)

The data review was conducted in accordance with the Final Interim Measures Work Plan – Appendix A, Sampling and Analysis Plan/Quality Assurance Project Plan: Former Septic System Site TU904 (URS, September 2014); Group 2 Former Underground Storage Sites: AOC-UST-889 (TU515) (URS, September 2014); and Group 3 Former Underground Storage Tank Sites: AOC-UST-221 (TU503), AOC-UST-298 (TU508), AOC-UST-901 (TU506) and AOC-UST-7003 (TU518) (URS, August 2014); data validation standard operating procedure (SOP) 14; Department of Defense (DoD) Quality Systems Manual version 4.2 (DoD, 2010); and method requirements.

General Overall Assessment:

- Data are usable without qualification.
- Data are usable with qualification (noted below).
- Some or all data are unusable for any purpose (detailed below).

Case Narrative Comments: Any laboratory case narrative comments concerning data qualification were addressed in the table below.

Trace level detects, reported between the method detection limit (MDL) and the reporting limit (LOQ), have been qualified as estimated (F SQL-I). All other occurrences of data qualification are covered in the following table.

Review Parameter	Criteria Met?	Comment
Chain of Custody & Sample Receipt	Yes	The samples were received by ESC Lab Sciences in good condition and were consistent with the accompanying chain of custody (COC). The cooler temperatures upon receipt were within the recommended ≤ 6 degrees Celsius ($^{\circ}\text{C}$) temperature range.
Reporting	Yes	<p>Method 8270C Semivolatile Organic Compounds (SVOCs)</p> <p>The results for 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene are not reported by Method 8270C SVOCs but are reported by Method 8260B volatile organic compounds (VOCs). As the detection limits (DLs), limits of detection (LODs), and limits of quantitation (LOQs) are lower by Method 8260B, further action was not necessary.</p> <p>The laboratory noted 4-methylphenol cannot be reported as 3 & 4-methylphenol coelute during the analysis; therefore, the analytes are reported together and 3&4-methylphenol on the data sheets and in the electronic database.</p>
Holding Times	Yes	All samples were analyzed within the method required holding time.
Laboratory Blanks <ul style="list-style-type: none"> • Method Blank • Continuing Calibration Blank 	No	With the exceptions listed in Table 1, target analytes were not detected within the method or calibration blanks.
Matrix Quality Control <ul style="list-style-type: none"> • Matrix Spike/ Matrix Spike Duplicate H-TU904-GW03-NT01 (Metals, DRO, SVOCs, PAHs) • H-TU904-GW03-ND01 (Metals) • Total vs. Partial Analyses (Metals) 	No	<p>Matrix Spike/ Matrix Spike Duplicate (MS/MSD)</p> <p>The frequency of MS/MSDs met the QAPP requirement of one per twenty samples.</p> <p>With the exceptions listed in Table 2, the MS/MSD recoveries and relative percent differences (RPDs) met quality control criteria.</p> <p>The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the sample matrix could not be assessed for oil range organics (ORO).</p> <p>Results in the native sample greater than four times the concentration of the spike added during digestions/extractions are not considered to be a representative measure of accuracy. Further action with respect to spike recovery evaluation or qualification of data was not considered necessary.</p> <p>Consistent with standard operating procedure (SOP) 14, when MS/MSD issues accounted for less than 35% of the MS/MSD analyses conducted, applicable data qualification was limited to qualification of the parent sample of the affected analyte. When $>35\%$ of the MS/MSD results did not meet criteria, evaluation was extended to all associated samples. See Section 4.1 of the data validation report for overall qualifiers resulting from the MS/MSD evaluation.</p> <p>Method 6010B</p> <p>Upon re-review of the raw data of the results of the MS/MSD performed on sample H-TU904-GW03-NT01, the laboratory determined that the sample was not spiked; therefore, the MS/MSD results were not considered applicable and data qualification was not considered necessary.</p>

Review Parameter	Criteria Met?	Comment
		<p>Total vs. Partial Analyses (Metals)</p> <p>Consistent with SOP 14, results for the total analysis of a particular analyte should be greater than the results for a partial analyte of that analyte. The following criteria were used to evaluate the total versus dissolved results:</p> <ul style="list-style-type: none"> In instances where the value for a partial analysis exceed that for a total analysis and both of the results are >5xLOQ, the criterion utilized is that the two values should agree within $\pm 30\%$. In instances where the value for a partial analysis exceeds that for a total analysis and either of the results is 5x the LOQ, the absolute difference between the results is compared against an evaluation criterion of 2xLOQ. <p>The total metal sample results were compared with the associated dissolved sample results against the concentration-dependent criteria set forth in SOP 14.</p>
<p>Metals Only</p> <ul style="list-style-type: none"> Serial Dilution H-TU904-GW03-NT01 (6020/7470A Total Metals) H-TU904-GW03-ND01 (6010B/7470A Dissolved Metals) Post Digestion Spike H-TU904-GW03-ND01 (6010B/7470A Dissolved Metals) 	Yes	<p>Serial Dilution (Metals Only)</p> <p>Consistent with the method, only the results that were greater than 50 times their respective DLs were appropriate for comparing to the serial dilution evaluation criterion. All percent differences (%Ds) between the original sample results and the results obtained from the sample-diluted 1:5 were $\leq 10\%$.</p> <p>Post Digestion Spike (PDS) (Metals Only)</p> <p>All PDS recoveries were within the acceptance limits.</p>
<p>Method Quality Control</p> <ul style="list-style-type: none"> Surrogates (PAHs, SVOCs, DRO/ORO) 	Yes	<p>The surrogate recoveries were within the laboratory specified acceptance criteria.</p>
<p>Field Quality Control</p> <ul style="list-style-type: none"> Trip Blank None in this package Field Duplicate None in this package Equipment Blank None in this package Field Blank None in this package 	NA	<p>Trip Blank</p> <p>As VOCs and GROs were not analyzed in this data package, a trip blank was not required. Further action was not necessary.</p> <p>Field Duplicate</p> <p>The frequency of field duplicates met the QAPP requirement of one per twenty samples.</p> <p>A field duplicate was not submitted with the data package.</p> <p>Consistent with SOP 14, when field duplicate issues accounted for less than 35% of the field duplicate analyses conducted, applicable data qualification was limited to qualification of the parent sample for the affected analyte. When >35% of the field duplicate results did not meet criteria, evaluation was extended to all associated samples. See Section 4.3 of the data validation report for overall qualifiers resulting from the field duplicate evaluation.</p> <p>Equipment Blank</p> <p>As dedicated equipment was used to collect these samples, an equipment blank was not submitted for this sampling event. Further action was not necessary.</p>

Review Parameter	Criteria Met?	Comment
		<p>Field Blank</p> <p>The frequency of field blanks met the QAPP requirement of one per twenty samples.</p> <p>A field blank was not submitted with this data package. See Section 4.4 of the data validation report for overall qualifiers resulting from the field blank evaluation.</p>
LODs met?	No	Due to dilutions, several of the total and dissolved metals by Methods 6010B and 6020 for all samples were reported as non-detect at elevated LODs. See Section 3.7 of the validation report for further discussion.
Other Parameters	Yes	<p>Naphthalene (8260B and 8270C-PAHs) and hexachloro-1,3-butadiene and 1,2,4-trichlorobenzene (8260B and 8270C) were analyzed by multiple methods. Results were selected for reporting using the following criteria:</p> <ul style="list-style-type: none"> • If both results were non-detect, the non-detect result with the lower DL was selected. • If both results were reported as detected, the higher detected result was selected for reporting. • If one result was reported as non-detect and the other result was reported as detected, the detected result was selected for reporting.
Initial Calibration	Yes	<p>Method 8270C SVOCs</p> <p>A minimum relative response factor (RRF) of 0.05 was used for the system performance check compounds (SPCCs) and all SPCCs met this criterion. The percent relative standard deviations (%RSDs) over the initial calibration RRFs for all calibration check compounds (CCCs) satisfied the method requirement of <30%. For all other target compounds, a requirement of 15% was used. The %RSD values for all target analytes in the calibration were less than 15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)</p> <p>The %RSD values for all target analytes in the calibration were less than 20%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8015D DRO/ORO</p> <p>The relationship between instrument response and concentration was established with a blank and at least five standards for each analyte. The %RSD over the initial calibrations curve satisfied the method requirement of <15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Methods 6010B (Inductively Coupled Plasma [ICP] Metals) and 6020 (ICPMS Metals)</p> <p>The initial calibrations (ICALs) were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with a blank and at least five standards. The calibrations were verified with the analysis of an initial calibration verification (ICV) standard. All metals were recovered within the method acceptance range of 90-110%.</p>

Review Parameter	Criteria Met?	Comment
		<p>7470A (Mercury)</p> <p>The ICALs were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with five standards. The correlation coefficient was >0.995. The calibration was verified with the analysis of an ICV standard. The analytes were recovered within the acceptance range of 90-110%. Response and linearity criteria were met and data qualification on the basis of initial calibration was not necessary.</p>
Initial Calibration Verification/Continuing Calibration Verification	Yes	<p>Methods 8270C SVOCs/8270C PAHs</p> <p>The percent differences (%Ds) for all CCCs in the ICVs and continuing calibrations (CCALs) were less than 20%, satisfying method requirements, and other target analytes satisfied the %D criterion of 20%.</p> <p>Method 8015 DRO/ORO</p> <p>The %Ds for DRO/ORO in the ICVs and CCALs were less than 15%. Data qualification was not necessary.</p> <p>Methods 6010B (ICP Metals), 6020 (ICPMS Metals), and 7470A (Mercury)</p> <p>Calibration verification analyses were conducted at the proper frequency. All metals were recovered within the DOD QSM 4.2 low level acceptance range of 80-120% and the method medium/high acceptance range of 90-110%.</p>
Interference Check Standard (Metals Only)	No	<p>The interference check standard (ICS) AB solutions were analyzed at the proper frequency. The target analytes were recovered within the acceptance range of 80-120% in the ICS AB solution. With the exceptions listed in Table 3, interferent elements were not present in the samples at concentrations greater than those in the ICSs.</p> <p>The interferent elements aluminum, calcium, iron, and magnesium were present in most samples in this data package at concentrations greater than or equal to those in the ICSs. As such, these samples were evaluated for positive and negative biases suggested by the ICS A. Data qualification was issued if the absolute value of the ICS A result was greater than the DL and it suggested a positive or negative bias which accounted for more than 25% of associated sample results or LODs. (Note: The ICS A solution only contains the interferent elements aluminum, calcium, iron, and magnesium so any positive or negative result for other analytes is inferred to be a bias potentially caused by one or more of the interferent elements present). Table 3 summarizes the resultant data qualification on the basis of the ICS results.</p>
Internal Standard (SVOCs/PAHs/Metals (6020))	Yes	Recoveries for the internal standards in field samples were within the applicable acceptance limits. Therefore, data qualification based on internal standards was not necessary.
Laboratory Control Sample/ Laboratory Control Sample Duplicate	Yes	One laboratory control sample (LCS) and/or laboratory control sample duplicate (LCS/D) per method per analytical batch was prepared and analyzed. All of the LCS recoveries and LCS/LCS/D RPDs were within the QAPP acceptance limits. These results are indicative of an acceptable level of accuracy and precision with respect to the analytical method.

Review Parameter	Criteria Met?	Comment
		Method 8015 DRO/ORO The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the method could not be assessed for ORO.
Package Completeness	No	With the exception of the beryllium and copper results for sample H-TU904-GW03-NT01, which were qualified as unusable due to MS/MSD recoveries <30%, the results are usable as qualified for the project objective. The data are 99% complete.

> - Greater Than
 < - Less Than
 ≤ - Less Than or Equal to
 ± - Plus or Minus
 °C – Degrees Celsius
 % - Percent
 %Ds – Percent Differences
 %RSD – Percent Relative Standard Deviation
 CCALs – Continuing Calibrations
 CCBs – Continuing Calibration Blanks
 CCCs – Calibration Check Compounds
 COC – Chain of Custody
 COD – Coefficient of Determination
 DLs – Detection Limits
 DRO – Diesel Range Organics
 GRO – Gasoline Range Organics
 I – Indeterminate Bias
 ICAL – Initial Calibration
 ICB – Initial Calibration Blank
 ICP – Inductively Coupled Plasma

ICPMS - Inductively Coupled Plasma Mass Spectrometry
 ICS – Interference Check Standard
 ICV – Initial Calibration Verification
 ID – Identification
 J - Estimated
 LCS – Laboratory Control Sample
 LCSD – Laboratory Control Sample Duplicate
 LOD – Limit of Detection
 LOQ – Limit of Quantitation
 MS/MSD – Matrix Spike/ Matrix Spike Duplicate
 ORO – Oil Range Organics
 P – Preservation requirement(s) not met
 PAHs – Polynuclear Aromatic Hydrocarbons
 PDS – Post Digestion Spike
 QAPP – Quality Assurance Project Plan
 RPDs – Relative Percent Differences
 RRF – Relative Response Factor
 SOP – Standard Operating Procedure
 SPCCs – System Performance Check Compounds
 VOCs – Volatile Organic Compounds

Table 1: Blank Outliers and Resultant Data Qualification

Associated Samples	Analyte	Concentration	Qualification
Total Metals			
MB Batch WG751220 H-TU904-GW03-NT01	Nickel	0.502 µg/L	None. The associated results were reported at concentrations >5x the concentration of the blank contamination.
	Selenium	0.399 µg/L	
CCB 10/28/2014 5:14PM H-TU904-GW03-NT01	Mercury	0.084 µg/L	The associated result was reported at a concentration <5x the concentration of the blank contamination and was qualified as non-detect (U CCB-I).
CCB 10/28/2014 12:32PM H-TU904-GW03-NT01	Aluminum	0.0407 µg/L	None. The associated result was reported at a concentration >5x the concentration of the blank contamination.
Dissolved Metals			
MB Batch WG75136 H-TU904-GW03-ND01	Mercury	0.0853 µg/L	The associated result was reported at a concentration <5x the concentration of the blank contamination and was qualified as non-detect (U MB-I).

Associated Samples	Analyte	Concentration	Qualification
MB Batch WG752582 H-TU904-GW03-ND01	Manganese	2.44 µg/L	None. The associated result was reported at concentrations >5x the concentration of the blank contamination.
MB Batch WG751906 H-TU904-GW03-ND01	Chromium	0.768 µg/L	The associated result was reported at a concentration <5x the concentration of the blank contamination and was qualified as non-detect (U MB-I).
CCB 10/28/2014 6:45PM H-TU904-GW03-ND01	Mercury	0.083 µg/L	The associated result was reported at a concentration <5x the concentration of the blank contamination and was qualified as non-detect (U CCB-I).
CCB 10/28/2014 4:27PM H-TU904-GW03-ND01	Copper	8.99 µg/L	None. The associated result was reported as non-detect
CCB 10/28/2014 5:43PM H-TU904-GW03-ND01		9.07 µg/L	
PAHs			
MB Batch WG750797 H-TU904-GW03-NT01	Naphthalene	0.0182 µg/L	None. The associated result was reported at concentrations >5x the concentration of the blank contamination.

> - Greater Than

CCB – Continuing Calibration Blank

PAHs – Polynuclear Aromatic

< - Less Than

I – Indeterminate Bias

Hydrocarbons

µg/L – Micrograms per Liter

MB – Method Blank

U – Non-detect

Table 2: MS/MSD Recovery and RPD Outliers and Resultant Data Qualification

Associated Sample	Analyte	%R (Limits)	RPD (Limit)	Qualification
Total Metals				
	Manganese	125/46 (80-120)	52 (30)	As the potential bias was considered to be high, and the RPD was outside of control limits, the associated detected result was qualified as estimated (J MS,D-H).
	Selenium	113/78 (80-120)	25 (30)	As the potential bias was considered to be low, the associated result was qualified as estimated (J MS-L).

%R – Percent Recoveries

D – Duplicate or spike duplicate precision evaluation criteria not met.

J – Estimated

RPD – Relative Percent Difference

Bold indicates a recovery or RPD outside of acceptance limit

< - Less Than

L – Low Bias

H – High Bias

MS/MSD – Matrix Spike Matrix Spike Duplicate

Table 3: ICS Outliers and Resultant Data Qualification

Interferent Element	Analyte	ICS A (µg/L)	MDL (µg/L)	Qualified Samples	Qualification
Calcium	Copper	-8.6	5.3	H-TU904-GW03-ND01	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ ICS-L).
	Zinc	-14.8	5.9		
Calcium, Magnesium	Cadmium	0.4	0.1	H-TU904-GW03-NT01	As the potential bias was considered to be high, the associated result was qualified as estimated (J ICS-H).

µg/L – Micrograms per Liter
L – Low Bias

H – High Bias
MDL – Method Detection Limit

ICS – Interference Check Standard
UJ/J - Estimated



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Mt. Juliet, TN 37122
(615) 758-5858
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 26, 2014

Date Received : October 25, 2014
Description : Holloman AFB
Sample ID : H-TU904-GW03-NT01
Collected By : Jon Mallonee
Collection Date : 10/23/14 13:45

ESC Sample # : L729800-01

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony	7440-36-0	U	1	2.5	5	ug/l		6020	10/31/14	5
Arsenic <i>J FD-I</i>	7440-38-2	5.4	1.2	2.5	5	ug/l		6020	10/31/14	5
Cadmium <i>FJ SOL, ICS-H</i>	7440-43-9	0.82	0.8	1.3	2.5	ug/l	J	6020	10/31/14	5
Chromium <i>J FD-I</i>	7440-47-3	24.	2.7	5.0	10	ug/l		6020	10/31/14	5
Cobalt <i>J FD-I</i>	7440-48-4	6.5	1.3	2.5	5	ug/l		6020	10/31/14	5
Lead	7439-92-1	14.	1.2	2.5	5	ug/l		6020	10/31/14	5
Nickel <i>J FD-I</i>	7440-02-0	14.	1.8	2.5	5	ug/l	B	6020	10/31/14	5
Selenium <i>J MS-L</i>	7782-49-2	22.	1.9	2.5	10	ug/l	01J3	6020	11/05/14	5
Silver	7440-22-4	U	1.6	2.5	5	ug/l		6020	10/31/14	5
Thallium	7440-28-0	U	0.95	2.5	5	ug/l		6020	10/31/14	5
Mercury <i>U CCB-I</i>	7439-97-6	0.10	0.049	0.080	0.2	ug/l	J	7470A	10/28/14	1
Aluminum <i>J MS, FD-A</i>	7429-90-5	8300	180	250	500	ug/l	V	6010B	10/29/14	5
Barium <i>J MS, FD-I</i>	7440-39-3	130	8.5	13.	25	ug/l	J6	6010B	10/29/14	5
Beryllium X	7440-41-7	U U	3.5	5.0	10	10	J6	6010B	10/29/14	5
Copper X	7440-50-8	U U	26	50	100	100	J6J3	6010B	10/29/14	5
Manganese <i>J MS, D-I</i>	7439-96-5	660	6	25.	50	ug/l	J3J6	6010B	10/29/14	5
Vanadium <i>F SOL, MS, D-I</i>	7440-62-2	21.	12	50.	100	ug/l	JJ6J	6010B	10/29/14	5
Zinc <i>F SOL, MS, D-I</i>	7440-66-6	97.	30	130	250	ug/l	JJ6J	6010B	10/29/14	5
Diesel and Oil Ranges										
C10-C28 Diesel Range		360	22	33.	100	ug/l		8015	10/31/14	1
C28-C40 Oil Range		420	12	33.	100	ug/l		8015	10/31/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	107.				% Rec.		8015	10/31/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	10/29/14	1
Acenaphthene <i>F SOL-I</i>	83-32-9	0.028	0.0082	0.025	0.05	ug/l	J	8270 C-	10/29/14	1
Acenaphthylene	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo(a)anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo(a)pyrene	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo(b)fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo(g,h,i)perylene	191-24-2	U	0.016	0.025	0.05	ug/l		8270 C-	10/29/14	1
Benzo(k)fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	10/29/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	10/29/14	1
Dibenz(a,h)anthracene	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	10/29/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/29/14	1
Fluorene <i>F SOL-I</i>	86-73-7	0.042	0.009	0.025	0.05	ug/l	J	8270 C-	10/29/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	10/29/14	1
Naphthalene <i>F SOL, MS-H</i>	91-20-3	0.19	0.012	0.025	0.25	ug/l	J	8270 C-	10/29/14	1
Phenanthrene <i>F SOL-I</i>	85-01-8	0.044	0.018	0.025	0.05	ug/l	J	8270 C-	10/29/14	1
Pyrene	129-00-0	U	0.016	0.025	0.05	ug/l	J5	8270 C-	10/29/14	1
2-Methylnaphthalene	91-57-6	0.48	0.016	0.025	0.25	ug/l		8270 C-	10/29/14	1
Surrogate Recovery										

U = Not Detected at the LOD

Note:

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Reported: 11/26/14 16:56 Printed: 11/26/14 16:57
L729800-01 (ICP METALS) - Non-target compounds too high to run at a lower dilution.
L729800-01 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KA 2/18/15
RMS 9/2/15
BMS 2/19/15
8 of 1436



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November 26, 2014

Date Received : October 25, 2014
Description : Holloman AFB
Sample ID : H-TU904-GW03-NT01
Collected By : Jon Mallonee
Collection Date : 10/23/14 13:45

ESC Sample # : L729800-01

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	81.1				% Rec.		8270 C-	10/29/14	1
2-Fluorobiphenyl	321-60-8	81.4				% Rec.		8270 C-	10/29/14	1
p-Terphenyl-d14	1718-51-0	92.2				% Rec.		8270 C-	10/29/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	10/29/14	1
Bis(2-chloroethyl)ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	10/29/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	10/29/14	1
Benzyl Alcohol	100-51-6	0.59	0.39	5.0	10	ug/l	J	8270C	10/29/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	10/29/14	1
Benzoic acid	65-85-0	9.1	0.44	5.0	10	ug/l	J	8270C	10/29/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	10/29/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	10/29/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	10/29/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	10/29/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	10/29/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	10/29/14	1
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	10/29/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	10/29/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.33	5.0	10	ug/l		8270C	10/29/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	10/29/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	10/29/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	10/29/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	10/29/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	10/29/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	10/29/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	10/29/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	0.82	0.71	1.0	3	ug/l	J	8270C	10/29/14	1
Di-n-butyl phthalate	84-74-2	0.46	0.27	1.0	3	ug/l	J	8270C	10/29/14	1
Diethyl phthalate	84-66-2	0.54	0.28	1.0	3	ug/l	J	8270C	10/29/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	10/29/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	10/29/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.36	5.0	10	ug/l		8270C	10/29/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	10/29/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	10/29/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	10/29/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	10/29/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	10/29/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	10/29/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	10/29/14	1
3&4-Methyl Phenol	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	10/29/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	10/29/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	10/29/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	10/29/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	10/29/14	1

U = Not Detected at the LOD

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Reported: 11/26/14 16:56 Printed: 11/26/14 16:57

L729800-01 (ICP METALS) - Non-target compounds too high to run at a lower dilution.
L729800-01 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

DNR - Do Not Report

KA 2/18/15
BMS 2/14/15
AMS 2/14/15
9 of 1436



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November 26, 2014

Date Received : October 25, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-GW03-NT01
 Collected By : Jon Mallonee
 Collection Date : 10/23/14 13:45

ESC Sample # : L729800-01

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	10/29/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	10/29/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	10/29/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	10/29/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	10/29/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	10/29/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	10/29/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	50.7				% Rec.		8270C	10/29/14	1
Phenol-d5	4165-62-2	38.0				% Rec.		8270C	10/29/14	1
Nitrobenzene-d5	4165-60-0	54.9				% Rec.		8270C	10/29/14	1
2-Fluorobiphenyl	321-60-8	60.2				% Rec.		8270C	10/29/14	1
2,4,6-Tribromophenol	118-79-6	78.5				% Rec.		8270C	10/29/14	1
p-Terphenyl-d14	1718-51-0	58.7				% Rec.		8270C	10/29/14	1

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L729800-01 (ICP METALS) - Non-target compounds too high to run at a lower dilution.

L729800-01 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

LA 2/18/15



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November 26, 2014

Date Received : October 25, 2014
Description : Holloman AFB
Sample ID : H-TU904-GW03-ND01
Collected By : Jon Mallonee
Collection Date : 10/23/14 13:45

ESC Sample # : L729800-02
Site ID :
Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved	7440-36-0	U	1	2.5	5	ug/l		6020	10/31/14	5
Arsenic, Dissolved <i>F SQL-I</i>	7440-38-2	1.6	1.2	2.5	5	ug/l	J	6020	10/31/14	5
Cadmium, Dissolved	7440-43-9	U	0.8	1.3	2.5	ug/l		6020	10/31/14	5
Chromium, Dissolved <i>U MB-I</i>	7440-47-3	6.6	2.7 <i>6.6</i>	5.0 <i>6.6</i>	10	ug/l	J	6020	10/31/14	5
Cobalt, Dissolved <i>F SQL-I</i>	7440-48-4	4.5	1.3	2.5	5	ug/l	J	6020	10/31/14	5
Lead, Dissolved <i>F SQL-I</i>	7439-92-1	2.5	1.2	2.5	5	ug/l	J	6020	10/31/14	5
Nickel, Dissolved <i>J FOI</i>	7440-02-0	8.3	1.8	2.5	5	ug/l		6020	10/31/14	5
Selenium, Dissolved	7782-49-2	14.	1.9	2.5	5	ug/l		6020	10/31/14	5
Silver, Dissolved	7440-22-4	U	1.6	2.5	5	ug/l		6020	10/31/14	5
Thallium, Dissolved	7440-28-0	U	0.95	2.5	5	ug/l		6020	10/31/14	5
Mercury, Dissolved <i>U MB, ICCB-I</i>	7439-97-6	0.084	0.049 <i>0.084</i>	0.086 <i>0.084</i>	0.2	ug/l	JJ3J	7470A	10/28/14	1
Aluminum, Dissolved	7429-90-5	U	180	250	500	ug/l		6010B	11/05/14	5
Barium, Dissolved	7440-39-3	27.	8.5	13.	25	ug/l		6010B	11/05/14	5
Beryllium, Dissolved	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/05/14	5
Copper, Dissolved <i>UJ MS-ICP-L</i>	7440-50-8	U	26	50.	100	ug/l		6010B	11/05/14	5
Manganese, Dissolved	7439-96-5	580	6	25.	50	ug/l		6010B	11/05/14	5
Vanadium, Dissolved	7440-62-2	U	12	50.	100	ug/l		6010B	11/05/14	5
Zinc, Dissolved <i>UJ ICS-L</i>	7440-66-6	U	30	130	250	ug/l		6010B	11/05/14	5

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L729800-02 (ICP METALS) - Diluted due to matrix interference.
L729800-02 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

BMS 2/19/15

Department of Defense (DoD) Quality Systems Manual version 4.2 (DoD, 2010); and method requirements.

General Overall Assessment:

- Data are usable without qualification.
- Data are usable with qualification (noted below).
- Some or all data are unusable for any purpose (detailed below).

Case Narrative Comments: Any laboratory case narrative comments concerning data qualification were addressed in the table below.

Trace level detects, reported between the method detection limit (MDL) and the reporting limit (LOQ), have been qualified as estimated (F SQL-I). All other occurrences of data qualification are covered in the following table.

Review Parameter	Criteria Met?	Comment
Chain of Custody & Sample Receipt	Yes	The samples were received by ESC Lab Sciences in good condition and were consistent with the accompanying chain of custody (COC). The cooler temperatures upon receipt were within the recommended ≤6 degrees Celsius (°C) temperature range.
Reporting	Yes	<p>During review of a representative data package selected for full validation, it was noted that improper reference spectra were displayed in the printed version of the data package for Method 8260B. Due to a LIMS limitation, the data package reference spectra were not consistently representative of the actual spectra for the analytes detected. Because the laboratory data review involves the use of NBS reference spectra and not the reference spectra taken from the instrument calibration, the analyst was not seeing the improper alignment of spectra noted in the data package during his/her review at the instrument. The laboratory revised and reissued the data package with correct reference spectral data, consistent with method requirements, and no results were changed. Therefore, no further action is necessary as a result of this validation finding.</p> <p>Method 8270C Semivolatile Organic Compounds (SVOCs)</p> <p>The results for 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene are not reported by Method 8270C SVOCs but are reported by Method 8260B volatile organic compounds (VOCs). As the detection limits (DLs), limits of detection (LODs), and limits of quantitation (LOQs) are lower by Method 8260B, further action was not necessary.</p> <p>The laboratory noted 4-methylphenol cannot be reported as 3 & 4-methylphenol coelute during the analysis; therefore, the analytes are reported together and 3&4-methylphenol on the data sheets and in the electronic database.</p>
Holding Times	Yes	All samples were analyzed within the method required holding time.
Laboratory Blanks <ul style="list-style-type: none"> • Method Blank • Initial/Continuing Calibration Blank 	Yes	Target analytes were not detected within the method or calibration blanks.
Matrix Quality Control <ul style="list-style-type: none"> • Matrix Spike/ Matrix Spike Duplicate TU515-SB02-NS01 (6010B Metals) TU515-SB08-NS01 (VOCs)	No	<p>Matrix Spike/ Matrix Spike Duplicate (MS/MSD)</p> <p>The frequency of MS/MSDs met the QAPP requirement of one per twenty samples.</p>

Review Parameter	Criteria Met?	Comment
H-TU904-GW03-NT01 (GRO, VOCs) <ul style="list-style-type: none"> • Laboratory Duplicate None in these package 		<p>With the exceptions listed in Table 1, the MS/MSD recoveries and relative percent differences (RPDs) met quality control criteria.</p> <p>Results in the native sample greater than four times the concentration of the spike added during digestions/extractions are not considered to be a representative measure of accuracy. Further action with respect to spike recovery evaluation or qualification of data was not considered necessary.</p> <p>Consistent with standard operating procedure (SOP) 14, when MS/MSD issues accounted for less than 35% of the MS/MSD analyses conducted, applicable data qualification was limited to qualification of the parent sample of the affected analyte. When >35% of the MS/MSD results did not meet criteria, evaluation was extended to all associated samples. See Section 4.1 of the data validation report for overall qualifiers resulting from the MS/MSD evaluation.</p> <p>Laboratory Duplicate</p> <p>A laboratory duplicate was not performed on a sample from this data package.</p>
Metals Only <ul style="list-style-type: none"> • Serial Dilution None in this data package • Post Digestion Spike None in this data package 	NA	<p>Serial Dilution (Metals Only)</p> <p>A serial dilution was not reported in association with the sample in this data package.</p> <p>Post Digestion Spike (PDS) (Metals Only)</p> <p>A post digestion spike was not reported in association with the sample in this data package.</p>
Method Quality Control <ul style="list-style-type: none"> • Surrogates (VOCs, SVOCs, PAHs, GRO, DRO/ORO) 	Yes	<p>The surrogate recoveries were within the laboratory specified acceptance criteria.</p>
Field Quality Control <ul style="list-style-type: none"> • Trip Blank TU515-TRIPBLANK01-NT01 (GRO, VOCs) • Field Duplicate H-TU904-GW01-NT01/ H-TU904-GW01-DT01 • Equipment Blank None in this package • Field Blank None in this package 	Yes	<p>Trip Blank</p> <p>Target analytes were not detected in the trip blanks.</p> <p>Field Duplicate</p> <p>The frequency of field duplicates met the QAPP requirement of one per twenty samples.</p> <p>The comparison between results of the field duplicate pair met the criteria listed below.</p> <ul style="list-style-type: none"> • When both the sample and duplicate values are >5x the LOQ acceptable sampling and analytical precision is indicated by an RPD between the results of $\leq 30\%$ for water samples ($\leq 50\%$ for soil samples). • Where the result for one or both analytes of the field duplicate pair is <5xLOQ, satisfactory precision is indicated if the absolute difference between the field duplicate results is <2xLOQ for water samples (<3.5xLOQ for soil samples). <p>Consistent with SOP 14, when field duplicate issues accounted for less than 35% of the field duplicate analyses conducted, applicable data qualification was limited to qualification of the parent sample for the affected analyte. When >35% of the field duplicate results did not meet criteria, evaluation was extended to all associated samples. See Section 4.3 of the data</p>

Review Parameter	Criteria Met?	Comment
		<p>validation report for overall qualifiers resulting from the field duplicate evaluation.</p> <p>Equipment Blank</p> <p>As dedicated equipment was used to collect these samples, an equipment blank was not submitted for this sampling event. Further action was not necessary.</p> <p>Field Blank</p> <p>The frequency of field blanks met the QAPP requirement of one per twenty samples.</p> <p>A field blank was not submitted with this data package. See Section 4.4 of the data validation report for overall qualifiers resulting from the field blank evaluation.</p>
LODs met?	No	Due to dilutions, several 6010B metals results for all samples were reported as non-detect at elevated LODs. See Section 3.7 of the validation report for further discussion.
Other Parameters	Yes	<p>Naphthalene (8260B and 8270C-PAHs) and hexachloro-1,3-butadiene and 1,2,4-trichlorobenzene (8260B and 8270C) were analyzed by multiple methods. Results were selected for reporting using the following criteria:</p> <ul style="list-style-type: none"> • If both results were non-detect, the non-detect result with the lower DL was selected. • If both results were reported as detected, the higher detected result was selected for reporting. • If one result was reported as non-detect and the other result was reported as detected, the detected result was selected for reporting.
Initial Calibration	Yes	<p>Methods 8260B VOCs & 8270C SVOCs</p> <p>A minimum relative response factor (RRF) of 0.05 was used for the system performance check compounds (SPCCs) and all SPCCs met this criterion. The percent relative standard deviations (%RSDs) over the initial calibration RRFs for all calibration check compounds (CCCs) satisfied the method requirement of <30%. For all other target compounds, a requirement of 15% was used. The %RSD values for all target analytes in the calibration were less than 15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)</p> <p>The %RSD values for all target analytes in the calibration were less than 20%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8015D Gasoline Range Organics (GRO)/DRO/ORO</p> <p>The relationship between instrument response and concentration was established with a blank and at least five standards for each analyte. The %RSD over the initial calibrations curve satisfied the method requirement of <15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Methods 6010B (Inductively Coupled Plasma [ICP] Metals) and 6020 (ICPMS Metals)</p> <p>The initial calibrations (ICALs) were performed in association with the samples reported in this package. The relationship between instrument</p>

Review Parameter	Criteria Met?	Comment
		<p>response and concentration was established with a blank and at least five standards. The calibrations were verified with the analysis of an initial calibration verification (ICV) standard. All metals were recovered within the method acceptance range of 90-110%.</p> <p>7470A (Mercury)</p> <p>The ICALs were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with five standards. The correlation coefficient was >0.995. The calibration was verified with the analysis of an ICV standard. The analytes were recovered within the acceptance range of 90-110%. Response and linearity criteria were met and data qualification on the basis of initial calibration was not necessary.</p>
Initial Calibration Verification/Continuing Calibration Verification	No	<p>Methods 8260B VOCs/ 8270C SVOCs</p> <p>The percent differences (%Ds) for all CCCs in the ICVs and continuing calibrations (CCALs) were less than 20%, satisfying method requirements, and other target analytes satisfied the %D criterion of 20%.</p> <p>Methods 8270C PAHs</p> <p>The %D values for all target analytes in the calibration were less than 20%. Therefore, the ICVs and CCALs met method acceptance criteria.</p> <p>Methods 6010B (ICP Metals), Methods 6020 (ICPMS Metals) & 7470A (Mercury)</p> <p>Calibration verification analyses were conducted at the proper frequency. All metals were recovered within the DOD QSM 4.2 low level acceptance range of 80-120% and the method medium/high acceptance range of 90-110%.</p>
Interference Check Standard (Metals Only)	No	<p>The interference check standard (ICS) AB solutions were analyzed at the proper frequency. The target analytes were recovered within the acceptance range of 90-10% in the ICS AB solution. With the exceptions listed in Table 3, interferent elements were not present in the samples at concentrations greater than those in the ICSs.</p> <p>The interferent elements aluminum, calcium, iron, and magnesium were present in most samples in this data package at concentrations greater than or equal to those in the ICSs. As such, these samples were evaluated for positive and negative biases suggested by the ICS A. Data qualification was issued if the absolute value of the ICS A result was greater than the DL and it suggested a positive or negative bias which accounted for more than 25% of associated sample results or LODs. (Note: The ICS A solution only contains the interferent elements aluminum, calcium, iron, and magnesium so any positive or negative result for other analytes is inferred to be a bias potentially caused by one or more of the interferent elements present). Table 3 summarizes the resultant data qualification on the basis of the ICS results.</p>
Internal Standard (VOCs/SVOCs/PAHs)	Yes	Recoveries for the internal standards in field samples were within the applicable acceptance limits.
Laboratory Control Sample/ Laboratory Control Sample Duplicate	No	One laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) per method per analytical batch was prepared and analyzed. With the exceptions listed in Table 4, all of the LCS recoveries and LCS/LCSD RPDs were within the QAPP acceptance limits. These

Review Parameter	Criteria Met?	Comment
		<p>results are indicative of an acceptable level of accuracy and precision with respect to the analytical method.</p> <p>Method 8015 DRO/ORO</p> <p>The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the method could not be assessed for ORO.</p>
Package Completeness	Yes	The results are usable as qualified for the project objective. The data are 100% complete.

< - Less Than
 ≤ - Less Than or Equal to
 °C – Degrees Celsius
 % - Percent
 %Ds – Percent Differences
 %RSD – Percent Relative Standard Deviation
 CCALs – Continuing Calibrations
 CCBs – Continuing Calibration Blanks
 CCCs – Calibration Check Compounds
 COC – Chain of Custody
 COD – Coefficient of Determination
 DLs – Detection Limits
 DRO – Diesel Range Organics
 GRO – Gasoline Range Organics
 ICAL – Initial Calibration
 ICB – Initial Calibration Blank
 ICP – Inductively Coupled Plasma

ICS – Interference Check Standard
 ICV – Initial Calibration Verification
 LCS – Laboratory Control Sample
 LCSD – Laboratory Control Sample Duplicate
 LOD – Limit of Detection
 LOQ – Limit of Quantitation
 MS/MSD – Matrix Spike/ Matrix Spike Duplicate
 ORO – Oil Range Organics
 PAHs – Polynuclear Aromatic Hydrocarbons
 PDS – Post Digestion Spike
 QAPP – Quality Assurance Project Plan
 RPDs – Relative Percent Differences
 RRF – Relative Response Factor
 SOP – Standard Operating Procedure
 SPCCs – System Performance Check Compounds
 SVOCs – Semivolatile Organic Compounds
 VOCs – Volatile Organic Compounds

Table 1: MS/MSD Recovery and RPD Outliers and Resultant Data Qualification

Associated Sample	Analyte	%R (Limits)	RPD (Limit)	Qualification
Total Metals				
TU515-SB02-NS01	Silver	51/37 (80-120)	32 (50)	As the potential bias was considered to be low, the associated result was qualified as estimated (UJ MS-L).

%R – Percent Recoveries
 MS/MSD – Matrix Spike Matrix Spike Duplicate
Bold indicates a recovery or RPD outside of acceptance limit

% - Percent
 RPD – Relative Percent Difference

L – Low Bias
 UJ – Estimated

Table 2: Initial/Continuing Calibration Verification Outliers and Resultant Data Qualification

Associated Samples	Analyte	%D (Limit)	Data Qualification
VOCs			
TU515-SB02-NS01 TU515-SB08-NS01 TU515-SB10-NS01 TU515-SB10-NS02	2-Hexaneone	+22.5 (±20)	As the potential bias was considered to be high, and the associated samples were reported as non-detect, data qualification was not considered necessary.

± - Plus or minus
 %D – Percent Difference
 VOCs – Volatile Organic Compounds

Table 3: ICS Outliers and Resultant Data Qualification

Interferent Element	Analyte	ICS A (µg/L)	MDL (µg/L)	Qualified Samples	Qualification
Calcium, Iron, Magnesium	Cadmium	-0.9	0.7	TU518-SB01-NS02	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ ICS-L).
	Lead	-24.5	1.9		
	Nickel	-16.8	4.9		
	Thallium	-9.8	6.5		
	Vanadium	6.2	2.4		As the potential bias was considered to be high, the associated detected result was qualified as estimated (J ICS-H).
Aluminum, Calcium, Iron, Magnesium	Cadmium	-0.9	0.7	TU515-SB08-NS01 TU515-SB10-NS02	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ ICS-L).
	Lead	-24.5	1.9		
	Nickel	-16.8	4.9		
	Thallium	-9.8	6.5		
Calcium, Magnesium	Cadmium	-0.9	0.7	TU515-SB10-NS01	
	Lead	-24.5	1.9		
	Nickel	-16.8	4.9		

µg/L – Micrograms per Liter
L – Low Bias

H – High Bias
MDL – Method Detection Limit

ICS – Interference Check Standard
UJ/J - Estimated

Table 4: LCS Recovery Outliers and Resultant Data Qualification

Associated Samples	Analyte	%R (Limits)	RPD (Limits)	Qualification
Total Metals				
LCS WG752285 TU515-SB02-NS01 TU515-SB08-NS01 TU515-SB10-NS01 TU515-SB10-NS02	Selenium	122/108 (80-120)	12 (50)	As the potential bias was considered to be high, and the associated sample results were reported as non-detect, data qualification was not considered necessary.

%R – Percent Recoveries

LCS – Laboratory Control Sample

Bold indicates a recovery outside of acceptance limits.



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
Description : Holloman AFB
Sample ID : TU515-SB02-NS01
Collected By : Jon Mallonee
Collection Date : 10/23/14 14:50

ESC Sample # : L729802-01
Site ID :
Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.0				su		9045D	10/28/14	1
Total Solids	TSOLIDS	71.9	.0333			%		2540 G-2	10/30/14	1
Mercury	7439-97-6	U	.0039	0.014	0.028	mg/kg		7471	10/28/14	1
Aluminum <i>FD-I</i>	7429-90-5	670	.25	35.	70.	mg/kg	O1VJ	6010B	11/05/14	5
Antimony	7440-36-0	U	5.3	7.0	14.	mg/kg		6010B	11/05/14	5
Arsenic	7440-38-2	U	4.4	7.0	14.	mg/kg		6010B	11/05/14	5
Barium <i>FD-I</i>	7440-39-3	7.6	1.2	1.7	3.5	mg/kg		6010B	11/05/14	5
Beryllium	7440-41-7	U	.49	0.70	1.4	mg/kg		6010B	11/05/14	5
Cadmium <i>ICS-L</i>	7440-43-9	U	.49	1.7	3.5	mg/kg		6010B	11/05/14	5
Chromium <i>SQ-I</i>	7440-47-3	0.99	.97	3.5	7.0	mg/kg	J	6010B	11/05/14	5
Cobalt	7440-48-4	U	1.7	3.5	7.0	mg/kg		6010B	11/05/14	5
Copper	7440-50-8	U	3.6	7.0	14.	mg/kg		6010B	11/05/14	5
Lead <i>ICS-L</i>	7439-92-1	U	1.3	1.7	3.5	mg/kg		6010B	11/05/14	5
Manganese <i>FD-I</i>	7439-96-5	12.	.83	3.5	7.0	mg/kg		6010B	11/05/14	5
Nickel <i>ICS-L</i>	7440-02-0	U	3.3	7.0	14.	mg/kg		6010B	11/05/14	5
Selenium	7782-49-2	U	5.1	7.0	14.	mg/kg		6010B	11/05/14	5
Silver <i>MS-L</i>	7440-22-4	U	1.9	3.5	7.0	mg/kg	O1J6	6010B	11/05/14	5
Thallium <i>ICS-L</i>	7440-28-0	U	4.4	7.0	14.	mg/kg		6010B	11/05/14	5
Vanadium <i>SQ, ICS-H</i>	7440-62-2	2.5	1.7	7.0	14.	mg/kg	J	6010B	11/05/14	5
Zinc	7440-66-6	U	4.2	17.	35.	mg/kg		6010B	11/05/14	5
TPH (GC/FID) Low Fraction <i>MS-L</i>	8006-61-9	U	.03	0.070	0.14	mg/kg		8015D/GR	10/31/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	97.5				% Rec.		8015D/GR	10/31/14	1
Volatile Organics										
Acetone <i>SQ-I</i>	67-64-1	0.025	.014	0.035	0.070	mg/kg	J	8260B	11/01/14	1
Benzene	71-43-2	U	.00038	0.00070	0.0014	mg/kg		8260B	11/01/14	1
Bromobenzene	108-86-1	U	.00039	0.00070	0.0014	mg/kg		8260B	11/01/14	1
Bromochloromethane	74-97-5	U	.00054	0.00070	0.0014	mg/kg		8260B	11/01/14	1
Bromodichloromethane	75-27-4	U	.00035	0.00070	0.0014	mg/kg		8260B	11/01/14	1
Bromoform	75-25-2	U	.00058	0.00070	0.0014	mg/kg		8260B	11/01/14	1
Bromomethane	74-83-9	U	.0018	0.0035	0.0070	mg/kg		8260B	11/01/14	1
n-Butylbenzene	104-51-8	U	.00036	0.00070	0.0014	mg/kg		8260B	11/01/14	1
sec-Butylbenzene	135-98-8	U	.00028	0.00070	0.0014	mg/kg		8260B	11/01/14	1
tert-Butylbenzene	98-06-6	U	.00029	0.00070	0.0014	mg/kg		8260B	11/01/14	1
Carbon Disulfide	75-15-0	U	.00039	0.00070	0.0014	mg/kg		8260B	11/01/14	1
Carbon tetrachloride	56-23-5	U	.00046	0.00070	0.0014	mg/kg		8260B	11/01/14	1
Chlorobenzene	108-90-7	U	.00029	0.00070	0.0014	mg/kg		8260B	11/01/14	1
Chlorodibromomethane	124-48-1	U	.00051	0.00070	0.0014	mg/kg		8260B	11/01/14	1
Chloroethane	75-00-3	U	.0013	0.0035	0.0070	mg/kg		8260B	11/01/14	1
Chloroform	67-66-3	U	.00032	0.0035	0.0070	mg/kg		8260B	11/01/14	1

Results listed are dry weight basis.
U = Not Detected at the LOD

Note:

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The reported analytical results relate only to the sample submitted

Reported: 11/05/14 16:14 Revised: 11/18/14 11:06
L729802-01 (PH) - 6.0 @ 21.6c

KA 2/10/15
BM 2/19/15
9 of 1345



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
 Description : Holloman AFB
 Sample ID : TU515-SB02-NS01
 Collected By : Jon Mallonee
 Collection Date : 10/23/14 14:50

ESC Sample # : L729802-01

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00053	0.00070	0.0035	mg/kg	8260B	11/01/14	1	
2-Chlorotoluene	95-49-8	U	.00042	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
4-Chlorotoluene	106-43-4	U	.00033	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0014	0.0035	0.0070	mg/kg	8260B	11/01/14	1	
1,2-Dibromoethane	106-93-4	U	.00047	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
Dibromomethane	74-95-3	U	.00053	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
1,2-Dichlorobenzene	95-50-1	U	.00042	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
1,3-Dichlorobenzene	541-73-1	U	.00033	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
1,4-Dichlorobenzene	106-46-7	U	.00032	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
Dichlorodifluoromethane	75-71-8	U	.00099	0.0035	0.0070	mg/kg	8260B	11/01/14	1	
1,1-Dichloroethane	75-34-3	U	.00028	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
1,2-Dichloroethane	107-06-2	U	.00036	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
1,1-Dichloroethene	75-35-4	U	.00042	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
cis-1,2-Dichloroethene	156-59-2	U	.00033	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
trans-1,2-Dichloroethene	156-60-5	U	.00036	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
1,2-Dichloropropane	78-87-5	U	.0005	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
1,1-Dichloropropene	563-58-6	U	.00044	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
1,3-Dichloropropane	142-28-9	U	.00029	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
cis-1,3-Dichloropropene	10061-01-5	U	.00036	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
trans-1,3-Dichloropropene	10061-02-6	U	.00038	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
2,2-Dichloropropane	594-20-7	U	.00039	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
Ethylbenzene	100-41-4	U	.00042	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
Hexachloro-1,3-butadiene	87-68-3	U	.00047	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
2-Hexanone	591-78-6	U	.0053	0.0070	0.014	mg/kg	8260B	11/01/14	1	
Isopropylbenzene	98-82-8	U	.00033	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
p-Isopropyltoluene	99-87-6	U	.00028	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
2-Butanone (MEK)	78-93-3	U	.0065	0.0070	0.014	mg/kg	8260B	11/01/14	1	
Methylene Chloride	75-09-2	U	.0014	0.0035	0.0070	mg/kg	8260B	11/01/14	1	
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0026	0.0070	0.014	mg/kg	8260B	11/01/14	1	
Methyl tert-butyl ether	1634-04-4	U	.00029	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
Naphthalene <i>DNR</i>	91-20-3	U	.0014	0.0035	0.0070	mg/kg	8260B	11/01/14	1	
n-Propylbenzene	103-65-1	U	.00029	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
Styrene	100-42-5	U	.00032	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
1,1,1,2-Tetrachloroethane	630-20-6	U	.00036	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
1,1,2,2-Tetrachloroethane	79-34-5	U	.0005	0.0010	0.0014	mg/kg	8260B	11/01/14	1	
Tetrachloroethene	127-18-4	U	.00039	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
Toluene	108-88-3	U	.0006	0.0035	0.0070	mg/kg	8260B	11/01/14	1	
1,2,3-Trichlorobenzene	87-61-6	U	.00043	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
1,2,4-Trichlorobenzene	120-82-1	U	.00054	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
1,1,1-Trichloroethane	71-55-6	U	.0004	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
1,1,2-Trichloroethane	79-00-5	U	.00039	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
Trichloroethene	79-01-6	U	.00039	0.00070	0.0014	mg/kg	8260B	11/01/14	1	
Trichlorofluoromethane	75-69-4	U	.00053	0.0035	0.0070	mg/kg	8260B	11/01/14	1	
1,2,3-Trichloropropane	96-18-4	U	.001	0.0014	0.0035	mg/kg	8260B	11/01/14	1	
1,2,4-Trimethylbenzene	95-63-6	U	.00029	0.00070	0.0014	mg/kg	8260B	11/01/14	1	

Results listed are dry weight basis.

U = Not Detected at the LOD

Note:

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The reported analytical results relate only to the sample submitted

Reported: 11/05/14 16:14 Revised: 11/18/14 11:06

L729802-01 (PH) - 6.0 @ 21.6c

DNR - Do Not Report

LA 2/18/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
Description : Holloman AFB
Sample ID : TU515-SB02-NS01
Collected By : Jon Mallonee
Collection Date : 10/23/14 14:50

ESC Sample # : L729802-01

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00047	0.00070	0.0014	mg/kg		8260B	11/01/14	1
m&p-Xylene	1330-20-7	U	.001	0.0014	0.0028	mg/kg		8260B	11/01/14	1
Vinyl chloride	75-01-4	U	.0004	0.00070	0.0014	mg/kg		8260B	11/01/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00038	0.00070	0.0014	mg/kg		8260B	11/01/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	96.2				% Rec.		8260B	11/01/14	1
Dibromofluoromethane	1868-53-7	101.				% Rec.		8260B	11/01/14	1
4-Bromofluorobenzene	460-00-4	93.4				% Rec.		8260B	11/01/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.2	2.8	5.6	mg/kg		8015	10/30/14	1
C28-C40 Oil Range		U	.38	2.8	5.6	mg/kg		8015	10/30/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	93.2				% Rec.		8015	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/30/14	1
Acenaphthene	83-32-9	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/30/14	1
Acenaphthylene	208-96-8	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/30/14	1
Benzo(a)anthracene	56-55-3	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/30/14	1
Benzo(a)pyrene	50-32-8	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/30/14	1
Benzo(b)fluoranthene	205-99-2	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/30/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/30/14	1
Benzo(k)fluoranthene	207-08-9	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/30/14	1
Chrysene	218-01-9	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/30/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/30/14	1
Fluoranthene	206-44-0	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/30/14	1
Fluorene	86-73-7	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/30/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/30/14	1
Naphthalene	91-20-3	U	.00083	0.0083	0.028	mg/kg		8270C-SI	10/30/14	1
Phenanthrene	85-01-8	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/30/14	1
Pyrene	129-00-0	U	.00083	0.0028	0.0083	mg/kg		8270C-SI	10/30/14	1
2-Methylnaphthalene	91-57-6	U	.00089	0.0083	0.028	mg/kg		8270C-SI	10/30/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	52.3				% Rec.		8270C-SI	10/30/14	1
Nitrobenzene-d5	4165-60-0	84.9				% Rec.		8270C-SI	10/30/14	1
2-Fluorobiphenyl	321-60-8	73.2				% Rec.		8270C-SI	10/30/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.011	0.23	0.46	mg/kg		8270C	10/31/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.012	0.23	0.46	mg/kg		8270C	10/31/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.01	0.23	0.46	mg/kg		8270C	10/31/14	1
Benzyl Alcohol	100-51-6	U	.01	0.23	0.46	mg/kg		8270C	10/31/14	1
Benzoic acid	65-85-0	U	.17	2.3	4.6	mg/kg		8270C	10/31/14	1
Carbazole	86-74-8	U	.0072	0.23	0.46	mg/kg		8270C	10/31/14	1

Results listed are dry weight basis.
U = Not Detected at the LOD

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Reported: 11/05/14 16:14 Revised: 11/18/14 11:06
L729802-01 (PH) - 6.0 @ 21.6c

KA B/kul/vs

KA 2/18/15

BMS 9/2/15

BMS 2/18/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
 Description : Holloman AFB
 Sample ID : TU515-SB02-NS01
 Collected By : Jon Mallonee
 Collection Date : 10/23/14 14:50

ESC Sample # : L729802-01

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0072	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
4-Bromophenyl-phenylether	101-55-3	U	.015	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0088	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
2-Chloronaphthalene	91-58-7	U	.0089	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
3,3-Dichlorobenzidine	91-94-1	U	.11	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
2,4-Dinitrotoluene	121-14-2	U	.0085	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
2,6-Dinitrotoluene	606-20-2	U	.01	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
Hexachlorobenzene	118-74-1	U	.012	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
Hexachloro-1,3-butadiene <i>DNR</i>	87-68-3	U	.014	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
Hexachloroethane	67-72-1	U	.018	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
Isophorone	78-59-1	U	.0072	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
Nitrobenzene	98-95-3	U	.0097	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
n-Nitrosodimethylamine	62-75-9	U	.09	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0082	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.013	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
Benzylbutyl phthalate	85-68-7	U	.014	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.017	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
Di-n-butyl phthalate	84-74-2	U	.015	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
Diethyl phthalate	84-66-2	U	.0096	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
Dimethyl phthalate	131-11-3	U	.0075	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
Di-n-octyl phthalate	117-84-0	U	.013	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
1,2,4-Trichlorobenzene <i>DNR</i>	120-82-1	U	.012	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0067	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
2-Chlorophenol	95-57-8	U	.012	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
2,4-Dichlorophenol	120-83-2	U	.01	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
2,4-Dimethylphenol	105-67-9	U	.065	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.17	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
2,4-Dinitrophenol	51-28-5	U	.14	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
2-Methylphenol	95-48-7	U	.014	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.011	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
2-Nitrophenol	88-75-5	U	.018	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
4-Nitrophenol	100-02-7	U	.072	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
4-Chloroaniline	106-47-8	U	.0049	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
2-Nitroaniline	88-74-4	U	.01	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0019	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
3-Nitroaniline	99-09-2	U	.012	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
4-Nitroaniline	100-01-6	U	.0089	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
Pentachlorophenol	87-86-5	U	.067	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
Phenol	108-95-2	U	.0097	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
2,4,5-Trichlorophenol	95-95-4	U	.014	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
2,4,6-Trichlorophenol	88-06-2	U	.011	0.23	0.46	mg/kg	8270C	8270C	10/31/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	65.3				% Rec.	8270C	8270C	10/31/14	1
Phenol-d5	4165-62-2	61.2				% Rec.	8270C	8270C	10/31/14	1

Results listed are dry weight basis.

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L729802-01 (PH) - 6.0 @ 21.6c

DNR - Do Not Report

KA 2/18/15
BMS 2/19/15



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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
 Description : Holloman AFB
 Sample ID : TU515-SB02-NS01
 Collected By : Jon Mallonee
 Collection Date : 10/23/14 14:50

ESC Sample # : L729802-01
 Site ID :
 Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	61.9				% Rec.		8270C	10/31/14	1
2-Fluorobiphenyl	321-60-8	71.7				% Rec.		8270C	10/31/14	1
2,4,6-Tribromophenol	118-79-6	78.5				% Rec.		8270C	10/31/14	1
p-Terphenyl-d14	1718-51-0	54.5				% Rec.		8270C	10/31/14	1

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 L729802-01 (PH) - 6.0 @ 21.6c

10/21/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
 Description : Holloman AFB
 Sample ID : TU515-TRIPBLANK01-NT01
 Collected By : Jon Mallonee
 Collection Date : 10/23/14 13:30

ESC Sample # : L729802-02

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/27/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	99.9				% Rec.		8015D/G	10/27/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	10/30/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	10/30/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	10/30/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	10/30/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	10/30/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	10/30/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	10/30/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	10/30/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	10/30/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	10/30/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	10/30/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	10/30/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	10/30/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	10/30/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	10/30/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	10/30/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	10/30/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	10/30/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	10/30/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	10/30/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	10/30/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	10/30/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	10/30/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	10/30/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	10/30/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	10/30/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	10/30/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	10/30/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	10/30/14	1

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CA 2/18/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
 Description : Holloman AFB
 Sample ID : TU515-TRIPBLANK01-NT01
 Collected By : Jon Mallonee
 Collection Date : 10/23/14 13:30

ESC Sample # : L729802-02

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	10/30/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	10/30/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	10/30/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	10/30/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	10/30/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	10/30/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	10/30/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	10/30/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	10/30/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	10/30/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	10/30/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	10/30/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	10/30/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	10/30/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	10/30/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	10/30/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	10/30/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	10/30/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	10/30/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	10/30/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	10/30/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	99.8				% Rec.		8260B	10/30/14	1
Dibromofluoromethane	1868-53-7	98.1				% Rec.		8260B	10/30/14	1
4-Bromofluorobenzene	460-00-4	96.6				% Rec.		8260B	10/30/14	1

U = Not Detected at the LOD

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Reported: 11/05/14 16:14 Revised: 11/18/14 11:06

KA2/18/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
Description : Holloman AFB
Sample ID : TU515-SB08-NS01
Collected By : Jon Mallonee
Collection Date : 10/23/14 17:40

ESC Sample # : L729802-03

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.0				su		9045D	10/28/14	1
Total Solids	TSOLIDS	69.9	.0333			%		2540 G-2	10/30/14	1
Mercury <i>F SQL-I</i>	7439-97-6	0.0054	.004	0.014	0.029	mg/kg	J	7471	10/28/14	1
Aluminum <i>J FO-I</i>	7429-90-5	970	26	36.	72.	mg/kg		6010B	11/05/14	5
Antimony	7440-36-0	U	5.4	7.2	14.	mg/kg		6010B	11/05/14	5
Arsenic	7440-38-2	U	4.6	7.2	14.	mg/kg		6010B	11/05/14	5
Barium <i>J FD-I</i>	7440-39-3	18.	1.2	1.8	3.6	mg/kg		6010B	11/05/14	5
Beryllium	7440-41-7	U	.5	0.72	1.4	mg/kg		6010B	11/05/14	5
Cadmium <i>UJ ICS-L</i>	7440-43-9	U	.5	1.8	3.6	mg/kg		6010B	11/05/14	5
Chromium <i>F SQL-I</i>	7440-47-3	1.4	1	3.6	7.2	mg/kg	J	6010B	11/05/14	5
Cobalt	7440-48-4	U	1.7	3.6	7.2	mg/kg		6010B	11/05/14	5
Copper	7440-50-8	U	3.7	7.2	14.	mg/kg		6010B	11/05/14	5
Lead <i>UJ ICS-L</i>	7439-92-1	U	1.4	1.8	3.6	mg/kg		6010B	11/05/14	5
Manganese <i>J FD-I</i>	7439-96-5	14.	.86	3.6	7.2	mg/kg		6010B	11/05/14	5
Nickel <i>UJ ICS-L</i>	7440-02-0	U	3.4	7.2	14.	mg/kg		6010B	11/05/14	5
Selenium	7782-49-2	U	5.3	7.2	14.	mg/kg		6010B	11/05/14	5
Silver <i>UJ MS-L</i>	7440-22-4	U	2	3.6	7.2	mg/kg		6010B	11/05/14	5
Thallium <i>UJ ICS-L</i>	7440-28-0	U	4.6	7.2	14.	mg/kg		6010B	11/05/14	5
Vanadium <i>F SQL-I</i>	7440-62-2	4.3	1.7	7.2	14.	mg/kg	J	6010B	11/05/14	5
Zinc	7440-66-6	U	4.3	18.	36.	mg/kg		6010B	11/05/14	5
TPH (GC/FID) Low Fraction <i>UJ MS-L</i>	8006-61-9	U	.031	0.072	0.14	mg/kg		8015D/GR	10/31/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	97.2				% Rec.		8015D/GR	10/31/14	1
Volatile Organics										
Acetone	67-64-1	U	.014	0.036	0.072	mg/kg		8260B	11/01/14	1
Benzene	71-43-2	U	.00039	0.00072	0.0014	mg/kg		8260B	11/01/14	1
Bromobenzene	108-86-1	U	.0004	0.00072	0.0014	mg/kg		8260B	11/01/14	1
Bromochloromethane	74-97-5	U	.00056	0.00072	0.0014	mg/kg		8260B	11/01/14	1
Bromodichloromethane	75-27-4	U	.00036	0.00072	0.0014	mg/kg		8260B	11/01/14	1
Bromoform	75-25-2	U	.0006	0.00072	0.0014	mg/kg		8260B	11/01/14	1
Bromomethane	74-83-9	U	.0018	0.0036	0.0072	mg/kg		8260B	11/01/14	1
n-Butylbenzene	104-51-8	U	.00037	0.00072	0.0014	mg/kg		8260B	11/01/14	1
sec-Butylbenzene	135-98-8	U	.00029	0.00072	0.0014	mg/kg		8260B	11/01/14	1
tert-Butylbenzene	98-06-6	U	.0003	0.00072	0.0014	mg/kg		8260B	11/01/14	1
Carbon Disulfide	75-15-0	U	.0004	0.00072	0.0014	mg/kg		8260B	11/01/14	1
Carbon tetrachloride	56-23-5	U	.00047	0.00072	0.0014	mg/kg		8260B	11/01/14	1
Chlorobenzene	108-90-7	U	.0003	0.00072	0.0014	mg/kg		8260B	11/01/14	1
Chlorodibromomethane	124-48-1	U	.00053	0.00072	0.0014	mg/kg		8260B	11/01/14	1
Chloroethane	75-00-3	U	.0014	0.0036	0.0072	mg/kg		8260B	11/01/14	1
Chloroform	67-66-3	U	.00033	0.0036	0.0072	mg/kg		8260B	11/01/14	1

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L729802-03 (PH) - 6.0 @ 21.5c

CA 2/18/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
 Description : Holloman AFB
 Sample ID : TU515-SB08-NS01
 Collected By : Jon Mallonee
 Collection Date : 10/23/14 17:40

ESC Sample # : L729802-03

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00054	0.00072	0.0036	mg/kg	8260B	11/01/14	1	
2-Chlorotoluene	95-49-8	U	.00043	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
4-Chlorotoluene	106-43-4	U	.00034	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0014	0.0036	0.0072	mg/kg	8260B	11/01/14	1	
1,2-Dibromoethane	106-93-4	U	.00049	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
Dibromomethane	74-95-3	U	.00054	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
1,2-Dichlorobenzene	95-50-1	U	.00043	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
1,3-Dichlorobenzene	541-73-1	U	.00034	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
1,4-Dichlorobenzene	106-46-7	U	.00033	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
Dichlorodifluoromethane	75-71-8	U	.001	0.0036	0.0072	mg/kg	8260B	11/01/14	1	
1,1-Dichloroethane	75-34-3	U	.00029	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
1,2-Dichloroethane	107-06-2	U	.00037	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
1,1-Dichloroethene	75-35-4	U	.00043	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
cis-1,2-Dichloroethene	156-59-2	U	.00034	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
trans-1,2-Dichloroethene	156-60-5	U	.00037	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
1,2-Dichloropropane	78-87-5	U	.00052	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
1,1-Dichloropropene	563-58-6	U	.00046	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
1,3-Dichloropropane	142-28-9	U	.0003	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
cis-1,3-Dichloropropene	10061-01-5	U	.00037	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
trans-1,3-Dichloropropene	10061-02-6	U	.00039	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
2,2-Dichloropropane	594-20-7	U	.0004	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
Ethylbenzene	100-41-4	U	.00043	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
Hexachloro-1,3-butadiene	87-68-3	U	.00049	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
2-Hexanone	591-78-6	U	.0054	0.0072	0.014	mg/kg	8260B	11/01/14	1	
Isopropylbenzene	98-82-8	U	.00034	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
p-Isopropyltoluene	99-87-6	U	.00029	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
2-Butanone (MEK)	78-93-3	U	.0067	0.0072	0.014	mg/kg	8260B	11/01/14	1	
Methylene Chloride	75-09-2	U	.0014	0.0036	0.0072	mg/kg	8260B	11/01/14	1	
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0027	0.0072	0.014	mg/kg	8260B	11/01/14	1	
Methyl tert-butyl ether	1634-04-4	U	.0003	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
Naphthalene	91-20-3	U	.0014	0.0036	0.0072	mg/kg	8260B	11/01/14	1	
n-Propylbenzene	103-65-1	U	.0003	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
Styrene	100-42-5	U	.00033	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
1,1,1,2-Tetrachloroethane	630-20-6	U	.00037	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
1,1,2,2-Tetrachloroethane	79-34-5	U	.00052	0.0011	0.0014	mg/kg	8260B	11/01/14	1	
Tetrachloroethene	127-18-4	U	.0004	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
Toluene	108-88-3	U	.00062	0.0036	0.0072	mg/kg	8260B	11/01/14	1	
1,2,3-Trichlorobenzene	87-61-6	U	.00044	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
1,2,4-Trichlorobenzene	120-82-1	U	.00056	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
1,1,1-Trichloroethane	71-55-6	U	.00041	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
1,1,2-Trichloroethane	79-00-5	U	.0004	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
Trichloroethene	79-01-6	U	.0004	0.00072	0.0014	mg/kg	8260B	11/01/14	1	
Trichlorofluoromethane	75-69-4	U	.00054	0.0036	0.0072	mg/kg	8260B	11/01/14	1	
1,2,3-Trichloropropane	96-18-4	U	.001	0.0014	0.0036	mg/kg	8260B	11/01/14	1	
1,2,4-Trimethylbenzene	95-63-6	U	.0003	0.00072	0.0014	mg/kg	8260B	11/01/14	1	

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L729802-03 (PH) - 6.0 @ 21.5c

DNR - Do Not Report

KA 2/16/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
Description : Holloman AFB
Sample ID : TU515-SB08-NS01
Collected By : Jon Mallonee
Collection Date : 10/23/14 17:40

ESC Sample # : L729802-03

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00049	0.00072	0.0014	mg/kg		8260B	11/01/14	1
m&p-Xylene	1330-20-7	U	.001	0.0014	0.0029	mg/kg		8260B	11/01/14	1
Vinyl chloride	75-01-4	U	.00041	0.00072	0.0014	mg/kg		8260B	11/01/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00039	0.00072	0.0014	mg/kg		8260B	11/01/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	98.3				% Rec.		8260B	11/01/14	1
Dibromofluoromethane	1868-53-7	100.				% Rec.		8260B	11/01/14	1
4-Bromofluorobenzene	460-00-4	92.8				% Rec.		8260B	11/01/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.3	2.9	5.7	mg/kg		8015	10/30/14	1
C28-C40 Oil Range		U	.39	2.9	5.7	mg/kg		8015	10/30/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	73.7				% Rec.		8015	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	10/30/14	1
Acenaphthene	83-32-9	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	10/30/14	1
Acenaphthylene	208-96-8	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	10/30/14	1
Benzo(a)anthracene	56-55-3	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	10/30/14	1
Benzo(a)pyrene	50-32-8	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	10/30/14	1
Benzo(b)fluoranthene	205-99-2	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	10/30/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	10/30/14	1
Benzo(k)fluoranthene	207-08-9	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	10/30/14	1
Chrysene	218-01-9	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	10/30/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	10/30/14	1
Fluoranthene	206-44-0	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	10/30/14	1
Fluorene	86-73-7	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	10/30/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	10/30/14	1
Naphthalene	91-20-3	U	.00086	0.0086	0.029	mg/kg		8270C-SI	10/30/14	1
Phenanthrene	85-01-8	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	10/30/14	1
Pyrene	129-00-0	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	10/30/14	1
2-Methylnaphthalene	91-57-6	U	.00092	0.0086	0.029	mg/kg		8270C-SI	10/30/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	49.0				% Rec.		8270C-SI	10/30/14	1
Nitrobenzene-d5	4165-60-0	71.7				% Rec.		8270C-SI	10/30/14	1
2-Fluorobiphenyl	321-60-8	68.4				% Rec.		8270C-SI	10/30/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.011	0.24	0.48	mg/kg		8270C	10/31/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.013	0.24	0.48	mg/kg		8270C	10/31/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.011	0.24	0.48	mg/kg		8270C	10/31/14	1
Benzyl Alcohol	100-51-6	U	.011	0.24	0.48	mg/kg		8270C	10/31/14	1
Benzoic acid	65-85-0	U	.17	2.4	4.8	mg/kg		8270C	10/31/14	1
Carbazole	86-74-8	U	.0074	0.24	0.48	mg/kg		8270C	10/31/14	1

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L729802-03 (PH) - 6.0 @ 21.5c

KA 8/26/15
BMS 9/2/15

KA 2/18/15
BMS 2/19/15
8 of 1345



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
Description : Holloman AFB
Sample ID : TU515-SB08-NS01
Collected By : Jon Mallonee
Collection Date : 10/23/14 17:40

ESC Sample # : L729802-03
Site ID :
Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0074	0.24	0.48	mg/kg		8270C	10/31/14	1
4-Bromophenyl-phenylether	101-55-3	U	.016	0.24	0.48	mg/kg		8270C	10/31/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.009	0.24	0.48	mg/kg		8270C	10/31/14	1
2-Chloronaphthalene	91-58-7	U	.0092	0.24	0.48	mg/kg		8270C	10/31/14	1
3,3-Dichlorobenzidine	91-94-1	U	.11	0.24	0.48	mg/kg		8270C	10/31/14	1
2,4-Dinitrotoluene	121-14-2	U	.0087	0.24	0.48	mg/kg		8270C	10/31/14	1
2,6-Dinitrotoluene	606-20-2	U	.01	0.24	0.48	mg/kg		8270C	10/31/14	1
Hexachlorobenzene	118-74-1	U	.012	0.24	0.48	mg/kg		8270C	10/31/14	1
Hexachloro-1,3-butadiene <i>DNR</i>	87-68-3	U	.014	0.24	0.48	mg/kg		8270C	10/31/14	1
Hexachloroethane	67-72-1	U	.018	0.24	0.48	mg/kg		8270C	10/31/14	1
Isophorone	78-59-1	U	.0074	0.24	0.48	mg/kg		8270C	10/31/14	1
Nitrobenzene	98-95-3	U	.01	0.24	0.48	mg/kg		8270C	10/31/14	1
n-Nitrosodimethylamine	62-75-9	U	.093	0.24	0.48	mg/kg		8270C	10/31/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0084	0.24	0.48	mg/kg		8270C	10/31/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.013	0.24	0.48	mg/kg		8270C	10/31/14	1
Benzylbutyl phthalate	85-68-7	U	.014	0.24	0.48	mg/kg		8270C	10/31/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.017	0.24	0.48	mg/kg		8270C	10/31/14	1
Di-n-butyl phthalate	84-74-2	U	.016	0.24	0.48	mg/kg		8270C	10/31/14	1
Diethyl phthalate	84-66-2	U	.0099	0.24	0.48	mg/kg		8270C	10/31/14	1
Dimethyl phthalate	131-11-3	U	.0077	0.24	0.48	mg/kg		8270C	10/31/14	1
Di-n-octyl phthalate	117-84-0	U	.013	0.24	0.48	mg/kg		8270C	10/31/14	1
1,2,4-Trichlorobenzene <i>DNR</i>	120-82-1	U	.012	0.24	0.48	mg/kg		8270C	10/31/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0069	0.24	0.48	mg/kg		8270C	10/31/14	1
2-Chlorophenol	95-57-8	U	.012	0.24	0.48	mg/kg		8270C	10/31/14	1
2,4-Dichlorophenol	120-83-2	U	.011	0.24	0.48	mg/kg		8270C	10/31/14	1
2,4-Dimethylphenol	105-67-9	U	.067	0.24	0.48	mg/kg		8270C	10/31/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.17	0.24	0.48	mg/kg		8270C	10/31/14	1
2,4-Dinitrophenol	51-28-5	U	.14	0.24	0.48	mg/kg		8270C	10/31/14	1
2-Methylphenol	95-48-7	U	.014	0.24	0.48	mg/kg		8270C	10/31/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.011	0.24	0.48	mg/kg		8270C	10/31/14	1
2-Nitrophenol	88-75-5	U	.018	0.24	0.48	mg/kg		8270C	10/31/14	1
4-Nitrophenol	100-02-7	U	.074	0.24	0.48	mg/kg		8270C	10/31/14	1
4-Chloroaniline	106-47-8	U	.005	0.24	0.48	mg/kg		8270C	10/31/14	1
2-Nitroaniline	88-74-4	U	.011	0.24	0.48	mg/kg		8270C	10/31/14	1
1,2-Diphenylhydrazine	103-33-3	U	.002	0.24	0.48	mg/kg		8270C	10/31/14	1
3-Nitroaniline	99-09-2	U	.012	0.24	0.48	mg/kg		8270C	10/31/14	1
4-Nitroaniline	100-01-6	U	.0092	0.24	0.48	mg/kg		8270C	10/31/14	1
Pentachlorophenol	87-86-5	U	.069	0.24	0.48	mg/kg		8270C	10/31/14	1
Phenol	108-95-2	U	.01	0.24	0.48	mg/kg		8270C	10/31/14	1
2,4,5-Trichlorophenol	95-95-4	U	.014	0.24	0.48	mg/kg		8270C	10/31/14	1
2,4,6-Trichlorophenol	88-06-2	U	.011	0.24	0.48	mg/kg		8270C	10/31/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	67.8				% Rec.		8270C	10/31/14	1
Phenol-d5	4165-62-2	59.6				% Rec.		8270C	10/31/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/05/14 16:14 Revised: 11/18/14 11:06

L729802-03 (PH) - 6.0 @ 21.5c

CA 2/18/15
BMI 2/19/15
19 of 1345

DNR - Do Not Report



12065 Lebanon Rd.
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 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
 Description : Holloman AFB
 Sample ID : TU515-SB08-NS01
 Collected By : Jon Mallonee
 Collection Date : 10/23/14 17:40

ESC Sample # : L729802-03
 Site ID :
 Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	66.3				% Rec.		8270C	10/31/14	1
2-Fluorobiphenyl	321-60-8	79.4				% Rec.		8270C	10/31/14	1
2,4,6-Tribromophenol	118-79-6	77.6				% Rec.		8270C	10/31/14	1
p-Terphenyl-d14	1718-51-0	60.4				% Rec.		8270C	10/31/14	1

Results listed are dry weight basis.

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Reported: 11/05/14 16:14 Revised: 11/18/14 11:06

L729802-03 (PH) - 6.0 @ 21.5c

KAZ/18/15



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Tax I.D. 62-0814289
Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
Description : Holloman AFB
Sample ID : TU515-SB10-NS01
Collected By : Jon Mallonee
Collection Date : 10/23/14 17:35

ESC Sample # : L729802-04
Site ID :
Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.1				su		9045D	10/28/14	1
Total Solids	TSOLIDS	67.6	.0333			%		2540 G-2	10/30/14	1
Mercury <i>F SQL-I</i>	7439-97-6	0.0074	.0041	0.015	0.030	mg/kg	J	7471	10/28/14	1
Aluminum <i>J FD-I</i>	7429-90-5	210	27	37.	74.	mg/kg		6010B	11/05/14	5
Antimony	7440-36-0	U	5.6	7.4	15.	mg/kg		6010B	11/05/14	5
Arsenic	7440-38-2	U	4.7	7.4	15.	mg/kg		6010B	11/05/14	5
Barium <i>J FD-I</i>	7440-39-3	8.6	1.2	1.8	3.7	mg/kg		6010B	11/05/14	5
Beryllium	7440-41-7	U	.52	0.74	1.5	mg/kg		6010B	11/05/14	5
Cadmium <i>UJ ICS-L</i>	7440-43-9	U	.52	1.8	3.7	mg/kg		6010B	11/05/14	5
Chromium	7440-47-3	U	1	3.7	7.4	mg/kg		6010B	11/05/14	5
Cobalt	7440-48-4	U	1.8	3.7	7.4	mg/kg		6010B	11/05/14	5
Copper	7440-50-8	U	3.8	7.4	15.	mg/kg		6010B	11/05/14	5
Lead <i>UJ ICS-L</i>	7439-92-1	U	1.4	1.8	3.7	mg/kg		6010B	11/05/14	5
Manganese <i>J FD-I SQL-I</i>	7439-96-5	6.4	.89	3.7	7.4	mg/kg	J	6010B	11/05/14	5
Nickel <i>UJ ICS-L</i>	7440-02-0	U	3.6	7.4	15.	mg/kg		6010B	11/05/14	5
Selenium	7782-49-2	U	5.5	7.4	15.	mg/kg		6010B	11/05/14	5
Silver <i>UJ MS-L</i>	7440-22-4	U	2.1	3.7	7.4	mg/kg		6010B	11/05/14	5
Thallium <i>UJ ICS-L</i>	7440-28-0	U	4.7	7.4	15.	mg/kg		6010B	11/05/14	5
Vanadium	7440-62-2	U	1.8	7.4	15.	mg/kg		6010B	11/05/14	5
Zinc	7440-66-6	U	4.4	18.	37.	mg/kg		6010B	11/05/14	5
TPH (GC/FID) Low Fraction <i>UJ MS-L</i>	8006-61-9	U	.032	0.074	0.15	mg/kg		8015D/GR	10/31/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	97.2				% Rec.		8015D/GR	10/31/14	1
Volatile Organics										
Acetone <i>F SQL-I</i>	67-64-1	0.024	.015	0.037	0.074	mg/kg	J	8260B	11/01/14	1
Benzene	71-43-2	U	.0004	0.00074	0.0015	mg/kg		8260B	11/01/14	1
Bromobenzene	108-86-1	U	.00041	0.00074	0.0015	mg/kg		8260B	11/01/14	1
Bromochloromethane	74-97-5	U	.00058	0.00074	0.0015	mg/kg		8260B	11/01/14	1
Bromodichloromethane	75-27-4	U	.00037	0.00074	0.0015	mg/kg		8260B	11/01/14	1
Bromoform	75-25-2	U	.00062	0.00074	0.0015	mg/kg		8260B	11/01/14	1
Bromomethane	74-83-9	U	.0019	0.0037	0.0074	mg/kg		8260B	11/01/14	1
n-Butylbenzene	104-51-8	U	.00038	0.00074	0.0015	mg/kg		8260B	11/01/14	1
sec-Butylbenzene	135-98-8	U	.0003	0.00074	0.0015	mg/kg		8260B	11/01/14	1
tert-Butylbenzene	98-06-6	U	.00031	0.00074	0.0015	mg/kg		8260B	11/01/14	1
Carbon Disulfide	75-15-0	U	.00041	0.00074	0.0015	mg/kg		8260B	11/01/14	1
Carbon tetrachloride	56-23-5	U	.00049	0.00074	0.0015	mg/kg		8260B	11/01/14	1
Chlorobenzene	108-90-7	U	.00031	0.00074	0.0015	mg/kg		8260B	11/01/14	1
Chlorodibromomethane	124-48-1	U	.00055	0.00074	0.0015	mg/kg		8260B	11/01/14	1
Chloroethane	75-00-3	U	.0014	0.0037	0.0074	mg/kg		8260B	11/01/14	1
Chloroform	67-66-3	U	.00034	0.0037	0.0074	mg/kg		8260B	11/01/14	1

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Reported: 11/05/14 16:14 Revised: 11/18/14 11:06

L729802-04 (PH) - 6.1 @ 21.5c

KA 2/18/15
BS 2/19/15
21 of 1345



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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
 Description : Holloman AFB
 Sample ID : TU515-SB10-NS01
 Collected By : Jon Mallonee
 Collection Date : 10/23/14 17:35

ESC Sample # : L729802-04
 Site ID :
 Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00056	0.00074	0.0037	mg/kg	8260B		11/01/14	1
2-Chlorotoluene	95-49-8	U	.00044	0.00074	0.0015	mg/kg	8260B		11/01/14	1
4-Chlorotoluene	106-43-4	U	.00036	0.00074	0.0015	mg/kg	8260B		11/01/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0015	0.0037	0.0074	mg/kg	8260B		11/01/14	1
1,2-Dibromoethane	106-93-4	U	.0005	0.00074	0.0015	mg/kg	8260B		11/01/14	1
Dibromomethane	74-95-3	U	.00056	0.00074	0.0015	mg/kg	8260B		11/01/14	1
1,2-Dichlorobenzene	95-50-1	U	.00044	0.00074	0.0015	mg/kg	8260B		11/01/14	1
1,3-Dichlorobenzene	541-73-1	U	.00036	0.00074	0.0015	mg/kg	8260B		11/01/14	1
1,4-Dichlorobenzene	106-46-7	U	.00034	0.00074	0.0015	mg/kg	8260B		11/01/14	1
Dichlorodifluoromethane	75-71-8	U	.001	0.0037	0.0074	mg/kg	8260B		11/01/14	1
1,1-Dichloroethane	75-34-3	U	.0003	0.00074	0.0015	mg/kg	8260B		11/01/14	1
1,2-Dichloroethane	107-06-2	U	.00038	0.00074	0.0015	mg/kg	8260B		11/01/14	1
1,1-Dichloroethene	75-35-4	U	.00044	0.00074	0.0015	mg/kg	8260B		11/01/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00036	0.00074	0.0015	mg/kg	8260B		11/01/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00038	0.00074	0.0015	mg/kg	8260B		11/01/14	1
1,2-Dichloropropane	78-87-5	U	.00053	0.00074	0.0015	mg/kg	8260B		11/01/14	1
1,1-Dichloropropene	563-58-6	U	.00047	0.00074	0.0015	mg/kg	8260B		11/01/14	1
1,3-Dichloropropene	142-28-9	U	.00031	0.00074	0.0015	mg/kg	8260B		11/01/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00038	0.00074	0.0015	mg/kg	8260B		11/01/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.0004	0.00074	0.0015	mg/kg	8260B		11/01/14	1
2,2-Dichloropropane	594-20-7	U	.00041	0.00074	0.0015	mg/kg	8260B		11/01/14	1
Ethylbenzene	100-41-4	U	.00044	0.00074	0.0015	mg/kg	8260B		11/01/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.0005	0.00074	0.0015	mg/kg	8260B		11/01/14	1
2-Hexanone	591-78-6	U	.0056	0.0074	0.015	mg/kg	8260B		11/01/14	1
Isopropylbenzene	98-82-8	U	.00036	0.00074	0.0015	mg/kg	8260B		11/01/14	1
p-Isopropyltoluene	99-87-6	U	.0003	0.00074	0.0015	mg/kg	8260B		11/01/14	1
2-Butanone (MEK)	78-93-3	U	.007	0.0074	0.015	mg/kg	8260B		11/01/14	1
Methylene Chloride	75-09-2	U	.0015	0.0037	0.0074	mg/kg	8260B		11/01/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0028	0.0074	0.015	mg/kg	8260B		11/01/14	1
Methyl tert-butyl ether	1634-04-4	U	.00031	0.00074	0.0015	mg/kg	8260B		11/01/14	1
Naphthalene DWR	91-20-3	U	.0015	0.0037	0.0074	mg/kg	8260B		11/01/14	1
n-Propylbenzene	103-65-1	U	.00031	0.00074	0.0015	mg/kg	8260B		11/01/14	1
Styrene	100-42-5	U	.00034	0.00074	0.0015	mg/kg	8260B		11/01/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00038	0.00074	0.0015	mg/kg	8260B		11/01/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00053	0.0011	0.0015	mg/kg	8260B		11/01/14	1
Tetrachloroethene	127-18-4	U	.00041	0.00074	0.0015	mg/kg	8260B		11/01/14	1
Toluene	108-88-3	U	.00064	0.0037	0.0074	mg/kg	8260B		11/01/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00046	0.00074	0.0015	mg/kg	8260B		11/01/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00058	0.00074	0.0015	mg/kg	8260B		11/01/14	1
1,1,1-Trichloroethane	71-55-6	U	.00042	0.00074	0.0015	mg/kg	8260B		11/01/14	1
1,1,2-Trichloroethane	79-00-5	U	.00041	0.00074	0.0015	mg/kg	8260B		11/01/14	1
Trichloroethene	79-01-6	U	.00041	0.00074	0.0015	mg/kg	8260B		11/01/14	1
Trichlorofluoromethane	75-69-4	U	.00056	0.0037	0.0074	mg/kg	8260B		11/01/14	1
1,2,3-Trichloropropane	96-18-4	U	.0011	0.0015	0.0037	mg/kg	8260B		11/01/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.00031	0.00074	0.0015	mg/kg	8260B		11/01/14	1

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Reported: 11/05/14 16:14 Revised: 11/18/14 11:06

L729802-04 (PH) - 6.1 @ 21.5c

DWR - Do Not Report

KA 2/18/15
BMS 2/19/15
 22 of 1345



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
Description : Holloman AFB
Sample ID : TU515-SB10-NS01
Collected By : Jon Mallonee
Collection Date : 10/23/14 17:35

ESC Sample # : L729802-04

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.0005	0.00074	0.0015	mg/kg		8260B	11/01/14	1
m&p-Xylene	1330-20-7	U	.0011	0.0015	0.0030	mg/kg		8260B	11/01/14	1
Vinyl chloride	75-01-4	U	.00043	0.00074	0.0015	mg/kg		8260B	11/01/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.0004	0.00074	0.0015	mg/kg		8260B	11/01/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	95.8				% Rec.		8260B	11/01/14	1
Dibromofluoromethane	1868-53-7	99.2				% Rec.		8260B	11/01/14	1
4-Bromofluorobenzene	460-00-4	94.2				% Rec.		8260B	11/01/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.4	3.0	5.9	mg/kg		8015	10/30/14	1
C28-C40 Oil Range		U	.4	3.0	5.9	mg/kg		8015	10/30/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	79.3				% Rec.		8015	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/30/14	1
Acenaphthene	83-32-9	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/30/14	1
Acenaphthylene	208-96-8	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/30/14	1
Benzo(a)anthracene	56-55-3	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/30/14	1
Benzo(a)pyrene	50-32-8	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/30/14	1
Benzo(b)fluoranthene	205-99-2	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/30/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/30/14	1
Benzo(k)fluoranthene	207-08-9	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/30/14	1
Chrysene	218-01-9	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/30/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/30/14	1
Fluoranthene	206-44-0	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/30/14	1
Fluorene	86-73-7	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/30/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/30/14	1
Naphthalene	91-20-3	U	.00089	0.0089	0.030	mg/kg		8270C-SI	10/30/14	1
Phenanthrene	85-01-8	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/30/14	1
Pyrene	129-00-0	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	10/30/14	1
2-Methylnaphthalene	91-57-6	U	.00095	0.0089	0.030	mg/kg		8270C-SI	10/30/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	47.5				% Rec.		8270C-SI	10/30/14	1
Nitrobenzene-d5	4165-60-0	75.3				% Rec.		8270C-SI	10/30/14	1
2-Fluorobiphenyl	321-60-8	72.1				% Rec.		8270C-SI	10/30/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.011	0.25	0.49	mg/kg		8270C	10/31/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.013	0.25	0.49	mg/kg		8270C	10/31/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.011	0.25	0.49	mg/kg		8270C	10/31/14	1
Benzyl Alcohol	100-51-6	U	.011	0.25	0.49	mg/kg		8270C	10/31/14	1
Benzoic acid	65-85-0	U	.18	2.5	4.9	mg/kg		8270C	10/31/14	1
Carbazole	86-74-8	U	.0077	0.25	0.49	mg/kg		8270C	10/31/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

Note:

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Reported: 11/05/14 16:14 Revised: 11/18/14 11:06

L729802-04 (PH) - 6.1 @ 21.5c

KA B/2/15
BMS 9/2/15

KA 2/18/15
BMS 2/18/15
23 of 1345



12065 Lebanon Rd.
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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
 Description : Holloman AFB
 Sample ID : TU515-SB10-NS01
 Collected By : Jon Mallonee
 Collection Date : 10/23/14 17:35

ESC Sample # : L729802-04
 Site ID :
 Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0077	0.25	0.49	mg/kg		8270C	10/31/14	1
4-Bromophenyl-phenylether	101-55-3	U	.016	0.25	0.49	mg/kg		8270C	10/31/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0093	0.25	0.49	mg/kg		8270C	10/31/14	1
2-Chloronaphthalene	91-58-7	U	.0095	0.25	0.49	mg/kg		8270C	10/31/14	1
3,3-Dichlorobenzidine	91-94-1	U	.12	0.25	0.49	mg/kg		8270C	10/31/14	1
2,4-Dinitrotoluene	121-14-2	U	.009	0.25	0.49	mg/kg		8270C	10/31/14	1
2,6-Dinitrotoluene	606-20-2	U	.011	0.25	0.49	mg/kg		8270C	10/31/14	1
Hexachlorobenzene	118-74-1	U	.013	0.25	0.49	mg/kg		8270C	10/31/14	1
Hexachloro-1,3-butadiene <i>DNR</i>	87-68-3	U	.015	0.25	0.49	mg/kg		8270C	10/31/14	1
Hexachloroethane	67-72-1	U	.019	0.25	0.49	mg/kg		8270C	10/31/14	1
Isophorone	78-59-1	U	.0077	0.25	0.49	mg/kg		8270C	10/31/14	1
Nitrobenzene	98-95-3	U	.01	0.25	0.49	mg/kg		8270C	10/31/14	1
n-Nitrosodimethylamine	62-75-9	U	.096	0.25	0.49	mg/kg		8270C	10/31/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0087	0.25	0.49	mg/kg		8270C	10/31/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.013	0.25	0.49	mg/kg		8270C	10/31/14	1
Benzylbutyl phthalate	85-68-7	U	.015	0.25	0.49	mg/kg		8270C	10/31/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.018	0.25	0.49	mg/kg		8270C	10/31/14	1
Di-n-butyl phthalate	84-74-2	U	.016	0.25	0.49	mg/kg		8270C	10/31/14	1
Diethyl phthalate	84-66-2	U	.01	0.25	0.49	mg/kg		8270C	10/31/14	1
Dimethyl phthalate	131-11-3	U	.008	0.25	0.49	mg/kg		8270C	10/31/14	1
Di-n-octyl phthalate	117-84-0	U	.013	0.25	0.49	mg/kg		8270C	10/31/14	1
1,2,4-Trichlorobenzene <i>DNR</i>	120-82-1	U	.013	0.25	0.49	mg/kg		8270C	10/31/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0071	0.25	0.49	mg/kg		8270C	10/31/14	1
2-Chlorophenol	95-57-8	U	.012	0.25	0.49	mg/kg		8270C	10/31/14	1
2,4-Dichlorophenol	120-83-2	U	.011	0.25	0.49	mg/kg		8270C	10/31/14	1
2,4-Dimethylphenol	105-67-9	U	.07	0.25	0.49	mg/kg		8270C	10/31/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.18	0.25	0.49	mg/kg		8270C	10/31/14	1
2,4-Dinitrophenol	51-28-5	U	.14	0.25	0.49	mg/kg		8270C	10/31/14	1
2-Methylphenol	95-48-7	U	.015	0.25	0.49	mg/kg		8270C	10/31/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.012	0.25	0.49	mg/kg		8270C	10/31/14	1
2-Nitrophenol	88-75-5	U	.019	0.25	0.49	mg/kg		8270C	10/31/14	1
4-Nitrophenol	100-02-7	U	.077	0.25	0.49	mg/kg		8270C	10/31/14	1
4-Chloroaniline	106-47-8	U	.0052	0.25	0.49	mg/kg		8270C	10/31/14	1
2-Nitroaniline	88-74-4	U	.011	0.25	0.49	mg/kg		8270C	10/31/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0021	0.25	0.49	mg/kg		8270C	10/31/14	1
3-Nitroaniline	99-09-2	U	.012	0.25	0.49	mg/kg		8270C	10/31/14	1
4-Nitroaniline	100-01-6	U	.0095	0.25	0.49	mg/kg		8270C	10/31/14	1
Pentachlorophenol	87-86-5	U	.071	0.25	0.49	mg/kg		8270C	10/31/14	1
Phenol	108-95-2	U	.01	0.25	0.49	mg/kg		8270C	10/31/14	1
2,4,5-Trichlorophenol	95-95-4	U	.015	0.25	0.49	mg/kg		8270C	10/31/14	1
2,4,6-Trichlorophenol	88-06-2	U	.012	0.25	0.49	mg/kg		8270C	10/31/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	65.4				% Rec.		8270C	10/31/14	1
Phenol-d5	4165-62-2	57.4				% Rec.		8270C	10/31/14	1

Results listed are dry weight basis.
 U = Not Detected at the LOD
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 Reported: 11/05/14 16:14 Revised: 11/18/14 11:06
 L729802-04 (PH) - 6.1 @ 21.5c

DNR - Do Not Report

KA 2/18/15
BAS 2/19/15
 24 of 1345



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 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
 Description : Holloman AFB
 Sample ID : TU515-SB10-NS01
 Collected By : Jon Mallonee
 Collection Date : 10/23/14 17:35

ESC Sample # : L729802-04
 Site ID :
 Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	61.2				% Rec.		8270C	10/31/14	1
2-Fluorobiphenyl	321-60-8	76.2				% Rec.		8270C	10/31/14	1
2,4,6-Tribromophenol	118-79-6	74.0				% Rec.		8270C	10/31/14	1
p-Terphenyl-d14	1718-51-0	60.9				% Rec.		8270C	10/31/14	1

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L729802-04 (PH) - 6.1 @ 21.5c

CA 2/18/15



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
 Description : Holloman AFB
 Sample ID : TU515-SB10-NS02
 Collected By : Jon Mallonee
 Collection Date : 10/23/14 17:30

ESC Sample # : L729802-05
 Site ID :
 Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.2				su		9045D	10/28/14	1
Total Solids	TSOLIDS	70.2	.0333			%		2540 G-2	10/30/14	1
Mercury	7439-97-6	U	.004	0.014	0.028	mg/kg		7471	10/28/14	1
Aluminum	7429-90-5	1700	26	36.	71.	mg/kg		6010B	11/05/14	5
Antimony	7440-36-0	U	5.4	7.1	14.	mg/kg		6010B	11/05/14	5
Arsenic	7440-38-2	U	4.6	7.1	14.	mg/kg		6010B	11/05/14	5
Barium	7440-39-3	20.	1.2	1.8	3.6	mg/kg		6010B	11/05/14	5
Beryllium	7440-41-7	U	.5	0.71	1.4	mg/kg		6010B	11/05/14	5
Cadmium	7440-43-9	U	.5	1.8	3.6	mg/kg		6010B	11/05/14	5
Chromium	7440-47-3	2.1	1	3.6	7.1	mg/kg	J	6010B	11/05/14	5
Cobalt	7440-48-4	U	1.7	3.6	7.1	mg/kg		6010B	11/05/14	5
Copper	7440-50-8	U	3.7	7.1	14.	mg/kg		6010B	11/05/14	5
Lead	7439-92-1	U	1.4	1.8	3.6	mg/kg		6010B	11/05/14	5
Manganese	7439-96-5	23.	.85	3.6	7.1	mg/kg		6010B	11/05/14	5
Nickel	7440-02-0	U	3.4	7.1	14.	mg/kg		6010B	11/05/14	5
Selenium	7782-49-2	U	5.3	7.1	14.	mg/kg		6010B	11/05/14	5
Silver	7440-22-4	U	2	3.6	7.1	mg/kg		6010B	11/05/14	5
Thallium	7440-28-0	U	4.6	7.1	14.	mg/kg		6010B	11/05/14	5
Vanadium	7440-62-2	5.4	1.7	7.1	14.	mg/kg	J	6010B	11/05/14	5
Zinc	7440-66-6	4.4	4.3	18.	36.	mg/kg	J	6010B	11/05/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.031	0.071	0.14	mg/kg		8015D/GR	10/31/14	1
Surrogate Recovery (70-130)										
a,a,a-Trifluorotoluene (FID)	98-08-8	97.3				% Rec.		8015D/GR	10/31/14	1
Volatile Organics										
Acetone	67-64-1	0.030	.014	0.036	0.071	mg/kg	J	8260B	11/01/14	1
Benzene	71-43-2	0.0030	.00038	0.00071	0.0014	mg/kg		8260B	11/01/14	1
Bromobenzene	108-86-1	U	.0004	0.00071	0.0014	mg/kg		8260B	11/01/14	1
Bromochloromethane	74-97-5	U	.00056	0.00071	0.0014	mg/kg		8260B	11/01/14	1
Bromodichloromethane	75-27-4	U	.00036	0.00071	0.0014	mg/kg		8260B	11/01/14	1
Bromoform	75-25-2	U	.0006	0.00071	0.0014	mg/kg		8260B	11/01/14	1
Bromomethane	74-83-9	U	.0018	0.0036	0.0071	mg/kg		8260B	11/01/14	1
n-Butylbenzene	104-51-8	U	.00037	0.00071	0.0014	mg/kg		8260B	11/01/14	1
sec-Butylbenzene	135-98-8	U	.00028	0.00071	0.0014	mg/kg		8260B	11/01/14	1
tert-Butylbenzene	98-06-6	U	.0003	0.00071	0.0014	mg/kg		8260B	11/01/14	1
Carbon Disulfide	75-15-0	0.0036	.0004	0.00071	0.0014	mg/kg		8260B	11/01/14	1
Carbon tetrachloride	56-23-5	U	.00047	0.00071	0.0014	mg/kg		8260B	11/01/14	1
Chlorobenzene	108-90-7	U	.0003	0.00071	0.0014	mg/kg		8260B	11/01/14	1
Chlorodibromomethane	124-48-1	U	.00053	0.00071	0.0014	mg/kg		8260B	11/01/14	1
Chloroethane	75-00-3	U	.0014	0.0036	0.0071	mg/kg		8260B	11/01/14	1
Chloroform	67-66-3	U	.00033	0.0036	0.0071	mg/kg		8260B	11/01/14	1

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L729802-05 (PH) - 6.2 @ 21.1c

CA 2/18/15
 BMS 2/19/15



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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
 Description : Holloman AFB
 Sample ID : TU515-SB10-NS02
 Collected By : Jon Mallonee
 Collection Date : 10/23/14 17:30

ESC Sample # : L729802-05
 Site ID :
 Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00054	0.00071	0.0036	mg/kg		8260B	11/01/14	1
2-Chlorotoluene	95-49-8	U	.00043	0.00071	0.0014	mg/kg		8260B	11/01/14	1
4-Chlorotoluene	106-43-4	U	.00034	0.00071	0.0014	mg/kg		8260B	11/01/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0014	0.0036	0.0071	mg/kg		8260B	11/01/14	1
1,2-Dibromoethane	106-93-4	U	.00048	0.00071	0.0014	mg/kg		8260B	11/01/14	1
Dibromomethane	74-95-3	U	.00054	0.00071	0.0014	mg/kg		8260B	11/01/14	1
1,2-Dichlorobenzene	95-50-1	U	.00043	0.00071	0.0014	mg/kg		8260B	11/01/14	1
1,3-Dichlorobenzene	541-73-1	U	.00034	0.00071	0.0014	mg/kg		8260B	11/01/14	1
1,4-Dichlorobenzene	106-46-7	U	.00033	0.00071	0.0014	mg/kg		8260B	11/01/14	1
Dichlorodifluoromethane	75-71-8	U	.001	0.0036	0.0071	mg/kg		8260B	11/01/14	1
1,1-Dichloroethane	75-34-3	U	.00028	0.00071	0.0014	mg/kg		8260B	11/01/14	1
1,2-Dichloroethane	107-06-2	U	.00037	0.00071	0.0014	mg/kg		8260B	11/01/14	1
1,1-Dichloroethene	75-35-4	U	.00043	0.00071	0.0014	mg/kg		8260B	11/01/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00034	0.00071	0.0014	mg/kg		8260B	11/01/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00037	0.00071	0.0014	mg/kg		8260B	11/01/14	1
1,2-Dichloropropane	78-87-5	U	.00051	0.00071	0.0014	mg/kg		8260B	11/01/14	1
1,1-Dichloropropene	563-58-6	U	.00046	0.00071	0.0014	mg/kg		8260B	11/01/14	1
1,3-Dichloropropane	142-28-9	U	.0003	0.00071	0.0014	mg/kg		8260B	11/01/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00037	0.00071	0.0014	mg/kg		8260B	11/01/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00038	0.00071	0.0014	mg/kg		8260B	11/01/14	1
2,2-Dichloropropane	594-20-7	U	.0004	0.00071	0.0014	mg/kg		8260B	11/01/14	1
Ethylbenzene	100-41-4	U	.00043	0.00071	0.0014	mg/kg		8260B	11/01/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00048	0.00071	0.0014	mg/kg		8260B	11/01/14	1
2-Hexanone	591-78-6	U	.0054	0.0071	0.014	mg/kg		8260B	11/01/14	1
Isopropylbenzene	98-82-8	U	.00034	0.00071	0.0014	mg/kg		8260B	11/01/14	1
p-Isopropyltoluene	99-87-6	U	.00028	0.00071	0.0014	mg/kg		8260B	11/01/14	1
2-Butanone (MEK)	78-93-3	U	.0067	0.0071	0.014	mg/kg		8260B	11/01/14	1
Methylene Chloride	75-09-2	U	.0014	0.0036	0.0071	mg/kg		8260B	11/01/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0027	0.0071	0.014	mg/kg		8260B	11/01/14	1
Methyl tert-butyl ether	1634-04-4	U	.0003	0.00071	0.0014	mg/kg		8260B	11/01/14	1
Naphthalene <i>DNR</i>	91-20-3	U	.0014	0.0036	0.0071	mg/kg		8260B	11/01/14	1
n-Propylbenzene	103-65-1	U	.0003	0.00071	0.0014	mg/kg		8260B	11/01/14	1
Styrene	100-42-5	U	.00033	0.00071	0.0014	mg/kg		8260B	11/01/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00037	0.00071	0.0014	mg/kg		8260B	11/01/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00051	0.0011	0.0014	mg/kg		8260B	11/01/14	1
Tetrachloroethene	127-18-4	U	.0004	0.00071	0.0014	mg/kg		8260B	11/01/14	1
Toluene <i>FSQL</i>	108-88-3	0.0021	.00061	0.0036	0.0071	mg/kg	J	8260B	11/01/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00044	0.00071	0.0014	mg/kg		8260B	11/01/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00056	0.00071	0.0014	mg/kg		8260B	11/01/14	1
1,1,1-Trichloroethane	71-55-6	U	.00041	0.00071	0.0014	mg/kg		8260B	11/01/14	1
1,1,2-Trichloroethane	79-00-5	U	.0004	0.00071	0.0014	mg/kg		8260B	11/01/14	1
Trichloroethene	79-01-6	U	.0004	0.00071	0.0014	mg/kg		8260B	11/01/14	1
Trichlorofluoromethane	75-69-4	U	.00054	0.0036	0.0071	mg/kg		8260B	11/01/14	1
1,2,3-Trichloropropane	96-18-4	U	.001	0.0014	0.0036	mg/kg		8260B	11/01/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.0003	0.00071	0.0014	mg/kg		8260B	11/01/14	1

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Reported: 11/05/14 16:14 Revised: 11/18/14 11:06

L729802-05 (PH) - 6.2 @ 21.1c

DNR - Do Not Report

KA 2/18/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
Description : Holloman AFB
Sample ID : TU515-SB10-NS02
Collected By : Jon Mallonee
Collection Date : 10/23/14 17:30

ESC Sample # : L729802-05

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00048	0.00071	0.0014	mg/kg		8260B	11/01/14	1
m&p-Xylene	1330-20-7	U	.001	0.0014	0.0028	mg/kg		8260B	11/01/14	1
Vinyl chloride	75-01-4	U	.00041	0.00071	0.0014	mg/kg		8260B	11/01/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00038	0.00071	0.0014	mg/kg		8260B	11/01/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	97.1				% Rec.		8260B	11/01/14	1
Dibromofluoromethane	1868-53-7	99.3				% Rec.		8260B	11/01/14	1
4-Bromofluorobenzene	460-00-4	93.6				% Rec.		8260B	11/01/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.3	2.8	5.7	mg/kg		8015	10/30/14	1
C28-C40 Oil Range		U	.38	2.8	5.7	mg/kg		8015	10/30/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	81.5				% Rec.		8015	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/30/14	1
Acenaphthene	83-32-9	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/30/14	1
Acenaphthylene	208-96-8	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/30/14	1
Benzo(a)anthracene	56-55-3	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/30/14	1
Benzo(a)pyrene	50-32-8	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/30/14	1
Benzo(b)fluoranthene	205-99-2	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/30/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/30/14	1
Benzo(k)fluoranthene	207-08-9	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/30/14	1
Chrysene	218-01-9	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/30/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/30/14	1
Fluoranthene	206-44-0	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/30/14	1
Fluorene	86-73-7	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/30/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/30/14	1
Naphthalene	91-20-3	U	.00085	0.0085	0.028	mg/kg		8270C-SI	10/30/14	1
Phenanthrene	85-01-8	0.0014	.00085	0.0028	0.0085	mg/kg	J	8270C-SI	10/30/14	1
Pyrene	129-00-0	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	10/30/14	1
2-Methylnaphthalene	91-57-6	U	.00091	0.0085	0.028	mg/kg		8270C-SI	10/30/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	61.7				% Rec.		8270C-SI	10/30/14	1
Nitrobenzene-d5	4165-60-0	89.6				% Rec.		8270C-SI	10/30/14	1
2-Fluorobiphenyl	321-60-8	83.5				% Rec.		8270C-SI	10/30/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	.011	0.24	0.47	mg/kg		8270C	10/31/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.013	0.24	0.47	mg/kg		8270C	10/31/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.011	0.24	0.47	mg/kg		8270C	10/31/14	1
Benzyl Alcohol	100-51-6	U	.011	0.24	0.47	mg/kg		8270C	10/31/14	1
Benzoic acid	65-85-0	U	.17	2.4	4.7	mg/kg		8270C	10/31/14	1
Carbazole	86-74-8	U	.0074	0.24	0.47	mg/kg		8270C	10/31/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/05/14 16:14 Revised: 11/18/14 11:06

L729802-05 (PH) - 6.2 @ 21.1c

KA 8/26/15
BMS 9/2/15

KA 2/18/15
BMS 2/19/15
28 of 1345



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
 Description : Holloman AFB
 Sample ID : TU515-SB10-NS02
 Collected By : Jon Mallonee
 Collection Date : 10/23/14 17:30

ESC Sample # : L729802-05
 Site ID :
 Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0074	0.24	0.47	mg/kg		8270C	10/31/14	1
4-Bromophenyl-phenylether	101-55-3	U	.016	0.24	0.47	mg/kg		8270C	10/31/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.009	0.24	0.47	mg/kg		8270C	10/31/14	1
2-Chloronaphthalene	91-58-7	U	.0091	0.24	0.47	mg/kg		8270C	10/31/14	1
3,3-Dichlorobenzidine	91-94-1	U	.11	0.24	0.47	mg/kg		8270C	10/31/14	1
2,4-Dinitrotoluene	121-14-2	U	.0087	0.24	0.47	mg/kg		8270C	10/31/14	1
2,6-Dinitrotoluene	606-20-2	U	.01	0.24	0.47	mg/kg		8270C	10/31/14	1
Hexachlorobenzene	118-74-1	U	.012	0.24	0.47	mg/kg		8270C	10/31/14	1
Hexachloro-1,3-butadiene <i>DNR</i>	87-68-3	U	.014	0.24	0.47	mg/kg		8270C	10/31/14	1
Hexachloroethane	67-72-1	U	.018	0.24	0.47	mg/kg		8270C	10/31/14	1
Isophorone	78-59-1	U	.0074	0.24	0.47	mg/kg		8270C	10/31/14	1
Nitrobenzene	98-95-3	U	.01	0.24	0.47	mg/kg		8270C	10/31/14	1
n-Nitrosodimethylamine	62-75-9	U	.092	0.24	0.47	mg/kg		8270C	10/31/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0084	0.24	0.47	mg/kg		8270C	10/31/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.013	0.24	0.47	mg/kg		8270C	10/31/14	1
Benzybutyl phthalate	85-68-7	U	.014	0.24	0.47	mg/kg		8270C	10/31/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.017	0.24	0.47	mg/kg		8270C	10/31/14	1
Di-n-butyl phthalate	84-74-2	U	.016	0.24	0.47	mg/kg		8270C	10/31/14	1
Diethyl phthalate	84-66-2	U	.0098	0.24	0.47	mg/kg		8270C	10/31/14	1
Dimethyl phthalate	131-11-3	U	.0077	0.24	0.47	mg/kg		8270C	10/31/14	1
Di-n-octyl phthalate	117-84-0	U	.013	0.24	0.47	mg/kg		8270C	10/31/14	1
1,2,4-Trichlorobenzene <i>DNR</i>	120-82-1	U	.012	0.24	0.47	mg/kg		8270C	10/31/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0068	0.24	0.47	mg/kg		8270C	10/31/14	1
2-Chlorophenol	95-57-8	U	.012	0.24	0.47	mg/kg		8270C	10/31/14	1
2,4-Dichlorophenol	120-83-2	U	.011	0.24	0.47	mg/kg		8270C	10/31/14	1
2,4-Dimethylphenol	105-67-9	U	.067	0.24	0.47	mg/kg		8270C	10/31/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.17	0.24	0.47	mg/kg		8270C	10/31/14	1
2,4-Dinitrophenol	51-28-5	U	.14	0.24	0.47	mg/kg		8270C	10/31/14	1
2-Methylphenol	95-48-7	U	.014	0.24	0.47	mg/kg		8270C	10/31/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.011	0.24	0.47	mg/kg		8270C	10/31/14	1
2-Nitrophenol	88-75-5	U	.018	0.24	0.47	mg/kg		8270C	10/31/14	1
4-Nitrophenol	100-02-7	U	.074	0.24	0.47	mg/kg		8270C	10/31/14	1
4-Chloroaniline	106-47-8	U	.005	0.24	0.47	mg/kg		8270C	10/31/14	1
2-Nitroaniline	88-74-4	U	.011	0.24	0.47	mg/kg		8270C	10/31/14	1
1,2-Diphenylhydrazine	103-33-3	U	.002	0.24	0.47	mg/kg		8270C	10/31/14	1
3-Nitroaniline	99-09-2	U	.012	0.24	0.47	mg/kg		8270C	10/31/14	1
4-Nitroaniline	100-01-6	U	.0091	0.24	0.47	mg/kg		8270C	10/31/14	1
Pentachlorophenol	87-86-5	U	.068	0.24	0.47	mg/kg		8270C	10/31/14	1
Phenol	108-95-2	U	.01	0.24	0.47	mg/kg		8270C	10/31/14	1
2,4,5-Trichlorophenol	95-95-4	U	.014	0.24	0.47	mg/kg		8270C	10/31/14	1
2,4,6-Trichlorophenol	88-06-2	U	.011	0.24	0.47	mg/kg		8270C	10/31/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	60.7				% Rec.		8270C	10/31/14	1
Phenol-d5	4165-62-2	53.0				% Rec.		8270C	10/31/14	1

Results listed are dry weight basis.

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L729802-05 (PH) - 6.2 @ 21.1c

KA 2/18/15
BRS 2/19/15
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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
 Description : Holloman AFB
 Sample ID : TU515-SB10-NS02
 Collected By : Jon Mallonee
 Collection Date : 10/23/14 17:30

ESC Sample # : L729802-05
 Site ID :
 Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	58.1				% Rec.		8270C	10/31/14	1
2-Fluorobiphenyl	321-60-8	71.7				% Rec.		8270C	10/31/14	1
2,4,6-Tribromophenol	118-79-6	66.7				% Rec.		8270C	10/31/14	1
p-Terphenyl-d14	1718-51-0	58.6				% Rec.		8270C	10/31/14	1

Results listed are dry weight basis.

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L729802-05 (PH) - 6.2 @ 21.1c

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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
Description : Holloman AFB
Sample ID : H-TU904-GW01-DT01
Collected By : Jon Mallonee
Collection Date : 10/23/14 10:45

ESC Sample # : L729802-06
Site ID :
Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/27/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	100.				% Rec.		8015D/G	10/27/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	10/30/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	10/30/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	10/30/14	1
Bromodichloromethane	75-27-4	0.40	0.38	0.50	1	ug/l	J	8260B	10/30/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	10/30/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	10/30/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	10/30/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	10/30/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	10/30/14	1
Carbon Disulfide	75-15-0	0.94	0.28	0.50	1	ug/l	J	8260B	10/30/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	10/30/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	10/30/14	1
Chloroform	67-66-3	3.1	0.32	2.5	5	ug/l	J	8260B	10/30/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	10/30/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	10/30/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	10/30/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	10/30/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	10/30/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	10/30/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	10/30/14	1
1,1-Dichloroethene	75-35-4	0.46	0.4	0.50	1	ug/l	J	8260B	10/30/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	10/30/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	10/30/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	10/30/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	10/30/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	10/30/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	10/30/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	10/30/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	10/30/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	10/30/14	1

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BMS 2/19/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
Description : Holloman AFB
Sample ID : H-TU904-GW01-DT01
Collected By : Jon Mallonee
Collection Date : 10/23/14 10:45

ESC Sample # : L729802-06

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	10/30/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	10/30/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	10/30/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	10/30/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	10/30/14	1
Naphthalene F SQL-I	91-20-3	3.1	1	2.5	5	ug/l	J	8260B	10/30/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	10/30/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	10/30/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	10/30/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	10/30/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	10/30/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	10/30/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	10/30/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
Trichloroethene	79-01-6	3.1	0.4	0.50	1	ug/l		8260B	10/30/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	10/30/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	10/30/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	10/30/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	10/30/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	10/30/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	10/30/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	10/30/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	101.					% Rec.	8260B	10/30/14	1
Dibromofluoromethane	1868-53-7	103.					% Rec.	8260B	10/30/14	1
4-Bromofluorobenzene	460-00-4	91.7					% Rec.	8260B	10/30/14	1

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(615) 758-5858
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Tax I.D. 62-0814289
Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
Description : Holloman AFB
Sample ID : H-TU904-GW01-NT01
Collected By : Jon Mallonee
Collection Date : 10/23/14 10:45

ESC Sample # : L729802-07
Site ID :
Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/27/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	100.				% Rec.		8015D/G	10/27/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	10/30/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	10/30/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	10/30/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	10/30/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	10/30/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	10/30/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	10/30/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	10/30/14	1
Carbon Disulfide	75-15-0	1.0	0.28	0.50	1	ug/l		8260B	10/30/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	10/30/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	10/30/14	1
Chloroform	67-66-3	3.2	0.32	2.5	5	ug/l	J	8260B	10/30/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	10/30/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	10/30/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	10/30/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	10/30/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	10/30/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	10/30/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	10/30/14	1
1,1-Dichloroethene	75-35-4	0.45	0.4	0.50	1	ug/l	J	8260B	10/30/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	10/30/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	10/30/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	10/30/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	10/30/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	10/30/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	10/30/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	10/30/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	10/30/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	10/30/14	1

U = Not Detected at the LOD
Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-GW01-NT01
 Collected By : Jon Mallonee
 Collection Date : 10/23/14 10:45

ESC Sample # : L729802-07
 Site ID :
 Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	10/30/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	10/30/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	10/30/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	10/30/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	10/30/14	1
Naphthalene F SQT-I	91-20-3	2.9	1	2.5	5	ug/l	J	8260B	10/30/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	10/30/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	10/30/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	10/30/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	10/30/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	10/30/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	10/30/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	10/30/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
Trichloroethene	79-01-6	2.7	0.4	0.50	1	ug/l		8260B	10/30/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	10/30/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	10/30/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	10/30/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	10/30/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	10/30/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	10/30/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	10/30/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	98.2				% Rec.		8260B	10/30/14	1
Dibromofluoromethane	1868-53-7	99.0				% Rec.		8260B	10/30/14	1
4-Bromofluorobenzene	460-00-4	94.3				% Rec.		8260B	10/30/14	1

U = Not Detected at the LOD

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
Description : Holloman AFB
Sample ID : H-TU904-GW07-NT01
Collected By : Jon Mallonee
Collection Date : 10/23/14 16:56

ESC Sample # : L729802-08
Site ID :
Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/31/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	101.				% Rec.		8015D/G	10/31/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	10/30/14	1
Benzene <i>F SQL-I</i>	71-43-2	0.69	0.33	0.50	1	ug/l	J	8260B	10/30/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	10/30/14	1
Bromodichloromethane <i>F SQL-I</i>	75-27-4	0.50	0.38	0.50	1	ug/l	J	8260B	10/30/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	10/30/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	10/30/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	10/30/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	10/30/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	10/30/14	1
Carbon Disulfide <i>F SQL-I</i>	75-15-0	0.42	0.28	0.50	1	ug/l	J	8260B	10/30/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	10/30/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	10/30/14	1
Chloroform <i>F SQL-I</i>	67-66-3	2.0	0.32	2.5	5	ug/l	J	8260B	10/30/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	10/30/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	10/30/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	10/30/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	10/30/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	10/30/14	1
1,1-Dichloroethane <i>F SQL-I</i>	75-34-3	0.39	0.26	0.50	1	ug/l	J	8260B	10/30/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	10/30/14	1
1,1-Dichloroethene <i>F SQL-I</i>	75-35-4	0.93	0.4	0.50	1	ug/l	J	8260B	10/30/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	10/30/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	10/30/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	10/30/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	10/30/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	10/30/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	10/30/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	10/30/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	10/30/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	10/30/14	1

U = Not Detected at the LOD

Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
Description : Holloman AFB
Sample ID : H-TU904-GW07-NT01
Collected By : Jon Mallonee
Collection Date : 10/23/14 16:56

ESC Sample # : L729802-08

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	10/30/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	10/30/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	10/30/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	10/30/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	10/30/14	1
Naphthalene DNR	91-20-3	U	1	2.5	5	ug/l		8260B	10/30/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	10/30/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	10/30/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	10/30/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	10/30/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	10/30/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	10/30/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	10/30/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
Trichloroethene	79-01-6	12.	0.4	0.50	1	ug/l		8260B	10/30/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	10/30/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	10/30/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	10/30/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	10/30/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	10/30/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	10/30/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	10/30/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	98.9				% Rec.		8260B	10/30/14	1
Dibromofluoromethane	1868-53-7	102.				% Rec.		8260B	10/30/14	1
4-Bromofluorobenzene	460-00-4	97.8				% Rec.		8260B	10/30/14	1

U = Not Detected at the LOD

Note:

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DNR - Do Not Report

CA 2/18/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
Description : Holloman AFB
Sample ID : H-TU904-GW03-NT01
Collected By : Jon Mallonee
Collection Date : 10/23/14 13:45

ESC Sample # : L729802-09

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/26/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98-08-8	99.7				% Rec.		8015D/G	10/26/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	10/30/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	10/30/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	10/30/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	10/30/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	10/30/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	10/30/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	10/30/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	10/30/14	1
Carbon Disulfide F SOL-1	75-15-0	0.87	0.28	0.50	1	ug/l	J	8260B	10/30/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	10/30/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	10/30/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	10/30/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	10/30/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	10/30/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	10/30/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	10/30/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	10/30/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	10/30/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	10/30/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	10/30/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	10/30/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	10/30/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	10/30/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	10/30/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	10/30/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	10/30/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	10/30/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	10/30/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	10/30/14	1

U = Not Detected at the LOD

Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 18, 2014

Date Received : October 25, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-GW03-NT01
 Collected By : Jon Mallonee
 Collection Date : 10/23/14 13:45

ESC Sample # : L729802-09

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	10/30/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	10/30/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	10/30/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	10/30/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	10/30/14	1
Naphthalene <i>DNR</i>	91-20-3	U	1	2.5	5	ug/l		8260B	10/30/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	10/30/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	10/30/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	10/30/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	10/30/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	10/30/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	10/30/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	10/30/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	10/30/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	10/30/14	1
Trichloroethene	79-01-6	5.7	0.4	0.50	1	ug/l		8260B	10/30/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	10/30/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	10/30/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	10/30/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	10/30/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	10/30/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	10/30/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	10/30/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	99.5				% Rec.		8260B	10/30/14	1
Dibromofluoromethane	1868-53-7	102.				% Rec.		8260B	10/30/14	1
4-Bromofluorobenzene	460-00-4	94.8				% Rec.		8260B	10/30/14	1

U = Not Detected at the LOD

Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-SS059-MW-9-NT01
Collected By :
Collection Date : 10/24/14 14:00

ESC Sample # : L730134-01
Site ID :
Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	10/31/14	1
Acenaphthene	83-32-9	0.061	0.0082	0.025	0.05	ug/l	B	8270 C-	10/31/14	1
Acenaphthylene	208-96-8	0.032	0.011	0.025	0.05	ug/l	JB	8270 C-	10/31/14	1
Benzo(a)anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(a)pyrene	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(b)fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(g,h,i)perylene	191-24-2	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(k)fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	10/31/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	10/31/14	1
Dibenz(a,h)anthracene	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	10/31/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Fluorene	86-73-7	0.068	0.009	0.025	0.05	ug/l		8270 C-	10/31/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	10/31/14	1
Naphthalene	91-20-3	4.2	0.012	0.025	0.25	ug/l		8270 C-	10/31/14	1
Phenanthrene	85-01-8	0.020	0.018	0.025	0.05	ug/l	J	8270 C-	10/31/14	1
Pyrene	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
2-Methylnaphthalene	91-57-6	5.1	0.016	0.025	0.25	ug/l		8270 C-	10/31/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	59.7				% Rec.		8270 C-	10/31/14	1
2-Fluorobiphenyl	321-60-8	31.6				% Rec.		8270 C-	10/31/14	1
p-Terphenyl-d14	1718-51-0	28.6				% Rec.	J2	8270 C-	10/31/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroethyl)ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Benzyl Alcohol	100-51-6	0.53	0.39	5.0	10	ug/l	J	8270C	10/30/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	10/30/14	1
Benzoic acid	65-85-0	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	10/30/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	10/30/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	10/30/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	10/30/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	10/30/14	1

U = Not Detected at the LOD

Note:

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BW 2/10/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-SS059-MW-9-NT01
 Collected By :
 Collection Date : 10/24/14 14:00

ESC Sample # : L730134-01

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Bis(2-ethylhexyl)phthalate <i>F SALT</i>	117-81-7	0.72	0.71	1.0	3	ug/l	J	8270C	10/30/14	1
Di-n-butyl phthalate	84-74-2	U	0.27	1.0	3	ug/l		8270C	10/30/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
1,2,4-Trichlorobenzene <i>PWR</i>	129-82-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	10/30/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dimethylphenol <i>US CGA</i>	105-67-9	U	0.62	5.0	10	ug/l		8270C	10/30/14	1
4,6-Dinitro-2-methylphenol <i>US CGA</i>	334-52-1	U	2.6	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrophenol <i>US CGA, D-L</i>	51-28-5	U	3.2	5.0	10	ug/l		8270C	10/30/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
3&4-Methyl Phenol	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	10/30/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	10/30/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	10/30/14	1
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	10/30/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	10/30/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	54.7				% Rec.		8270C	10/30/14	1
Phenol-d5	4165-62-2	44.2				% Rec.		8270C	10/30/14	1
Nitrobenzene-d5	4165-60-0	69.0				% Rec.		8270C	10/30/14	1
2-Fluorobiphenyl	321-60-8	57.0				% Rec.		8270C	10/30/14	1
2,4,6-Tribromophenol	118-79-6	61.5				% Rec.		8270C	10/30/14	1
p-Terphenyl-d14	1718-51-0	63.0				% Rec.		8270C	10/30/14	1

U = Not Detected at the LOD

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-SS059-MW-9-DT01
 Collected By :
 Collection Date : 10/24/14 14:00

ESC Sample # : L730134-02

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	10/31/14	1
Acenaphthene	83-32-9	0.11	0.0082	0.025	0.05	ug/l	B	8270 C-	10/31/14	1
Acenaphthylene	208-96-8	0.091	0.011	0.025	0.05	ug/l	B	8270 C-	10/31/14	1
Benzo(a)anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(a)pyrene	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(b)fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(g,h,i)perylene	191-24-2	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(k)fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	10/31/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	10/31/14	1
Dibenz(a,h)anthracene	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	10/31/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Fluorene	86-73-7	0.084	0.009	0.025	0.05	ug/l		8270 C-	10/31/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	10/31/14	1
Naphthalene	91-20-3	3.3	0.012	0.025	0.25	ug/l		8270 C-	10/31/14	1
Phenanthrene	85-01-8	0.024	0.018	0.025	0.05	ug/l	J	8270 C-	10/31/14	1
Pyrene	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
2-Methylnaphthalene	91-57-6	3.8	0.016	0.025	0.25	ug/l		8270 C-	10/31/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	72.4				% Rec.		8270 C-	10/31/14	1
2-Fluorobiphenyl	321-60-8	47.3				% Rec.		8270 C-	10/31/14	1
p-Terphenyl-d14	1718-51-0	43.7				% Rec.		8270 C-	10/31/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroethyl) ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroisopropyl) ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Benzyl Alcohol	100-51-6	U	0.39	5.0	10	ug/l		8270C	10/30/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	10/30/14	1
Benzoic acid	65-85-0	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	10/30/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	10/30/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	10/30/14	1
Hexachloro-1,3-butadiene	67-68-3	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	10/30/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	10/30/14	1

U = Not Detected at the LOD

Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-SS059-MW-9-DT01
 Collected By :
 Collection Date : 10/24/14 14:00

ESC Sample # : L730134-02

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Bis(2-ethylhexyl)phthalate	117-81-7	U	0.71	1.0	3	ug/l		8270C	10/30/14	1
Di-n-butyl phthalate <i>F 804-I</i>	84-74-2	0.28	0.27	1.0	3	ug/l	J	8270C	10/30/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
1,2,4-Trichlorobenzene <i>DUR</i>	120-82-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	10/30/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	10/30/14	1
4,6-Dinitro-2-methylphenol <i>WMSL</i>	534-52-1	U	2.6	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrophenol <i>WJ CCAL, D-L</i>	51-28-5	U	3.2	5.0	10	ug/l		8270C	10/30/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
3&4-Methyl Phenol	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	10/30/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	10/30/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	10/30/14	1
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	10/30/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	10/30/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	50.7				% Rec.		8270C	10/30/14	1
Phenol-d5	4165-62-2	40.4				% Rec.		8270C	10/30/14	1
Nitrobenzene-d5	4165-60-0	69.9				% Rec.		8270C	10/30/14	1
2-Fluorobiphenyl	321-60-8	58.9				% Rec.		8270C	10/30/14	1
2,4,6-Tribromophenol	118-79-6	73.8				% Rec.		8270C	10/30/14	1
p-Terphenyl-d14	1718-51-0	62.9				% Rec.		8270C	10/30/14	1

U = Not Detected at the LOD

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-SS059-LF-MW-02-NT01
Collected By :
Collection Date : 10/26/14 12:00

ESC Sample # : L730134-03

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dissolved Solids	DSOLIDS	22000000	2820	5000	10000	ug/l		2540 C-	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	10/31/14	1
Acenaphthene	83-32-9	U	0.0082	0.025	0.05	ug/l		8270 C-	10/31/14	1
Acenaphthylene	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(a)anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(a)pyrene	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(b)fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(g,h,i)perylene	191-24-2	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(k)fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	10/31/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	10/31/14	1
Dibenz(a,h)anthracene	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	10/31/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Fluorene	86-73-7	U	0.009	0.025	0.05	ug/l		8270 C-	10/31/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	10/31/14	1
Naphthalene	91-20-3	0.023	0.012	0.025	0.25	ug/l	J	8270 C-	10/31/14	1
Phenanthrene	85-01-8	U	0.018	0.025	0.05	ug/l		8270 C-	10/31/14	1
Pyrene	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
2-Methylnaphthalene	91-57-6	U	0.016	0.025	0.25	ug/l		8270 C-	10/31/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	64.4				% Rec.		8270 C-	10/31/14	1
2-Fluorobiphenyl	321-60-8	58.3				% Rec.		8270 C-	10/31/14	1
p-Terphenyl-d14	1718-51-0	54.0				% Rec.		8270 C-	10/31/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroethyl)ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Benzyl Alcohol	100-51-6	U	0.39	5.0	10	ug/l		8270C	10/30/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	10/30/14	1
Benzoic acid	65-85-0	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	10/30/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	10/30/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	10/30/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	10/30/14	1

U = Not Detected at the LOD

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-SS059-LF-MW-02-NT01
 Collected By :
 Collection Date : 10/26/14 12:00

ESC Sample # : L730134-03

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	10/30/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	0.93	0.71	1.0	3	ug/l	J	8270C	10/30/14	1
Di-n-butyl phthalate	84-74-2	U	0.27	1.0	3	ug/l		8270C	10/30/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	10/30/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	10/30/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	10/30/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
3&4-Methyl Phenol	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	10/30/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	10/30/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	10/30/14	1
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	10/30/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	10/30/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	51.0				% Rec.		8270C	10/30/14	1
Phenol-d5	4165-62-2	40.3				% Rec.		8270C	10/30/14	1
Nitrobenzene-d5	4165-60-0	65.8				% Rec.		8270C	10/30/14	1
2-Fluorobiphenyl	321-60-8	67.7				% Rec.		8270C	10/30/14	1
2,4,6-Tribromophenol	118-79-6	52.7				% Rec.		8270C	10/30/14	1
p-Terphenyl-d14	1718-51-0	60.0				% Rec.		8270C	10/30/14	1

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-SS059-MW-2-NT01
Collected By :
Collection Date : 10/26/14 10:15

ESC Sample # : L730134-04

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dissolved Solids	DSOLIDS	28000000	2820	5000	10000	ug/l		2540 C-	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	10/31/14	1
Acenaphthene	83-32-9	0.0082	0.0082	0.025	0.05	ug/l	JB	8270 C-	10/31/14	1
Acenaphthylene	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(a)anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(a)pyrene	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(b)fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(g,h,i)perylene	191-24-2	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(k)fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	10/31/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	10/31/14	1
Dibenz(a,h)anthracene	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	10/31/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Fluorene	86-73-7	U	0.009	0.025	0.05	ug/l		8270 C-	10/31/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	10/31/14	1
Naphthalene	91-20-3	0.047	0.012	0.025	0.25	ug/l	J	8270 C-	10/31/14	1
Phenanthrene	85-01-8	U	0.018	0.025	0.05	ug/l		8270 C-	10/31/14	1
Pyrene	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
2-Methylnaphthalene	91-57-6	0.029	0.016	0.025	0.25	ug/l	J	8270 C-	10/31/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	63.9				% Rec.		8270 C-	10/31/14	1
2-Fluorobiphenyl	321-60-8	55.9				% Rec.		8270 C-	10/31/14	1
p-Terphenyl-d14	1718-51-0	56.8				% Rec.		8270 C-	10/31/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	0.36	5.6	11.1	ug/l		8270C	10/30/14	1.11
Bis(2-chloroethyl)ether	111-44-4	U	1.8	5.6	11.1	ug/l		8270C	10/30/14	1.11
Bis(2-chloroisopropyl)ether	108-60-1	U	0.49	5.6	11.1	ug/l		8270C	10/30/14	1.11
Benzyl Alcohol	100-51-6	U	0.44	5.6	11.1	ug/l		8270C	10/30/14	1.11
Carbazole	86-74-8	U	0.18	5.6	11.1	ug/l		8270C	10/30/14	1.11
Benzoic acid	65-85-0	U	0.49	5.6	11.1	ug/l		8270C	10/30/14	1.11
Dibenzofuran	132-64-9	U	0.38	5.6	11.1	ug/l		8270C	10/30/14	1.11
4-Bromophenyl-phenylether	101-55-3	U	0.39	5.6	11.1	ug/l		8270C	10/30/14	1.11
2-Chloronaphthalene	91-58-7	U	0.37	0.56	1.11	ug/l		8270C	10/30/14	1.11
4-Chlorophenyl-phenylether	7005-72-3	U	0.34	5.6	11.1	ug/l		8270C	10/30/14	1.11
3,3-Dichlorobenzidine	91-94-1	U	2.2	5.6	11.1	ug/l		8270C	10/30/14	1.11
2,4-Dinitrotoluene	121-14-2	U	1.8	5.6	11.1	ug/l		8270C	10/30/14	1.11
2,6-Dinitrotoluene	606-20-2	U	0.31	5.6	11.1	ug/l		8270C	10/30/14	1.11
Hexachlorobenzene	118-74-1	U	0.38	0.56	1.11	ug/l		8270C	10/30/14	1.11
Hexachloro-1,3-butadiene	87-68-3	U	0.36	5.6	11.1	ug/l		8270C	10/30/14	1.11
Hexachloroethane	67-72-1	U	0.4	5.6	11.1	ug/l		8270C	10/30/14	1.11
Isophorone	78-59-1	U	0.3	5.6	11.1	ug/l		8270C	10/30/14	1.11
Nitrobenzene	98-95-3	U	0.41	5.6	11.1	ug/l		8270C	10/30/14	1.11
n-Nitrosodimethylamine	62-75-9	U	1.4	5.6	11.1	ug/l		8270C	10/30/14	1.11
n-Nitrosodiphenylamine	86-30-6	U	0.34	5.6	11.1	ug/l		8270C	10/30/14	1.11

U = Not Detected at the LOD

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-SS059-MW-2-NT01
Collected By :
Collection Date : 10/26/14 10:15

ESC Sample # : L730134-04
Site ID :
Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
n-Nitrosodi-n-propylamine	621-64-7	U	0.45	5.6	11.1	ug/l		8270C	10/30/14	1.11
Benzylbutyl phthalate	85-68-7	U	0.3	1.1	3.33	ug/l		8270C	10/30/14	1.11
Bis(2-ethylhexyl)phthalate	117-81-7	1.2	0.79	1.1	3.33	ug/l	J	8270C	10/30/14	1.11
Di-n-butyl phthalate	84-74-2	U	0.3	1.1	3.33	ug/l		8270C	10/30/14	1.11
Diethyl phthalate	84-66-2	U	0.31	1.1	3.33	ug/l		8270C	10/30/14	1.11
Dimethyl phthalate	131-11-3	U	0.31	1.1	3.33	ug/l		8270C	10/30/14	1.11
Di-n-octyl phthalate	117-84-0	U	0.31	1.1	3.33	ug/l		8270C	10/30/14	1.11
1,2,4-Trichlorobenzene	120-82-1	U	0.39	5.6	11.1	ug/l		8270C	10/30/14	1.11
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.29	5.6	11.1	ug/l		8270C	10/30/14	1.11
2-Chlorophenol	95-57-8	U	0.31	5.6	11.1	ug/l		8270C	10/30/14	1.11
2,4-Dichlorophenol	120-83-2	U	0.32	5.6	11.1	ug/l		8270C	10/30/14	1.11
2,4-Dimethylphenol	105-67-9	U	0.69	5.6	11.1	ug/l		8270C	10/30/14	1.11
4,6-Dinitro-2-methylphenol	534-52-1	U	2.9	5.6	11.1	ug/l		8270C	10/30/14	1.11
2,4-Dinitrophenol	51-28-5	U	3.6	5.6	11.1	ug/l		8270C	10/30/14	1.11
2-Methylphenol	95-48-7	U	0.35	5.6	11.1	ug/l		8270C	10/30/14	1.11
3&4-Methyl Phenol	3&4-Methyl	U	0.3	5.6	11.1	ug/l		8270C	10/30/14	1.11
2-Nitrophenol	88-75-5	U	0.36	5.6	11.1	ug/l		8270C	10/30/14	1.11
4-Nitrophenol	100-02-7	U	2.2	5.6	11.1	ug/l		8270C	10/30/14	1.11
4-Chloroaniline	106-47-8	U	0.42	5.6	11.1	ug/l		8270C	10/30/14	1.11
2-Nitroaniline	88-74-4	U	2.1	5.6	11.1	ug/l		8270C	10/30/14	1.11
3-Nitroaniline	99-09-2	U	0.34	5.6	11.1	ug/l		8270C	10/30/14	1.11
1,2-Diphenylhydrazine	103-33-3	U	0.35	5.6	11.1	ug/l		8270C	10/30/14	1.11
4-Nitroaniline	100-01-6	U	0.39	5.6	11.1	ug/l		8270C	10/30/14	1.11
Pentachlorophenol	87-86-5	U	0.35	5.6	11.1	ug/l		8270C	10/30/14	1.11
Phenol	108-95-2	U	0.37	5.6	11.1	ug/l		8270C	10/30/14	1.11
2,4,5-Trichlorophenol	95-95-4	U	0.26	5.6	11.1	ug/l		8270C	10/30/14	1.11
2,4,6-Trichlorophenol	88-06-2	U	0.33	5.6	11.1	ug/l		8270C	10/30/14	1.11
Surrogate Recovery										
2-Fluorophenol	367-12-4	52.2				% Rec.		8270C	10/30/14	1.11
Phenol-d5	4165-62-2	41.2				% Rec.		8270C	10/30/14	1.11
Nitrobenzene-d5	4165-60-0	59.0				% Rec.		8270C	10/30/14	1.11
2-Fluorobiphenyl	321-60-8	56.4				% Rec.		8270C	10/30/14	1.11
2,4,6-Tribromophenol	118-79-6	41.8				% Rec.		8270C	10/30/14	1.11
p-Terphenyl-d14	1718-51-0	52.9				% Rec.		8270C	10/30/14	1.11

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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-SS059-MW-5-NT01
Collected By :
Collection Date : 10/26/14 09:30

ESC Sample # : L730134-05

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dissolved Solids	DSOLIDS	6200000	2820	5000	10000	ug/l		2540 C-	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.014	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Acenaphthene	83-32-9	U	0.0091	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Acenaphthylene	208-96-8	U	0.012	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Benzo(a)anthracene	56-55-3	U	0.014	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Benzo(a)pyrene	50-32-8	U	0.018	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Benzo(b)fluoranthene	205-99-2	U	0.021	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Benzo(g,h,i)perylene	191-24-2	U	0.017	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Benzo(k)fluoranthene	207-08-9	U	0.028	0.039	0.05555	ug/l		8270 C-	10/31/14	1.111
Chrysene	218-01-9	U	0.016	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Dibenz(a,h)anthracene	53-70-3	U	0.005	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Fluoranthene	206-44-0	U	0.018	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Fluorene	86-73-7	U	0.01	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Indeno(1,2,3-cd)pyrene	193-39-5	U	0.0082	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Naphthalene	91-20-3	0.023	0.013	0.028	0.27775	ug/l	J	8270 C-	10/31/14	1.111
Phenanthrene	85-01-8	U	0.02	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Pyrene	129-00-0	U	0.017	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
2-Methylnaphthalene	91-57-6	U	0.017	0.028	0.27775	ug/l		8270 C-	10/31/14	1.111
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	84.1					% Rec.	8270 C-	10/31/14	1.111
2-Fluorobiphenyl	321-60-8	75.7					% Rec.	8270 C-	10/31/14	1.111
p-Terphenyl-d14	1718-51-0	78.0					% Rec.	8270 C-	10/31/14	1.111
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroethyl)ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Benzyl Alcohol	100-51-6	0.70	0.39	5.0	10	ug/l	J	8270C	10/30/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	10/30/14	1
Benzoic acid	65-85-0	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	10/30/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	10/30/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	10/30/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	10/30/14	1

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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-SS059-MW-5-NT01
 Collected By :
 Collection Date : 10/26/14 09:30

ESC Sample # : L730134-05

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	10/30/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	0.71	1.0	3	ug/l		8270C	10/30/14	1
Di-n-butyl phthalate	84-74-2	U	0.27	1.0	3	ug/l		8270C	10/30/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	10/30/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	10/30/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	10/30/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
3&4-Methyl Phenol	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	10/30/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	10/30/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	10/30/14	1
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	10/30/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	10/30/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	49.0				% Rec.		8270C	10/30/14	1
Phenol-d5	4165-62-2	37.9				% Rec.		8270C	10/30/14	1
Nitrobenzene-d5	4165-60-0	62.3				% Rec.		8270C	10/30/14	1
2-Fluorobiphenyl	321-60-8	61.0				% Rec.		8270C	10/30/14	1
2,4,6-Tribromophenol	118-79-6	49.9				% Rec.		8270C	10/30/14	1
p-Terphenyl-d14	1718-51-0	58.1				% Rec.		8270C	10/30/14	1

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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-SS059-MW-10-NT01
Collected By :
Collection Date : 10/26/14 11:20

ESC Sample # : L730134-06

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dissolved Solids	DSOLIDS	15000000	2820	5000	10000	ug/l		2540 C-	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	10/31/14	1
Acenaphthene	83-32-9	0.15	0.0082	0.025	0.05	ug/l	B	8270 C-	10/31/14	1
Acenaphthylene	208-96-8	0.079	0.011	0.025	0.05	ug/l	B	8270 C-	10/31/14	1
Benzo(a)anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(a)pyrene	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(b)fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(g,h,i)perylene	191-24-2	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(k)fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	10/31/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	10/31/14	1
Dibenz(a,h)anthracene	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	10/31/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Fluorene	86-73-7	0.18	0.009	0.025	0.05	ug/l		8270 C-	10/31/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	10/31/14	1
Naphthalene	91-20-3	40	0.012	0.025	0.25	ug/l		8270 C-	10/31/14	1
Phenanthrene	85-01-8	0.045	0.018	0.025	0.05	ug/l	J	8270 C-	10/31/14	1
Pyrene	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
2-Methylnaphthalene	91-57-6	23.	0.016	0.025	0.25	ug/l		8270 C-	10/31/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	41.0				% Rec.		8270 C-	10/31/14	1
2-Fluorobiphenyl	321-60-8	36.2				% Rec.		8270 C-	10/31/14	1
p-Terphenyl-d14	1718-51-0	33.5				% Rec.		8270 C-	10/31/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroethyl)ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Benzyl Alcohol	100-51-6	U	0.39	5.0	10	ug/l		8270C	10/30/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	10/30/14	1
Benzoic acid	65-85-0	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Dibenzofuran	132-64-9	0.47	0.34	5.0	10	ug/l	J	8270C	10/30/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	10/30/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	10/30/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	10/30/14	1

U = Not Detected at the LOD

Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-SS059-MW-10-NT01
Collected By :
Collection Date : 10/26/14 11:20

ESC Sample # : L730134-06

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	10/30/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Bis(2-ethylhexyl)phthalate	171-81-7	1.7	0.71	1.0	3	ug/l	J	8270C	10/30/14	1
Di-n-butyl phthalate	84-74-2	0.49	0.27	1.0	3	ug/l	J	8270C	10/30/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	10/30/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	10/30/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	10/30/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
3&4-Methyl Phenol	3&4-Methyl	1.4	0.27	5.0	10	ug/l	J	8270C	10/30/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	10/30/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	10/30/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	10/30/14	1
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	10/30/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
Phenol	108-95-2	4.7	0.33	5.0	10	ug/l	J	8270C	10/30/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	10/30/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	33.9				% Rec.		8270C	10/30/14	1
Phenol-d5	4165-62-2	27.7				% Rec.		8270C	10/30/14	1
Nitrobenzene-d5	4165-60-0	33.9				% Rec.		8270C	10/30/14	1
2-Fluorobiphenyl	321-60-8	24.5				% Rec.	J2	8270C	10/30/14	1
2,4,6-Tribromophenol	118-79-6	29.5				% Rec.		8270C	10/30/14	1
p-Terphenyl-d14	1718-51-0	22.1				% Rec.	J2	8270C	10/30/14	1

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-SS059-MW-11-NT01
Collected By :
Collection Date : 10/26/14 10:25

ESC Sample # : L730134-07

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dissolved Solids	DSOLIDS	24000000	2820	5000	10000	ug/l	2540	C-	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.013	0.025	0.05	ug/l	J6J3	8270 C-	10/31/14	1
Acenaphthene	83-32-9	U	0.0082	0.025	0.05	ug/l	J6J3	8270 C-	10/31/14	1
Acenaphthylene	208-96-8	U	0.011	0.025	0.05	ug/l	J6J3	8270 C-	10/31/14	1
Benzo(a)anthracene	56-55-3	U	0.012	0.025	0.05	ug/l	J6J3	8270 C-	10/31/14	1
Benzo(a)pyrene	50-32-8	U	0.016	0.025	0.05	ug/l	J6J3	8270 C-	10/31/14	1
Benzo(b)fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l	J6J3	8270 C-	10/31/14	1
Benzo(g,h,i)perylene	181-24-2	U	0.016	0.025	0.05	ug/l	J6J3	8270 C-	10/31/14	1
Benzo(k)fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l	J6J3	8270 C-	10/31/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l	J6J3	8270 C-	10/31/14	1
Dibenz(a,h)anthracene	53-70-3	U	0.0045	0.025	0.05	ug/l	J6J3	8270 C-	10/31/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l	J6J3	8270 C-	10/31/14	1
Fluorene	86-73-7	U	0.009	0.025	0.05	ug/l	J6J3	8270 C-	10/31/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	0.0074	0.025	0.05	ug/l	J6J3	8270 C-	10/31/14	1
Naphthalene	91-20-3	0.051	0.012	0.025	0.05	ug/l	JJ6J	8270 C-	10/31/14	1
Phenanthrene	85-01-8	U	0.018	0.025	0.05	ug/l	J6J3	8270 C-	10/31/14	1
Pyrene	129-00-0	U	0.016	0.025	0.05	ug/l	J6J3	8270 C-	10/31/14	1
2-Methylnaphthalene	91-57-6	0.028	0.016	0.025	0.25	ug/l	JJ6J	8270 C-	10/31/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	51.7				% Rec.	8270	C-	10/31/14	1
2-Fluorobiphenyl	321-60-8	44.9				% Rec.	8270	C-	10/31/14	1
p-Terphenyl-d14	1718-51-0	42.9				% Rec.	8270	C-	10/31/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroethyl)ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Benzyl Alcohol	100-51-6	0.91	0.39	5.0	10	ug/l	J	8270C	10/30/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	10/30/14	1
Benzoic acid	65-85-0	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	10/30/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	10/30/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	10/30/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	10/30/14	1

U = Not Detected at the LOD
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-SS059-MW-11-NT01
 Collected By :
 Collection Date : 10/26/14 10:25

ESC Sample # : L730134-07

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	10/30/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	1.0	0.71	1.0	3	ug/l	J	8270C	10/30/14	1
Di-n-butyl phthalate	84-74-2	0.34	0.27	1.0	3	ug/l	J	8270C	10/30/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	10/30/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	10/30/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l	J6J3	8270C	10/30/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
3&4-Methyl Phenol	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	10/30/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	10/30/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	10/30/14	1
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	10/30/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
Phenol	108-95-2	2.9	0.33	5.0	10	ug/l	J	8270C	10/30/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	10/30/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	38.8				% Rec.		8270C	10/30/14	1
Phenol-d5	4165-62-2	31.7				% Rec.		8270C	10/30/14	1
Nitrobenzene-d5	4165-60-0	51.9				% Rec.		8270C	10/30/14	1
2-Fluorobiphenyl	321-60-8	59.3				% Rec.		8270C	10/30/14	1
2,4,6-Tribromophenol	118-79-6	43.8				% Rec.		8270C	10/30/14	1
p-Terphenyl-d14	1718-51-0	56.1				% Rec.		8270C	10/30/14	1

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-SS059-MW-12-NT01
 Collected By :
 Collection Date : 10/26/14 09:52

ESC Sample # : L730134-08

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dissolved Solids	DSOLIDS	14000000	2820	5000	10000	ug/l		2540 C-	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	10/31/14	1
Acenaphthene	83-32-9	U	0.0082	0.025	0.05	ug/l		8270 C-	10/31/14	1
Acenaphthylene	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(a)anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(a)pyrene	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(b)fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(g,h,i)perylene	191-24-2	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(k)fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	10/31/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	10/31/14	1
Dibenz(a,h)anthracene	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	10/31/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Fluorene	86-73-7	U	0.009	0.025	0.05	ug/l		8270 C-	10/31/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	10/31/14	1
Naphthalene	91-20-3	0.044	0.012	0.025	0.25	ug/l	J	8270 C-	10/31/14	1
Phenanthrene	85-01-8	U	0.018	0.025	0.05	ug/l		8270 C-	10/31/14	1
Pyrene	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
2-Methylnaphthalene	91-57-6	0.029	0.016	0.025	0.25	ug/l	J	8270 C-	10/31/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	64.9				% Rec.		8270 C-	10/31/14	1
2-Fluorobiphenyl	321-60-8	59.8				% Rec.		8270 C-	10/31/14	1
p-Terphenyl-d14	1718-51-0	62.6				% Rec.		8270 C-	10/31/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroethyl)ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Benzyl Alcohol	100-51-6	U	0.39	5.0	10	ug/l		8270C	10/30/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	10/30/14	1
Benzoic acid	65-85-0	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	10/30/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	10/30/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	10/30/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	10/30/14	1

U = Not Detected at the LOD

Note:

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 BR 2/2/15*



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-SS059-MW-12-NT01
 Collected By :
 Collection Date : 10/26/14 09:52

ESC Sample # : L730134-08

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	10/30/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	0.71	1.0	3	ug/l		8270C	10/30/14	1
Di-n-butyl phthalate	84-74-2	0.42	0.27	1.0	3	ug/l	J	8270C	10/30/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	10/30/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	10/30/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	10/30/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
3&4-Methyl Phenol	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	10/30/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	10/30/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	10/30/14	1
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	10/30/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	10/30/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	35.8				% Rec.		8270C	10/30/14	1
Phenol-d5	4165-62-2	23.2				% Rec.		8270C	10/30/14	1
Nitrobenzene-d5	4165-60-0	54.0				% Rec.		8270C	10/30/14	1
2-Fluorobiphenyl	321-60-8	57.2				% Rec.		8270C	10/30/14	1
2,4,6-Tribromophenol	118-79-6	50.1				% Rec.		8270C	10/30/14	1
p-Terphenyl-d14	1718-51-0	55.0				% Rec.		8270C	10/30/14	1

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-SS059-MW-13-NT01
Collected By :
Collection Date : 10/26/14 11:15

ESC Sample # : L730134-09

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dissolved Solids	DSOLIDS	25000000	2820	5000	10000	ug/l		2540 C-	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	10/31/14	1
Acenaphthene	83-32-9	U	0.0082	0.025	0.05	ug/l		8270 C-	10/31/14	1
Acenaphthylene	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(a)anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(a)pyrene	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(b)fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(g,h,i)perylene	191-24-2	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(k)fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	10/31/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	10/31/14	1
Dibenz(a,h)anthracene	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	10/31/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Fluorene	86-73-7	U	0.009	0.025	0.05	ug/l		8270 C-	10/31/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	10/31/14	1
Naphthalene	91-20-3	0.31	0.012	0.025	0.05	ug/l		8270 C-	10/31/14	1
Phenanthrene	85-01-8	U	0.018	0.025	0.05	ug/l		8270 C-	10/31/14	1
Pyrene	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
2-Methylnaphthalene	91-57-6	U	0.016	0.025	0.25	ug/l		8270 C-	10/31/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	59.5				% Rec.		8270 C-	10/31/14	1
2-Fluorobiphenyl	321-60-8	54.6				% Rec.		8270 C-	10/31/14	1
p-Terphenyl-d14	1718-51-0	54.5				% Rec.		8270 C-	10/31/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroethyl)ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Benzyl Alcohol	100-51-6	U	0.39	5.0	10	ug/l		8270C	10/30/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	10/30/14	1
Benzoic acid	65-85-0	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	10/30/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	10/30/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	10/30/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	10/30/14	1

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-SS059-MW-13-NT01
 Collected By :
 Collection Date : 10/26/14 11:15

ESC Sample # : L730134-09

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	10/30/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	0.71	1.0	3	ug/l		8270C	10/30/14	1
Di-n-butyl phthalate	84-74-2	U	0.27	1.0	3	ug/l		8270C	10/30/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	10/30/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	10/30/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	10/30/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
3&4-Methyl Phenol	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	10/30/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	10/30/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	10/30/14	1
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	10/30/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	10/30/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	44.3				% Rec.		8270C	10/30/14	1
Phenol-d5	4165-62-2	40.2				% Rec.		8270C	10/30/14	1
Nitrobenzene-d5	4165-60-0	52.0				% Rec.		8270C	10/30/14	1
2-Fluorobiphenyl	321-60-8	57.2				% Rec.		8270C	10/30/14	1
2,4,6-Tribromophenol	118-79-6	52.1				% Rec.		8270C	10/30/14	1
p-Terphenyl-d14	1718-51-0	62.0				% Rec.		8270C	10/30/14	1

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-SS059-MW-14-NT01
Collected By :
Collection Date : 10/26/14 11:12

ESC Sample # : L730134-10

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dissolved Solids	DSOLIDS	31000000	2820	5000	10000	ug/l		2540 C-	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.014	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Acenaphthene	83-32-9	U	0.0091	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Acenaphthylene	208-96-8	U	0.012	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Benzo(a)anthracene	56-55-3	U	0.014	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Benzo(a)pyrene	50-32-8	U	0.018	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Benzo(b)fluoranthene	205-99-2	U	0.021	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Benzo(g,h,i)perylene	191-24-2	U	0.017	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Benzo(k)fluoranthene	207-08-9	U	0.028	0.039	0.05555	ug/l		8270 C-	10/31/14	1.111
Chrysene	218-01-9	U	0.016	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Dibenz(a,h)anthracene	53-70-3	U	0.005	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Fluoranthene	206-44-0	U	0.018	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Fluorene	86-73-7	U	0.01	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Indeno(1,2,3-cd)pyrene	193-39-5	U	0.0082	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Naphthalene	91-20-3	0.056	0.013	0.028	0.27775	ug/l	J	8270 C-	10/31/14	1.111
Phenanthrene	85-01-8	U	0.02	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Pyrene	129-00-0	U	0.017	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
2-Methylnaphthalene	91-57-6	0.054	0.017	0.028	0.27775	ug/l	J	8270 C-	10/31/14	1.111
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	45.0				% Rec.		8270 C-	10/31/14	1.111
2-Fluorobiphenyl	321-60-8	40.3				% Rec.		8270 C-	10/31/14	1.111
p-Terphenyl-d14	1718-51-0	41.2				% Rec.		8270 C-	10/31/14	1.111
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	0.36	5.6	11.1	ug/l		8270C	10/30/14	1.11
Bis(2-chloroethyl) ether	111-44-4	U	1.8	5.6	11.1	ug/l		8270C	10/30/14	1.11
Bis(2-chloroisopropyl) ether	108-60-1	U	0.49	5.6	11.1	ug/l		8270C	10/30/14	1.11
Benzyl Alcohol	100-51-6	U	0.44	5.6	11.1	ug/l		8270C	10/30/14	1.11
Carbazole	86-74-8	U	0.18	5.6	11.1	ug/l		8270C	10/30/14	1.11
Benzoic acid	65-85-0	U	0.49	5.6	11.1	ug/l		8270C	10/30/14	1.11
Dibenzofuran	132-64-9	U	0.38	5.6	11.1	ug/l		8270C	10/30/14	1.11
4-Bromophenyl-phenylether	101-55-3	U	0.39	5.6	11.1	ug/l		8270C	10/30/14	1.11
2-Chloronaphthalene	91-58-7	U	0.37	0.56	1.11	ug/l		8270C	10/30/14	1.11
4-Chlorophenyl-phenylether	7005-72-3	U	0.34	5.6	11.1	ug/l		8270C	10/30/14	1.11
3,3-Dichlorobenzidine	91-94-1	U	2.2	5.6	11.1	ug/l		8270C	10/30/14	1.11
2,4-Dinitrotoluene	121-14-2	U	1.8	5.6	11.1	ug/l		8270C	10/30/14	1.11
2,6-Dinitrotoluene	606-20-2	U	0.31	5.6	11.1	ug/l		8270C	10/30/14	1.11
Hexachlorobenzene	118-74-1	U	0.38	0.56	1.11	ug/l		8270C	10/30/14	1.11
Hexachloro-1,3-butadiene	87-68-3	U	0.36	5.6	11.1	ug/l		8270C	10/30/14	1.11
Hexachloroethane	67-72-1	U	0.4	5.6	11.1	ug/l		8270C	10/30/14	1.11
Isophorone	78-59-1	U	0.3	5.6	11.1	ug/l		8270C	10/30/14	1.11
Nitrobenzene	98-95-3	U	0.41	5.6	11.1	ug/l		8270C	10/30/14	1.11
n-Nitrosodimethylamine	62-75-9	U	1.4	5.6	11.1	ug/l		8270C	10/30/14	1.11
n-Nitrosodiphenylamine	86-30-6	U	0.34	5.6	11.1	ug/l		8270C	10/30/14	1.11

U = Not Detected at the LOD

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25 of 795



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-SS059-MW-14-NT01
 Collected By :
 Collection Date : 10/26/14 11:12

ESC Sample # : L730134-10

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
n-Nitrosodi-n-propylamine	621-64-7	U	0.45	5.6	11.1	ug/l		8270C	10/30/14	1.11
Benzylbutyl phthalate	85-68-7	U	0.3	1.1	3.33	ug/l		8270C	10/30/14	1.11
Bis(2-ethylhexyl)phthalate	117-81-7	U	0.79	1.1	3.33	ug/l		8270C	10/30/14	1.11
Di-n-butyl phthalate <i>F SQ-L</i>	84-74-2	0.33	0.3	1.1	3.33	ug/l	J	8270C	10/30/14	1.11
Diethyl phthalate	84-66-2	U	0.31	1.1	3.33	ug/l		8270C	10/30/14	1.11
Dimethyl phthalate	131-11-3	U	0.31	1.1	3.33	ug/l		8270C	10/30/14	1.11
Di-n-octyl phthalate	117-84-0	U	0.31	1.1	3.33	ug/l		8270C	10/30/14	1.11
1,2,4-Trichlorobenzene	120-82-1	U	0.39	5.6	11.1	ug/l		8270C	10/30/14	1.11
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.29	5.6	11.1	ug/l		8270C	10/30/14	1.11
2-Chlorophenol	95-57-8	U	0.31	5.6	11.1	ug/l		8270C	10/30/14	1.11
2,4-Dichlorophenol	120-83-2	U	0.32	5.6	11.1	ug/l		8270C	10/30/14	1.11
2,4-Dimethylphenol	105-67-9	U	0.69	5.6	11.1	ug/l		8270C	10/30/14	1.11
4,6-Dinitro-2-methylphenol <i>US 16-L</i>	534-52-1	U	2.9	5.6	11.1	ug/l		8270C	10/30/14	1.11
2,4-Dinitrophenol <i>US CCA 6-O-L</i>	51-28-5	U	3.6	5.6	11.1	ug/l		8270C	10/30/14	1.11
2-Methylphenol	95-48-7	U	0.35	5.6	11.1	ug/l		8270C	10/30/14	1.11
3&4-Methyl Phenol	3&4-Methyl	U	0.3	5.6	11.1	ug/l		8270C	10/30/14	1.11
2-Nitrophenol	88-75-5	U	0.36	5.6	11.1	ug/l		8270C	10/30/14	1.11
4-Nitrophenol	100-02-7	U	2.2	5.6	11.1	ug/l		8270C	10/30/14	1.11
4-Chloroaniline	106-47-8	U	0.42	5.6	11.1	ug/l		8270C	10/30/14	1.11
2-Nitroaniline	88-74-4	U	2.1	5.6	11.1	ug/l		8270C	10/30/14	1.11
3-Nitroaniline	99-09-2	U	0.34	5.6	11.1	ug/l		8270C	10/30/14	1.11
1,2-Diphenylhydrazine	103-33-3	U	0.35	5.6	11.1	ug/l		8270C	10/30/14	1.11
4-Nitroaniline	100-01-6	U	0.39	5.6	11.1	ug/l		8270C	10/30/14	1.11
Pentachlorophenol	87-86-5	U	0.35	5.6	11.1	ug/l		8270C	10/30/14	1.11
Phenol	108-95-2	U	0.37	5.6	11.1	ug/l		8270C	10/30/14	1.11
2,4,5-Trichlorophenol	95-95-4	U	0.26	5.6	11.1	ug/l		8270C	10/30/14	1.11
2,4,6-Trichlorophenol	88-06-2	U	0.33	5.6	11.1	ug/l		8270C	10/30/14	1.11
Surrogate Recovery										
2-Fluorophenol	367-12-4	39.6					% Rec.	8270C	10/30/14	1.11
Phenol-d5	4165-62-2	35.6					% Rec.	8270C	10/30/14	1.11
Nitrobenzene-d5	4165-60-0	58.9					% Rec.	8270C	10/30/14	1.11
2-Fluorobiphenyl	321-60-8	56.5					% Rec.	8270C	10/30/14	1.11
2,4,6-Tribromophenol	118-79-6	45.1					% Rec.	8270C	10/30/14	1.11
p-Terphenyl-d14	1718-51-0	56.8					% Rec.	8270C	10/30/14	1.11

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-SS059-MW-25-NT01
 Collected By :
 Collection Date : 10/26/14 09:45

ESC Sample # : L730134-11

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dissolved Solids	DSOLIDS	19000000	2820	5000	10000	ug/l		2540 C-	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.014	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Acenaphthene	83-32-9	0.011	0.028	0.05555	0.05555	ug/l	JB	8270 C-	10/31/14	1.111
Acenaphthylene	208-96-8	U	0.012	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Benzo(a)anthracene	56-55-3	U	0.014	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Benzo(a)pyrene	50-32-8	U	0.018	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Benzo(b)fluoranthene	205-99-2	U	0.021	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Benzo(g,h,i)perylene	191-24-2	U	0.017	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Benzo(k)fluoranthene	207-08-9	U	0.028	0.039	0.05555	ug/l		8270 C-	10/31/14	1.111
Chrysene	218-01-9	U	0.016	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Dibenz(a,h)anthracene	53-70-3	U	0.005	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Fluoranthene	206-44-0	U	0.018	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Fluorene	86-73-7	0.012	0.028	0.028	0.05555	ug/l	J	8270 C-	10/31/14	1.111
Indeno(1,2,3-cd)pyrene	193-39-5	U	0.0082	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Naphthalene	91-20-3	0.16	0.013	0.028	0.27775	ug/l	J	8270 C-	10/31/14	1.111
Phenanthrene	85-01-8	U	0.02	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
Pyrene	129-00-0	U	0.017	0.028	0.05555	ug/l		8270 C-	10/31/14	1.111
2-Methylnaphthalene	91-57-6	0.049	0.017	0.028	0.27775	ug/l	J	8270 C-	10/31/14	1.111
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	40.8				% Rec.		8270 C-	10/31/14	1.111
2-Fluorobiphenyl	321-60-8	38.7				% Rec.		8270 C-	10/31/14	1.111
p-Terphenyl-d14	1718-51-0	38.3				% Rec.		8270 C-	10/31/14	1.111
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroethyl) ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroisopropyl) ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Benzyl Alcohol	100-51-6	U	0.39	5.0	10	ug/l		8270C	10/30/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	10/30/14	1
Benzoic acid	65-85-0	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Dibenzofuran	132-64-9	0.53	0.34	5.0	10	ug/l	J	8270C	10/30/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	10/30/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	10/30/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	10/30/14	1

U = Not Detected at the LOD

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-SS059-MW-25-NT01
Collected By :
Collection Date : 10/26/14 09:45

ESC Sample # : L730134-11

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	10/30/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	4.6	0.71	1.0	3	ug/l		8270C	10/30/14	1
Di-n-butyl phthalate	84-74-2	0.36	0.27	1.0	3	ug/l	J	8270C	10/30/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	10/30/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	10/30/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	10/30/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
3&4-Methyl Phenol	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	10/30/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	10/30/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	10/30/14	1
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	10/30/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	10/30/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	28.3				% Rec.		8270C	10/30/14	1
Phenol-d5	4165-62-2	20.2				% Rec.		8270C	10/30/14	1
Nitrobenzene-d5	4165-60-0	58.2				% Rec.		8270C	10/30/14	1
2-Fluorobiphenyl	321-60-8	59.7				% Rec.		8270C	10/30/14	1
2,4,6-Tribromophenol	118-79-6	68.2				% Rec.		8270C	10/30/14	1
p-Terphenyl-d14	1718-51-0	56.8				% Rec.		8270C	10/30/14	1

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-SS059-MW-9-NT01
Collected By :
Collection Date : 10/24/14 14:00

ESC Sample # : L730134-12

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/02/14	1
Benzene <i>F SOL-I</i>	71-43-2	0.36	0.33	0.50	1	ug/l	J	8260B	11/02/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/02/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/02/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/02/14	1
n-Butylbenzene <i>F SOL-I</i>	104-51-8	0.68	0.36	0.50	1	ug/l	J	8260B	11/02/14	1
sec-Butylbenzene <i>F SOL-I</i>	135-98-8	0.84	0.36	0.50	1	ug/l	J	8260B	11/02/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l	J3	8260B	11/02/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/02/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/02/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/02/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/02/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/02/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/02/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/02/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/02/14	1
Ethylbenzene	100-41-4	4.4	0.38	0.50	1	ug/l		8260B	11/02/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/02/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Isopropylbenzene	98-82-8	1.6	0.33	0.50	1	ug/l		8260B	11/02/14	1
p-Isopropyltoluene <i>F SOL-I</i>	99-87-6	0.37	0.35	0.50	1	ug/l	J	8260B	11/02/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/02/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/02/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/02/14	1

U = Not Detected at the LOD

Note:

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KA 2/20/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-SS059-MW-9-NT01
 Collected By :
 Collection Date : 10/24/14 14:00

ESC Sample # : L730134-12

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Naphthalene <i>DNR</i>	91-20-3	2.2	1	2.5	5	ug/l	J	8260B	11/02/14	1
n-Propylbenzene	103-65-1	1.3	0.35	0.50	1	ug/l		8260B	11/02/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	11/02/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Toluene <i>SOL-1</i>	108-88-3	1.9	0.78	2.5	5	ug/l	J	8260B	11/02/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/02/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/02/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/02/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/02/14	1
1,2,4-Trimethylbenzene	95-63-6	6.1	0.37	0.50	1	ug/l		8260B	11/02/14	1
1,3,5-Trimethylbenzene	108-67-8	2.1	0.39	0.50	1	ug/l		8260B	11/02/14	1
o-Xylene	95-47-6	4.6	0.34	0.50	1	ug/l		8260B	11/02/14	1
m&p-Xylene	1330-20-7	15.	0.72	1.0	2	ug/l		8260B	11/02/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	104.					% Rec.	8260B	11/02/14	1
Dibromofluoromethane	1868-53-7	103.					% Rec.	8260B	11/02/14	1
4-Bromofluorobenzene	460-00-4	106.					% Rec.	8260B	11/02/14	1

U = Not Detected at the LOD

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2/20/15 BML



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-SS059-MW-9-DT01
Collected By :
Collection Date : 10/24/14 14:00

ESC Sample # : L730134-13
Site ID :
Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/02/14	1
Benzene <i>FSQL-I</i>	71-43-2	0.41	0.33	0.50	1	ug/l	J	8260B	11/02/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/02/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/02/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/02/14	1
n-Butylbenzene <i>FSQL-I</i>	104-51-8	0.68	0.36	0.50	1	ug/l	J	8260B	11/02/14	1
sec-Butylbenzene <i>FSQL-I</i>	135-98-8	0.86	0.36	0.50	1	ug/l	J	8260B	11/02/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l	J3	8260B	11/02/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/02/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/02/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/02/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/02/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/02/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/02/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/02/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/02/14	1
Ethylbenzene	100-41-4	5.2	0.38	0.50	1	ug/l		8260B	11/02/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/02/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Isopropylbenzene	98-82-8	1.6	0.33	0.50	1	ug/l		8260B	11/02/14	1
p-Isopropyltoluene <i>FSQL-I</i>	99-87-6	0.41	0.35	0.50	1	ug/l	J	8260B	11/02/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/02/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/02/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/02/14	1

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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-SS059-MW-9-DT01
 Collected By :
 Collection Date : 10/24/14 14:00

ESC Sample # : L730134-13
 Site ID :
 Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Naphthalene <i>DNR</i>	91-20-7	2.5	1	2.5	5	ug/l	0	8260B	11/02/14	1
n-Propylbenzene	103-65-1	1.4	0.35	0.50	1	ug/l		8260B	11/02/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	11/02/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Toluene <i>F S Q C - 1</i>	108-88-3	2.5	0.78	2.5	5	ug/l	J	8260B	11/02/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/02/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/02/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/02/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/02/14	1
1,2,4-Trimethylbenzene	95-63-6	6.2	0.37	0.50	1	ug/l		8260B	11/02/14	1
1,3,5-Trimethylbenzene	108-67-8	2.0	0.39	0.50	1	ug/l		8260B	11/02/14	1
o-Xylene	95-47-6	5.5	0.34	0.50	1	ug/l		8260B	11/02/14	1
m&p-Xylene	1330-20-7	18.	0.72	1.0	2	ug/l		8260B	11/02/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	106.					% Rec.	8260B	11/02/14	1
Dibromofluoromethane	1868-53-7	102.					% Rec.	8260B	11/02/14	1
4-Bromofluorobenzene	460-00-4	103.					% Rec.	8260B	11/02/14	1

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-SS059-LF-MW-02-NT01
 Collected By :
 Collection Date : 10/26/14 12:00

ESC Sample # : L730134-14
 Site ID :
 Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/02/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/02/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/02/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/02/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l	J3	8260B	11/02/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/02/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/02/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/02/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/02/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/02/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/02/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/02/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/02/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/02/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/02/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/02/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/02/14	1

U = Not Detected at the LOD

Note:

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CA 2/20/15



12065 Lebanon Rd.
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 (615) 758-5858
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 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-SS059-LF-MW-02-NT01
 Collected By :
 Collection Date : 10/26/14 12:00

ESC Sample # : L730134-14

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Naphthalene <i>DNR</i>	91-20-3	U	1	2.5	5	ug/l		8260B	11/02/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	11/02/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/02/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/02/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/02/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/02/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/02/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/02/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/02/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	105.				% Rec.		8260B	11/02/14	1
Dibromofluoromethane	1868-53-7	102.				% Rec.		8260B	11/02/14	1
4-Bromofluorobenzene	460-00-4	103.				% Rec.		8260B	11/02/14	1

U = Not Detected at the LOD

Note:

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DNR - Do Not Report

KA c/2015
BMS 2/2015



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-SS059-MW-2-NT01
 Collected By :
 Collection Date : 10/26/14 10:15

ESC Sample # : L730134-15

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/02/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/02/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/02/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/02/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l	J3	8260B	11/02/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/02/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/02/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/02/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/02/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/02/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/02/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/02/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/02/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/02/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/02/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/02/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/02/14	1

U = Not Detected at the LOD

Note:

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12/2/2015



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-SS059-MW-2-NT01
Collected By :
Collection Date : 10/26/14 10:15

ESC Sample # : L730134-15

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Naphthalene <i>DNR</i>	91-20-3	U	1	2.5	5	ug/l		8260B	11/02/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	11/02/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/02/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/02/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/02/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/02/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/02/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/02/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/02/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	105.				% Rec.		8260B	11/02/14	1
Dibromofluoromethane	1868-53-7	106.				% Rec.		8260B	11/02/14	1
4-Bromofluorobenzene	460-00-4	99.5				% Rec.		8260B	11/02/14	1

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DNR - Down List

2/24/15 BMS



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-SS059-MW-5-NT01
 Collected By :
 Collection Date : 10/26/14 09:30

ESC Sample # : L730134-16

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/02/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/02/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/02/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/02/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l	J3	8260B	11/02/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/02/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/02/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/02/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/02/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/02/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/02/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/02/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/02/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/02/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/02/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/02/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/02/14	1

U = Not Detected at the LOD

Note:

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KA 2/20/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-SS059-MW-5-NT01
 Collected By :
 Collection Date : 10/26/14 09:30

ESC Sample # : L730134-16

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Naphthalene <i>DNR</i>	91-20-3	U	1	2.5	5	ug/l		8260B	11/02/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	11/02/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/02/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/02/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/02/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/02/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/02/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/02/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/02/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	104.				% Rec.		8260B	11/02/14	1
Dibromofluoromethane	1868-53-7	102.				% Rec.		8260B	11/02/14	1
4-Bromofluorobenzene	460-00-4	99.1				% Rec.		8260B	11/02/14	1

U = Not Detected at the LOD

Note:

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BAS 2/10/15



12065 Lebanon Rd.
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(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-SS059-MW-10-NT01
Collected By :
Collection Date : 10/26/14 11:20

ESC Sample # : L730134-17

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Volatile Organics										
Acetone	67-64-1	U	250	630	1250	ug/l		8260B	11/02/14	25
Benzene	71-43-2	7200	83	130	250	ug/l		8260B	11/04/14	250
Bromobenzene	108-86-1	U	8.8	13.	25	ug/l		8260B	11/02/14	25
Bromochloromethane	74-97-5	U	13	19.	25	ug/l		8260B	11/02/14	25
Bromodichloromethane	75-27-4	U	9.5	13.	25	ug/l		8260B	11/02/14	25
Bromoform	75-25-2	U	12	13.	25	ug/l		8260B	11/02/14	25
Bromomethane	74-83-9	U	22	63.	125	ug/l		8260B	11/02/14	25
n-Butylbenzene	104-51-8	U	9	13.	25	ug/l		8260B	11/02/14	25
sec-Butylbenzene <i>FSQL-I</i>	135-98-8	14.	9.1	13.	25	ug/l	J	8260B	11/02/14	25
tert-Butylbenzene	98-06-6	U	10	13.	25	ug/l		8260B	11/02/14	25
Carbon Disulfide	75-15-0	U	6.9	13.	25	ug/l	J3	8260B	11/02/14	25
Carbon tetrachloride	56-23-5	U	9.5	13.	25	ug/l		8260B	11/02/14	25
Chlorobenzene	108-90-7	U	8.7	13.	25	ug/l		8260B	11/02/14	25
Chlorodibromomethane	124-48-1	U	8.2	13.	25	ug/l		8260B	11/02/14	25
Chloroethane	75-00-3	U	11	63.	125	ug/l		8260B	11/02/14	25
Chloroform	67-66-3	U	8.1	63.	125	ug/l		8260B	11/02/14	25
Chloromethane	74-87-3	U	6.9	13.	62.5	ug/l		8260B	11/02/14	25
2-Chlorotoluene	95-49-8	U	9.4	13.	25	ug/l		8260B	11/02/14	25
4-Chlorotoluene	106-43-4	U	8.8	13.	25	ug/l		8260B	11/02/14	25
1,2-Dibromo-3-Chloropropane	96-12-8	U	33	63.	125	ug/l		8260B	11/02/14	25
1,2-Dibromoethane	106-93-4	U	9.5	13.	25	ug/l		8260B	11/02/14	25
Dibromomethane	74-95-3	U	8.6	13.	25	ug/l		8260B	11/02/14	25
1,2-Dichlorobenzene	95-50-1	U	8.7	13.	25	ug/l		8260B	11/02/14	25
1,3-Dichlorobenzene	541-73-1	U	5.5	13.	25	ug/l		8260B	11/02/14	25
1,4-Dichlorobenzene	106-46-7	U	6.8	13.	25	ug/l		8260B	11/02/14	25
Dichlorodifluoromethane	75-71-8	U	14	63.	125	ug/l		8260B	11/02/14	25
1,1-Dichloroethane	75-34-3	U	6.5	13.	25	ug/l		8260B	11/02/14	25
1,2-Dichloroethane	107-06-2	U	9	13.	25	ug/l		8260B	11/02/14	25
1,1-Dichloroethene	75-35-4	U	10	13.	25	ug/l		8260B	11/02/14	25
cis-1,2-Dichloroethene	156-59-2	U	6.5	13.	25	ug/l		8260B	11/02/14	25
trans-1,2-Dichloroethene	156-60-5	U	9.9	13.	25	ug/l		8260B	11/02/14	25
1,2-Dichloropropane	78-87-5	U	7.6	13.	25	ug/l		8260B	11/02/14	25
1,1-Dichloropropene	563-58-6	U	8.8	13.	25	ug/l		8260B	11/02/14	25
1,3-Dichloropropane	142-28-9	U	9.2	13.	25	ug/l		8260B	11/02/14	25
cis-1,3-Dichloropropene	10061-01-5	U	10	13.	25	ug/l		8260B	11/02/14	25
trans-1,3-Dichloropropene	10061-02-6	U	10	13.	25	ug/l		8260B	11/02/14	25
2,2-Dichloropropane	594-20-7	U	8	13.	25	ug/l		8260B	11/02/14	25
Ethylbenzene	100-41-4	630	9.6	13.	25	ug/l		8260B	11/02/14	25
2-Hexanone	591-78-6	U	96	130	250	ug/l		8260B	11/02/14	25
Hexachloro-1,3-butadiene <i>DNR</i>	87-68-3	U	6.4	13.	25	ug/l		8260B	11/02/14	25
Isopropylbenzene	98-82-8	48.	8.2	13.	25	ug/l		8260B	11/02/14	25
p-Isopropyltoluene	99-87-6	U	8.8	13.	25	ug/l		8260B	11/02/14	25
2-Butanone (MEK)	78-93-3	U	98	130	250	ug/l		8260B	11/02/14	25
Methylene Chloride	75-09-2	U	25	63.	125	ug/l		8260B	11/02/14	25
4-Methyl-2-pentanone (MIBK)	108-10-1	U	54	130	250	ug/l		8260B	11/02/14	25

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 Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-SS059-MW-10-NT01
 Collected By :
 Collection Date : 10/26/14 11:20

ESC Sample # : L730134-17

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Methyl tert-butyl ether	1634-04-4	U	9.2	13.	25	ug/l		8260B	11/02/14	25
Naphthalene <i>FSOL-I</i>	91-20-3	85.	25	63.	125	ug/l	J	8260B	11/02/14	25
n-Propylbenzene	103-65-1	47.	8.7	13.	25	ug/l		8260B	11/02/14	25
Styrene	100-42-5	U	7.7	13.	25	ug/l		8260B	11/02/14	25
1,1,1,2-Tetrachloroethane	630-20-6	U	9.6	13.	25	ug/l		8260B	11/02/14	25
1,1,2,2-Tetrachloroethane	79-34-5	U	15	19.	25	ug/l		8260B	11/02/14	25
Tetrachloroethene	127-18-4	U	9.3	13.	25	ug/l		8260B	11/02/14	25
Toluene	108-88-3	U	20	63.	125	ug/l		8260B	11/02/14	25
1,2,3-Trichlorobenzene	87-61-6	U	5.8	13.	25	ug/l		8260B	11/02/14	25
1,2,4-Trichlorobenzene <i>DNR</i>	120-82-1	U	5.4	13.	25	ug/l		8260B	11/02/14	25
1,1,1-Trichloroethane	71-55-6	U	7.98	13.	25	ug/l		8260B	11/02/14	25
1,1,2-Trichloroethane	79-00-5	U	9.6	13.	25	ug/l		8260B	11/02/14	25
Trichloroethene	79-01-6	U	10	13.	25	ug/l		8260B	11/02/14	25
Trichlorofluoromethane	75-69-4	U	30	63.	125	ug/l		8260B	11/02/14	25
1,2,3-Trichloropropane	96-18-4	U	20	25.	62.5	ug/l		8260B	11/02/14	25
1,2,4-Trimethylbenzene	95-63-6	72.	9.3	13.	25	ug/l		8260B	11/02/14	25
1,3,5-Trimethylbenzene <i>FSOL-I</i>	108-67-8	19.	9.7	13.	25	ug/l	J	8260B	11/02/14	25
o-Xylene <i>FSOL-I</i>	95-47-6	16.	8.5	13.	25	ug/l	J	8260B	11/02/14	25
m&p-Xylene	1330-20-7	130	18	25.	50	ug/l		8260B	11/02/14	25
Vinyl chloride	75-01-4	U	6.5	13.	25	ug/l		8260B	11/02/14	25
Surrogate Recovery										
Toluene-d8	2037-26-5	106.					% Rec.	8260B	11/02/14	25
Dibromofluoromethane	1868-53-7	103.					% Rec.	8260B	11/02/14	25
4-Bromofluorobenzene	460-00-4	105.					% Rec.	8260B	11/02/14	25

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BUS 2/26/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-SS059-MW-11-NT01
Collected By :
Collection Date : 10/26/14 10:25

ESC Sample # : L730134-18

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/02/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/02/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/02/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/02/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/02/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/02/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/02/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/02/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/02/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/02/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/02/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/02/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/02/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/02/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l	J5	8260B	11/02/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/02/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l	J5	8260B	11/02/14	1

U = Not Detected at the LOD

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

December 04, 2014

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-SS059-MW-11-NT01
 Collected By :
 Collection Date : 10/26/14 10:25

ESC Sample # : L730134-18

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l	8260B	11/02/14	1	
Naphthalene DNK	91-20-3	U	1	2.5	5	ug/l	8260B	11/02/14	1	
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l	8260B	11/02/14	1	
Styrene	100-42-5	U	0.31	0.50	1	ug/l	8260B	11/02/14	1	
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l	8260B	11/02/14	1	
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l	8260B	11/02/14	1	
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l	8260B	11/02/14	1	
Toluene	108-88-3	U	0.78	2.5	5	ug/l	8260B	11/02/14	1	
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l	8260B	11/02/14	1	
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l	8260B	11/02/14	1	
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l	8260B	11/02/14	1	
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l	8260B	11/02/14	1	
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l	8260B	11/02/14	1	
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l	8260B	11/02/14	1	
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l	8260B	11/02/14	1	
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l	8260B	11/02/14	1	
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l	8260B	11/02/14	1	
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l	8260B	11/02/14	1	
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l	8260B	11/02/14	1	
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l	8260B	11/02/14	1	
Surrogate Recovery										
Toluene-d8	2037-26-5	105.				% Rec.	8260B	11/02/14	1	
Dibromofluoromethane	1868-53-7	104.				% Rec.	8260B	11/02/14	1	
4-Bromofluorobenzene	460-00-4	104.				% Rec.	8260B	11/02/14	1	

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DNK's 2/20/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-SS059-MW-12-NT01
 Collected By :
 Collection Date : 10/26/14 09:52

ESC Sample # : L730134-19

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/02/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/02/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/02/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/02/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l	J3	8260B	11/02/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/02/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/02/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/02/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/02/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/02/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/02/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/02/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/02/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/02/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/02/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/02/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/02/14	1

U = Not Detected at the LOD

Note:

The reported analytical results relate only to the sample submitted.

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 Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-SS059-MW-12-NT01
 Collected By :
 Collection Date : 10/26/14 09:52

ESC Sample # : L730134-19
 Site ID :
 Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l	8260B	11/02/14	1	
Naphthalene <i>DNR</i>	91-20-3	U	1	2.5	5	ug/l	8260B	11/02/14	1	
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l	8260B	11/02/14	1	
Styrene	100-42-5	U	0.31	0.50	1	ug/l	8260B	11/02/14	1	
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l	8260B	11/02/14	1	
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l	8260B	11/02/14	1	
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l	8260B	11/02/14	1	
Toluene	108-88-3	U	0.78	2.5	5	ug/l	8260B	11/02/14	1	
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l	8260B	11/02/14	1	
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l	8260B	11/02/14	1	
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l	8260B	11/02/14	1	
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l	8260B	11/02/14	1	
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l	8260B	11/02/14	1	
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l	8260B	11/02/14	1	
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l	8260B	11/02/14	1	
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l	8260B	11/02/14	1	
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l	8260B	11/02/14	1	
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l	8260B	11/02/14	1	
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l	8260B	11/02/14	1	
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l	8260B	11/02/14	1	
Surrogate Recovery										
Toluene-d8	2037-26-5	104.				% Rec.	8260B	11/02/14	1	
Dibromofluoromethane	1868-53-7	102.				% Rec.	8260B	11/02/14	1	
4-Bromofluorobenzene	460-00-4	101.				% Rec.	8260B	11/02/14	1	

U = Not Detected at the LOD

Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-SS059-MW-13-NT01
Collected By :
Collection Date : 10/26/14 11:15

ESC Sample # : L730134-20

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/02/14	1
Benzene <i>Fsoc-7</i>	71-43-2	0.78	0.33	0.50	1	ug/l	J	8260B	11/02/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/02/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/02/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/02/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l	J3	8260B	11/02/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/02/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/02/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/02/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/02/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/02/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/02/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/02/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/02/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/02/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/02/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/02/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/02/14	1

U = Not Detected at the LOD

Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-SS059-MW-13-NT01
 Collected By :
 Collection Date : 10/26/14 11:15

ESC Sample # : L730134-20

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual Method	Date	Dil.
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l	8260B	11/02/14	1
Naphthalene <i>DNR</i>	91-20-2	U	1	2.5	5	ug/l	8260B	11/02/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l	8260B	11/02/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l	8260B	11/02/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l	8260B	11/02/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l	8260B	11/02/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l	8260B	11/02/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l	8260B	11/02/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l	8260B	11/02/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l	8260B	11/02/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l	8260B	11/02/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l	8260B	11/02/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l	8260B	11/02/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l	8260B	11/02/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l	8260B	11/02/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l	8260B	11/02/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l	8260B	11/02/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l	8260B	11/02/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l	8260B	11/02/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l	8260B	11/02/14	1
Surrogate Recovery									
Toluene-d8	2037-26-5	105.				% Rec.	8260B	11/02/14	1
Dibromofluoromethane	1868-53-7	103.				% Rec.	8260B	11/02/14	1
4-Bromofluorobenzene	460-00-4	100.				% Rec.	8260B	11/02/14	1

U = Not Detected at the LOD

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CA 2/20/15



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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-SS059-MW-14-NT01
Collected By :
Collection Date : 10/26/14 11:12

ESC Sample # : L730134-21

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/02/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/02/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/02/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/02/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l	J3	8260B	11/02/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/02/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/02/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/02/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/02/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/02/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/02/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/02/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/02/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/02/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/02/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/02/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/02/14	1

U = Not Detected at the LOD

Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-SS059-MW-14-NT01
 Collected By :
 Collection Date : 10/26/14 11:12

ESC Sample # : L730134-21

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual Method	Date	Dil.
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l	8260B	11/02/14	1
Naphthalene <i>DNR</i>	91-20-3	U	1	2.5	5	ug/l	8260B	11/02/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l	8260B	11/02/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l	8260B	11/02/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l	8260B	11/02/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l	8260B	11/02/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l	8260B	11/02/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l	8260B	11/02/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l	8260B	11/02/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l	8260B	11/02/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l	8260B	11/02/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l	8260B	11/02/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l	8260B	11/02/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l	8260B	11/02/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l	8260B	11/02/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l	8260B	11/02/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l	8260B	11/02/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l	8260B	11/02/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l	8260B	11/02/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l	8260B	11/02/14	1
Surrogate Recovery									
Toluene-d8	2037-26-5	107.				% Rec.	8260B	11/02/14	1
Dibromofluoromethane	1868-53-7	103.				% Rec.	8260B	11/02/14	1
4-Bromofluorobenzene	460-00-4	102.				% Rec.	8260B	11/02/14	1

U = Not Detected at the LOD

Note:

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BWS 2/20/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-SS059-MW-25-NT01
 Collected By :
 Collection Date : 10/26/14 09:45

ESC Sample # : L730134-22

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/04/14	1
Benzene	71-43-2	1.2	0.33	0.50	1	ug/l		8260B	11/04/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/04/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/04/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/04/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/04/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/04/14	1
n-Butylbenzene <i>F SOL-I</i>	104-51-8	0.45	0.36	0.50	1	ug/l	J	8260B	11/04/14	1
sec-Butylbenzene	135-98-8	1.3	0.36	0.50	1	ug/l		8260B	11/04/14	1
tert-Butylbenzene <i>F SOL-I</i>	98-06-6	0.60	0.4	0.50	1	ug/l	J	8260B	11/04/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/04/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/04/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/04/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/04/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/04/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/04/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/04/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/04/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/04/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/04/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/04/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/04/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/04/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/04/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/04/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/04/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/04/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/04/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/04/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/04/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/04/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/04/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/04/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/04/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/04/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/04/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/04/14	1
Ethylbenzene	100-41-4	6.2	0.38	0.50	1	ug/l		8260B	11/04/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/04/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/04/14	1
Isopropylbenzene	98-82-8	2.7	0.33	0.50	1	ug/l		8260B	11/04/14	1
p-Isopropyltoluene <i>F SOL-I</i>	99-87-6	0.68	0.35	0.50	1	ug/l	J	8260B	11/04/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/04/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/04/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/04/14	1

U = Not Detected at the LOD

Note:

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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-SS059-MW-25-NT01
 Collected By :
 Collection Date : 10/26/14 09:45

ESC Sample # : L730134-22
 Site ID :
 Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Methyl tert-butyl ether	634-04-4	0.45	0.37	0.50	1	ug/l	J	8260B	11/04/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	11/04/14	1
n-Propylbenzene	103-65-1	2.4	0.35	0.50	1	ug/l		8260B	11/04/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/04/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/04/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	11/04/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/04/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/04/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/04/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/04/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/04/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/04/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/04/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/04/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/04/14	1
1,2,4-Trimethylbenzene	95-63-6	4.4	0.37	0.50	1	ug/l		8260B	11/04/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/04/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/04/14	1
m&p-Xylene	1330-20-7	1.4	0.72	1.0	2	ug/l	J	8260B	11/04/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/04/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	108.				% Rec.		8260B	11/04/14	1
Dibromofluoromethane	1868-53-7	108.				% Rec.		8260B	11/04/14	1
4-Bromofluorobenzene	460-00-4	103.				% Rec.		8260B	11/04/14	1

U = Not Detected at the LOD

Note:

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BMS 2/20/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-SS059-TRIPBLANK-TT01
 Collected By :
 Collection Date : 10/24/14 14:00

ESC Sample # : L730134-23

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/02/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/02/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/02/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/02/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l	J3	8260B	11/02/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/02/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/02/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/02/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/02/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/02/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/02/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/02/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichloropropene	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/02/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/02/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/02/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/02/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/02/14	1

U = Not Detected at the LOD

Note:

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KA 2/20/15



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 04, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-SS059-TRIPBLANK-TT01
 Collected By :
 Collection Date : 10/24/14 14:00

ESC Sample # : L730134-23

Site ID :

Project # : 23446543.0062AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	11/02/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	11/02/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/02/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/02/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/02/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/02/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/02/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/02/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/02/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	105.				% Rec.		8260B	11/02/14	1
Dibromofluoromethane	1868-53-7	101.				% Rec.		8260B	11/02/14	1
4-Bromofluorobenzene	460-00-4	97.2				% Rec.		8260B	11/02/14	1

U = Not Detected at the LOD

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12/2/15

**Holloman AFB
Groundwater Monitoring
Data Review Summary**

Data Package Number: L730147

Sampling Event Dates: October 24, 26, 2014

Sample-specific Parameter Review/Laboratory Performance Parameters: Yes

Full Validation (e.g. result recalculation): No

Data Reviewer: Katie Abbott, URS Project Chemist

Date Completed: February 20, 2015

Peer Reviewer: Sheri Fling, URS Project Quality Assurance Manager (QAM)

The table below summarizes the data package and sample identifications discussed in this data review.

Field Identification	Sample Type	Lab Identification	Matrix	Analyses						
				GRO	DRO/ORO	VOCs	PAHs	SVOCs	Dissolved Metals	Total Metals
L730147										
H-TU904-MW06-DT01	FD	L730147-01	Water	---	X	---	X	X	---	X
H-TU904-MW06-DD01	FD	L730147-02	Water	---	---	---	---	---	X	---
H-TU904-MW06-NT01	SA	L730147-03	Water	---	X	---	X	X	---	X
H-TU904-MW06-ND01	SA	L730147-04	Water	---	---	---	---	---	X	---
H-TU904-MW07-NT01	SA	L730147-05	Water	---	X ^m	---	X ^m	X ^m	---	X ^m
H-TU904-MW07-ND01	SA	L730147-06	Water	---	---	---	---	---	X ^m	---
H-TU904-MW08-NT01	SA	L730147-07	Water	---	X	---	X	X	---	X
H-TU904-MW08-ND01	SA	L730147-08	Water	---	---	---	---	---	X	---
H-TU904-MW10-NT01	SA	L730147-09	Water	---	X	---	X	X	---	X ^m
H-TU904-MW10-ND01	SA	L730147-10	Water	---	---	---	---	---	X	---
H-TU904-MW11-NT01	SA	L730147-11	Water	---	X	---	X	X	---	X
H-TU904-MW11-ND01	SA	L730147-12	Water	---	---	---	---	---	X	---
H-TU515-GW02-ND01	SA	L730147-13	Water	---	---	---	---	---	X	---
H-TU515-GW02-NT01	SA	L730147-14	Water	---	X	---	X	X	---	X
H-TU515-GW04-ND01	SA	L730147-15	Water	---	---	---	---	---	X	---
H-TU515-GW04-NT01	SA	L730147-16	Water	---	X	---	X	X	---	X
H-TU515-GW07-ND01	SA	L730147-17	Water	---	---	---	---	---	X ^m	---
H-TU515-GW07-NT01	SA	L730147-18	Water	---	X ^m	---	X ^m	X ^m	---	X ^m
H-TU515-GW10-ND01	SA	L730147-19	Water	---	---	---	---	---	X	---

Field Identification	Sample Type	Lab Identification	Matrix	Analyses						
				GRO	DRO/ORO	VOCs	PAHs	SVOCs	Dissolved Metals	Total Metals
H-TU515-GW10-NT01	SA	L730147-20	Water	---	X	---	X	X	---	X
H-TU515-GW10-DD01	FD	L730147-21	Water	---	---	---	---	---	X	---
H-TU515-GW10-DT01	FD	L730147-22	Water	---	X	---	X	X	---	X
H-TU515-GW02-NT01	SA	L730147-23	Water	X	---	X	---	---	---	---
H-TU515-GW04-NT01	SA	L730147-24	Water	X	---	X	---	---	---	---
H-TU515-GW07-NT01	SA	L730147-25	Water	X ^m	---	X ^m	---	---	---	---
H-TU515-GW10-NT01	SA	L730147-26	Water	X	---	X	---	---	---	---
H-TU515-GW10-DT01	FD	L730147-27	Water	X	---	X	---	---	---	---
H-TU515-TRIPBLANK-TT01-A	TB	L730147-28	Water	X	---	---	---	---	---	---
H-TU515-TRIPBLANK-TT01-B	TB	L730147-29	Water	---	---	X	---	---	---	---
H-TU904-MW06-DT01	FD	L730147-30	Water	X	---	X	---	---	---	---
H-TU904-MW06-NT01	SA	L730147-31	Water	X	---	X	---	---	---	---
H-TU904-MW07-NT01	SA	L730147-32	Water	X ^m	---	X ^m	---	---	---	---
H-TU904-MW08-NT01	SA	L730147-33	Water	X	---	X	---	---	---	---
H-TU904-MW10-NT01	SA	L730147-34	Water	X	---	X	---	---	---	---
H-TU904-MW11-NT01	SA	L730147-35	Water	X	---	X	---	---	---	---
H-OT32-TMW08-NT01	SA	L730147-36	Water	---	---	X	---	---	---	---
H-OT32-TMW09-NT01	SA	L730147-37	Water	---	---	X	---	---	---	---
H-OT32-TMW10-NT01	SA	L730147-38	Water	---	---	X	---	---	---	---

Sample Type: SA – Sample FD - Field Duplicate TB – Trip Blank
X^m - Matrix Spike/Matrix Spike Duplicate

Analyses:

- DRO/ORO - Diesel and Oil Range Organics (8015D)
- GRO – Gasoline Range Organics (8015D)
- Total/Dissolved Metals – Antimony, Arsenic, Cadmium, Chromium, Cobalt, Lead, Nickel, Selenium, Silver, Thallium, Mercury, Aluminum, Barium, Beryllium, Copper, Manganese, Vanadium, Zinc (6010B/6020/7470A)
- PAHs – Polynuclear Aromatic Hydrocarbons (8270C SIM)
- SIM – Selective Ion Monitoring
- SVOCs – Semivolatile Organic Compounds (8270C)
- VOCs – Volatile Organic Compounds (8260B)

The data review was conducted in accordance with the Final Interim Measures Work Plan – Appendix A, Sampling and Analysis Plan/Quality Assurance Project Plan: Former Septic System Site TU904 (URS, September 2014); Group 2 Former Underground Storage Sites: AOC-UST-889 (TU515) (URS, September 2014); and Group 3 Former Underground Storage Tank Sites: AOC-UST-221 (TU503), AOC-UST-298 (TU508), AOC-UST-901 (TU506) and AOC-UST-7003 (TU518) (URS, August 2014); data validation standard operating procedure (SOP) 14;

Department of Defense (DoD) Quality Systems Manual version 4.2 (DoD, 2010); and method requirements.

General Overall Assessment:

- Data are usable without qualification.
- Data are usable with qualification (noted below).
- Some or all data are unusable for any purpose (detailed below).

Case Narrative Comments: Any laboratory case narrative comments concerning data qualification were addressed in the table below.

Trace level detects, reported between the method detection limit (MDL) and the reporting limit (LOQ), have been qualified as estimated (F SQL-I). All other occurrences of data qualification are covered in the following table.

Review Parameter	Criteria Met?	Comment
Chain of Custody & Sample Receipt	Yes	The samples were received by ESC Lab Sciences in good condition and were consistent with the accompanying chain of custody (COC). The cooler temperatures upon receipt were within the recommended ≤6 degrees Celsius (°C) temperature range.
Reporting	Yes	<p>During review of a representative data package selected for full validation, it was noted that improper reference spectra were displayed in the printed version of the data package for Method 8260B. Due to a LIMS limitation, the data package reference spectra were not consistently representative of the actual spectra for the analytes detected. Because the laboratory data review involves the use of NBS reference spectra and not the reference spectra taken from the instrument calibration, the analyst was not seeing the improper alignment of spectra noted in the data package during his/her review at the instrument. The laboratory revised and reissued the data package with correct reference spectral data, consistent with method requirements, and no results were changed. Therefore, no further action is necessary as a result of this validation finding.</p> <p>Method 8270C Semivolatile Organic Compounds (SVOCs)</p> <p>The results for 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene are not reported by Method 8270C SVOCs but are reported by Method 8260B volatile organic compounds (VOCs). As the detection limits (DLs), limits of detection (LODs), and limits of quantitation (LOQs) are lower by Method 8260B, further action was not necessary.</p> <p>The laboratory noted 4-methylphenol cannot be reported as 3 & 4-methylphenol coelute during the analysis; therefore, the analytes are reported together and 3&4-methylphenol on the data sheets and in the electronic database.</p>
Holding Times	Yes	All samples were analyzed within the method required holding time.
Laboratory Blanks <ul style="list-style-type: none"> • Method Blank • Continuing Calibration Blank 	No	With the exceptions listed in Table 1, target analytes were not detected within the method or calibration blanks.
Matrix Quality Control <ul style="list-style-type: none"> • Matrix Spike/ Matrix Spike Duplicate H-TU904-MW07-NT01 (Total Metals, DRO, SVOCs, PAHs) 	No	<p>Matrix Spike/ Matrix Spike Duplicate (MS/MSD)</p> <p>The frequency of MS/MSDs met the QAPP requirement of one per twenty samples.</p>

Review Parameter	Criteria Met?	Comment
H-TU904-MW07-ND01 (Dissolved Metals) H-TU904-MW10-NT01 (Total 6010B) H-TU515-GW07-ND01 (Dissolved Metals) H-TU515-GW07-NT01 (Total Metals, DRO, SVOCs, PAHs) H-TU515-GW07-NT01 (GRO, VOCs) H-TU904-MW07-NT01 (GRO, VOCs) • Total vs. Partial Analyses (Metals)		<p>With the exceptions listed in Table 2, the MS/MSD recoveries and relative percent differences (RPDs) met quality control criteria.</p> <p>The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the sample matrix could not be assessed for oil range organics (ORO).</p> <p>Results in the native sample greater than four times the concentration of the spike added during digestions/extractions are not considered to be a representative measure of accuracy. Further action with respect to spike recovery evaluation or qualification of data was not considered necessary.</p> <p>Consistent with standard operating procedure (SOP) 14, when MS/MSD issues accounted for less than 35% of the MS/MSD analyses conducted, applicable data qualification was limited to qualification of the parent sample of the affected analyte. When >35% of the MS/MSD results did not meet criteria, evaluation was extended to all associated samples. See Section 4.1 of the data validation report for overall qualifiers resulting from the MS/MSD evaluation.</p> <p>Methods 8270C SVOCs</p> <p>Surrogates for the MS performed on sample H-TU904-MW07-NT01 recovered below the rejection point for 2,4,6-tribromophenol at 7.47%, with limits of 11.2-130, and 2-fluorophenol at 0.939%, with limits of 10-77.9%. This indicates the extraction and analysis of the MS had a low bias; therefore, the MS percent recoveries should not be considered applicable.</p> <p>Total vs. Partial Analyses (Metals)</p> <p>Consistent with SOP 14, results for the total analysis of a particular analyte should be greater than the results for a partial analyte of that analyte. The following criteria were used to evaluate the total versus dissolved results:</p> <ul style="list-style-type: none"> • In instances where the value for a partial analysis exceed that for a total analysis and both of the results are >5xLOQ, the criterion utilized is that the two values should agree within ±30%. • In instances where the value for a partial analysis exceeds that for a total analysis and either of the results is 5x the LOQ, the absolute difference between the results is compared against an evaluation criterion of 2xLOQ. <p>The total metal sample results were compared with the associated dissolved sample results against the concentration-dependent criteria set forth in SOP 14.</p>
Metals Only • Serial Dilution H-TU904-MW07-NT01 (Total Mercury/Total Chromium) H-TU904-MW07-ND01 (Dissolved Mercury/6020) H-TU515-GW07-NT01 (Total 6010B/6020) H-TU904-MW10-NT01 (Total 6010B) • Post Digestion Spike H-TU515-GW07-NT01 (Total 6010B) H-TU904-MW10-NT01 (Total 6010B)	Yes	<p>Serial Dilution (Metals Only)</p> <p>Consistent with the method, only the results that were greater than 50 times their respective DLs were appropriate for comparing to the serial dilution evaluation criterion. All percent differences (%Ds) between the original sample results and the results obtained from the sample-diluted 1:5 were ≤10%.</p> <p>Post Digestion Spike (PDS) (Metals Only)</p> <p>All PDS recoveries were within the acceptance limits.</p>

Review Parameter	Criteria Met?	Comment
<p>Method Quality Control</p> <ul style="list-style-type: none"> Surrogates (VOCs, PAHs, SVOCs, GRO, DRO/ORO) 	<p>Yes</p>	<p>The surrogate recoveries were within the laboratory specified acceptance criteria.</p> <p>DRO/ORO</p> <p>Sample H-TU515-GW04-NT01 for DRO/GRO was diluted beyond the laboratory's ability to quantitate surrogate recoveries. Further action was not considered necessary.</p> <p>Method 8260B Volatile Organic Compounds (VOCs)</p> <p>Sample H-TU515-GW04-NT01 for VOCs was diluted beyond the laboratory's ability to quantitate surrogate recoveries. Further action was not considered necessary.</p> <p>Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)</p> <p>Sample H-TU515-GW04-NT01 for PAHs was diluted beyond the laboratory's ability to quantitate surrogate recoveries. Further action was not considered necessary.</p>
<p>Field Quality Control</p> <ul style="list-style-type: none"> Trip Blank H-TU515-TRIPBLANK-TT01-A (GRO) H-TU515-TRIPBLANK-TT01-B (VOCs) Field Duplicate H-TU904-MW06-NT01/ H-TU904-MW06-DT01 H-TU904-MW06-ND01/ H-TU904-MW06-DD01 H-TU515-GW10-ND01/ H-TU515-GW10-DD01 H-TU515-GW10-NT01/ H-TU515-GW10-DT01 Equipment Blank None in this data package Field Blank None in this data package 	<p>Yes</p>	<p>Trip Blank</p> <p>Target analytes were not detected in the trip blanks.</p> <p>Field Duplicate</p> <p>The frequency of field duplicates met the QAPP requirement of one per twenty samples.</p> <p>With the exceptions listed in Table 4, the comparison between results of the field duplicate pair met the criteria listed below.</p> <ul style="list-style-type: none"> When both the sample and duplicate values are >5x the LOQ acceptable sampling and analytical precision is indicated by an RPD between the results of $\leq 30\%$ for water samples ($\leq 50\%$ for soil samples). Where the result for one or both analytes of the field duplicate pair is $< 5xLOQ$, satisfactory precision is indicated if the absolute difference between the field duplicate results is $< 2xLOQ$ for water samples ($< 3.5xLOQ$ for soil samples). <p>Consistent with SOP 14, when field duplicate issues accounted for less than 35% of the field duplicate analyses conducted, applicable data qualification was limited to qualification of the parent sample for the affected analyte. When >35% of the field duplicate results did not meet criteria, evaluation was extended to all associated samples. See Section 4.3 of the data validation report for overall qualifiers resulting from the field duplicate evaluation.</p> <p>Equipment Blank</p> <p>As dedicated equipment was used to collect these samples, an equipment blank was not submitted for this sampling event. Further action was not necessary.</p> <p>Field Blank</p> <p>The frequency of field blanks met the QAPP requirement of one per twenty samples.</p>

Review Parameter	Criteria Met?	Comment
		See Section 4.4 of the data validation report for overall qualifiers resulting from the field blank evaluation.
LODs met?	No	Due to dilutions, several of the total and dissolved metals, as well as the DRO/ORO results, PAHs, SVOCs, GRO, and VOCs for sample H-TU515-GW04-NT01 were reported as non-detect at elevated LODs. See Section 3.7 of the validation report for further discussion.
Other Parameters	Yes	<p>Naphthalene (8260B and 8270C-PAHs) and hexachloro-1,3-butadiene and 1,2,4-trichlorobenzene (8260B and 8270C) were analyzed by multiple methods. Results were selected for reporting using the following criteria:</p> <ul style="list-style-type: none"> • If both results were non-detect, the non-detect result with the lower DL was selected. • If both results were reported as detected, the higher detected result was selected for reporting. • If one result was reported as non-detect and the other result was reported as detected, the detected result was selected for reporting.
Initial Calibration	Yes	<p>Methods 8260B VOCs & 8270C SVOCs</p> <p>A minimum relative response factor (RRF) of 0.05 was used for the system performance check compounds (SPCCs) and all SPCCs met this criterion. The percent relative standard deviations (%RSDs) over the initial calibration RRFs for all calibration check compounds (CCCs) satisfied the method requirement of <30%. For all other target compounds, a requirement of 15% was used. The %RSD values for all target analytes in the calibration were less than 15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8270C PAHs</p> <p>The %RSD values for all target analytes in the calibration were less than 20%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8015D Gasoline Range Organics (GRO)/DRO/ORO</p> <p>The relationship between instrument response and concentration was established with a blank and at least five standards for each analyte. The %RSD over the initial calibrations curve satisfied the method requirement of <15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Methods 6010B (Inductively Coupled Plasma [ICP] Metals) and 6020 (ICPMS Metals)</p> <p>The initial calibrations (ICALs) were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with a blank and at least five standards. The calibrations were verified with the analysis of an initial calibration verification (ICV) standard. All metals were recovered within the method acceptance range of 90-110%.</p> <p>7470A (Mercury)</p> <p>The ICALs were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with five standards. The correlation coefficient was >0.995. The calibration was verified with the analysis of an ICV standard.</p>

Review Parameter	Criteria Met?	Comment
		The analytes were recovered within the acceptance range of 90-110%. Response and linearity criteria were met and data qualification on the basis of initial calibration was not necessary.
Initial Calibration Verification/Continuing Calibration Verification	No	<p>Method 8260B VOCs</p> <p>With the exceptions listed in Table 5, the percent differences (%Ds) for all CCCs in the ICVs and continuing calibrations (CCALs) were less than 20%, satisfying method requirements, and other target analytes satisfied the %D criterion of 20%.</p> <p>Methods 8270C PAHs/SVOCs</p> <p>With the exceptions listed in Table 5, the %D values for all target analytes in the calibration were less than 20%.</p> <p>Methods 6010B (ICP Metals), 6020 (ICPMS Metals), and 7470A (Mercury)</p> <p>Calibration verification analyses were conducted at the proper frequency. All metals were recovered within the DOD QSM 4.2 low level acceptance range of 80-120% and the method medium/high acceptance range of 90-110%.</p>
Interference Check Standard (Metals Only)	No	<p>The interference check standard (ICS) AB solutions were analyzed at the proper frequency. The target analytes were recovered within the acceptance range of 80-120% in the ICS AB solution. With the exceptions listed in Table 6, interferent elements were not present in the samples at concentrations greater than those in the ICSs.</p> <p>The interferent elements aluminum, calcium, iron, and magnesium were present in most samples in this data package at concentrations greater than or equal to those in the ICSs. As such, these samples were evaluated for positive and negative biases suggested by the ICS A. Data qualification was issued if the absolute value of the ICS A result was greater than the DL and it suggested a positive or negative bias which accounted for more than 25% of associated sample results or LODs. (Note: The ICS A solution only contains the interferent elements aluminum, calcium, iron, and magnesium so any positive or negative result for other analytes is inferred to be a bias potentially caused by one or more of the interferent elements present). Table 6 summarizes the resultant data qualification on the basis of the ICS results.</p>
Internal Standard (VOCs/SVOCs/PAHs/Metals (6020))	Yes	Recoveries for the internal standards in field samples were within the applicable acceptance limits. Therefore, data qualification based on internal standards was not necessary.
Laboratory Control Sample/Laboratory Control Sample Duplicate	No	<p>One laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) per method per analytical batch was prepared and analyzed. With the exceptions listed in Table 7, all of the LCS recoveries and LCS/LCSD RPDs were within the QAPP acceptance limits. These results are indicative of an acceptable level of accuracy and precision with respect to the analytical method.</p> <p>Method 8015 DRO/ORO</p> <p>The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the method could not be assessed for ORO.</p>

Review Parameter	Criteria Met?	Comment
Package Completeness	Yes	The results are usable as qualified for the project objective. The data are 100% complete.

> - Greater Than

< - Less Than

≤ - Less Than or Equal to

± - Plus or Minus

°C – Degrees Celsius

% - Percent

%Ds – Percent Differences

%RSD – Percent Relative Standard Deviation

CCALs – Continuing Calibrations

CCBs – Continuing Calibration Blanks

CCCs – Calibration Check Compounds

COC – Chain of Custody

COD – Coefficient of Determination

DLs – Detection Limits

DRO – Diesel Range Organics

GRO – Gasoline Range Organics

ICAL – Initial Calibration

ICB – Initial Calibration Blank

ICP – Inductively Coupled Plasma

ICPMS – Inductively Coupled Plasma Mass Spectrometry

ICS – Interference Check Standard

ICV – Initial Calibration Verification

LCS – Laboratory Control Sample

LCSD – Laboratory Control Sample Duplicate

LOD – Limit of Detection

LOQ – Limit of Quantitation

MS/MSD – Matrix Spike/ Matrix Spike Duplicate

ORO – Oil Range Organics

PAHs – Polynuclear Aromatic Hydrocarbons

PDS – Post Digestion Spike

QAPP – Quality Assurance Project Plan

RPDs – Relative Percent Differences

RRF – Relative Response Factor

SOP – Standard Operating Procedure

SPCCs – System Performance Check Compounds

VOCs – Volatile Organic Compounds

Table 1: Blank Outliers and Resultant Data Qualification

Associated Samples	Analyte	Concentration	Qualification
Total Metals			
MB Batch WG751423 H-TU904-MW06-DT01 H-TU904-MW06-NT01 H-TU904-MW08-NT01	Aluminum	37.9 µg/L	None. The associated results were reported as non-detect or at concentrations >5x the concentration of the blank contamination.
MB Batch WG752072 H-TU515-GW07-NT01	Copper	1.85 µg/L	
	Zinc	6.86 µg/L	
MB Batch WG752581 H-TU904-MW10-NT01 H-TU904-MW11-NT01 H-TU515-GW02-NT01 H-TU515-GW04-NT01 H-TU515-GW10-NT01 H-TU515-GW10-DT01	Aluminum	46.5 µg/L	
MB Batch WG751429 H-TU904-MW06-DT01 H-TU904-MW06-NT01 H-TU904-MW07-NT01 H-TU904-MW08-NT01 H-TU904-MW10-NT01 H-TU904-MW11-NT01 H-TU515-GW02-NT01 H-TU515-GW04-NT01 H-TU515-GW10-NT01 H-TU515-GW10-DT01	Nickel	1.46 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).

Associated Samples	Analyte	Concentration	Qualification
MB Batch WG751429 H-TU904-MW06-DT01 H-TU904-MW06-NT01 H-TU904-MW07-NT01 H-TU904-MW08-NT01 H-TU904-MW10-NT01 H-TU904-MW11-NT01 H-TU515-GW02-NT01 H-TU515-GW04-NT01 H-TU515-GW07-NT01 H-TU515-GW10-NT01 H-TU515-GW10-DT01	Selenium	0.482 µg/L	
CCB 11/5/2014 1:51PM H-TU904-MW06-DT01 H-TU904-MW06-NT01 H-TU904-MW07-NT01 H-TU904-MW08-NT01 H-TU904-MW10-NT01 H-TU904-MW11-NT01 H-TU515-GW02-NT01 H-TU515-GW07-NT01	Antimony	0.222 µg/L	The associated antimony result for sample H-TU515-GW02-NT01 was reported at a concentrations <5x the concentration of the blank contamination and was qualified as non-detect (U CBC-I).
CCB 11/5/2014 2:09PM H-TU904-MW06-DT01 H-TU904-MW06-NT01 H-TU904-MW07-NT01 H-TU904-MW08-NT01 H-TU904-MW10-NT01 H-TU904-MW11-NT01 H-TU515-GW02-NT01 H-TU515-GW04-NT01 H-TU515-GW10-NT01 H-TU515-GW10-DT01	Cadmium	0.210 µg/L	None. The associated results were reported as non-detect.
	Lead	0.281 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U CCB-I).
	Antimony	0.274 µg/L	
	Selenium	0.563 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U CCB-I).
	Thallium	0.203 µg/L	None. The associated results were reported as non-detect.
CCB 11/5/2014 2:23PM H-TU515-GW04-NT01 H-TU515-GW10-NT01 H-TU515-GW10-DT01	Selenium	0.432 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U CCB-I).
Dissolved Metals			
MB Batch WG752582 H-TU904-MW06-DD01 H-TU904-MW06-ND01 H-TU904-MW07-ND01 H-TU904-MW08-ND01 H-TU904-MW10-ND01 H-TU904-MW11-ND01 H-TU515-GW02-ND01 H-TU515-GW04-ND01 H-TU515-GW07-ND01 H-TU515-GW10-ND01 H-TU515-GW10-DD01	Manganese	2.44 µg/L	None. The associated results were reported as non-detect or at concentrations >5x the concentration of the blank contamination.

Associated Samples	Analyte	Concentration	Qualification
MB Batch WG751633 H-TU904-MW06-DD01 H-TU904-MW06-ND01 H-TU904-MW07-ND01 H-TU904-MW08-ND01 H-TU904-MW10-ND01 H-TU904-MW11-ND01 H-TU515-GW02-ND01 H-TU515-GW04-ND01 H-TU515-GW07-ND01 H-TU515-GW10-ND01 H-TU515-GW10-DD01	Chromium	0.978 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).
CCB 11/5/2014 3:01PM H-TU904-MW06-DD01 H-TU904-MW06-ND01 H-TU904-MW08-ND01 H-TU904-MW10-ND01 H-TU904-MW11-ND01 H-TU515-GW02-ND01 H-TU515-GW04-ND01 H-TU515-GW07-ND01 H-TU515-GW10-ND01 H-TU515-GW10-DD01	Antimony	0.312 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U CCB-I).
CCB 11/5/2014 3:25PM H-TU904-MW06-DD01 H-TU904-MW06-ND01 H-TU904-MW08-ND01 H-TU904-MW10-ND01 H-TU904-MW11-ND01 H-TU515-GW02-ND01 H-TU515-GW04-ND01 H-TU515-GW07-ND01 H-TU515-GW10-ND01 H-TU515-GW10-DD01		0.285 µg/L	
VOCs			
MB Batch WG751360 H-TU515-GW02-NT01 H-TU515-GW07-NT01 H-TU515-GW10-NT01 H-TU515-GW10-DT01 H-TU515-TRIPBLANK-TT01-B H-TU904-MW06-DT01 H-TU904-MW06-NT01 H-TU904-MW07-NT01 H-TU904-MW08-NT01 H-TU904-MW10-NT01 H-TU904-MW11-NT01 H-OT32-TMW08-NT01 H-OT32-TMW09-NT01 H-OT32-TMW10-NT01	Methylene Chloride	1.80 µg/L	None. The associated results were reported as non-detect.

Associated Samples	Analyte	Concentration	Qualification
PAHs			
MB Batch WG751450 H-TU904-MW06-DT01 H-TU904-MW06-NT01 H-TU904-MW07-NT01 H-TU515-GW02-NT01 H-TU515-GW04-NT01 H-TU515-GW07-NT01 H-TU515-GW10-NT01 H-TU515-GW10-DT01	2-Methylnaphthalene	0.0907 µg/L	None. The associated results were reported as non-detect or at concentrations >5x the concentration of the blank contamination.
	Acenaphthene	0.0374 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).
	Acenaphthylene	0.0399 µg/L	
	Fluorene	0.0226 µg/L	
	Naphthalene	0.121 µg/L	
		0.0184 µg/L	
MB Batch WG751551 H-TU904-MW08-NT01 H-TU904-MW10-NT01 H-TU904-MW11-NT01			

> - Greater Than

CCB – Continuing Calibration Blank

PAHs – Polynuclear Aromatic Hydrocarbons

< - Less Than

I – Indeterminate Bias

U – Non-detect

µg/L – Micrograms per Liter

MB – Method Blank

VOCs – Volatile Organic Compounds

Table 2: MS/MSD Recovery and RPD Outliers and Resultant Data Qualification

Associated Sample	Analyte	%R (Limits)	RPD (Limit)	Qualification
Total Metals				
H-TU515-GW07-NT01	Aluminum	154/129 (80-120)	6 (30)	As the potential bias was considered to be high, the associated detected results were qualified as estimated (J MS-H).
H-TU904-MW10-NT01		136/128 (80-120)	2 (30)	
H-TU515-GW07-NT01	Selenium	94/ 155 (80-120)	47 (30)	As the potential bias was considered to be high, and the associated selenium result for sample H-TU515-GW07-NT01 was reported as non-detect, data qualification was not considered necessary. As the RPD was outside of control limits, the associated selenium result for sample H-TU515-GW07-NT01 was qualified as estimated (UJ D-I).
H-TU904-MW07-NT01	Antimony	75/88 (80-120)	16 (30)	As the potential bias was considered to be low, the associated antimony result for sample H-TU904-MW07-NT01 was qualified as estimated (UJ MS-L).
Dissolved Metals				
H-TU904-MW07-ND01	Aluminum	79/80 (80-120)	0 (30)	As the potential bias was considered to be low, the associated results for sample H-TU503-GW13-ND01 were qualified as estimated (UJ/J MS-L).

Associated Sample	Analyte	%R (Limits)	RPD (Limit)	Qualification
H-TU515-GW07-ND01	Antimony	137/99 (80-120)	32 (30)	As the potential bias was considered to be high, and the associated selenium result for sample H-TU515-GW07-ND01 was reported as non-detect, data qualification was not considered necessary. As the RPD was outside of control limits, the associated selenium result for sample H-TU515-GW07-ND01 was qualified as estimated (UJ D-I).
	Arsenic	134/87 (80-120)	28 (30)	As the potential bias was considered to be high, the associated detected arsenic result for sample H-TU515-GW07-ND01 was qualified as estimated (J MS-H).
	Chromium	129/106 (80-120)	19 (30)	As the potential bias was considered to be high, and the associated chromium result for sample H-TU515-GW07-ND01 was reported as non-detect, data qualification was not considered necessary.
	Cobalt	122/103 (80-120)	16 (30)	As the potential bias was considered to be high, the associated detected cobalt result for sample H-TU515-GW07-ND01 was qualified as estimated (J MS-H).
	Lead	123/108 (80-120)	13 (30)	As the potential bias was considered to be high, and the associated chromium result for sample H-TU515-GW07-ND01 was reported as non-detect, data qualification was not considered necessary.
	Nickel	136/121 (80-120)	17 (30)	As the potential bias was considered to be high, the associated detected nickel result for sample H-TU515-GW07-ND01 was qualified as estimated (J MS-H).
	Silver	236/87 (80-120)	86 (30)	As the potential bias was considered to be high, and the associated RPD was outside of control limits, the silver result for sample H-TU515-GW07-ND01 was qualified as estimated (J MS,D-H).
	Thallium	133/108 (80-120)	21 (30)	As the potential bias was considered to be high, and the associated chromium result for sample H-TU515-GW07-ND01 was reported as non-detect, data qualification was not considered necessary.

Associated Sample	Analyte	%R (Limits)	RPD (Limit)	Qualification
GRO				
H-TU904-MW07-NT01	GRO	130/131 (80-120)	1.29 (20)	As the potential bias was considered to be high, and the associated chromium result for sample H-TU904-MW07-NT01 was reported as non-detect, data qualification was not considered necessary.
VOCs				
H-TU515-GW07-NT01	1,2-Dibromo-3-Chloropropane	137/124 (50-130)	9.86 (30)	As the potential bias was considered to be high, and the associated results for sample H-TU515-GW07-NT01 were reported as non-detect, data qualification was not considered necessary.
	2-Hexanone	135/124 (55-130)	8.75 (30)	
SVOCs				
H-TU515-GW07-NT01	3,3-Dichlorobenzidine	15.5/17.1 (20-110)	9.64 (30)	As the potential bias was considered to be low, the associated antimony result for sample H-TU515-GW07-NT01 was qualified as estimated (UJ MS-L).
PAHs				
H-TU515-GW07-NT01	2-Methylnaphthalene	0/0 (45-105)	6.32 (20)	As the potential bias was considered to be low, the associated results for sample H-TU515-GW07-NT01 were qualified as estimated (UJ/J MS-L).
	Acenaphthene	20.9/24.1 (45-110)	5.41 (20)	
	Acenaphthylene	48.3/52.2 (50-105)	6.51 (20)	
	Benzo(a)pyrene	53.9/52.8 (55-110)	1.99 (20)	
	Fluorene	0/0 (75.3-136)	4.26 (20)	
	Naphthalene	0/0 (72.2-137)	4.97 (20)	
	Phenanthrene	0/0 (76-133)	3.42 (20)	
H-TU904-MW07-NT01	Benzo(a)pyrene	32.9/32.5 (70.8-140)	1.35 (20)	
	Benzo(b)fluoranthene	32.1/34 (68-142)	5.85 (20)	
	Benzo(g,h,i)perylene	25.3/25 (62.8-146)	1.03 (20)	
	Benzo(k)fluoranthene	34.5/31.9 (70.1-144)	8 (20)	
	Dibenz(a,h)anthracene	27.2/27.2 (56.1-147)	0.33 (20)	
	Indeno(1,2,3-c,d)pyrene	27/26.9 (61.6-147)	0.62 (20)	

%R – Percent Recoveries

D – Duplicate or spike duplicate precision evaluation criteria not met

H – High Bias

MS/MSD – Matrix Spike Matrix Spike Duplicate

RPD – Relative Percent Difference

VOCs – Volatile Organic Compounds

Bold indicates a recovery or RPD outside of acceptance limit

< - Less Than

L – Low Bias

PAHs – Polynuclear Aromatic Hydrocarbons

SVOCs – Semivolatile Organic Compounds

% - Percent

GRO – Gasoline Range Organics

UJ/J – Estimated

Table 3: Total vs. Partial Outliners and Resultant Data Qualification

Sample	Analyte	Total Result (µg/L)	Dissolved Result (µg/L)	Criteria not Met	Qualification
H-TU904-MW08-NT01/ H-TU904-MW08-ND01	Nickel	390	780	RPD >30%	As the RPD between the total and dissolved results exceeded 30%, results were qualified as estimated (J TvP-I).

µg/L – Micrograms per Liter
I – Indeterminate Bias
TvP – Total versus Partial

> - Greater Than
J – Estimated
U – Non-detect

% - Percent
RPD – Relative Percent Difference

Table 4: Field Duplicate Outliners and Resultant Data Qualification

Field Duplicate Pair	Analyte	Parent Result (µg/L)	FD Result (µg/L)	Criteria not Met	Qualification
Total Metals					
H-TU904-MW06-NT01/ H-TU904-MW06-DT01	Nickel	190	270	RPD >30%	As the RPD between the field duplicate pair results exceeded 30%, results were qualified as estimated (J FD-I).
	Aluminum	1000	530		
Dissolved Metals					
H-TU515-GW10-ND01/ H-TU515-GW10-DD01	Aluminum	19000	27000	RPD >30%	As the RPD between the field duplicate pair results exceeded 30%, results were qualified as estimated (J FD-I).
	Barium	94	130		

µg/L – Micrograms per Liter
FD – Field Duplicate
RPD – Relative Percent Difference

% - Percent
I – Indeterminate Bias

> - Greater Than
J – Estimated

Table 5: Initial/Continuing Calibration Verification Outliers and Resultant Data Qualification

Associated Samples	Analyte	%D/%R (Limit)	Data Qualification
Total Metals			
H-TU515-GW04-NT01 H-TU515-GW10-NT01 H-TU515-GW10-DT01	Lead	111% (90-110%)	As the potential bias was considered to be high, the associated detected lead results were qualified as estimated (J CCV-H).
	Thallium		As the potential bias was considered to be high, and the associated thallium results were reported as non-detect, data qualification was not considered necessary.
Dissolved Metals			
H-TU904-MW07-ND01	Thallium	111% (90-110%)	As the potential bias was considered to be high, and the associated results were reported as non-detect, data qualification was not considered necessary.
H-TU904-MW06-DD01 H-TU904-MW06-ND01 H-TU904-MW08-ND01 H-TU904-MW10-ND01 H-TU904-MW11-ND01	Lead	112% (90-110%)	

Associated Samples	Analyte	%D/%R (Limit)	Data Qualification
H-TU515-GW02-ND01 H-TU515-GW04-ND01 H-TU515-GW07-ND01 H-TU515-GW10-ND01			
VOCs			
H-TU515-GW02-NT01 H-TU515-GW07-NT01 H-TU515-GW10-NT01 H-TU515-GW10-DT01 H-TU515-TRIPBLANK-TT01-B H-TU904-MW06-DT01 H-TU904-MW06-NT01 H-TU904-MW07-NT01 H-TU904-MW08-NT01 H-TU904-MW10-NT01 H-TU904-MW11-NT01 H-OT32-TMW08-NT01 H-OT32-TMW09-NT01 H-OT32-TMW10-NT01	Chloroethane	+21.3 (±20)	As the potential bias was considered to be high, and the associated results were reported as non-detect, data qualification was not considered necessary.
H-TU515-GW02-NT01 H-TU515-GW04-NT01 H-TU515-GW10-NT01 H-TU515-GW10-DT01 H-TU904-MW06-DT01 H-TU904-MW06-NT01 H-TU904-MW08-NT01	Methyl Tert Butyl Ether	+20.7 (±20)	
H-TU515-GW10-NT01 H-TU515-GW10-DT01 H-TU904-MW06-DT01 H-TU904-MW06-NT01 H-TU904-MW08-NT01	4-Methyl-2-Pentanone (MIBK)	+23.6 (±20)	
SVOCs			
H-TU904-MW06-DT01 H-TU904-MW06-NT01 H-TU904-MW07-NT01 H-TU904-MW08-NT01 H-TU904-MW10-NT01 H-TU904-MW11-NT01 H-TU515-GW02-NT01 H-TU515-GW04-NT01 H-TU515-GW07-NT01 H-TU515-GW10-NT01 H-TU515-GW10-DT01	3&4 Methyl Phenol	-51.4 (±20)	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ CCAL-L).

± - Plus or minus
%R - Percent Recoveries
H - Low Bias
UJ/J - Estimated

% - Percent
CCAL - Continuing Calibration
L - Low Bias
VOCs - Volatile Organic Compounds

%D - Percent Difference
CCV - Continuing Calibration Verification
SVOCs - Semivolatile Organic Compounds

Table 6: ICS Outliers and Resultant Data Qualification

Interferent Element	Analyte	ICS A (µg/L)	MDL (µg/L)	Qualified Samples	Qualification
Calcium	Copper	-13.3	5.3	H-TU904-MW06-NT01 H-TU904-MW08-NT01 H-TU904-MW10-NT01 H-TU904-MW11-NT01 H-TU515-GW02-NT01 H-TU515-GW04-NT01 H-TU515-GW10-NT01 H-TU515-GW10-DT01	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ/J ICS-L).
	Manganese	-18.4	1.2	H-TU904-MW10-NT01 H-TU904-MW11-NT01	
	Zinc	-15.5	5.9	H-TU904-MW06-NT01 H-TU904-MW08-NT01 H-TU904-MW10-NT01 H-TU904-MW11-NT01	

µg/L – Micrograms per Liter
MDL – Method Detection Limit

ICS – Interference Check Standard
UJ/J - Estimated

L – Low Bias

Table 7: LCS Recovery Outliers and Resultant Data Qualification

Associated Samples	Analyte	%R (Limits)	RPD (Limits)	Qualification
VOCs				
LCS WG751360 H-TU515-GW02-NT01 H-TU515-GW07-NT01 H-TU515-GW10-NT01 H-TU515-GW10-DT01 H-TU515-TRIPBLANK-TT01-B H-TU904-MW06-DT01 H-TU904-MW06-NT01 H-TU904-MW07-NT01 H-TU904-MW08-NT01 H-TU904-MW10-NT01 H-TU904-MW11-NT01 H-OT32-TMW08-NT01 H-OT32-TMW09-NT01 H-OT32-TMW10-NT01	Chloroethane	138/122 (60-135)	13.1 (30)	As the potential bias was considered to be high, and the associated results were reported as non-detect, data qualification was not considered necessary.
PAHs				
LCS WG751551 H-TU904-MW08-NT01 H-TU904-MW10-NT01 H-TU904-MW11-NT01	Anthracene	111/111 (55-110)	0.33 (20)	As the potential bias was considered to be high, and the associated results were reported as non-detect, data qualification was not considered necessary.

%R – Percent Recoveries

VOCs – Volatile Organic Compounds

Bold indicates a recovery outside of acceptance limits.

LCS – Laboratory Control Sample

RPD – Relative Percent Difference



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-TU904-MW06-DT01
Collected By :
Collection Date : 10/24/14 16:30

ESC Sample # : L730147-01

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony	7440-36-0	U	1	2.5	5	ug/l		6020	10/31/14	5
Arsenic <i>F SQL-I</i>	7440-38-2	2.8	1.2	2.5	5	ug/l	J	6020	10/31/14	5
Cadmium	7440-43-9	U	0.8	1.3	2.5	ug/l		6020	10/31/14	5
Chromium <i>J FDI</i>	7440-47-3	35.	2.7	5.0	10	ug/l		6020	11/07/14	5
Cobalt	7440-48-4	6.2	1.3	2.5	5	ug/l		6020	10/31/14	5
Lead <i>U CCB-I</i>	7439-92-1	1.2 2.5	1.2	2.5	5	ug/l	J	6020	10/31/14	5
Nickel <i>J FD-I</i>	7440-02-0	270	1.8	2.5	5	ug/l	B	6020	10/31/14	5
Selenium <i>U CCB-I</i>	7782-49-2	13.	1.9 13	2.5 13	10 13	ug/l	B	6020	11/05/14	5
Silver	7440-22-4	U	1.6	2.5	5	ug/l		6020	10/31/14	5
Thallium	7440-28-0	U	0.95	2.5	5	ug/l		6020	10/31/14	5
Mercury	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/29/14	1
Aluminum <i>J FD-I, MS-H</i>	7429-90-5	530	35	50.	100	ug/l		6010B	10/30/14	1
Barium <i>J FD-I</i>	7440-39-3	31.	1.7	2.5	5	ug/l		6010B	10/30/14	1
Beryllium	7440-41-7	U	0.7	1.0	2	ug/l		6010B	10/30/14	1
Copper	7440-50-8	U	5.3	10.	20	ug/l		6010B	10/30/14	1
Manganese	7439-96-5	87.	1.2	5.0	10	ug/l		6010B	10/30/14	1
Vanadium <i>F SQL-I</i>	7440-62-2	14.	2.4	10.	20	ug/l	J	6010B	10/30/14	1
Zinc <i>F SQL-I</i>	7440-66-6	8.1	5.9	25.	50	ug/l	J	6010B	10/30/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range <i>F SQL-I</i>		60.	22	33.	100	ug/l	J	8015	10/30/14	1
C28-C40 Oil Range		U	12	33.	100	ug/l		8015	10/30/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	96.2				% Rec.		8015	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.014	0.028	0.056	ug/l		8270 C-	10/31/14	1.11
Acenaphthene	83-32-9	U	0.0091	0.028	0.056	ug/l		8270 C-	10/31/14	1.11
Acenaphthylene <i>UJ MS-I</i>	208-96-8	U	0.012	0.028	0.056	ug/l		8270 C-	10/31/14	1.11
Benzo(a)anthracene	56-55-3	U	0.014	0.028	0.056	ug/l		8270 C-	10/31/14	1.11
Benzo(a)pyrene <i>UJ MS-L</i>	50-32-8	U	0.018	0.028	0.056	ug/l		8270 C-	10/31/14	1.11
Benzo(b)fluoranthene	205-99-2	U	0.021	0.028	0.056	ug/l		8270 C-	10/31/14	1.11
Benzo(g,h,i)perylene	191-24-2	U	0.017	0.028	0.056	ug/l		8270 C-	10/31/14	1.11
Benzo(k)fluoranthene	207-08-9	U	0.028	0.039	0.056	ug/l		8270 C-	10/31/14	1.11
Chrysene	218-01-9	U	0.016	0.028	0.056	ug/l		8270 C-	10/31/14	1.11
Dibenz(a,h)anthracene	53-70-3	U	0.005	0.028	0.056	ug/l		8270 C-	10/31/14	1.11
Fluoranthene	206-44-0	U	0.018	0.028	0.056	ug/l		8270 C-	10/31/14	1.11
Fluorene <i>UJ MS-I</i>	86-73-7	U	0.01	0.028	0.056	ug/l		8270 C-	10/31/14	1.11
Indeno(1,2,3-cd)pyrene <i>UJ MS-L</i>	193-39-5	U	0.0082	0.028	0.056	ug/l		8270 C-	10/31/14	1.11
Naphthalene <i>UJ MS-I, MS-L</i>	91-20-3	0.042	0.013 0.042	0.028 0.042	0.28 0.042	ug/l	J	8270 C-	10/31/14	1.11
Phenanthrene	85-01-8	U	0.02	0.028	0.056	ug/l		8270 C-	10/31/14	1.11
Pyrene	129-00-0	U	0.017	0.028	0.056	ug/l		8270 C-	10/31/14	1.11
2-Methylnaphthalene <i>UJ MS-X-I</i>	91-57-6	U	0.017	0.028	0.278	ug/l		8270 C-	10/31/14	1.11
Surrogate Recovery										

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-01 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

EA 2/20/15
BMS 2/20/15
14 of 2812
BMS 9/3/15



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 Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-MW06-DT01
 Collected By :
 Collection Date : 10/24/14 16:30

ESC Sample # : L730147-01
 Site ID :
 Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	77.9					% Rec.	8270 C-	10/31/14	1.11
2-Fluorobiphenyl	321-60-8	72.6					% Rec.	8270 C-	10/31/14	1.11
p-Terphenyl-d14	1718-51-0	72.6					% Rec.	8270 C-	10/31/14	1.11
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroethyl) ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroisopropyl) ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Benzyl Alcohol	100-51-6	U	0.39	5.0	10	ug/l		8270C	10/30/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	10/30/14	1
Benzoic acid	65-85-0	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	10/30/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	10/30/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	10/30/14	1
Hexachloro-1,3-butadiene	87-69-3	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	10/30/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	0.71	1.0	3	ug/l		8270C	10/30/14	1
Di-n-butyl phthalate	84-74-2	0.31	0.27	1.0	3	ug/l	J	8270C	10/30/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	10/30/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	10/30/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	10/30/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
3&4-Methyl Phenol	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	10/30/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	10/30/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	10/30/14	1

U = Not Detected at the LOD

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 Reported: 12/03/14 10:57 Printed: 12/03/14 11:31
 L730147-01 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

DNR - Do Not Report

*KA 2/20/15
 BMS 2/20/15
 15 of 2812*



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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-MW06-DT01
 Collected By :
 Collection Date : 10/24/14 16:30

ESC Sample # : L730147-01
 Site ID :
 Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	10/30/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	10/30/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	41.4				% Rec.		8270C	10/30/14	1
Phenol-d5	4165-62-2	30.3				% Rec.		8270C	10/30/14	1
Nitrobenzene-d5	4165-60-0	52.9				% Rec.		8270C	10/30/14	1
2-Fluorobiphenyl	321-60-8	57.7				% Rec.		8270C	10/30/14	1
2,4,6-Tribromophenol	118-79-6	70.7				% Rec.		8270C	10/30/14	1
p-Terphenyl-d14	1718-51-0	52.2				% Rec.		8270C	10/30/14	1

U = Not Detected at the LOD

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L730147-01 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KA2/2015



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-MW06-DD01
 Collected By :
 Collection Date : 10/24/14 16:30

ESC Sample # : L730147-02

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved <i>U CCB-I</i>	7440-36-0	1.025	1	2.5	10	ug/l	J	6020	11/05/14	5
Arsenic, Dissolved	7440-38-2	U	1.2	2.5	10	ug/l		6020	11/05/14	5
Cadmium, Dissolved	7440-43-9	U	0.8	1.3	5	ug/l		6020	11/05/14	5
Chromium, Dissolved	7440-47-3	U	2.7	5.0	10	ug/l		6020	11/05/14	5
Cobalt, Dissolved <i>F SOL-I</i>	7440-48-4	5.5	1.3	2.5	10	ug/l	J	6020	11/05/14	5
Lead, Dissolved	7439-92-1	U	1.2	2.5	10	ug/l		6020	11/05/14	5
Nickel, Dissolved <i>JMS-I</i>	7440-02-0	230	1.8	2.5	10	ug/l		6020	11/05/14	5
Selenium, Dissolved <i>F SOL-I</i>	7782-49-2	9.3	1.9	2.5	10	ug/l	J	6020	11/10/14	5
Silver, Dissolved	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/05/14	5
Thallium, Dissolved	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/05/14	5
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/29/14	1
Aluminum, Dissolved	7429-90-5	U	180	250	500	ug/l		6010B	11/05/14	5
Barium, Dissolved <i>F SOL-I</i>	7440-39-3	13.	8.5	13.	25	ug/l	J	6010B	11/05/14	5
Beryllium, Dissolved	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/05/14	5
Copper, Dissolved	7440-50-8	U	26	50.	100	ug/l		6010B	11/05/14	5
Manganese, Dissolved	7439-96-5	79.	6	25.	50	ug/l		6010B	11/05/14	5
Vanadium, Dissolved	7440-62-2	U	12	50.	100	ug/l		6010B	11/05/14	5
Zinc, Dissolved	7440-66-6	U	30	130	250	ug/l		6010B	11/05/14	5

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-02 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

L730147-02 (ICP METALS) - Diluted due to matrix interference.

KA 2/20/15
BMS 2/20/15
 17 of 2812



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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-TU904-MW06-NT01
Collected By :
Collection Date : 10/24/14 16:30

ESC Sample # : L730147-03
Site ID :
Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony	7440-36-0	U	1	2.5	5	ug/l		6020	10/31/14	5
Arsenic <i>F SOL-I</i>	7440-38-2	2.8	1.2	2.5	5	ug/l	J	6020	10/31/14	5
Cadmium	7440-43-9	U	0.8	1.3	2.5	ug/l		6020	10/31/14	5
Chromium <i>J FO-I</i>	7440-47-3	21.	2.7	5.0	10	ug/l		6020	11/07/14	5
Cobalt	7440-48-4	5.2	1.3	2.5	5	ug/l		6020	10/31/14	5
Lead <i>U COB-I</i>	7439-92-1	1.625 <i>1.216</i>	1.8	2.5	5	ug/l	J	6020	10/31/14	5
Nickel <i>J FO-I</i>	7440-02-0	190	1.8	2.5	5	ug/l	B	6020	10/31/14	5
Selenium	7782-49-2	15.	1.9	2.5	10	ug/l	B	6020	11/05/14	5
Silver	7440-22-4	U	1.6	2.5	5	ug/l		6020	10/31/14	5
Thallium	7440-28-0	U	0.95	2.5	5	ug/l		6020	10/31/14	5
Mercury	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/29/14	1
Aluminum <i>J FO, MS-H</i>	7429-90-5	1000	35	50.	100	ug/l		6010B	10/30/14	1
Barium <i>J FO, I</i>	7440-39-3	40.	1.7	2.5	5	ug/l		6010B	10/30/14	1
Beryllium	7440-41-7	U	0.7	1.0	2	ug/l		6010B	10/30/14	1
Copper <i>U J, ICSA-L</i>	7440-50-8	U	5.3	10.	20	ug/l		6010B	10/30/14	1
Manganese <i>F SOL-I</i>	7439-96-5	83.	1.2	5.0	10	ug/l		6010B	10/30/14	1
Vanadium <i>F SOL-I</i>	7440-62-2	14.	2.4	10.	20	ug/l	J	6010B	10/30/14	1
Zinc <i>F SOL, ICSX-L</i>	7440-66-6	15.	5.9	25.	50	ug/l	J	6010B	10/30/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range <i>F SOL-I</i>		35.	22	33.	100	ug/l	J	8015	10/30/14	1
C28-C40 Oil Range		U	12	33.	100	ug/l		8015	10/30/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	92.7				% Rec.		8015	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	10/31/14	1
Acenaphthene	83-32-9	U	0.0082	0.025	0.05	ug/l		8270 C-	10/31/14	1
Acenaphthylene <i>U J MS-I</i>	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo (a) anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo (a) pyrene <i>U J MS-L</i>	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo (b) fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo (g,h,i) perylene	191-24-2	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo (k) fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	10/31/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	10/31/14	1
Dibenz (a,h) anthracene	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	10/31/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Fluorene <i>U J MS-I</i>	86-73-7	U	0.009	0.025	0.05	ug/l		8270 C-	10/31/14	1
Indeno (1,2,3-cd) pyrene <i>U J MS-L</i>	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	10/31/14	1
Naphthalene <i>U J MS, I MS-XI</i>	91-20-3	0.025	0.012 <i>0.015</i>	0.025	0.25	ug/l	J	8270 C-	10/31/14	1
Phenanthrene	85-01-8	U	0.018	0.025	0.05	ug/l		8270 C-	10/31/14	1
Pyrene	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
2-Methylnaphthalene <i>U J MS-XI</i>	91-57-6	U	0.016	0.025	0.25	ug/l		8270 C-	10/31/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-03 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KA 2/20/15
BA 5 2/20/15
18 of 2812
MS 9/3/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-TU904-MW06-NT01
Collected By :
Collection Date : 10/24/14 16:30

ESC Sample # : L730147-03
Site ID :
Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	81.7				% Rec.		8270 C-	10/31/14	1
2-Fluorobiphenyl	321-60-8	73.5				% Rec.		8270 C-	10/31/14	1
p-Terphenyl-d14	1718-51-0	74.9				% Rec.		8270 C-	10/31/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroethyl)ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Benzyl Alcohol	100-51-6	0.88	0.39	5.0	10	ug/l	J	8270C	10/30/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	10/30/14	1
Benzoic acid	65-85-0	6.6	0.44	5.0	10	ug/l	J	8270C	10/30/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	10/30/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	10/30/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	10/30/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	10/30/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	0.71	1.0	3	ug/l		8270C	10/30/14	1
Di-n-butyl phthalate	84-74-2	0.33	0.27	1.0	3	ug/l	J	8270C	10/30/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	10/30/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	10/30/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	10/30/14	1
2-Methylphenol	95-48-7	0.62	0.31	5.0	10	ug/l	J	8270C	10/30/14	1
3&4-Methyl Phenol	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	10/30/14	1
4-Chloroaniline	106-47-8	0.78	0.38	5.0	10	ug/l	J	8270C	10/30/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	10/30/14	1

U = Not Detected at the LOD

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-03 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

DNR - Do Not Remove Report



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 1-800-767-5859
 Fax (615) 758-5859
 Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-MW06-NT01
 Collected By :
 Collection Date : 10/24/14 16:30

ESC Sample # : L730147-03
 Site ID :
 Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	10/30/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	10/30/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	48.6				% Rec.		8270C	10/30/14	1
Phenol-d5	4165-62-2	32.3				% Rec.		8270C	10/30/14	1
Nitrobenzene-d5	4165-60-0	64.7				% Rec.		8270C	10/30/14	1
2-Fluorobiphenyl	321-60-8	66.7				% Rec.		8270C	10/30/14	1
2,4,6-Tribromophenol	118-79-6	76.2				% Rec.		8270C	10/30/14	1
p-Terphenyl-d14	1718-51-0	59.3				% Rec.		8270C	10/30/14	1

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 Reported: 12/03/14 10:57 Printed: 12/03/14 11:31
 L730147-03 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KA 2/20/15



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-MW06-ND01
 Collected By :
 Collection Date : 10/24/14 16:30

ESC Sample # : L730147-04

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved	7440-36-0	U	1	2.5	10	ug/l		6020	11/05/14	5
Arsenic, Dissolved	7440-38-2	U	1.2	2.5	10	ug/l		6020	11/05/14	5
Cadmium, Dissolved	7440-43-9	U	0.8	1.3	5	ug/l		6020	11/05/14	5
Chromium, Dissolved	7440-47-3	U	2.7	5.0	10	ug/l		6020	11/05/14	5
Cobalt, Dissolved <i>F SQL-I</i>	7440-48-4	4.8	1.3	2.5	10	ug/l	J	6020	11/05/14	5
Lead, Dissolved	7439-92-1	U	1.2	2.5	10	ug/l		6020	11/05/14	5
Nickel, Dissolved <i>J MS-I</i>	7440-02-0	200	1.8	2.5	10	ug/l		6020	11/05/14	5
Selenium, Dissolved <i>F SQL-I</i>	7782-49-2	9.6	1.9	2.5	10	ug/l	J	6020	11/10/14	5
Silver, Dissolved	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/05/14	5
Thallium, Dissolved	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/05/14	5
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/29/14	1
Aluminum, Dissolved	7429-90-5	U	180	250	500	ug/l		6010B	11/05/14	5
Barium, Dissolved <i>F SQL-I</i>	7440-39-3	13.	8.5	13.	25	ug/l	J	6010B	11/05/14	5
Beryllium, Dissolved	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/05/14	5
Copper, Dissolved	7440-50-8	U	26	50.	100	ug/l		6010B	11/05/14	5
Manganese, Dissolved	7439-96-5	71.	6	25.	50	ug/l		6010B	11/05/14	5
Vanadium, Dissolved	7440-62-2	U	12	50.	100	ug/l		6010B	11/05/14	5
Zinc, Dissolved	7440-66-6	U	30	130	250	ug/l		6010B	11/05/14	5

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-04 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

L730147-04 (ICP METALS) - Diluted due to matrix interference.

KA 2/20/15
BMS 2/20/15
 21 of 2812



L.A.B S.C.I.E.N.C.E.S

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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-TU904-MW07-NT01
Collected By :
Collection Date : 10/24/14 16:30

ESC Sample # : L730147-05

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony <i>UJ MS-L</i>	7440-36-0	U	1	2.5	5	ug/l		6020	10/31/14	5
Arsenic <i>J FO-I</i>	7440-38-2	31.	1.2	2.5	5	ug/l		6020	10/31/14	5
Cadmium	7440-43-9	U	0.8	1.3	2.5	ug/l		6020	10/31/14	5
Chromium <i>J FO-I</i>	7440-47-3	39.	2.7	5.0	10	ug/l		6020	11/07/14	5
Cobalt <i>J FO-I</i>	7440-48-4	11.	1.3	2.5	5	ug/l		6020	10/31/14	5
Lead	7439-92-1	24.	1.2	2.5	5	ug/l		6020	10/31/14	5
Nickel <i>UJ MB-I, J FO-I</i>	7440-02-0	35.	1.8 35	2.5 35	5 35	ug/l	B	6020	10/31/14	5
Selenium	7782-49-2	16.	1.9	2.5	10	ug/l	B	6020	11/05/14	5
Silver	7440-22-4	U	1.6	2.5	5	ug/l		6020	10/31/14	5
Thallium	7440-28-0	U	0.95	2.5	5	ug/l		6020	10/31/14	5
Mercury	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/29/14	1
Aluminum <i>J MS, FO-W</i>	7429-90-5	16000	180	250	500	ug/l	V	6010B	11/07/14	5
Barium <i>J FO-I</i>	7440-39-3	230	8.5	13.	25	ug/l		6010B	11/07/14	5
Beryllium	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/07/14	5
Copper	7440-50-8	U	26	50.	100	ug/l		6010B	11/07/14	5
Manganese	7439-96-5	340	6	25.	50	ug/l		6010B	11/07/14	5
Vanadium	7440-62-2	160	12	50.	100	ug/l		6010B	11/07/14	5
Zinc <i>F SOL-I</i>	7440-66-6	71.	30	130	250	ug/l	J	6010B	11/07/14	5
Diesel and Oil Ranges										
C10-C28 Diesel Range <i>F SOL-I</i>		37.	22	33.	100	ug/l	J	8015	10/30/14	1
C28-C40 Oil Range		U	12	33.	100	ug/l		8015	10/30/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	95.8				% Rec.		8015	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	10/31/14	1
Acenaphthene	83-32-9	U	0.0082	0.025	0.05	ug/l		8270 C-	10/31/14	1
Acenaphthylene	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(a)anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(a)pyrene <i>UJ MS-L</i>	50-32-8	U	0.016	0.025	0.05	ug/l	J6	8270 C-	10/31/14	1
Benzo(b)fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l	J6	8270 C-	10/31/14	1
Benzo(g,h,i)perylene	191-24-2	U	0.016	0.025	0.05	ug/l	J6	8270 C-	10/31/14	1
Benzo(k)fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l	J6	8270 C-	10/31/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	10/31/14	1
Dibenz(a,h)anthracene <i>I</i>	53-70-3	U	0.0045	0.025	0.05	ug/l	J6	8270 C-	10/31/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Fluorene	86-73-7	U	0.009	0.025	0.05	ug/l		8270 C-	10/31/14	1
Indeno(1,2,3-cd)pyrene <i>UJ MS-L</i>	193-39-5	U	0.0074	0.025	0.05	ug/l	J6	8270 C-	10/31/14	1
Naphthalene <i>UJ MS-L</i>	91-20-3	0.028	0.012 0.028	0.025 0.028	0.25	ug/l	J	8270 C-	10/31/14	1
Phenanthrene	85-01-8	U	0.018	0.025	0.05	ug/l		8270 C-	10/31/14	1
Pyrene	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
2-Methylnaphthalene	91-57-6	U	0.016	0.025	0.25	ug/l		8270 C-	10/31/14	1
Surrogate Recovery										

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-05 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

L730147-05 (ICP METALS) - Diluted due to matrix interference.

KA 2/20/15
BMS 2/20/15
22 of 2812
BMS 9/3/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-TU904-MW07-NT01
Collected By :
Collection Date : 10/24/14 16:30

ESC Sample # : L730147-05

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	76.8				% Rec.		8270 C-	10/31/14	1
2-Fluorobiphenyl	321-60-8	68.8				% Rec.		8270 C-	10/31/14	1
p-Terphenyl-d14	1718-51-0	69.1				% Rec.		8270 C-	10/31/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	0.36	5.6	11.1	ug/l	J3	8270C	10/30/14	1.11
Bis(2-chloroethyl)ether	111-44-4	U	1.8	5.6	11.1	ug/l		8270C	10/30/14	1.11
Bis(2-chloroisopropyl)ether	108-60-1	U	0.49	5.6	11.1	ug/l		8270C	10/30/14	1.11
Benzyl Alcohol	100-51-6	U	0.44	5.6	11.1	ug/l		8270C	10/30/14	1.11
Carbazole	86-74-8	U	0.18	5.6	11.1	ug/l	J3	8270C	10/30/14	1.11
Benzoic acid	65-85-0	U	0.49	5.6	11.1	ug/l	J3	8270C	10/30/14	1.11
Dibenzofuran	132-64-9	U	0.38	5.6	11.1	ug/l	J3	8270C	10/30/14	1.11
4-Bromophenyl-phenylether	101-55-3	U	0.39	5.6	11.1	ug/l	J3	8270C	10/30/14	1.11
2-Chloronaphthalene	91-58-7	U	0.37	0.56	1.11	ug/l	J3	8270C	10/30/14	1.11
4-Chlorophenyl-phenylether	7005-72-3	U	0.34	5.6	11.1	ug/l	J3	8270C	10/30/14	1.11
3,3-Dichlorobenzidine	91-94-1	U	2.2	5.6	11.1	ug/l		8270C	10/30/14	1.11
2,4-Dinitrotoluene	121-14-2	U	1.8	5.6	11.1	ug/l	J3	8270C	10/30/14	1.11
2,6-Dinitrotoluene	606-20-2	U	0.31	5.6	11.1	ug/l	J3	8270C	10/30/14	1.11
Hexachlorobenzene	118-74-1	U	0.38	0.56	1.11	ug/l	J3	8270C	10/30/14	1.11
Hexachloro-1,3-butadiene	87-68-3	U	0.36	5.6	11.1	ug/l		8270C	10/30/14	1.11
Hexachloroethane	67-72-1	U	0.4	5.6	11.1	ug/l		8270C	10/30/14	1.11
Isophorone	78-59-1	U	0.3	5.6	11.1	ug/l	J3	8270C	10/30/14	1.11
Nitrobenzene	98-95-3	U	0.41	5.6	11.1	ug/l	J3	8270C	10/30/14	1.11
n-Nitrosodimethylamine	62-75-9	U	1.4	5.6	11.1	ug/l		8270C	10/30/14	1.11
n-Nitrosodiphenylamine	86-30-6	U	0.34	5.6	11.1	ug/l	J3	8270C	10/30/14	1.11
n-Nitrosodi-n-propylamine	621-64-7	U	0.45	5.6	11.1	ug/l		8270C	10/30/14	1.11
Benzylbutyl phthalate	85-68-7	U	0.3	1.1	3.33	ug/l		8270C	10/30/14	1.11
Bis(2-ethylhexyl)phthalate	117-81-7	U	0.79	1.1	3.33	ug/l		8270C	10/30/14	1.11
Di-n-butyl phthalate	84-74-2	U	0.3	1.1	3.33	ug/l	J3	8270C	10/30/14	1.11
Diethyl phthalate	84-66-2	U	0.31	1.1	3.33	ug/l	J3	8270C	10/30/14	1.11
Dimethyl phthalate	131-11-3	U	0.31	1.1	3.33	ug/l	J3	8270C	10/30/14	1.11
Di-n-octyl phthalate	117-84-0	U	0.31	1.1	3.33	ug/l		8270C	10/30/14	1.11
1,2,4-Trichlorobenzene	120-82-1	U	0.39	5.6	11.1	ug/l	J3	8270C	10/30/14	1.11
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.29	5.6	11.1	ug/l	J6J3	8270C	10/30/14	1.11
2-Chlorophenol	95-57-8	U	0.31	5.6	11.1	ug/l	J6J3	8270C	10/30/14	1.11
2,4-Dichlorophenol	120-83-2	U	0.32	5.6	11.1	ug/l	J6J3	8270C	10/30/14	1.11
2,4-Dimethylphenol	105-67-9	U	0.69	5.6	11.1	ug/l		8270C	10/30/14	1.11
4,6-Dinitro-2-methylphenol	534-52-1	U	2.9	5.6	11.1	ug/l	J6J3	8270C	10/30/14	1.11
2,4-Dinitrophenol	51-28-5	U	3.6	5.6	11.1	ug/l	J6J3	8270C	10/30/14	1.11
2-Methylphenol	95-48-7	U	0.35	5.6	11.1	ug/l	J3	8270C	10/30/14	1.11
3&4-Methyl Phenol	3&4-Methyl	U	0.3	5.6	11.1	ug/l	J3	8270C	10/30/14	1.11
2-Nitrophenol	88-75-5	U	0.36	5.6	11.1	ug/l	J6J3	8270C	10/30/14	1.11
4-Nitrophenol	100-02-7	U	2.2	5.6	11.1	ug/l	J5J3	8270C	10/30/14	1.11
4-Chloroaniline	106-47-8	U	0.42	5.6	11.1	ug/l	J3	8270C	10/30/14	1.11
2-Nitroaniline	88-74-4	U	2.1	5.6	11.1	ug/l	J3	8270C	10/30/14	1.11

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L730147-05 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

L730147-05 (ICP METALS) - Diluted due to matrix interference.

DNR - Do Not Report

ICAF 12/15
BUS 2/20/15
23 of 2812



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 Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-MW07-NT01
 Collected By :
 Collection Date : 10/24/14 16:30

ESC Sample # : L730147-05
 Site ID :
 Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
3-Nitroaniline	99-09-2	U	0.34	5.6	11.1	ug/l	J3	8270C	10/30/14	1.11
1,2-Diphenylhydrazine	103-33-3	U	0.35	5.6	11.1	ug/l	J3	8270C	10/30/14	1.11
4-Nitroaniline	100-01-6	U	0.39	5.6	11.1	ug/l		8270C	10/30/14	1.11
Pentachlorophenol	87-86-5	U	0.35	5.6	11.1	ug/l	J6J3	8270C	10/30/14	1.11
Phenol	108-95-2	U	0.37	5.6	11.1	ug/l	J6J3	8270C	10/30/14	1.11
2,4,5-Trichlorophenol	95-95-4	U	0.26	5.6	11.1	ug/l	J6J3	8270C	10/30/14	1.11
2,4,6-Trichlorophenol	88-06-2	U	0.33	5.6	11.1	ug/l	J6J3	8270C	10/30/14	1.11
Surrogate Recovery										
2-Fluorophenol	367-12-4	53.2				% Rec.		8270C	10/30/14	1.11
Phenol-d5	4165-62-2	42.1				% Rec.		8270C	10/30/14	1.11
Nitrobenzene-d5	4165-60-0	56.0				% Rec.		8270C	10/30/14	1.11
2-Fluorobiphenyl	321-60-8	59.7				% Rec.		8270C	10/30/14	1.11
2,4,6-Tribromophenol	118-79-6	67.5				% Rec.		8270C	10/30/14	1.11
p-Terphenyl-d14	1718-51-0	61.0				% Rec.		8270C	10/30/14	1.11

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-05 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

L730147-05 (ICP METALS) - Diluted due to matrix interference.

BA 2/20/15



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Sheri Fling
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 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-MW07-ND01
 Collected By :
 Collection Date : 10/24/14 16:30

ESC Sample # : L730147-06
 Site ID :
 Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved	7440-36-0	1.6	1	2.5	10	ug/l	J	6020	11/05/14	5
Arsenic, Dissolved	7440-38-2	2.4	1.2	2.5	10	ug/l	J	6020	11/05/14	5
Cadmium, Dissolved	7440-43-9	U	0.8	1.3	5	ug/l		6020	11/05/14	5
Chromium, Dissolved	7440-47-3	U	2.7	5.0	10	ug/l		6020	11/05/14	5
Cobalt, Dissolved	7440-48-4	U	1.3	2.5	10	ug/l		6020	11/05/14	5
Lead, Dissolved	7439-92-1	U	1.2	2.5	10	ug/l		6020	11/05/14	5
Nickel, Dissolved	7440-02-0	7.8	1.8	2.5	10	ug/l	J	6020	11/05/14	5
Selenium, Dissolved	7782-49-2	13.	1.9	2.5	10	ug/l		6020	11/10/14	5
Silver, Dissolved	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/05/14	5
Thallium, Dissolved	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/05/14	5
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/29/14	1
Aluminum, Dissolved	7429-90-5	U	180	250	500	ug/l		6010B	11/05/14	5
Barium, Dissolved	7440-39-3	16.	8.5	13.	25	ug/l	J	6010B	11/05/14	5
Beryllium, Dissolved	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/05/14	5
Copper, Dissolved	7440-50-8	U	26	50.	100	ug/l		6010B	11/05/14	5
Manganese, Dissolved	7439-96-5	U	6	25.	50	ug/l		6010B	11/05/14	5
Vanadium, Dissolved	7440-62-2	U	12	50.	100	ug/l		6010B	11/05/14	5
Zinc, Dissolved	7440-66-6	U	30	130	250	ug/l		6010B	11/05/14	5

U = Not Detected at the LOD

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L730147-06 (ICP METALS) - Diluted due to matrix interference.

L730147-06 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KAZ/kolis
 BMZ/kolis
 25 of 2812



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-TU904-MW08-NT01
Collected By :
Collection Date : 10/26/14 15:10

ESC Sample # : L730147-07

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony	7440-36-0	U	1	2.5	5	ug/l		6020	10/31/14	5
Arsenic <i>FISQL-I FD-I</i>	7440-38-2	4.6	1.2	2.5	5	ug/l	J	6020	10/31/14	5
Cadmium	7440-43-9	U	0.8	1.3	2.5	ug/l		6020	10/31/14	5
Chromium <i>JFD-I</i>	7440-47-3	23.	2.7	5.0	10	ug/l		6020	11/07/14	5
Cobalt <i>JFD-I</i>	7440-48-4	9.9	1.3	2.5	5	ug/l		6020	10/31/14	5
Lead <i>U CCB-I</i>	7439-92-1	4.5	1.2 4.5	2.5 4.5	10	ug/l	J	6020	11/05/14	5
Nickel <i>J TVP-I FD-I</i>	7440-02-0	390	1.8	2.5	5	ug/l	B	6020	10/31/14	5
Selenium <i>U CCB-I</i>	7782-49-2	13.	1.9 13	2.5 13	10 13	ug/l	B	6020	11/05/14	5
Silver	7440-22-4	U	1.6	2.5	5	ug/l		6020	10/31/14	5
Thallium	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/05/14	5
Mercury	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/29/14	1
Aluminum <i>JMS FD-H</i>	7429-90-5	2900	35	50.	100	ug/l		6010B	10/30/14	1
Barium <i>DFD-I</i>	7440-39-3	61.	1.7	2.5	5	ug/l		6010B	10/30/14	1
Beryllium	7440-41-7	U	0.7	1.0	2	ug/l		6010B	10/30/14	1
Copper <i>US ICS-L</i>	7440-50-8	U	5.3	10.	20	ug/l		6010B	10/30/14	1
Manganese	7439-96-5	180	1.2	5.0	10	ug/l		6010B	10/30/14	1
Vanadium <i>FSQL-I</i>	7440-62-2	20.	2.4	10.	20	ug/l	J	6010B	10/30/14	1
Zinc <i>FJ SQL, ICS-L</i>	7440-66-6	25.	5.9	25.	50	ug/l	J	6010B	10/30/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range <i>FSQL-I</i>		61.	22	33.	100	ug/l	J	8015	10/30/14	1
C28-C40 Oil Range		U	12	33.	100	ug/l		8015	10/30/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	92.3				% Rec.		8015	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	10/31/14	1
Acenaphthene	83-32-9	U	0.0082	0.025	0.05	ug/l		8270 C-	10/31/14	1
Acenaphthylene <i>US MS-I</i>	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(a)anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(a)pyrene <i>US MS-L</i>	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(b)fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(g,h,i)perylene	191-24-2	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(k)fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	10/31/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	10/31/14	1
Dibenz(a,h)anthracene	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	10/31/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Fluorene	86-73-7	U	0.009	0.025	0.05	ug/l		8270 C-	10/31/14	1
Indeno(1,2,3-cd)pyrene <i>US MS-L</i>	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	10/31/14	1
Naphthalene <i>US MB-I, MS-KI</i>	91-20-3	0.018	0.012	0.025	0.025	ug/l	J	8270 C-	10/31/14	1
Phenanthrene	85-01-8	U	0.018	0.025	0.05	ug/l		8270 C-	10/31/14	1
Pyrene	129-00-0	U	0.016	0.025	0.05	ug/l	J4	8270 C-	10/31/14	1
2-Methylnaphthalene <i>US MS-KI</i>	91-57-6	U	0.016	0.025	0.25	ug/l		8270 C-	10/31/14	1
Surrogate Recovery										

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L730147-07 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KA 2/20/15
BMS 2/20/15
26 of 2812
BMS 9/3/15



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December 03, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-TU904-MW08-NT01
Collected By :
Collection Date : 10/26/14 15:10

ESC Sample # : L730147-07

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	87.6				% Rec.		8270 C-	10/31/14	1
2-Fluorobiphenyl	321-60-8	88.2				% Rec.		8270 C-	10/31/14	1
p-Terphenyl-d14	1718-51-0	82.6				% Rec.		8270 C-	10/31/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroethyl)ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Benzyl Alcohol	100-51-6	U	0.39	5.0	10	ug/l		8270C	10/30/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	10/30/14	1
Benzoic acid	65-85-0	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	10/30/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	10/30/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	10/30/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	10/30/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	0.71	1.0	3	ug/l		8270C	10/30/14	1
Di-n-butyl phthalate	84-74-2	0.32	0.27	1.0	3	ug/l	J	8270C	10/30/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	10/30/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	10/30/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	10/30/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
3&4-Methyl Phenol	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	10/30/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	10/30/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	10/30/14	1

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L730147-07 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

DNR - Do Not Report

*KA 2/20/15
BMS 2/20/15
27 of 2812*



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December 03, 2014

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 Collected By :
 Collection Date : 10/26/14 15:10

ESC Sample # : L730147-07
 Site ID :
 Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	10/30/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	10/30/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	29.6				% Rec.		8270C	10/30/14	1
Phenol-d5	4165-62-2	15.6				% Rec.		8270C	10/30/14	1
Nitrobenzene-d5	4165-60-0	58.2				% Rec.		8270C	10/30/14	1
2-Fluorobiphenyl	321-60-8	62.6				% Rec.		8270C	10/30/14	1
2,4,6-Tribromophenol	118-79-6	67.7				% Rec.		8270C	10/30/14	1
p-Terphenyl-d14	1718-51-0	58.0				% Rec.		8270C	10/30/14	1

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L730147-07 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

BA2/20/15



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December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-MW08-ND01
 Collected By :
 Collection Date : 10/26/14 15:10

ESC Sample # : L730147-08

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved	7440-36-0	U	1	2.5	10	ug/l		6020	11/05/14	5
Arsenic, Dissolved	7440-38-2	U	1.2	2.5	10	ug/l		6020	11/05/14	5
Cadmium, Dissolved	7440-43-9	U	0.8	1.3	5	ug/l		6020	11/05/14	5
Chromium, Dissolved	7440-47-3	U	2.7	5.0	10	ug/l		6020	11/05/14	5
Cobalt, Dissolved	7440-48-4	16.	1.3	2.5	10	ug/l		6020	11/05/14	5
Lead, Dissolved	7439-92-1	U	1.2	2.5	10	ug/l		6020	11/05/14	5
Nickel, Dissolved	7440-02-0	780	1.8	2.5	10	ug/l		6020	11/05/14	5
Selenium, Dissolved	7782-49-2	11.	1.9	2.5	10	ug/l		6020	11/10/14	5
Silver, Dissolved	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/05/14	5
Thallium, Dissolved	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/05/14	5
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/29/14	1
Aluminum, Dissolved	7429-90-5	U	180	250	500	ug/l		6010B	11/05/14	5
Barium, Dissolved	7440-39-3	14.	8.5	13.	25	ug/l	J	6010B	11/05/14	5
Beryllium, Dissolved	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/05/14	5
Copper, Dissolved	7440-50-8	U	26	50.	100	ug/l		6010B	11/05/14	5
Manganese, Dissolved	7439-96-5	260	6	25.	50	ug/l		6010B	11/05/14	5
Vanadium, Dissolved	7440-62-2	U	12	50.	100	ug/l		6010B	11/05/14	5
Zinc, Dissolved	7440-66-6	U	30	130	250	ug/l		6010B	11/05/14	5

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-08 (ICP METALS) - Diluted due to matrix interference.

L730147-08 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

Handwritten: KA zkolis
 BMS 2/20/15
 29 of 2812



12065 Lebanon Rd.
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-TU904-MW10-NT01
Collected By :
Collection Date : 10/26/14 15:05

ESC Sample # : L730147-09

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony	7440-36-0	U	1	2.5	5	ug/l		6020	10/31/14	5
Arsenic <i>FD-I, SQL, FD-I</i>	7440-38-2	3.6	1.2	2.5	5	ug/l	J	6020	10/31/14	5
Cadmium	7440-43-9	U	0.8	1.3	2.5	ug/l		6020	10/31/14	5
Chromium <i>FD-I</i>	7440-47-3	26.	2.7	5.0	10	ug/l		6020	11/07/14	5
Cobalt <i>FD-I</i>	7440-48-4	U	1.3	2.5	5	ug/l		6020	10/31/14	5
Lead <i>CCB-I</i>	7439-92-1	1.3 2.5	1.2 1.3	2.5	10	ug/l	J	6020	11/05/14	5
Nickel <i>MS, FD-I</i>	7440-02-0	23.	1.8 2.3	2.5 2.3	5 2.3	ug/l	B	6020	10/31/14	5
Selenium	7782-49-2	15.	1.9	2.5	10	ug/l	B	6020	11/05/14	5
Silver	7440-22-4	U	1.6	2.5	5	ug/l		6020	10/31/14	5
Thallium	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/05/14	5
Mercury	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/29/14	1
Aluminum <i>MS, FD-H</i>	7429-90-5	1900	180	250	500	ug/l	O1J5	6010B	11/05/14	5
Barium <i>FD-I</i>	7440-39-3	30.	1.7	2.5	5	ug/l		6010B	10/30/14	1
Beryllium	7440-41-7	U	0.7	1.0	2	ug/l		6010B	10/30/14	1
Copper <i>US, ICS-L</i>	7440-50-8	U	5.3	10.	20	ug/l		6010B	10/30/14	1
Manganese <i>FS, SQL, ICS-L</i>	7439-96-5	7.1	1.2	5.0	10	ug/l	J	6010B	10/30/14	1
Vanadium <i>FS, SQL</i>	7440-62-2	13.	2.4	10.	20	ug/l	J	6010B	10/30/14	1
Zinc <i>FS, SQL, ICS-L</i>	7440-66-6	10.	5.9	25.	50	ug/l	J	6010B	10/30/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range <i>FS, SQL, I</i>		48.	22	33.	100	ug/l	J	8015	10/30/14	1
C28-C40 Oil Range		U	12	33.	100	ug/l		8015	10/30/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	88.7				% Rec.		8015	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	10/31/14	1
Acenaphthene	83-32-9	U	0.0082	0.025	0.05	ug/l		8270 C-	10/31/14	1
Acenaphthylene <i>US, MS-I</i>	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(a)anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(a)pyrene <i>US, MS-L</i>	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(b)fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(g,h,i)perylene	191-24-2	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(k)fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	10/31/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	10/31/14	1
Dibenz(a,h)anthracene	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	10/31/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Fluorene <i>US, MS-I</i>	86-73-7	U	0.009	0.025	0.05	ug/l		8270 C-	10/31/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	10/31/14	1
Naphthalene <i>US, MS, I, MS-X, I</i>	91-20-3	0.040	0.012 0.040	0.025 0.040	0.05 0.040	ug/l	J	8270 C-	10/31/14	1
Phenanthrene	85-01-8	U	0.018	0.025	0.05	ug/l		8270 C-	10/31/14	1
Pyrene	129-00-0	U	0.016	0.025	0.05	ug/l	J4	8270 C-	10/31/14	1
2-Methylnaphthalene <i>FS, MS-L, SQL, MS-X, I</i>	177-09-6	0.081	0.016	0.025	0.25	ug/l	J	8270 C-	10/31/14	1
Surrogate Recovery										

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-09 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

BAZ/2015
BMS 2/20/15
30 of 2812
BMS 9/3/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-TU904-MW10-NT01
Collected By :
Collection Date : 10/26/14 15:05

ESC Sample # : L730147-09
Site ID :
Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	85.9				% Rec.		8270 C-	10/31/14	1
2-Fluorobiphenyl	321-60-8	84.0				% Rec.		8270 C-	10/31/14	1
p-Terphenyl-d14	1718-51-0	81.4				% Rec.		8270 C-	10/31/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroethyl) ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroisopropyl) ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Benzyl Alcohol	100-51-6	U	0.39	5.0	10	ug/l		8270C	10/30/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	10/30/14	1
Benzoic acid	65-85-0	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	10/30/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	10/30/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	10/30/14	1
Hexachloro-1,3-butadiene DNR	87-68-3	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	10/30/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Bis(2-ethylhexyl) phthalate	117-81-7	U	0.71	1.0	3	ug/l		8270C	10/30/14	1
Di-n-butyl phthalate F50L-1	84-74-2	0.39	0.27	1.0	3	ug/l	J	8270C	10/30/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
1,2,4-Trichlorobenzene DNR	120-82-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	10/30/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	10/30/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	10/30/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
3&4-Methyl Phenol US CCAI-L	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	10/30/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	10/30/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	10/30/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-09 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

DNR - Do Not Report

KAZKOLIS
BW 2/20/15
31 of 2812



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-MW10-NT01
 Collected By :
 Collection Date : 10/26/14 15:05

ESC Sample # : L730147-09

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	10/30/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	10/30/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	55.9				% Rec.		8270C	10/30/14	1
Phenol-d5	4165-62-2	42.2				% Rec.		8270C	10/30/14	1
Nitrobenzene-d5	4165-60-0	58.2				% Rec.		8270C	10/30/14	1
2-Fluorobiphenyl	321-60-8	62.6				% Rec.		8270C	10/30/14	1
2,4,6-Tribromophenol	118-79-6	69.0				% Rec.		8270C	10/30/14	1
p-Terphenyl-d14	1718-51-0	57.0				% Rec.		8270C	10/30/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-09 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KA-2/20/15



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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-MW10-ND01
 Collected By :
 Collection Date : 10/26/14 15:05

ESC Sample # : L730147-10
 Site ID :
 Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved	7440-36-0	1.3 2.5	1.3	2.5	10	ug/l	J	6020	11/05/14	5
Arsenic, Dissolved	7440-38-2	2.1	1.2	2.5	10	ug/l	J	6020	11/05/14	5
Cadmium, Dissolved	7440-43-9	U	0.8	1.3	5	ug/l		6020	11/05/14	5
Chromium, Dissolved	7440-47-3	3.6 5.0	2.7 3.6	5.0	10	ug/l	J	6020	11/05/14	5
Cobalt, Dissolved	7440-48-4	U	1.3	2.5	10	ug/l		6020	11/05/14	5
Lead, Dissolved	7439-92-1	U	1.2	2.5	10	ug/l		6020	11/05/14	5
Nickel, Dissolved	7440-02-0	19.	1.8	2.5	10	ug/l		6020	11/05/14	5
Selenium, Dissolved	7782-49-2	17.	1.9	2.5	10	ug/l		6020	11/10/14	5
Silver, Dissolved	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/05/14	5
Thallium, Dissolved	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/05/14	5
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/29/14	1
Aluminum, Dissolved	7429-90-5	U	180	250	500	ug/l		6010B	11/05/14	5
Barium, Dissolved	7440-39-3	15.	8.5	13.	25	ug/l	J	6010B	11/05/14	5
Beryllium, Dissolved	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/05/14	5
Copper, Dissolved	7440-50-8	U	26	50.	100	ug/l		6010B	11/05/14	5
Manganese, Dissolved	7439-96-5	U	6	25.	50	ug/l		6010B	11/05/14	5
Vanadium, Dissolved	7440-62-2	14.	12	50.	100	ug/l	J	6010B	11/05/14	5
Zinc, Dissolved	7440-66-6	U	30	130	250	ug/l		6010B	11/05/14	5

U = Not Detected at the LOD

Note:

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 Reported: 12/03/14 10:57 Printed: 12/03/14 11:31
 L730147-10 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.
 L730147-10 (ICP METALS) - Diluted due to matrix interference.

KAZkolis
BMS 2/20/15
 33 of 2812



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-TU904-MW11-NT01
Collected By :
Collection Date : 10/26/14 15:40

ESC Sample # : L730147-11
Site ID :
Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony	7440-36-0	U	1	2.5	5	ug/l		6020	10/31/14	5
Arsenic <i>FD-I, JCL, FO-I</i>	7440-38-2	3.1	1.2	2.5	5	ug/l	J	6020	10/31/14	5
Cadmium	7440-43-9	U	0.8	1.3	2.5	ug/l		6020	10/31/14	5
Chromium <i>FD-I</i>	7440-47-3	57.	2.7	5.0	10	ug/l		6020	11/07/14	5
Cobalt <i>FD-I, JCL, FO-I</i>	7440-48-4	1.9	1.3	2.5	5	ug/l	J	6020	10/31/14	5
Lead <i>UCCB-I</i>	7439-92-1	2.0 <i>2.5</i>	1.2 <i>2.0</i>	2.5	10	ug/l	J	6020	11/05/14	5
Nickel <i>FD-I</i>	7440-02-0	51.	1.8	2.5	5	ug/l	B	6020	10/31/14	5
Selenium <i>UCCB-I</i>	7782-49-2	14.	1.9 <i>14</i>	2.5 <i>14</i>	10 <i>14</i>	ug/l	B	6020	11/05/14	5
Silver	7440-22-4	U	1.6	2.5	5	ug/l		6020	10/31/14	5
Thallium	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/05/14	5
Mercury	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/29/14	1
Aluminum <i>JMS, FO-H</i>	7429-90-5	2200	180	250	500	ug/l		6010B	11/05/14	5
Barium <i>FD-I</i>	7440-39-3	35.	1.7	2.5	5	ug/l		6010B	10/30/14	1
Beryllium	7440-41-7	U	0.7	1.0	2	ug/l		6010B	10/30/14	1
Copper <i>US ICS-L</i>	7440-50-8	U	5.3	10.	20	ug/l		6010B	10/30/14	1
Manganese <i>JMS ICS-L</i>	7439-96-5	21.	1.2	5.0	10	ug/l		6010B	10/30/14	1
Vanadium <i>F JCL-I</i>	7440-62-2	17.	2.4	10.	20	ug/l	J	6010B	10/30/14	1
Zinc <i>F3 JCL, ICS-L</i>	7440-66-6	41.	5.9	25.	50	ug/l	J	6010B	10/30/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		250	22	33.	100	ug/l		8015	10/30/14	1
C28-C40 Oil Range		360	12	33.	100	ug/l		8015	10/30/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	89.4				% Rec.		8015	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	10/31/14	1
Acenaphthene	83-32-9	U	0.0082	0.025	0.05	ug/l		8270 C-	10/31/14	1
Acenaphthylene <i>US MS-I</i>	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(a)anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(a)pyrene <i>US MS-L</i>	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(b)fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(g,h,i)perylene	191-24-2	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(k)fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	10/31/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	10/31/14	1
Dibenz(a,h)anthracene	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	10/31/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Fluorene <i>US MS-I</i>	86-73-7	U	0.009	0.025	0.05	ug/l		8270 C-	10/31/14	1
Indeno(1,2,3-cd)pyrene <i>US MS-L</i>	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	10/31/14	1
Naphthalene <i>USMS, I MS-K I</i>	91-20-3	0.023 <i>0.025</i>	0.012 <i>0.015</i>	0.025	0.25	ug/l	J	8270 C-	10/31/14	1
Phenanthrene	85-01-8	U	0.018	0.025	0.05	ug/l		8270 C-	10/31/14	1
Pyrene	129-00-0	U	0.016	0.025	0.05	ug/l	J4	8270 C-	10/31/14	1
2-Methylnaphthalene <i>US MS-KI</i>	91-57-6	U	0.016	0.025	0.25	ug/l		8270 C-	10/31/14	1
Surrogate Recovery										

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-11 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KA 2/20/15
BMS 2/20/15
34 of 2812
BMS 9/3/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-TU904-MW11-NT01
Collected By :
Collection Date : 10/26/14 15:40

ESC Sample # : L730147-11

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	73.0				% Rec.		8270 C-	10/31/14	1
2-Fluorobiphenyl	321-60-8	72.4				% Rec.		8270 C-	10/31/14	1
p-Terphenyl-d14	1718-51-0	63.2				% Rec.		8270 C-	10/31/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroethyl)ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Benzyl Alcohol	100-51-6	U	0.39	5.0	10	ug/l		8270C	10/30/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	10/30/14	1
Benzoic acid	65-85-0	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	10/30/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	10/30/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	10/30/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	10/30/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	0.71	1.0	3	ug/l		8270C	10/30/14	1
Di-n-butyl phthalate	84-74-2	0.31	0.27	1.0	3	ug/l	J	8270C	10/30/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	10/30/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	10/30/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	10/30/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
3&4-Methyl Phenol	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	10/30/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	10/30/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	10/30/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-11 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

DNR - Do Not Report

EA 2/20/15
BMS 2/20/15
35 of 2812



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-MW11-NT01
 Collected By :
 Collection Date : 10/26/14 15:40

ESC Sample # : L730147-11

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	10/30/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	10/30/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	46.7				% Rec.		8270C	10/30/14	1
Phenol-d5	4165-62-2	36.6				% Rec.		8270C	10/30/14	1
Nitrobenzene-d5	4165-60-0	53.0				% Rec.		8270C	10/30/14	1
2-Fluorobiphenyl	321-60-8	58.9				% Rec.		8270C	10/30/14	1
2,4,6-Tribromophenol	118-79-6	68.3				% Rec.		8270C	10/30/14	1
p-Terphenyl-d14	1718-51-0	56.6				% Rec.		8270C	10/30/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-11 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

CA-2/2015



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 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-MW11-ND01
 Collected By :
 Collection Date : 10/26/14 15:40

ESC Sample # : L730147-12
 Site ID :
 Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved	7440-36-0	U	1	2.5	10	ug/l		6020	11/05/14	5
Arsenic, Dissolved <i>F SOL-I</i>	7440-38-2	2.6	1.2	2.5	10	ug/l	J	6020	11/05/14	5
Cadmium, Dissolved	7440-43-9	U	0.8	1.3	5	ug/l		6020	11/05/14	5
Chromium, Dissolved <i>U MB-I</i>	7440-47-3	3.4 <i>S.O</i> 2.7 <i>3.4</i>	1.3	5.0	10	ug/l	J	6020	11/05/14	5
Cobalt, Dissolved	7440-48-4	U	1.3	2.5	10	ug/l		6020	11/05/14	5
Lead, Dissolved <i>U MS, FD-L</i>	7439-92-1	U	1.2	2.5	10	ug/l		6020	11/05/14	5
Nickel, Dissolved <i>U J MS, FD-I</i>	7440-02-0	28.	1.8	2.5	10	ug/l		6020	11/05/14	5
Selenium, Dissolved	7782-49-2	12.	1.9	2.5	10	ug/l		6020	11/10/14	5
Silver, Dissolved	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/05/14	5
Thallium, Dissolved	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/05/14	5
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/29/14	1
Aluminum, Dissolved	7429-90-5	U	180	250	500	ug/l		6010B	11/05/14	5
Barium, Dissolved <i>F SOL-I</i>	7440-39-3	16.	8.5	13.	25	ug/l	J	6010B	11/05/14	5
Beryllium, Dissolved	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/05/14	5
Copper, Dissolved	7440-50-8	U	26	50.	100	ug/l		6010B	11/05/14	5
Manganese, Dissolved	7439-96-5	U	6	25.	50	ug/l		6010B	11/05/14	5
Vanadium, Dissolved <i>F SOL-I</i>	7440-62-2	13.	12	50.	100	ug/l	J	6010B	11/05/14	5
Zinc, Dissolved	7440-66-6	U	30	130	250	ug/l		6010B	11/05/14	5

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-12 (ICP METALS) - Diluted due to matrix interference.

L730147-12 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KA 2/20/15
BMS 2/20/15
 37 of 2812



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU515-GW02-ND01
 Collected By :
 Collection Date : 10/24/14 13:50

ESC Sample # : L730147-13

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved	7440-36-0	U	1	2.5	10	ug/l		6020	11/05/14	5
Arsenic, Dissolved <i>F SQL-I</i>	7440-38-2	7.0	1.2	2.5	10	ug/l	J	6020	11/05/14	5
Cadmium, Dissolved	7440-43-9	U	0.8	1.3	5	ug/l		6020	11/05/14	5
Chromium, Dissolved	7440-47-3	U	2.7	5.0	10	ug/l		6020	11/05/14	5
Cobalt, Dissolved <i>F SQL-I</i>	7440-48-4	2.1	1.3	2.5	10	ug/l	J	6020	11/05/14	5
Lead, Dissolved	7439-92-1	U	1.2	2.5	10	ug/l		6020	11/05/14	5
Nickel, Dissolved <i>AT MS, FD, KSQL-I</i>	7440-02-0	9.9	1.8	2.5	10	ug/l	J	6020	11/05/14	5
Selenium, Dissolved <i>F SQL-I</i>	7782-49-2	4.2	1.9	2.5	10	ug/l	J	6020	11/10/14	5
Silver, Dissolved	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/05/14	5
Thallium, Dissolved	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/05/14	5
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/29/14	1
Aluminum, Dissolved	7429-90-5	U	180	250	500	ug/l		6010B	11/05/14	5
Barium, Dissolved <i>F SQL-I</i>	7440-39-3	22.	8.5	13.	25	ug/l	J	6010B	11/05/14	5
Beryllium, Dissolved	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/05/14	5
Copper, Dissolved	7440-50-8	U	26	50.	100	ug/l		6010B	11/05/14	5
Manganese, Dissolved	7439-96-5	640	6	25.	50	ug/l		6010B	11/05/14	5
Vanadium, Dissolved <i>F SQL-I</i>	7440-62-2	24.	12	50.	100	ug/l	J	6010B	11/05/14	5
Zinc, Dissolved	7440-66-6	U	30	130	250	ug/l		6010B	11/05/14	5

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31
 L730147-13 (ICP METALS) - Diluted due to matrix interference.
 L730147-13 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KA 2/20/15

BMS 2/20/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-TU515-GW02-NT01
Collected By :
Collection Date : 10/24/14 13:50

ESC Sample # : L730147-14

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony <i>U CCB-I</i>	7440-36-0	1.1 2.5	1.1 1.1	2.5	5	ug/l	J	6020	10/31/14	5
Arsenic <i>J PD-I</i>	7440-38-2	24.	1.2	2.5	5	ug/l		6020	10/31/14	5
Cadmium	7440-43-9	U	0.8	1.3	2.5	ug/l		6020	10/31/14	5
Chromium <i>J PD-I</i>	7440-47-3	110	2.7	5.0	10	ug/l		6020	11/07/14	5
Cobalt <i>J PD-I</i>	7440-48-4	18.	1.3	2.5	5	ug/l		6020	10/31/14	5
Lead	7439-92-1	23.	1.2	2.5	10	ug/l		6020	11/05/14	5
Nickel <i>J PD-I</i>	7440-02-0	48.	1.8	2.5	5	ug/l	B	6020	10/31/14	5
Selenium <i>U MB, I CCB-I</i>	7782-49-2	6.4	1.9 6.4	2.5 6.4	10	ug/l	JB	6020	11/05/14	5
Silver	7440-22-4	U	1.6	2.5	5	ug/l		6020	10/31/14	5
Thallium	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/05/14	5
Mercury	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/29/14	1
Aluminum <i>J MS, FD-H</i>	7429-90-5	30000	180	250	500	ug/l		6010B	11/05/14	5
Barium <i>J PD-I</i>	7440-39-3	130	1.7	2.5	5	ug/l		6010B	10/30/14	1
Beryllium	7440-41-7	U	0.7	1.0	2	ug/l		6010B	10/30/14	1
Copper <i>FS SOL, ICS-L</i>	7440-50-8	17.	5.3	10.	20	ug/l	J	6010B	10/30/14	1
Manganese	7439-96-5	1200	1.2	5.0	10	ug/l		6010B	10/30/14	1
Vanadium	7440-62-2	68.	2.4	10.	20	ug/l		6010B	10/30/14	1
Zinc	7440-66-6	120	5.9	25.	50	ug/l		6010B	10/30/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		360	22	33.	100	ug/l		8015	10/30/14	1
C28-C40 Oil Range <i>FS SOL-I</i>		65.	12	33.	100	ug/l	J	8015	10/30/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	97.9				% Rec.		8015	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.015	0.030	0.059	ug/l		8270 C-	10/31/14	1.18
Acenaphthene <i>U MB-I</i>	83-32-9	0.096	0.0097	0.030	0.059	ug/l	B	8270 C-	10/31/14	1.18
Acenaphthylene <i>U MB, MS-I</i>	208-96-8	0.026	0.013	0.030	0.059	ug/l	JB	8270 C-	10/31/14	1.18
Benzo(a)anthracene	56-55-3	U	0.015	0.030	0.059	ug/l		8270 C-	10/31/14	1.18
Benzo(a)pyrene <i>U MS-L</i>	50-32-8	U	0.019	0.030	0.059	ug/l		8270 C-	10/31/14	1.18
Benzo(b)fluoranthene	205-99-2	U	0.023	0.030	0.059	ug/l		8270 C-	10/31/14	1.18
Benzo(g,h,i)perylene	191-24-2	U	0.018	0.030	0.059	ug/l		8270 C-	10/31/14	1.18
Benzo(k)fluoranthene	207-08-9	U	0.03	0.041	0.059	ug/l		8270 C-	10/31/14	1.18
Chrysene	218-01-9	U	0.017	0.030	0.059	ug/l		8270 C-	10/31/14	1.18
Dibenz(a,h)anthracene	53-70-3	U	0.0054	0.030	0.059	ug/l		8270 C-	10/31/14	1.18
Fluoranthene	206-44-0	U	0.019	0.030	0.059	ug/l		8270 C-	10/31/14	1.18
Fluorene <i>J MS-I</i>	86-73-7	0.21	0.01	0.030	0.059	ug/l		8270 C-	10/31/14	1.18
Indeno(1,2,3-cd)pyrene <i>J MS-L</i>	193-39-5	U	0.0087	0.030	0.059	ug/l		8270 C-	10/31/14	1.18
Naphthalene <i>U MS-I DNR</i>	91-20-3	0.21	0.014	0.030	0.295	ug/l	J	8270 C-	10/31/14	1.18
Phenanthrene	85-01-8	0.30	0.022	0.030	0.059	ug/l		8270 C-	10/31/14	1.18
Pyrene	129-00-0	U	0.018	0.030	0.059	ug/l		8270 C-	10/31/14	1.18
2-Methylnaphthalene <i>J MS-K-I</i>	91-57-6	0.55	0.018	0.030	0.295	ug/l		8270 C-	10/31/14	1.18
Surrogate Recovery										

U = Not Detected at the LOD

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-14 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

DNR - Do Not Report

MS 2/20/15

MS 9/3/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-TU515-GW02-NT01
Collected By :
Collection Date : 10/24/14 13:50

ESC Sample # : L730147-14
Site ID :
Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	81.2				% Rec.		8270 C-	10/31/14	1.18
2-Fluorobiphenyl	321-60-8	77.7				% Rec.		8270 C-	10/31/14	1.18
p-Terphenyl-d14	1718-51-0	80.9				% Rec.		8270 C-	10/31/14	1.18
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	0.36	5.6	11.1	ug/l		8270C	10/30/14	1.11
Bis(2-chloroethyl)ether	111-44-4	U	1.8	5.6	11.1	ug/l		8270C	10/30/14	1.11
Bis(2-chloroisopropyl)ether	108-60-1	U	0.49	5.6	11.1	ug/l		8270C	10/30/14	1.11
Benzyl Alcohol	100-51-6	U	0.44	5.6	11.1	ug/l		8270C	10/30/14	1.11
Carbazole	86-74-8	U	0.18	5.6	11.1	ug/l		8270C	10/30/14	1.11
Benzoic acid <i>F SOL-I</i>	65-85-0	8.4	0.49	5.6	11.1	ug/l	J	8270C	10/30/14	1.11
Dibenzofuran	132-64-9	U	0.38	5.6	11.1	ug/l		8270C	10/30/14	1.11
4-Bromophenyl-phenylether	101-55-3	U	0.39	5.6	11.1	ug/l		8270C	10/30/14	1.11
2-Chloronaphthalene	91-58-7	U	0.37	0.56	1.11	ug/l		8270C	10/30/14	1.11
4-Chlorophenyl-phenylether	7005-72-3	U	0.34	5.6	11.1	ug/l		8270C	10/30/14	1.11
3,3-Dichlorobenzidine	91-94-1	U	2.2	5.6	11.1	ug/l		8270C	10/30/14	1.11
2,4-Dinitrotoluene	121-14-2	U	1.8	5.6	11.1	ug/l		8270C	10/30/14	1.11
2,6-Dinitrotoluene	606-20-2	U	0.31	5.6	11.1	ug/l		8270C	10/30/14	1.11
Hexachlorobenzene	118-74-1	U	0.38	0.56	1.11	ug/l		8270C	10/30/14	1.11
Hexachloro-1,3-butadiene <i>DUR</i>	87-68-3	U	0.36	5.6	11.1	ug/l		8270C	10/30/14	1.11
Hexachloroethane	67-72-1	U	0.4	5.6	11.1	ug/l		8270C	10/30/14	1.11
Isophorone	78-59-1	U	0.3	5.6	11.1	ug/l		8270C	10/30/14	1.11
Nitrobenzene	98-95-3	U	0.41	5.6	11.1	ug/l		8270C	10/30/14	1.11
n-Nitrosodimethylamine	62-75-9	U	1.4	5.6	11.1	ug/l		8270C	10/30/14	1.11
n-Nitrosodiphenylamine	86-30-6	U	0.34	5.6	11.1	ug/l		8270C	10/30/14	1.11
n-Nitrosodi-n-propylamine	621-64-7	U	0.45	5.6	11.1	ug/l		8270C	10/30/14	1.11
Benzylbutyl phthalate	85-68-7	U	0.3	1.1	3.33	ug/l		8270C	10/30/14	1.11
Bis(2-ethylhexyl)phthalate	117-81-7	U	0.79	1.1	3.33	ug/l		8270C	10/30/14	1.11
Di-n-butyl phthalate <i>F SOL-I</i>	84-74-2	0.37	0.3	1.1	3.33	ug/l	J	8270C	10/30/14	1.11
Diethyl phthalate	84-66-2	U	0.31	1.1	3.33	ug/l		8270C	10/30/14	1.11
Dimethyl phthalate	131-11-3	U	0.31	1.1	3.33	ug/l		8270C	10/30/14	1.11
Di-n-octyl phthalate	117-84-0	U	0.31	1.1	3.33	ug/l		8270C	10/30/14	1.11
1,2,4-Trichlorobenzene <i>DUR</i>	120-82-1	U	0.39	5.6	11.1	ug/l		8270C	10/30/14	1.11
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.29	5.6	11.1	ug/l		8270C	10/30/14	1.11
2-Chlorophenol	95-57-8	U	0.31	5.6	11.1	ug/l		8270C	10/30/14	1.11
2,4-Dichlorophenol	120-83-2	U	0.32	5.6	11.1	ug/l		8270C	10/30/14	1.11
2,4-Dimethylphenol	105-67-9	U	0.69	5.6	11.1	ug/l		8270C	10/30/14	1.11
4,6-Dinitro-2-methylphenol	534-52-1	U	2.9	5.6	11.1	ug/l		8270C	10/30/14	1.11
2,4-Dinitrophenol	51-28-5	U	3.6	5.6	11.1	ug/l		8270C	10/30/14	1.11
2-Methylphenol	95-48-7	U	0.35	5.6	11.1	ug/l		8270C	10/30/14	1.11
3&4-Methyl Phenol <i>US CCAL-L</i>	3&4-Methyl	U	0.3	5.6	11.1	ug/l		8270C	10/30/14	1.11
2-Nitrophenol	88-75-5	U	0.36	5.6	11.1	ug/l		8270C	10/30/14	1.11
4-Nitrophenol	100-02-7	U	2.2	5.6	11.1	ug/l		8270C	10/30/14	1.11
4-Chloroaniline	106-47-8	U	0.42	5.6	11.1	ug/l		8270C	10/30/14	1.11
2-Nitroaniline	88-74-4	U	2.1	5.6	11.1	ug/l		8270C	10/30/14	1.11

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31
L730147-14 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

DUR - Do Not Report

KA zkolis
BMO 2/20/15
40 of 2812



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU515-GW02-NT01
 Collected By :
 Collection Date : 10/24/14 13:50

ESC Sample # : L730147-14

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
3-Nitroaniline	99-09-2	U	0.34	5.6	11.1	ug/l		8270C	10/30/14	1.11
1,2-Diphenylhydrazine	103-33-3	U	0.35	5.6	11.1	ug/l		8270C	10/30/14	1.11
4-Nitroaniline	100-01-6	U	0.39	5.6	11.1	ug/l		8270C	10/30/14	1.11
Pentachlorophenol	87-86-5	U	0.35	5.6	11.1	ug/l		8270C	10/30/14	1.11
Phenol <i>F 502-1</i>	108-95-2	0.44	0.37	5.6	11.1	ug/l	J	8270C	10/30/14	1.11
2,4,5-Trichlorophenol	95-95-4	U	0.26	5.6	11.1	ug/l		8270C	10/30/14	1.11
2,4,6-Trichlorophenol	88-06-2	U	0.33	5.6	11.1	ug/l		8270C	10/30/14	1.11
Surrogate Recovery										
2-Fluorophenol	367-12-4	59.9				% Rec.		8270C	10/30/14	1.11
Phenol-d5	4165-62-2	45.6				% Rec.		8270C	10/30/14	1.11
Nitrobenzene-d5	4165-60-0	70.7				% Rec.		8270C	10/30/14	1.11
2-Fluorobiphenyl	321-60-8	67.2				% Rec.		8270C	10/30/14	1.11
2,4,6-Tribromophenol	118-79-6	78.6				% Rec.		8270C	10/30/14	1.11
p-Terphenyl-d14	1718-51-0	63.6				% Rec.		8270C	10/30/14	1.11

U = Not Detected at the LOD

Note:

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 Reported: 12/03/14 10:57 Printed: 12/03/14 11:31
 L730147-14 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KA 2/20/15
BMS 2/20/15
 41 of 2812



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU515-GW04-ND01
 Collected By :
 Collection Date : 10/24/14 15:00

ESC Sample # : L730147-15

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved	7440-36-0	1.1 2.5	1.1	2.5	10	ug/l	J	6020	11/05/14	5
Arsenic, Dissolved	7440-38-2	2.1	1.2	2.5	10	ug/l	J	6020	11/05/14	5
Cadmium, Dissolved	7440-43-9	U	0.8	1.3	5	ug/l		6020	11/05/14	5
Chromium, Dissolved	7440-47-3	3.9 5.0	2.7 3.9	5.0	10	ug/l	J	6020	11/05/14	5
Cobalt, Dissolved	7440-48-4	U	1.3	2.5	10	ug/l		6020	11/05/14	5
Lead, Dissolved	7439-92-1	U	1.2	2.5	10	ug/l		6020	11/05/14	5
Nickel, Dissolved	7440-02-0	14.	1.8	2.5	10	ug/l		6020	11/05/14	5
Selenium, Dissolved	7782-49-2	U	1.9	2.5	10	ug/l		6020	11/10/14	5
Silver, Dissolved	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/05/14	5
Thallium, Dissolved	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/05/14	5
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/29/14	1
Aluminum, Dissolved	7429-90-5	U	180	250	500	ug/l		6010B	11/05/14	5
Barium, Dissolved	7440-39-3	36.	8.5	13.	25	ug/l		6010B	11/05/14	5
Beryllium, Dissolved	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/05/14	5
Copper, Dissolved	7440-50-8	U	26	50.	100	ug/l		6010B	11/05/14	5
Manganese, Dissolved	7439-96-5	300	6	25.	50	ug/l		6010B	11/05/14	5
Vanadium, Dissolved	7440-62-2	U	12	50.	100	ug/l		6010B	11/05/14	5
Zinc, Dissolved	7440-66-6	U	30	130	250	ug/l		6010B	11/05/14	5

U = Not Detected at the LOD
 Note:

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 Reported: 12/03/14 10:57 Printed: 12/03/14 11:31
 L730147-15 (ICP METALS) - Diluted due to matrix interference.
 L730147-15 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

BA 2/20/15
 BMS 2/20/15
 42 of 2812



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-TUS15-GW04-NT01
Collected By :
Collection Date : 10/24/14 15:00

ESC Sample # : L730147-16
Site ID :
Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony	7440-36-0	U	1	2.5	5	ug/l		6020	10/31/14	5
Arsenic <i>J FO-I</i>	7440-38-2	15.	1.2	2.5	5	ug/l		6020	10/31/14	5
Cadmium	7440-43-9	U	0.8	1.3	2.5	ug/l		6020	10/31/14	5
Chromium <i>J FO-I</i>	7440-47-3	53.	2.7	5.0	10	ug/l		6020	11/07/14	5
Cobalt <i>J FO-I</i>	7440-48-4	16.	1.3	2.5	5	ug/l		6020	10/31/14	5
Lead <i>J CCV-H</i>	7439-92-1	28.	1.2	2.5	10	ug/l		6020	11/07/14	5
Nickel <i>J FO-I</i>	7440-02-0	44.	1.8	2.5	5	ug/l	B	6020	10/31/14	5
Selenium <i>U MB, ZCCB-I</i>	7782-49-2	2.8	1.9 2.8	2.5 2.8	10	ug/l	JB	6020	11/05/14	5
Silver	7440-22-4	U	1.6	2.5	5	ug/l		6020	10/31/14	5
Thallium	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/07/14	5
Mercury	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/29/14	1
Aluminum <i>J MS, FO-H</i>	7429-90-5	25000	180	250	500	ug/l		6010B	11/05/14	5
Barium <i>J FO-I</i>	7440-39-3	270	1.7	2.5	5	ug/l		6010B	10/30/14	1
Beryllium	7440-41-7	U	0.7	1.0	2	ug/l		6010B	10/30/14	1
Copper <i>FS SOL, ICS-L</i>	7440-50-8	9.6	5.3	10.	20	ug/l	J	6010B	10/30/14	1
Manganese	7439-96-5	810	1.2	5.0	10	ug/l		6010B	10/30/14	1
Vanadium	7440-62-2	66.	2.4	10.	20	ug/l		6010B	10/30/14	1
Zinc	7440-66-6	120	5.9	25.	50	ug/l		6010B	10/30/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		830000	11000	17000	50000	ug/l		8015	10/31/14	500
C28-C40 Oil Range		6700	59	170	500	ug/l		8015	10/31/14	5
Surrogate Recovery										
o-Terphenyl	84-15-1	0.00				µ Rec.	J7	8015	10/31/14	500
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	8.9	0.26	0.50	1	ug/l		8270 C-	11/04/14	20
Acenaphthene <i>U MB-I</i>	83-32-9	16.	0.16 0.16	0.50 0.16	1 1.6	ug/l		8270 C-	11/04/14	20
Acenaphthylene <i>U MB, MS-I</i>	208-96-8	3.6	0.22 3.6	0.50 3.6	1 3.6	ug/l		8270 C-	11/04/14	20
Benzo(a)anthracene	56-55-3	U	0.25	0.50	1	ug/l		8270 C-	11/04/14	20
Benzo(a)pyrene <i>U MS-L</i>	50-32-8	U	0.32	0.50	1	ug/l		8270 C-	11/04/14	20
Benzo(b)fluoranthene	205-99-2	U	0.38	0.50	1	ug/l		8270 C-	11/04/14	20
Benzo(g,h,i)perylene	191-24-2	U	0.31	0.50	1	ug/l		8270 C-	11/04/14	20
Benzo(k)fluoranthene	207-08-9	U	0.51	0.70	1	ug/l		8270 C-	11/04/14	20
Chrysene	218-01-9	U	0.29	0.50	1	ug/l		8270 C-	11/04/14	20
Dibenz(a,h)anthracene	53-70-3	U	0.091	0.50	1	ug/l		8270 C-	11/04/14	20
Fluoranthene <i>U MS-L, MS-H</i>	206-44-0	0.79	0.33	0.50	1	ug/l	J	8270 C-	11/04/14	20
Fluorene <i>J MS-I</i>	86-73-7	26.	0.18	0.50	1	ug/l		8270 C-	11/04/14	20
Indeno(1,2,3-cd)pyrene <i>U MS-L</i>	193-39-5	U	0.15	0.50	1	ug/l		8270 C-	11/04/14	20
Naphthalene <i>U MB-I, DNR</i>	91-20-3	46.	0.24 46	0.50 46	1 46	ug/l		8270 C-	11/04/14	20
Phenanthrene	85-01-8	48.	0.37	0.50	1	ug/l		8270 C-	11/04/14	20
Pyrene	129-00-0	3.9	0.31	0.50	1	ug/l		8270 C-	11/04/14	20
2-Methylnaphthalene <i>J MS-I</i>	91-57-6	200	0.31	0.50	5	ug/l		8270 C-	11/04/14	20

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-16 (8270PAHSIM) - Dilution due to matrix

L730147-16 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

DNR - Do Not Report

KA Zkolis
BRS Zkolis
43 of 2812

Bm 9/2/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-TU515-GW04-NT01
Collected By :
Collection Date : 10/24/14 15:00

ESC Sample # : L730147-16

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	289.				% Rec.	J7	8270 C-	11/04/14	20
2-Fluorobiphenyl	321-60-8	11.0				% Rec.	J7	8270 C-	11/04/14	20
p-Terphenyl-d14	1718-51-0	9.90				% Rec.	J7	8270 C-	11/04/14	20
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	6.6	100	200	ug/l		8270C	10/30/14	20
Bis(2-chloroethyl)ether	111-44-4	U	32	100	200	ug/l		8270C	10/30/14	20
Bis(2-chloroisopropyl)ether	108-60-1	U	8.9	100	200	ug/l		8270C	10/30/14	20
Benzyl Alcohol	100-51-6	U	7.9	100	200	ug/l		8270C	10/30/14	20
Carbazole	86-74-8	U	3.2	100	200	ug/l		8270C	10/30/14	20
Benzoic acid	65-85-0	U	8.8	100	200	ug/l		8270C	10/30/14	20
Dibenzofuran <i>F 394-I</i>	132-64-9	130	6.8	100	200	ug/l	J	8270C	10/30/14	20
4-Bromophenyl-phenylether	101-55-3	U	7.1	100	200	ug/l		8270C	10/30/14	20
2-Chloronaphthalene	91-58-7	U	6.6	10.	20	ug/l		8270C	10/30/14	20
4-Chlorophenyl-phenylether	7005-72-3	U	6.1	100	200	ug/l		8270C	10/30/14	20
3,3-Dichlorobenzidine	91-94-1	U	40	100	200	ug/l		8270C	10/30/14	20
2,4-Dinitrotoluene	121-14-2	U	33	100	200	ug/l		8270C	10/30/14	20
2,6-Dinitrotoluene	606-20-2	U	5.6	100	200	ug/l		8270C	10/30/14	20
Hexachlorobenzene	118-74-1	U	6.8	10.	20	ug/l		8270C	10/30/14	20
Hexachloro-1,3-butadiene <i>DNR</i>	87-68-3	U	6.6	100	200	ug/l		8270C	10/30/14	20
Hexachloroethane	67-72-1	U	7.3	100	200	ug/l		8270C	10/30/14	20
Isophorone	78-59-1	U	5.4	100	200	ug/l		8270C	10/30/14	20
Nitrobenzene	98-95-3	U	7.3	100	200	ug/l		8270C	10/30/14	20
n-Nitrosodimethylamine	62-75-9	U	25	100	200	ug/l		8270C	10/30/14	20
n-Nitrosodiphenylamine	86-30-6	U	6.1	100	200	ug/l		8270C	10/30/14	20
n-Nitrosodi-n-propylamine	621-64-7	U	8.1	100	200	ug/l		8270C	10/30/14	20
Benzylbutyl phthalate	85-68-7	U	5.5	20.	60	ug/l		8270C	10/30/14	20
Bis(2-ethylhexyl)phthalate	117-81-7	U	14	20.	60	ug/l		8270C	10/30/14	20
Di-n-butyl phthalate	84-74-2	U	5.3	20.	60	ug/l		8270C	10/30/14	20
Diethyl phthalate	84-66-2	U	5.6	20.	60	ug/l		8270C	10/30/14	20
Dimethyl phthalate	131-11-3	U	5.7	20.	60	ug/l		8270C	10/30/14	20
Di-n-octyl phthalate	117-84-0	U	5.6	20.	60	ug/l		8270C	10/30/14	20
1,2,4-Trichlorobenzene <i>DNR</i>	120-82-1	U	7.1	100	200	ug/l		8270C	10/30/14	20
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	5.3	100	200	ug/l		8270C	10/30/14	20
2-Chlorophenol	95-57-8	U	5.7	100	200	ug/l		8270C	10/30/14	20
2,4-Dichlorophenol	120-83-2	U	5.7	100	200	ug/l		8270C	10/30/14	20
2,4-Dimethylphenol	105-67-9	U	12	100	200	ug/l		8270C	10/30/14	20
4,6-Dinitro-2-methylphenol	534-52-1	U	52	100	200	ug/l		8270C	10/30/14	20
2,4-Dinitrophenol	51-28-5	U	65	100	200	ug/l		8270C	10/30/14	20
2-Methylphenol	95-48-7	U	6.2	100	200	ug/l		8270C	10/30/14	20
3&4-Methyl Phenol <i>US CCA-L</i>	3&4-Methyl	U	5.3	100	200	ug/l		8270C	10/30/14	20
2-Nitrophenol	88-75-5	U	6.4	100	200	ug/l		8270C	10/30/14	20
4-Nitrophenol	100-02-7	U	40	100	200	ug/l		8270C	10/30/14	20
4-Chloroaniline	106-47-8	U	7.6	100	200	ug/l		8270C	10/30/14	20
2-Nitroaniline	88-74-4	U	38	100	200	ug/l		8270C	10/30/14	20

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-16 (8270FAHSIM) - Dilution due to matrix

L730147-16 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

DNR - Do Not Report



12065 Lebanon Rd.
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 Fax (615) 758-5859

Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU515-GW04-NT01
 Collected By :
 Collection Date : 10/24/14 15:00

ESC Sample # : L730147-16
 Site ID :
 Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
3-Nitroaniline	99-09-2	U	6.2	100	200	ug/l		8270C	10/30/14	20
1,2-Diphenylhydrazine	103-33-3	U	6.4	100	200	ug/l		8270C	10/30/14	20
4-Nitroaniline	100-01-6	U	7	100	200	ug/l		8270C	10/30/14	20
Pentachlorophenol	87-86-5	U	6.3	100	200	ug/l		8270C	10/30/14	20
Phenol	108-95-2	U	6.7	100	200	ug/l		8270C	10/30/14	20
2,4,5-Trichlorophenol	95-95-4	U	4.7	100	200	ug/l		8270C	10/30/14	20
2,4,6-Trichlorophenol	88-06-2	U	5.9	100	200	ug/l		8270C	10/30/14	20
Surrogate Recovery										
2-Fluorophenol	367-12-4	38.7				% Rec.	J7	8270C	10/30/14	20
Phenol-d5	4165-62-2	36.8				% Rec.	J7	8270C	10/30/14	20
Nitrobenzene-d5	4165-60-0	31.8				% Rec.	J7	8270C	10/30/14	20
2-Fluorobiphenyl	321-60-8	74.4				% Rec.	J7	8270C	10/30/14	20
2,4,6-Tribromophenol	118-79-6	64.4				% Rec.	J7	8270C	10/30/14	20
p-Terphenyl-d14	1718-51-0	57.5				% Rec.	J7	8270C	10/30/14	20

U = Not Detected at the LOD

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-16 (8270PAHSIM) - Dilution due to matrix

L730147-16 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KA2kolis



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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU515-GW07-ND01
 Collected By :
 Collection Date : 10/24/14 14:30

ESC Sample # : L730147-17
 Site ID :
 Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved	7440-36-0	1.8	2.5	1.8	2.5	ug/l	JJ5J	6020	11/05/14	5
Arsenic, Dissolved	7440-38-2	29.	1.2	2.5	10	ug/l	J5J3	6020	11/05/14	5
Cadmium, Dissolved	7440-43-9	U	0.8	1.3	5	ug/l		6020	11/05/14	5
Chromium, Dissolved	7440-47-3	U	2.7	5.0	10	ug/l	J5	6020	11/05/14	5
Cobalt, Dissolved	7440-48-4	2.6	1.3	2.5	10	ug/l	J	6020	11/05/14	5
Lead, Dissolved	7439-92-1	U	1.2	2.5	10	ug/l		6020	11/05/14	5
Nickel, Dissolved	7440-02-0	8.2	1.8	2.5	10	ug/l	JJ5	6020	11/05/14	5
Selenium, Dissolved	7782-49-2	U	1.9	2.5	10	ug/l		6020	11/10/14	5
Silver, Dissolved	7440-22-4	6.7	1.6	2.5	10	ug/l	JJ5J	6020	11/05/14	5
Thallium, Dissolved	7440-28-0	U	0.95	2.5	10	ug/l	J5J3	6020	11/05/14	5
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/29/14	1
Aluminum, Dissolved	7429-90-5	U	180	250	500	ug/l		6010B	11/05/14	5
Barium, Dissolved	7440-39-3	28.	8.5	13.	25	ug/l		6010B	11/05/14	5
Beryllium, Dissolved	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/05/14	5
Copper, Dissolved	7440-50-8	U	26	50.	100	ug/l		6010B	11/05/14	5
Manganese, Dissolved	7439-96-5	770	6	25.	50	ug/l		6010B	11/05/14	5
Vanadium, Dissolved	7440-62-2	13.	12	50.	100	ug/l	J	6010B	11/05/14	5
Zinc, Dissolved	7440-66-6	U	30	130	250	ug/l		6010B	11/05/14	5

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-17 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

L730147-17 (ICP METALS) - Diluted due to matrix interference.

ICA 2/20/15
 BMW 2/20/15
 46 of 2812



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-TU515-GW07-NT01
Collected By :
Collection Date : 10/24/14 14:30

ESC Sample # : L730147-18

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony	7440-36-0	U	1	2.5	5	ug/l		6020	10/31/14	5
Arsenic <i>J FDI</i>	7440-38-2	26.	1.2	2.5	5	ug/l		6020	10/31/14	5
Cadmium	7440-43-9	U	0.8	1.3	2.5	ug/l		6020	10/31/14	5
Chromium <i>LT FDI</i>	7440-47-3	U	2.7	5.0	10	ug/l		6020	11/07/14	5
Cobalt <i>FDI</i>	7440-48-4	3.0	1.3	2.5	5	ug/l	J	6020	10/31/14	5
Lead <i>F SQL-I</i>	7439-92-1	1.6	1.2	2.5	5	ug/l	J	6020	10/31/14	5
Nickel <i>J FDI</i>	7440-02-0	24.	1.8	2.5	10	ug/l		6020	11/05/14	5
Selenium <i>WMB, ZD-I</i>	7782-49-2	2.7	1.9 2.7	2.5 2.7	10	ug/l	JJ3J	6020	11/05/14	5
Silver	7440-22-4	U	1.6	2.5	5	ug/l		6020	10/31/14	5
Thallium	7440-28-0	U	0.95	2.5	5	ug/l		6020	10/31/14	5
Mercury	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/29/14	1
Aluminum <i>J MS, #FD-H</i>	7429-90-5	2800	180	250	500	ug/l	O1J5	6010B	11/07/14	5
Barium <i>J FDI</i>	7440-39-3	48.	8.5	13.	25	ug/l		6010B	11/07/14	5
Beryllium	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/07/14	5
Copper	7440-50-8	U	26	50.	100	ug/l		6010B	11/07/14	5
Manganese	7439-96-5	800	6	25.	50	ug/l		6010B	11/07/14	5
Vanadium <i>F SQL-I</i>	7440-62-2	21.	12	50.	100	ug/l	J	6010B	11/07/14	5
Zinc	7440-66-6	U	30	130	250	ug/l		6010B	11/07/14	5
Diesel and Oil Ranges										
C10-C28 Diesel Range		1500	22	33.	100	ug/l		8015	10/30/14	1
C28-C40 Oil Range		270	12	33.	100	ug/l		8015	10/30/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	98.3				% Rec.		8015	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene <i>J MS-L</i>	120-12-7	0.14	0.013	0.025	0.05	ug/l		8270 C-	10/31/14	1
Acenaphthene <i>J MS-L</i>	83-32-9	0.76	0.0082	0.025	0.05	ug/l	BJ6	8270 C-	10/31/14	1
Acenaphthylene <i>WMB, ZMS-L</i>	208-96-8	0.18	0.011 0.18	0.025 0.18	0.05 0.18	ug/l	B	8270 C-	10/31/14	1
Benzo (a) anthracene <i>MS-L</i>	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo (a) pyrene <i>MS-L</i>	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo (b) fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo (g, h, i) perylene	191-24-2	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo (k) fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	10/31/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	10/31/14	1
Dibenz (a, h) anthracene	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	10/31/14	1
Fluoranthene <i>F SQL, MS-L-I</i>	206-44-0	0.023	0.016	0.025	0.05	ug/l	J	8270 C-	10/31/14	1
Fluorene <i>J MS-L</i>	86-73-7	1.4	0.009	0.025	0.05	ug/l	J6	8270 C-	10/31/14	1
Indeno (1, 2, 3-cd) pyrene <i>MS-L</i>	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	10/31/14	1
Naphthalene <i>J MS-L</i>	91-20-3	1.5	0.012	0.025	0.25	ug/l	J6	8270 C-	10/31/14	1
Phenanthrene	85-01-8	2.1	0.018	0.025	0.05	ug/l	J6	8270 C-	10/31/14	1
Pyrene	129-00-0	0.095	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
2-Methylnaphthalene	91-57-6	5.0	0.016	0.025	0.25	ug/l	J6	8270 C-	10/31/14	1
Surrogate Recovery										

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-18 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

L730147-18 (ICP METALS) - Diluted due to matrix interference.

KA 2/20/15
BMS 2/20/15
47 of 2812
BMS 9/8/15



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 Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU515-GW07-NT01
 Collected By :
 Collection Date : 10/24/14 14:30

ESC Sample # : L730147-18
 Site ID :
 Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	78.1				% Rec.		8270 C-	10/31/14	1
2-Fluorobiphenyl	321-60-8	63.9				% Rec.		8270 C-	10/31/14	1
p-Terphenyl-d14	1718-51-0	68.2				% Rec.		8270 C-	10/31/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroethyl)ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Benzyl Alcohol	100-51-6	U	0.39	5.0	10	ug/l		8270C	10/30/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	10/30/14	1
Benzoic acid	65-85-0	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Dibenzofuran	132-64-9	0.73	0.34	5.0	10	ug/l	J	8270C	10/30/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	10/30/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	10/30/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	10/30/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	0.74	0.71	1.0	3	ug/l	J	8270C	10/30/14	1
Di-n-butyl phthalate	84-74-2	0.48	0.27	1.0	3	ug/l	J	8270C	10/30/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	10/30/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	10/30/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	10/30/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
3&4-Methyl Phenol	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	10/30/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	10/30/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	10/30/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-18 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

L730147-18 (ICP METALS) - Diluted due to matrix interference.

DNR - Do Not Report

KA 2/20/15
BMS 2/20/15
 48 of 2812



12065 Lebanon Rd.
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 Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU515-GW07-NT01
 Collected By :
 Collection Date : 10/24/14 14:30

ESC Sample # : L730147-18
 Site ID :
 Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	10/30/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	10/30/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	51.8				% Rec.		8270C	10/30/14	1
Phenol-d5	4165-62-2	37.0				% Rec.		8270C	10/30/14	1
Nitrobenzene-d5	4165-60-0	58.7				% Rec.		8270C	10/30/14	1
2-Fluorobiphenyl	321-60-8	63.4				% Rec.		8270C	10/30/14	1
2,4,6-Tribromophenol	118-79-6	81.8				% Rec.		8270C	10/30/14	1
p-Terphenyl-d14	1718-51-0	58.6				% Rec.		8270C	10/30/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-18 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

L730147-18 (ICP METALS) - Diluted due to matrix interference.

KA 2/20/15



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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU515-GW10-ND01
 Collected By :
 Collection Date : 10/24/14 11:50

ESC Sample # : L730147-19
 Site ID :
 Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved	7440-36-0	U	1	2.5	10	ug/l		6020	11/05/14	5
Arsenic, Dissolved	7440-38-2	8.0	1.2	2.5	10	ug/l	J	6020	11/05/14	5
Cadmium, Dissolved	7440-43-9	U	0.8	1.3	5	ug/l		6020	11/05/14	5
Chromium, Dissolved	7440-47-3	U	2.7	5.0	10	ug/l		6020	11/05/14	5
Cobalt, Dissolved	7440-48-4	2.5	1.3	2.5	10	ug/l	J	6020	11/05/14	5
Lead, Dissolved	7439-92-1	U	1.2	2.5	10	ug/l		6020	11/05/14	5
Nickel, Dissolved	7440-02-0	13.	1.8	2.5	10	ug/l		6020	11/05/14	5
Selenium, Dissolved	7782-49-2	U	1.9	2.5	10	ug/l		6020	11/10/14	5
Silver, Dissolved	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/05/14	5
Thallium, Dissolved	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/05/14	5
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/29/14	1
Aluminum, Dissolved	7429-90-5	U	180	250	500	ug/l		6010B	11/05/14	5
Barium, Dissolved	7440-39-3	26.	8.5	13.	25	ug/l		6010B	11/05/14	5
Beryllium, Dissolved	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/05/14	5
Copper, Dissolved	7440-50-8	U	26	50.	100	ug/l		6010B	11/05/14	5
Manganese, Dissolved	7439-96-5	1000	6	25.	50	ug/l		6010B	11/05/14	5
Vanadium, Dissolved	7440-62-2	U	12	50.	100	ug/l		6010B	11/05/14	5
Zinc, Dissolved	7440-66-6	U	30	130	250	ug/l		6010B	11/05/14	5

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-19 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

L730147-19 (ICP METALS) - Diluted due to matrix interference.

KA 2/20/15
 BMS 2/20/15
 50 of 2812



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-TU515-GW10-NT01
Collected By :
Collection Date : 10/24/14 11:50

ESC Sample # : L730147-20

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony	7440-36-0	U	1	2.5	5	ug/l		6020	10/31/14	5
Arsenic <i>JFD-I</i>	7440-38-2	24.	1.2	2.5	5	ug/l		6020	10/31/14	5
Cadmium	7440-43-9	U	0.8	1.3	2.5	ug/l		6020	10/31/14	5
Chromium	7440-47-3	24.	2.7	5.0	10	ug/l		6020	11/07/14	5
Cobalt <i>JFD-I</i>	7440-48-4	18.	1.3	2.5	5	ug/l		6020	10/31/14	5
Lead <i>JCCX-H</i>	7439-92-1	19.	1.2	2.5	10	ug/l		6020	11/07/14	5
Nickel	7440-02-0	42.	1.8	2.5	5	ug/l	B	6020	10/31/14	5
Selenium <i>U MB, ICCB-I</i>	7782-49-2	6.0	1.9	6.0	2.5	6.0	JB	6020	11/05/14	5
Silver	7440-22-4	U	1.6	2.5	5	ug/l		6020	10/31/14	5
Thallium	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/07/14	5
Mercury	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/29/14	1
Aluminum <i>JFD-I MS, FD-H</i>	7429-90-5	19000	180	250	500	ug/l		6010B	11/05/14	5
Barium <i>3-FD-I</i>	7440-39-3	94.	1.7	2.5	5	ug/l		6010B	10/30/14	1
Beryllium	7440-41-7	U	0.7	1.0	2	ug/l		6010B	10/30/14	1
Copper <i>PS SQL, ICS-L</i>	7440-50-8	5.3	5.3	10.	20	ug/l	J	6010B	10/30/14	1
Manganese	7439-96-5	1200	1.2	5.0	10	ug/l		6010B	10/30/14	1
Vanadium	7440-62-2	64.	2.4	10.	20	ug/l		6010B	10/30/14	1
Zinc	7440-66-6	79.	5.9	25.	50	ug/l		6010B	10/30/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		240	22	33.	100	ug/l		8015	10/30/14	1
C28-C40 Oil Range <i>F SQL-I</i>		91.	12	33.	100	ug/l	J	8015	10/30/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	96.1				% Rec.		8015	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	10/31/14	1
Acenaphthene <i>U MB-I</i>	83-32-9	0.023	0.0082	0.025	0.05	ug/l	JB	8270 C-	10/31/14	1
Acenaphthylene <i>UJ MS-I</i>	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo (a) anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo (a) pyrene <i>UJ MS-L</i>	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo (b) fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo (g, h, i) perylene	191-24-2	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo (k) fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	10/31/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	10/31/14	1
Dibenz (a, h) anthracene <i>UJ MS-L</i>	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	10/31/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Fluorene <i>U MB-I, MS-I</i>	86-73-7	0.035	0.009	0.025	0.05	ug/l	J	8270 C-	10/31/14	1
Indeno (1, 2, 3-cd) pyrene <i>UJ MS-L</i>	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	10/31/14	1
Naphthalene <i>U MB-I, MS-I</i>	91-20-3	0.049	0.012	0.025	0.05	ug/l	J	8270 C-	10/31/14	1
Phenanthrene <i>F SQL-I</i>	85-01-8	0.026	0.018	0.025	0.05	ug/l	J	8270 C-	10/31/14	1
Pyrene	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
2-Methylnaphthalene <i>UJ MS-KI</i>	91-57-6	U	0.016	0.025	0.25	ug/l		8270 C-	10/31/14	1
Surrogate Recovery										

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Note:

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-20 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

BA 2/20/15
BMS 2/20/15
51 of 2812

BMS 9/4/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-TU515-GW10-NT01
Collected By :
Collection Date : 10/24/14 11:50

ESC Sample # : L730147-20

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	73.9				% Rec.		8270 C-	10/31/14	1
2-Fluorobiphenyl	321-60-8	66.6				% Rec.		8270 C-	10/31/14	1
p-Terphenyl-d14	1718-51-0	68.0				% Rec.		8270 C-	10/31/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroethyl) ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroisopropyl) ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Benzyl Alcohol	100-51-6	U	0.39	5.0	10	ug/l		8270C	10/30/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	10/30/14	1
Benzoic acid F SQL-I	65-85-0	8.5	0.44	5.0	10	ug/l	J	8270C	10/30/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	10/30/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	10/30/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	10/30/14	1
Hexachloro-1,3-butadiene DNR	87-68-3	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	10/30/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Bis(2-ethylhexyl) phthalate	117-81-7	U	0.71	1.0	3	ug/l		8270C	10/30/14	1
Di-n-butyl phthalate F SQL-I	84-74-2	0.39	0.27	1.0	3	ug/l	J	8270C	10/30/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
1,2,4-Trichlorobenzene DNR	120-82-1	U	0.35	5.0	10	ug/l		8270C	10/30/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	10/30/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	10/30/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	10/30/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
3&4-Methyl Phenol US CCAL-L	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	10/30/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	10/30/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	10/30/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-20 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

DNR - Do Not Report

ICA 2/20/15
BMS 2/20/15
52 of 2812



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 1-800-767-5859
 Fax (615) 758-5859
 Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU515-GW10-NT01
 Collected By :
 Collection Date : 10/24/14 11:50

ESC Sample # : L730147-20
 Site ID :
 Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	10/30/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	10/30/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	48.6				% Rec.		8270C	10/30/14	1
Phenol-d5	4165-62-2	38.4				% Rec.		8270C	10/30/14	1
Nitrobenzene-d5	4165-60-0	62.8				% Rec.		8270C	10/30/14	1
2-Fluorobiphenyl	321-60-8	65.6				% Rec.		8270C	10/30/14	1
2,4,6-Tribromophenol	118-79-6	72.0				% Rec.		8270C	10/30/14	1
p-Terphenyl-d14	1718-51-0	59.9				% Rec.		8270C	10/30/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-20 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

VA 2/20/15



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU515-GW10-DD01
 Collected By :
 Collection Date : 10/24/14 11:50

ESC Sample # : L730147-21
 Site ID :
 Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved	7440-36-0	U	1	2.5	10	ug/l		6020	11/05/14	5
Arsenic, Dissolved <i>F SOL-I</i>	7440-38-2	9.6	1.2	2.5	10	ug/l	J	6020	11/05/14	5
Cadmium, Dissolved	7440-43-9	U	0.8	1.3	5	ug/l		6020	11/05/14	5
Chromium, Dissolved	7440-47-3	U	2.7	5.0	10	ug/l		6020	11/05/14	5
Cobalt, Dissolved <i>F SOL-I</i>	7440-48-4	2.2	1.3	2.5	10	ug/l	J	6020	11/05/14	5
Lead, Dissolved	7439-92-1	U	1.2	2.5	10	ug/l		6020	11/05/14	5
Nickel, Dissolved <i>J MS-I</i>	7440-02-0	11.	1.8	2.5	10	ug/l		6020	11/05/14	5
Selenium, Dissolved	7782-49-2	U	1.9	2.5	10	ug/l		6020	11/10/14	5
Silver, Dissolved	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/05/14	5
Thallium, Dissolved	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/05/14	5
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/29/14	1
Aluminum, Dissolved	7429-90-5	U	180	250	500	ug/l		6010B	11/05/14	5
Barium, Dissolved	7440-39-3	26.	8.5	13.	25	ug/l		6010B	11/05/14	5
Beryllium, Dissolved	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/05/14	5
Copper, Dissolved	7440-50-8	U	26	50.	100	ug/l		6010B	11/05/14	5
Manganese, Dissolved	7439-96-5	1000	6	25.	50	ug/l		6010B	11/05/14	5
Vanadium, Dissolved	7440-62-2	U	12	50.	100	ug/l		6010B	11/05/14	5
Zinc, Dissolved	7440-66-6	U	30	130	250	ug/l		6010B	11/05/14	5

U = Not Detected at the LOD

Note:

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 Reported: 12/03/14 10:57 Printed: 12/03/14 11:31
 L730147-21 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.
 L730147-21 (ICP METALS) - Diluted due to matrix interference.

KAZKOLIS
 54 of 2812
BAS 2/20/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-TU515-GW10-DT01
Collected By :
Collection Date : 10/24/14 11:50

ESC Sample # : L730147-22

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony <i>U CCB-I</i>	7440-36-0	1.1 2.5 1.1		2.5	5	ug/l	J	6020	10/31/14	5
Arsenic <i>J FO-I</i>	7440-38-2	17.	1.2	2.5	5	ug/l		6020	10/31/14	5
Cadmium	7440-43-9	U	0.8	1.3	2.5	ug/l		6020	10/31/14	5
Chromium	7440-47-3	22.	2.7	5.0	10	ug/l		6020	11/07/14	5
Cobalt <i>J FO-I</i>	7440-48-4	12.	1.3	2.5	5	ug/l		6020	10/31/14	5
Lead <i>J CCB-H</i>	7439-92-1	15.	1.2	2.5	10	ug/l		6020	11/07/14	5
Nickel <i>J FO-I</i>	7440-02-0	54.	1.8	2.5	5	ug/l	B	6020	10/31/14	5
Selenium	7782-49-2	U	1.9	2.5	10	ug/l		6020	11/05/14	5
Silver	7440-22-4	U	1.6	2.5	5	ug/l		6020	10/31/14	5
Thallium	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/07/14	5
Mercury <i>J FO-I</i>	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	10/29/14	1
Aluminum <i>J FO-I, MS-H</i>	7429-90-5	27000	180	250	500	ug/l		6010B	11/05/14	5
Barium <i>J FO-I</i>	7440-39-3	130	1.7	2.5	5	ug/l		6010B	10/30/14	1
Beryllium	7440-41-7	U	0.7	1.0	2	ug/l		6010B	10/30/14	1
Copper <i>FS SOL, ICS-L</i>	7440-50-8	5.8	5.3	10.	20	ug/l	J	6010B	10/30/14	1
Manganese	7439-96-5	940	1.2	5.0	10	ug/l		6010B	10/30/14	1
Vanadium	7440-62-2	54.	2.4	10.	20	ug/l		6010B	10/30/14	1
Zinc	7440-66-6	100	5.9	25.	50	ug/l		6010B	10/30/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		240	22	33.	100	ug/l		8015	10/30/14	1
C28-C40 Oil Range <i>F SOL-I</i>		28.	12	33.	100	ug/l	J	8015	10/30/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	94.7				% Rec.		8015	10/30/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	10/31/14	1
Acenaphthene <i>U MS-I</i>	83-32-9	0.055	0.008 0.025	0.025 0.055	0.05 0.055	ug/l	B	8270 C-	10/31/14	1
Acenaphthylene <i>U MS-I</i>	208-96-8	0.013 0.025	0.011 0.025	0.025 0.05	0.05 0.05	ug/l	JB	8270 C-	10/31/14	1
Benzo(a)anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(a)pyrene <i>U MS-L</i>	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(b)fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(g,h,i)perylene	191-24-2	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Benzo(k)fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	10/31/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	10/31/14	1
Dibenz(a,h)anthracene <i>U MS-L</i>	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	10/31/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
Fluorene <i>U MS-I, MS-I</i>	86-73-7	0.089	0.009 0.025	0.025 0.089	0.05 0.089	ug/l		8270 C-	10/31/14	1
Indeno(1,2,3-cd)pyrene <i>U MS-L</i>	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	10/31/14	1
Naphthalene <i>U MS-I, MS-I</i>	91-20-3	0.044	0.012 0.025	0.025 0.044	0.25 0.044	ug/l	J	8270 C-	10/31/14	1
Phenanthrene	85-01-8	0.072	0.018	0.025	0.05	ug/l		8270 C-	10/31/14	1
Pyrene	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	10/31/14	1
2-Methylnaphthalene <i>U MS-L, MS-I</i>	91-57-6	U	0.016	0.025	0.25	ug/l		8270 C-	10/31/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-22 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KA 2/20/15
BMS 2/20/15
55 of 2812
BMS 9/4/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-TU515-GW10-DT01
Collected By :
Collection Date : 10/24/14 11:50

ESC Sample # : L730147-22

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	84.6				% Rec.		8270 C-	10/31/14	1
2-Fluorobiphenyl	321-60-8	74.8				% Rec.		8270 C-	10/31/14	1
p-Terphenyl-d14	1718-51-0	76.5				% Rec.		8270 C-	10/31/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroethyl) ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
Bis(2-chloroisopropyl) ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	10/30/14	1
Benzyl Alcohol	100-51-6	U	0.39	5.0	10	ug/l		8270C	10/30/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	10/30/14	1
Benzoic acid <i>F SQL-I</i>	65-85-0	9.9	0.44	5.0	10	ug/l	J	8270C	10/30/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	10/30/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	10/30/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	10/30/14	1
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	10/30/14	1
Hexachloro-1,3-butadiene <i>DNR</i>	87-68-3	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	10/30/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	0.71	1.0	3	ug/l		8270C	10/30/14	1
Di-n-butyl phthalate <i>F SQL-I</i>	84-74-2	0.46	0.27	1.0	3	ug/l	J	8270C	10/30/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	10/30/14	1
1,2,4-Trichlorobenzene <i>DNR</i>	120-82-1	U	0.36	5.0	10	ug/l		8270C	10/30/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	10/30/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	10/30/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	10/30/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	10/30/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
3&4-Methyl Phenol <i>US CCAL-L</i>	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	10/30/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	10/30/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	10/30/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	10/30/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-22 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

DNR - Do Not Report

*Carbazole
BMS 2/20/15
56 of 2812*



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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU515-GW10-DT01
 Collected By :
 Collection Date : 10/24/14 11:50

ESC Sample # : L730147-22
 Site ID :
 Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	10/30/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	10/30/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	10/30/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	10/30/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	10/30/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	10/30/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	43.9				% Rec.		8270C	10/30/14	1
Phenol-d5	4165-62-2	32.3				% Rec.		8270C	10/30/14	1
Nitrobenzene-d5	4165-60-0	50.9				% Rec.		8270C	10/30/14	1
2-Fluorobiphenyl	321-60-8	59.5				% Rec.		8270C	10/30/14	1
2,4,6-Tribromophenol	118-79-6	68.0				% Rec.		8270C	10/30/14	1
p-Terphenyl-d14	1718-51-0	56.9				% Rec.		8270C	10/30/14	1

U = Not Detected at the LOD

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:31

L730147-22 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

Handwritten signature: KA-zkolis



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REPORT OF ANALYSIS

December 03, 2014

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

ESC Sample # : L730147-23

Date Received : October 28, 2014
 Description : Holloman AFB

Site ID :

Sample ID : H-TU515-GW02-NT01

Project # : 0053AA/00054AA

Collected By :
 Collection Date : 10/24/14 13:50

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	11/02/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	113.				% Rec.		8015D/G	11/02/14	1
Volatile Organics										
Acetone	67-64-1	19.	10	25.	50	ug/l	J	8260B	11/02/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/04/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/02/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/02/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/02/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l	J4	8260B	11/02/14	1
Chloroform	67-66-3	0.66	0.32	2.5	5	ug/l	J	8260B	11/02/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/02/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/02/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/02/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/02/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/02/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/04/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/04/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/02/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/02/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/02/14	1

U = Not Detected at the LOD

Note:

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CA 2/20/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU515-GW02-NT01
 Collected By :
 Collection Date : 10/24/14 13:50

ESC Sample # : L730147-23
 Site ID :
 Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/02/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/02/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/02/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Naphthalene	91-20-3	3.1	1	2.5	5	ug/l	J	8260B	11/02/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	11/02/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/02/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/02/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/02/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/04/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/02/14	1
1,2,4-Trimethylbenzene	95-63-6	0.90	0.37	0.50	1	ug/l	J	8260B	11/02/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/02/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/02/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/02/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	99.5				% Rec.		8260B	11/02/14	1
Dibromofluoromethane	1868-53-7	99.7				% Rec.		8260B	11/02/14	1
4-Bromofluorobenzene	460-00-4	97.1				% Rec.		8260B	11/02/14	1

U = Not Detected at the LOD

Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-TU515-GW04-NT01
Collected By :
Collection Date : 10/24/14 15:00

ESC Sample # : L730147-24

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	JMS-I 8006-61-9	16000	780	1300	2500	ug/l		8015D/G	11/02/14	25
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	116.				% Rec.		8015D/G	11/02/14	25
Volatile Organics										
Acetone	67-64-1	U	50	130	250	ug/l		8260B	11/04/14	5
Benzene	71-43-2	56.	1.6	2.5	5	ug/l		8260B	11/04/14	5
Bromobenzene	108-86-1	U	1.8	2.5	5	ug/l		8260B	11/04/14	5
Bromochloromethane	74-97-5	U	2.6	3.8	5	ug/l		8260B	11/04/14	5
Bromodichloromethane	75-27-4	U	1.9	2.5	5	ug/l		8260B	11/04/14	5
Bromoform	75-25-2	U	2.3	2.5	5	ug/l		8260B	11/04/14	5
Bromomethane	74-83-9	U	4.3	13.	25	ug/l		8260B	11/04/14	5
n-Butylbenzene	104-51-8	44.	1.8	2.5	5	ug/l		8260B	11/04/14	5
sec-Butylbenzene	135-98-8	44.	1.8	2.5	5	ug/l		8260B	11/04/14	5
tert-Butylbenzene	98-06-6	U	2	2.5	5	ug/l		8260B	11/04/14	5
Carbon Disulfide	F SOL-I 75-15-0	2.8	1.4	2.5	5	ug/l	J	8260B	11/04/14	5
Carbon tetrachloride	56-23-5	U	1.9	2.5	5	ug/l		8260B	11/04/14	5
Chlorobenzene	108-90-7	U	1.7	2.5	5	ug/l		8260B	11/04/14	5
Chlorodibromomethane	124-48-1	U	1.6	2.5	5	ug/l		8260B	11/04/14	5
Chloroethane	75-00-3	U	2.3	13.	25	ug/l		8260B	11/04/14	5
Chloroform	67-66-3	U	1.6	13.	25	ug/l		8260B	11/04/14	5
Chloromethane	74-87-3	U	1.4	2.5	12.5	ug/l		8260B	11/04/14	5
2-Chlorotoluene	95-49-8	U	1.9	2.5	5	ug/l		8260B	11/04/14	5
4-Chlorotoluene	106-43-4	U	1.8	2.5	5	ug/l		8260B	11/04/14	5
1,2-Dibromo-3-Chloropropane	96-12-8	U	6.6	13.	25	ug/l		8260B	11/04/14	5
1,2-Dibromoethane	106-93-4	U	1.9	2.5	5	ug/l		8260B	11/04/14	5
Dibromomethane	74-95-3	U	1.7	2.5	5	ug/l		8260B	11/04/14	5
1,2-Dichlorobenzene	95-50-1	U	1.7	2.5	5	ug/l		8260B	11/04/14	5
1,3-Dichlorobenzene	541-73-1	U	1.1	2.5	5	ug/l		8260B	11/04/14	5
1,4-Dichlorobenzene	106-46-7	U	1.4	2.5	5	ug/l		8260B	11/04/14	5
Dichlorodifluoromethane	75-71-8	U	2.8	13.	25	ug/l		8260B	11/04/14	5
1,1-Dichloroethane	75-34-3	U	1.3	2.5	5	ug/l		8260B	11/04/14	5
1,2-Dichloroethane	107-06-2	U	1.8	2.5	5	ug/l		8260B	11/04/14	5
1,1-Dichloroethene	75-35-4	U	2	2.5	5	ug/l		8260B	11/04/14	5
cis-1,2-Dichloroethene	156-59-2	U	1.3	2.5	5	ug/l		8260B	11/04/14	5
trans-1,2-Dichloroethene	156-60-5	U	2	2.5	5	ug/l		8260B	11/04/14	5
1,2-Dichloropropane	78-87-5	U	1.5	2.5	5	ug/l		8260B	11/04/14	5
1,1-Dichloropropene	563-58-6	U	1.8	2.5	5	ug/l		8260B	11/04/14	5
1,3-Dichloropropene	142-28-9	U	1.8	2.5	5	ug/l		8260B	11/04/14	5
cis-1,3-Dichloropropene	10061-01-5	U	2.1	2.5	5	ug/l		8260B	11/04/14	5
trans-1,3-Dichloropropene	10061-02-6	U	2.1	2.5	5	ug/l		8260B	11/04/14	5
2,2-Dichloropropane	594-20-7	U	1.6	2.5	5	ug/l		8260B	11/04/14	5
Ethylbenzene	100-41-4	200	1.9	2.5	5	ug/l		8260B	11/04/14	5
2-Hexanone	591-78-6	U	19	25.	50	ug/l		8260B	11/04/14	5
Hexachloro-1,3-butadiene	87-68-3	U	1.3	2.5	5	ug/l		8260B	11/04/14	5
Isopropylbenzene	98-82-8	43.	1.6	2.5	5	ug/l		8260B	11/04/14	5

U = Not Detected at the LOD

Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU515-GW04-NT01
 Collected By :
 Collection Date : 10/24/14 15:00

ESC Sample # : L730147-24

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	26.	1.8	2.5	5	ug/l		8260B	11/04/14	5
2-Butanone (MEK)	78-93-3	U	20	25.	50	ug/l		8260B	11/04/14	5
Methylene Chloride <i>F SOL-I</i>	75-09-2	5.4	5	13.	25	ug/l	J	8260B	11/04/14	5
4-Methyl-2-pentanone (MIBK)	108-10-1	U	11	25.	50	ug/l		8260B	11/04/14	5
Methyl tert-butyl ether	1634-04-4	U	1.8	2.5	5	ug/l		8260B	11/04/14	5
Naphthalene	91-20-3	360	5	13.	25	ug/l		8260B	11/04/14	5
n-Propylbenzene	103-65-1	69.	1.7	2.5	5	ug/l		8260B	11/04/14	5
Styrene	100-42-5	U	1.5	2.5	5	ug/l		8260B	11/04/14	5
1,1,1,2-Tetrachloroethane	630-20-6	U	1.9	2.5	5	ug/l		8260B	11/04/14	5
1,1,2,2-Tetrachloroethane	79-34-5	U	2.9	3.8	5	ug/l		8260B	11/04/14	5
Tetrachloroethene	127-18-4	U	1.9	2.5	5	ug/l		8260B	11/04/14	5
Toluene	108-88-3	U	3.9	13.	25	ug/l		8260B	11/04/14	5
1,2,3-Trichlorobenzene	87-61-6	U	1.2	2.5	5	ug/l		8260B	11/04/14	5
1,2,4-Trichlorobenzene	120-82-1	U	1.1	2.5	5	ug/l		8260B	11/04/14	5
1,1,1-Trichloroethane	71-55-6	U	1.6	2.5	5	ug/l		8260B	11/04/14	5
1,1,2-Trichloroethane	79-00-5	U	1.9	2.5	5	ug/l		8260B	11/04/14	5
Trichloroethene	79-01-6	U	2	2.5	5	ug/l		8260B	11/04/14	5
Trichlorofluoromethane	75-69-4	U	6	13.	25	ug/l		8260B	11/04/14	5
1,2,3-Trichloropropane	96-18-4	U	4	5.0	12.5	ug/l		8260B	11/04/14	5
1,2,4-Trimethylbenzene	95-63-6	340	1.9	2.5	5	ug/l		8260B	11/04/14	5
1,3,5-Trimethylbenzene	108-67-8	72.	1.9	2.5	5	ug/l		8260B	11/04/14	5
o-Xylene	95-47-6	5.5	1.7	2.5	5	ug/l		8260B	11/04/14	5
m&p-Xylene	1330-20-7	190	3.6	5.0	10	ug/l		8260B	11/04/14	5
Vinyl chloride	75-01-4	U	1.3	2.5	5	ug/l		8260B	11/04/14	5
Surrogate Recovery										
Toluene-d8	2037-26-5	107.				% Rec.		8260B	11/04/14	5
Dibromofluoromethane	1868-53-7	104.				% Rec.		8260B	11/04/14	5
4-Bromofluorobenzene	460-00-4	112.				% Rec.		8260B	11/04/14	5

U = Not Detected at the LOD

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-TU515-GW07-NT01
Collected By :
Collection Date : 10/24/14 14:30

ESC Sample # : L730147-25

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/30/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	101.				% Rec.		8015D/G	10/30/14	1
Volatile Organics										
Acetone <i>FSQ-L</i>	67-64-1	11.	10	25.	50	ug/l	J	8260B	11/02/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/02/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/02/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/02/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
sec-Butylbenzene <i>FSQ-L</i>	135-98-8	0.72	0.36	0.50	1	ug/l	J	8260B	11/02/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/02/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l	J4	8260B	11/02/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/02/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/02/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l	J5	8260B	11/02/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/02/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/02/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/02/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/02/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/02/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Isopropylbenzene	98-82-8	2.0	0.33	0.50	1	ug/l		8260B	11/02/14	1

U = Not Detected at the LOD

Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-TU515-GW07-NT01
Collected By :
Collection Date : 10/24/14 14:30

ESC Sample # : L730147-25

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/02/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/02/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/02/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Naphthalene <i>DNR</i>	91-20-3	U	1	2.5	5	ug/l		8260B	11/02/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	11/02/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/02/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/02/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/02/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/02/14	1
1,2,4-Trimethylbenzene <i>FSQ-1</i>	95-63-6	0.43	0.37	0.50	1	ug/l	J	8260B	11/02/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/02/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/02/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/02/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	99.9				% Rec.		8260B	11/02/14	1
Dibromofluoromethane	1868-53-7	98.6				% Rec.		8260B	11/02/14	1
4-Bromofluorobenzene	460-00-4	102.				% Rec.		8260B	11/02/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:57 Printed: 12/03/14 11:32

DNR - Do Not Report

*CA 2/20/15
BW 2/22/15*



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 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU515-GW10-NT01
 Collected By :
 Collection Date : 10/24/14 11:50

ESC Sample # : L730147-26

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/30/14	1
Surrogate Recovery- a,a,a-Trifluorotoluene (FID)	98-08-8	100.				% Rec.		8015D/G	10/30/14	1
Volatile Organics										
Acetone	67-64-1	24.	10	25.	50	ug/l	J	8260B	11/02/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/02/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/02/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/02/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/02/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l	J4	8260B	11/02/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/02/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/02/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/02/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/02/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/02/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/02/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloroethene	75-35-4	0.46	0.4	0.50	1	ug/l	J	8260B	11/02/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/02/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/02/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/02/14	1

U = Not Detected at the LOD

Note:

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KA 2/20/15



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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU515-GW10-NT01
 Collected By :
 Collection Date : 10/24/14 11:50

ESC Sample # : L730147-26
 Site ID :
 Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/02/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/02/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/02/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	11/02/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	11/02/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/02/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/02/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/02/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/04/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/02/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/02/14	1
o-Xylene	95-47-6	0.42	0.34	0.50	1	ug/l	J	8260B	11/02/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/02/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	99.0					% Rec.	8260B	11/02/14	1
Dibromofluoromethane	1868-53-7	98.7					% Rec.	8260B	11/02/14	1
4-Bromofluorobenzene	460-00-4	98.9					% Rec.	8260B	11/02/14	1

U = Not Detected at the LOD

Note:

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 65 of 2812



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU515-GW10-DT01
 Collected By :
 Collection Date : 10/24/14 11:50

ESC Sample # : L730147-27

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/30/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	101.				% Rec.		8015D/G	10/30/14	1
Volatile Organics										
Acetone	67-64-1	29.	10	25.	50	ug/l	J	8260B	11/02/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/02/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/02/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/02/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/02/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l	J4	8260B	11/02/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/02/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/02/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/02/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/02/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/02/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/02/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/02/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/02/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/02/14	1

U = Not Detected at the LOD

Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU515-GW10-DT01
 Collected By :
 Collection Date : 10/24/14 11:50

ESC Sample # : L730147-27

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/02/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/02/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/02/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Naphthalene <i>DNR</i>	91-20-3	U	1	2.5	5	ug/l		8260B	11/02/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	11/02/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/02/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/02/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/02/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/04/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/02/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/02/14	1
o-Xylene <i>F501-I</i>	95-47-6	0.80	0.34	0.50	1	ug/l	J	8260B	11/02/14	1
m&p-Xylene <i>F501-I</i>	1330-20-7	1.3	0.72	1.0	2	ug/l	J	8260B	11/02/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	98.0				% Rec.		8260B	11/02/14	1
Dibromofluoromethane	1868-53-7	102.				% Rec.		8260B	11/02/14	1
4-Bromofluorobenzene	460-00-4	96.3				% Rec.		8260B	11/02/14	1

U = Not Detected at the LOD

Note:

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 Fax (615) 758-5859
 Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU515-TRIPBLANK-TT01-A
 Collected By :
 Collection Date : 10/24/14 11:50

ESC Sample # : L730147-28
 Site ID :
 Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/30/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	100.				% Rec.		8015D/G	10/30/14	1

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CA 2/20/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU515-TRIPBLANK-TT01-B
 Collected By :
 Collection Date : 10/24/14 11:50

ESC Sample # : L730147-29

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/02/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/02/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/02/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/02/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/02/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l	J4	8260B	11/02/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/02/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/02/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/02/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/02/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/02/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/02/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/02/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/02/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/02/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/02/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/02/14	1

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU515-TRIPBLANK-TT01-B
 Collected By :
 Collection Date : 10/24/14 11:50

ESC Sample # : L730147-29

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	11/02/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	11/02/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/02/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/02/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/02/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/02/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/02/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/02/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/02/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	100.					⊗ Rec.	8260B	11/02/14	1
Dibromofluoromethane	1868-53-7	98.0					⊗ Rec.	8260B	11/02/14	1
4-Bromofluorobenzene	460-00-4	95.5					⊗ Rec.	8260B	11/02/14	1

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-TU904-MW06-DT01
Collected By :
Collection Date : 10/24/14 16:30

ESC Sample # : L730147-30

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/30/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	101.				% Rec.		8015D/G	10/30/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/02/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/02/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/02/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/02/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/02/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l	J4	8260B	11/02/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/02/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/02/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/02/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/02/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/02/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/02/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/02/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/02/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/02/14	1

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W. A. Cholis



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-MW06-DT01
 Collected By :
 Collection Date : 10/24/14 16:30

ESC Sample # : L730147-30

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/02/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/02/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/02/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Naphthalene <i>DNR</i>	91-20-3	U	1	2.5	5	ug/l		8260B	11/02/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	11/02/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/02/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/02/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/02/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Trichloroethene <i>F-SOL-I</i>	79-01-6	0.57	0.4	0.50	1	ug/l	J	8260B	11/04/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/02/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/02/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/02/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/02/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	99.6				% Rec.		8260B	11/02/14	1
Dibromofluoromethane	1868-53-7	100.				% Rec.		8260B	11/02/14	1
4-Bromofluorobenzene	460-00-4	99.0				% Rec.		8260B	11/02/14	1

U = Not Detected at the LOD

Note:

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CAZholis
BMS 2/20/15



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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-TU904-MW06-NT01
Collected By :
Collection Date : 10/24/14 16:30

ESC Sample # : L730147-31

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/30/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	100.				% Rec.		8015D/G	10/30/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/02/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/02/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/02/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/02/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/02/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l	J4	8260B	11/02/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/02/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/02/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/02/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/02/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/02/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/02/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/02/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/02/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/02/14	1

U = Not Detected at the LOD

Note:

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KAZ/holis



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-MW06-NT01
 Collected By :
 Collection Date : 10/24/14 16:30

ESC Sample # : L730147-31

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/02/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/02/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/02/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Naphthalene <i>DNR</i>	91-20-3	U	1	2.5	5	ug/l		8260B	11/02/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	11/02/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/02/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/02/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/02/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Trichloroethene <i>FSQ-I</i>	79-01-6	0.50	0.4	0.50	1	ug/l	J	8260B	11/04/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/02/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/02/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/02/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/02/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	98.9				% Rec.		8260B	11/02/14	1
Dibromofluoromethane	1868-53-7	99.6				% Rec.		8260B	11/02/14	1
4-Bromofluorobenzene	460-00-4	94.0				% Rec.		8260B	11/02/14	1

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Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-MW07-NT01
 Collected By :
 Collection Date : 10/24/14 16:30

ESC Sample # : L730147-32

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	11/02/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	112.				% Rec.		8015D/G	11/02/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/02/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/02/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/02/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/02/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/02/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l	J4	8260B	11/02/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/02/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/02/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/02/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/02/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/02/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/02/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/02/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/02/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/02/14	1

U = Not Detected at the LOD

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-MW07-NT01
 Collected By :
 Collection Date : 10/24/14 16:30

ESC Sample # : L730147-32

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/02/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/02/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/02/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Naphthalene <i>DNR</i>	91-20-3	U	1	2.5	5	ug/l		8260B	11/02/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	11/02/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/02/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/02/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/02/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Trichloroethene	79-01-6	5.9	0.4	0.50	1	ug/l		8260B	11/02/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/02/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/02/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/02/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/02/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	99.5				% Rec.		8260B	11/02/14	1
Dibromofluoromethane	1868-53-7	100.				% Rec.		8260B	11/02/14	1
4-Bromofluorobenzene	460-00-4	103.				% Rec.		8260B	11/02/14	1

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BMS 2/2015



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-TU904-MW08-NT01
Collected By :
Collection Date : 10/26/14 15:10

ESC Sample # : L730147-33

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/31/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	101.				% Rec.		8015D/G	10/31/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/02/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/02/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/02/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/02/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/02/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l	J4	8260B	11/02/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/02/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/02/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/02/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/02/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/02/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/02/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/02/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/02/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/02/14	1

U = Not Detected at the LOD

Note:

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ICA 2/20/15



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Tax I.D. 62-0814289
Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-TU904-MW08-NT01
Collected By :
Collection Date : 10/26/14 15:10

ESC Sample # : L730147-33
Site ID :
Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/02/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/02/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/02/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Naphthalene <i>DNR</i>	91-20-3	U	1	2.5	5	ug/l		8260B	11/02/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	11/02/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/02/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/02/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/02/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Trichloroethene	79-01-6	1.2	0.4	0.50	1	ug/l		8260B	11/04/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/02/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/02/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/02/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/02/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	99.2					% Rec.	8260B	11/02/14	1
Dibromofluoromethane	1868-53-7	100.					% Rec.	8260B	11/02/14	1
4-Bromofluorobenzene	460-00-4	97.0					% Rec.	8260B	11/02/14	1

U = Not Detected at the LOD

Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

December 03, 2014

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

ESC Sample # : L730147-34

Date Received : October 28, 2014
 Description : Holloman AFB

Site ID :

Sample ID : H-TU904-MW10-NT01

Project # : 0053AA/00054AA

Collected By :
 Collection Date : 10/26/14 15:05

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction <i>VS MS-I</i>	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/31/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	101.				% Rec.		8015D/G	10/31/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/02/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/02/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/02/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/02/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/02/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l	J4	8260B	11/02/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/02/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/02/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/02/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/02/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/02/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/02/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/02/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/02/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/02/14	1

U = Not Detected at the LOD

Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

December 03, 2014

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

ESC Sample # : L730147-34

Date Received : October 28, 2014
 Description : Holloman AFB

Site ID :

Sample ID : H-TU904-MW10-NT01

Project # : 0053AA/00054AA

Collected By :
 Collection Date : 10/26/14 15:05

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/02/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/02/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/02/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Naphthalene <i>DNR</i>	91-20-3	U	1	2.5	5	ug/l		8260B	11/02/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	11/02/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/02/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/02/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/02/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/02/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/02/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/02/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/02/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	98.1				% Rec.		8260B	11/02/14	1
Dibromofluoromethane	1868-53-7	97.9				% Rec.		8260B	11/02/14	1
4-Bromofluorobenzene	460-00-4	96.7				% Rec.		8260B	11/02/14	1

U = Not Detected at the LOD

Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

December 03, 2014

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

ESC Sample # : L730147-35

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-TU904-MW11-NT01
Collected By :
Collection Date : 10/26/14 15:40

Site ID :
Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction <i>VS MS-J</i>	8006-61-9	U	31	50.	100	ug/l		8015D/G	10/31/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	101.				% Rec.		8015D/G	10/31/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/02/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/02/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/02/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/02/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/02/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l	J4	8260B	11/02/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/02/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/02/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/02/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/02/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/02/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/02/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/02/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/02/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/02/14	1

U = Not Detected at the LOD

Note:

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CA-2/20/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-MW11-NT01
 Collected By :
 Collection Date : 10/26/14 15:40

ESC Sample # : L730147-35

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/02/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/02/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/02/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Naphthalene <i>DNR</i>	91-20-3	U	1	2.5	5	ug/l		8260B	11/02/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	11/02/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/02/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/02/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/02/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Trichloroethene	79-01-6	2.0	0.4	0.50	1	ug/l		8260B	11/02/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/02/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/02/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/02/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/02/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	99.7				% Rec.		8260B	11/02/14	1
Dibromofluoromethane	1868-53-7	99.1				% Rec.		8260B	11/02/14	1
4-Bromofluorobenzene	460-00-4	95.5				% Rec.		8260B	11/02/14	1

U = Not Detected at the LOD

Note:

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 BMS 2/20/15*



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
Description : Holloman AFB
Sample ID : H-OT32-TMW08-NT01
Collected By :
Collection Date : 10/26/14 16:07

ESC Sample # : L730147-36

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/02/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/02/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/02/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/02/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/02/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l	J4	8260B	11/02/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/02/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/02/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/02/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/02/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/02/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/02/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/02/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/02/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/02/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/02/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/02/14	1

U = Not Detected at the LOD

Note:

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KA zholis



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-OT32-TMW08-NT01
 Collected By :
 Collection Date : 10/26/14 16:07

ESC Sample # : L730147-36

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	11/02/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	11/02/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/02/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/02/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/02/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/02/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/02/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/02/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/02/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	99.5					% Rec.	8260B	11/02/14	1
Dibromofluoromethane	1868-53-7	101.					% Rec.	8260B	11/02/14	1
4-Bromofluorobenzene	460-00-4	97.9					% Rec.	8260B	11/02/14	1

U = Not Detected at the LOD

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KA-zhok



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-OT32-TMW09-NT01
 Collected By :
 Collection Date : 10/26/14 16:55

ESC Sample # : L730147-37

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/02/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/02/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/02/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/02/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/02/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l	J4	8260B	11/02/14	1
Chloroform	67-66-3	9.3	0.32	2.5	5	ug/l		8260B	11/02/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/02/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/02/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/02/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/02/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/02/14	1
1,1-Dichloroethane	75-34-3	7.3	0.26	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloroethene	75-35-4	12.	0.4	0.50	1	ug/l		8260B	11/02/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/02/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/02/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/02/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/02/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/02/14	1

U = Not Detected at the LOD

Note:

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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-OT32-TMW09-NT01
 Collected By :
 Collection Date : 10/26/14 16:55

ESC Sample # : L730147-37
 Site ID :
 Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	11/02/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	11/02/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/02/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/02/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/02/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/02/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/02/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/02/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/02/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	99.5					% Rec.	8260B	11/02/14	1
Dibromofluoromethane	1868-53-7	100.					% Rec.	8260B	11/02/14	1
4-Bromofluorobenzene	460-00-4	94.3					% Rec.	8260B	11/02/14	1

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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB
 Sample ID : H-OT32-TMW10-NT01
 Collected By :
 Collection Date : 10/26/14 15:35

ESC Sample # : L730147-38

Site ID :

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/02/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/02/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/02/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/02/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/02/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l	J4	8260B	11/02/14	1
Chloroform PSQ-1	67-66-3	0.98	0.32	2.5	5	ug/l	J	8260B	11/02/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/02/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/02/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/02/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/02/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/02/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/02/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/02/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/02/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/02/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/02/14	1

U = Not Detected at the LOD

Note:

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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 03, 2014

Date Received : October 28, 2014
 Description : Holloman AFB

ESC Sample # : L730147-38

Sample ID : H-OT32-TMW10-NT01

Site ID :

Collected By :
 Collection Date : 10/26/14 15:35

Project # : 0053AA/00054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	11/02/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	11/02/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/02/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/02/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/02/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/02/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/02/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/02/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/02/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	99.3					% Rec.	8260B	11/02/14	1
Dibromofluoromethane	1868-53-7	102.					% Rec.	8260B	11/02/14	1
4-Bromofluorobenzene	460-00-4	98.0					% Rec.	8260B	11/02/14	1

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KA = 12/03/15

Analyses:

- DRO/ORO - Diesel and Oil Range Organics (8015)
- GRO – Gasoline Range Organics (8015D)
- TDS – Total Dissolved Solids (SM2540C)
- Total/ Metals – Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Manganese, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc, Mercury (6010B/7470A)
- PAHs – Polynuclear Aromatic Hydrocarbons (8270C SIM)
- SIM – Selective Ion Monitoring
- SVOCs – Semivolatile Organic Compounds (8270C)
- VOCs – Volatile Organic Compounds (8260B)

The data review was conducted in accordance with the Final Interim Measures Work Plan – Appendix A, Sampling and Analysis Plan/Quality Assurance Project Plan: Former Septic System Site TU904 (URS, September 2014); Group 2 Former Underground Storage Sites: AOC-UST-889 (TU515) (URS, September 2014); and Group 3 Former Underground Storage Tank Sites: AOC-UST-221 (TU503), AOC-UST-298 (TU508), AOC-UST-901 (TU506) and AOC-UST-7003 (TU518) (URS, August 2014); data validation standard operating procedure (SOP) 14; Department of Defense (DoD) Quality Systems Manual version 4.2 (DoD, 2010); and method requirements.

General Overall Assessment:

- Data are usable without qualification.
- Data are usable with qualification (noted below).
- Some or all data are unusable for any purpose (detailed below).

Case Narrative Comments: Any laboratory case narrative comments concerning data qualification were addressed in the table below.

Trace level detects, reported between the method detection limit (MDL) and the reporting limit (LOQ), have been qualified as estimated (F SQL-I). All other occurrences of data qualification are covered in the following table.

Review Parameter	Criteria Met?	Comment
Chain of Custody & Sample Receipt	Yes	The samples were received by ESC Lab Sciences in good condition and were consistent with the accompanying chain of custody (COC). The cooler temperatures upon receipt were within the recommended ≤6 degrees Celsius (°C) temperature range.
Reporting	Yes	<p>During review of a representative data package selected for full validation, it was noted that improper reference spectra were displayed in the printed version of the data package for Method 8260B. Due to a LIMS limitation, the data package reference spectra were not consistently representative of the actual spectra for the analytes detected. Because the laboratory data review involves the use of NBS reference spectra and not the reference spectra taken from the instrument calibration, the analyst was not seeing the improper alignment of spectra noted in the data package during his/her review at the instrument. The laboratory revised and reissued the data package with correct reference spectral data, consistent with method requirements, and no results were changed. Therefore, no further action is necessary as a result of this validation finding.</p> <p>Method 8270C Semivolatile Organic Compounds (SVOCs)</p> <p>The results for 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene are not reported by Method 8270C SVOCs but are reported by Method 8260B volatile organic compounds (VOCs). As the</p>

Review Parameter	Criteria Met?	Comment
		<p>detection limits (DLs), limits of detection (LODs), and limits of quantitation (LOQs) are lower by Method 8260B, further action was not necessary.</p> <p>The laboratory noted 4-methylphenol cannot be reported as 3 & 4-methylphenol coelute during the analysis; therefore, the analytes are reported together and 3&4-methylphenol on the data sheets and in the electronic database.</p>
Holding Times	Yes	All samples were analyzed within the method required holding time.
Laboratory Blanks <ul style="list-style-type: none"> • Method Blank • Initial/Continuing Calibration Blank 	No	With the exceptions listed in Table 1, target analytes were not detected within the method or calibration blanks.
Matrix Quality Control <ul style="list-style-type: none"> • Matrix Spike/ Matrix Spike Duplicate TU904-EX01-02-N (Metals, GRO, VOCs, DRO, SVOCs, PAHs) • TU508-EX01-02-N (Metals, GRO, VOCs, DRO, SVOCs, PAHs) • Method Duplicate TU904-EX01-01-N (pH) • TU904-EX01-02-N (pH) 	No	<p>Matrix Spike/ Matrix Spike Duplicate (MS/MSD)</p> <p>The frequency of MS/MSDs met the QAPP requirement of one per twenty samples.</p> <p>With the exceptions listed in Table 2, the MS/MSD recoveries and relative percent differences (RPDs) met quality control criteria.</p> <p>The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the sample matrix could not be assessed for oil range organics (ORO).</p> <p>Results in the native sample greater than four times the concentration of the spike added during digestions/extractions are not considered to be a representative measure of accuracy. Further action with respect to spike recovery evaluation or qualification of data was not considered necessary.</p> <p>Consistent with standard operating procedure (SOP) 14, when MS/MSD issues accounted for less than 35% of the MS/MSD analyses conducted, applicable data qualification was limited to qualification of the parent sample of the affected analyte. When >35% of the MS/MSD results did not meet criteria, evaluation was extended to all associated samples. See Section 4.1 of the data validation report for overall qualifiers resulting from the MS/MSD evaluation.</p> <p>Laboratory Duplicate</p> <p>The comparison between results of the laboratory duplicate pair met the criteria listed below.</p> <ul style="list-style-type: none"> • When both the sample and duplicate values are >5x the LOQ acceptable sampling and analytical precision is indicated by a relative percent difference (RPD) between the results of ≤20% for water samples (≤35% for soil samples). • Where the result for one or both analytes of the laboratory duplicate pair is <5xLOQ, satisfactory precision is indicated if the absolute difference between the laboratory duplicate results is <1xLOQ for water samples (<2xLOQ for soil samples).

Review Parameter	Criteria Met?	Comment
<p>Metals Only</p> <ul style="list-style-type: none"> Serial Dilution TU904-EX01-02-N (Metals) Post Digestion Spike TU904-EX01-02-N (6010B Metals) 	Yes	<p>Serial Dilution (Metals Only)</p> <p>Consistent with the method, only the results that were greater than 50 times their respective DLs were appropriate for comparing to the serial dilution evaluation criterion. All percent differences (%Ds) between the original sample results and the results obtained from the sample-diluted 1:5 were $\leq 10\%$.</p> <p>Post Digestion Spike (PDS) (Metals Only)</p> <p>All PDS recoveries were within the acceptance limits.</p>
<p>Method Quality Control</p> <ul style="list-style-type: none"> Surrogates (VOCs, SVOCs, PAHs, GRO, DRO/ORO) 	No	<p>With the exceptions listed in Table 3, the surrogate recoveries were within the laboratory specified acceptance criteria.</p>
<p>Field Quality Control</p> <ul style="list-style-type: none"> Trip Blank TU508-TRIPBLANK02-TT01 (GRO, VOCs) TU518-TRIPBLANK01-NT01 (GRO, VOCs) Field Duplicate TU904-EX01-03-N/TU904-EX01-03-D TU508-EX01-01-N/TU508-EX01-01-D Equipment Blank None in this package Field Blank None in this package 	No	<p>Trip Blank</p> <p>Target analytes were not detected in the trip blanks.</p> <p>Field Duplicate</p> <p>The frequency of field duplicates met the QAPP requirement of one per twenty samples.</p> <p>With the exceptions listed in Table 4, the comparison between results of the field duplicate pair met the criteria listed below.</p> <ul style="list-style-type: none"> When both the sample and duplicate values are $>5x$ the LOQ acceptable sampling and analytical precision is indicated by an RPD between the results of $\leq 30\%$ for water samples ($\leq 50\%$ for soil samples). Where the result for one or both analytes of the field duplicate pair is $<5xLOQ$, satisfactory precision is indicated if the absolute difference between the field duplicate results is $<2xLOQ$ for water samples ($<3.5xLOQ$ for soil samples). <p>Consistent with SOP 14, when field duplicate issues accounted for less than 35% of the field duplicate analyses conducted, applicable data qualification was limited to qualification of the parent sample for the affected analyte. When $>35\%$ of the field duplicate results did not meet criteria, evaluation was extended to all associated samples. See Section 4.3 of the data validation report for overall qualifiers resulting from the field duplicate evaluation.</p> <p>Equipment Blank</p> <p>As dedicated equipment was used to collect these samples, an equipment blank was not submitted for this sampling event. Further action was not necessary.</p> <p>Field Blank</p> <p>The frequency of field blanks met the QAPP requirement of one per twenty samples.</p> <p>A field blank was not submitted with this data package. See Section 4.4 of the data validation report for overall qualifiers resulting from the field blank evaluation.</p>

Review Parameter	Criteria Met?	Comment
LODs met?	No	Due to dilutions, the 6010B metals results for all samples and the polynuclear aromatic hydrocarbon (PAH) results for sample TU518-EX01-01-N were reported as non-detect at elevated LODs. See Section 3.7 of the validation report for further discussion.
Other Parameters	Yes	<p>Naphthalene (8260B and 8270C-PAHs) and hexachloro-1,3-butadiene and 1,2,4-trichlorobenzene (8260B and 8270C) were analyzed by multiple methods. Results were selected for reporting using the following criteria:</p> <ul style="list-style-type: none"> • If both results were non-detect, the non-detect result with the lower DL was selected. • If both results were reported as detected, the higher detected result was selected for reporting. • If one result was reported as non-detect and the other result was reported as detected, the detected result was selected for reporting.
Initial Calibration	Yes	<p>Methods 8260B VOCs & 8270C SVOCs</p> <p>A minimum relative response factor (RRF) of 0.05 was used for the system performance check compounds (SPCCs) and all SPCCs met this criterion. The percent relative standard deviations (%RSDs) over the initial calibration RRFs for all calibration check compounds (CCCs) satisfied the method requirement of <30%. For all other target compounds, a requirement of 15% was used. The %RSD values for all target analytes in the calibration were less than 15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8270C PAHs</p> <p>The %RSD values for all target analytes in the calibration were less than 20%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8015D Gasoline Range Organics (GRO)/DRO/ORO</p> <p>The relationship between instrument response and concentration was established with a blank and at least five standards for the entire carbon range of C10-C40. The %RSD over the initial calibrations curve satisfied the method requirement of <15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Methods 6010B (Inductively Coupled Plasma [ICP] Metals)</p> <p>The initial calibrations (ICALs) were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with a blank and at least one standard. The calibrations were verified with the analysis of an initial calibration verification (ICV) standard. All metals were recovered within the method acceptance range of 90-110%.</p> <p>Method 7470A (Mercury)</p> <p>The ICALs were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with five standards. The correlation coefficient was >0.995. The calibration was verified with the analysis of an ICV standard. The analytes were recovered within the acceptance range of 90-110%. Response and linearity criteria were met and data qualification on the basis of initial calibration was not necessary.</p>

Review Parameter	Criteria Met?	Comment
Initial Calibration Verification/Continuing Calibration Verification	No	<p>Method 8260B VOCs</p> <p>With the exceptions listed in Table 5, the percent differences (%Ds) for all CCCs in the ICVs and continuing calibrations (CCALs) were less than 20%, satisfying method requirements, and other target analytes satisfied the %D criterion of 20%.</p> <p>Methods 8270C PAHs/SVOCs</p> <p>With the exceptions listed in Table 5, the %D values for all target analytes in the calibration were less than 20%.</p> <p>Method 8015D GRO/DRO/ORO</p> <p>The %Ds for all target compounds in the ICVs and CCALs were less than 15%. Data qualification was not necessary.</p> <p>Methods 6010B (ICP Metals) & 7470A (Mercury)</p> <p>Calibration verification analyses were conducted at the proper frequency. All metals were recovered within the DOD QSM 4.2 low level acceptance range of 80-120% and the method medium/high acceptance range of 90-110%.</p>
Interference Check Standard (Metals Only)	No	<p>The interference check standard (ICS) AB solutions were analyzed at the proper frequency. The target analytes were recovered within the acceptance range of 90-10% in the ICS AB solution. With the exceptions listed in Table 6, interferent elements were not present in the samples at concentrations greater than those in the ICSs.</p> <p>The interferent elements aluminum, calcium, iron, and magnesium were present in most samples in this data package at concentrations greater than or equal to those in the ICSs. As such, these samples were evaluated for positive and negative biases suggested by the ICS A. Data qualification was issued if the absolute value of the ICS A result was greater than the DL and it suggested a positive or negative bias which accounted for more than 25% of associated sample results or LODs. (Note: The ICS A solution only contains the interferent elements aluminum, calcium, iron, and magnesium so any positive or negative result for other analytes is inferred to be a bias potentially caused by one or more of the interferent elements present). Table 6 summarizes the resultant data qualification on the basis of the ICS results.</p>
Internal Standard (VOCs/SVOCs/PAHs/Metals (6020))	No	<p>With the exceptions listed in Table 7, recoveries for the internal standards in field samples were within the applicable acceptance limits.</p>
Laboratory Control Sample/ Laboratory Control Sample Duplicate	No	<p>One laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) per method per analytical batch was prepared and analyzed. With the exceptions listed in Table 8, all of the LCS recoveries and LCS/LCSD RPDs were within the QAPP acceptance limits. These results are indicative of an acceptable level of accuracy and precision with respect to the analytical method.</p> <p>Method 8015 DRO/ORO</p> <p>The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the method could not be assessed for ORO.</p>

Review Parameter	Criteria Met?	Comment
Package Completeness	Yes	The results are usable as qualified for the project objective. The data are 100% complete.

< - Less Than
 ≤ - Less Than or Equal to
 °C – Degrees Celsius
 % - Percent
 %Ds – Percent Differences
 %RSD – Percent Relative Standard Deviation
 CCALs – Continuing Calibrations
 CCBs – Continuing Calibration Blanks
 CCCs – Calibration Check Compounds
 COC – Chain of Custody
 COD – Coefficient of Determination
 DLs – Detection Limits
 DRO – Diesel Range Organics
 GRO – Gasoline Range Organics
 ICAL – Initial Calibration
 ICB – Initial Calibration Blank
 ICP – Inductively Coupled Plasma

ICS – Interference Check Standard
 ICV – Initial Calibration Verification
 LCS – Laboratory Control Sample
 LCSD – Laboratory Control Sample Duplicate
 LOD – Limit of Detection
 LOQ – Limit of Quantitation
 MS/MSD – Matrix Spike/ Matrix Spike Duplicate
 ORO – Oil Range Organics
 PAHs – Polynuclear Aromatic Hydrocarbons
 PDS – Post Digestion Spike
 QAPP – Quality Assurance Project Plan
 RPDs – Relative Percent Differences
 RRF – Relative Response Factor
 SOP – Standard Operating Procedure
 SPCCs – System Performance Check Compounds
 SVOCs – Semivolatile Organic Compounds
 VOCs – Volatile Organic Compounds

Table 1: Blank Outliers and Resultant Data Qualification

Associated Samples	Analyte	Concentration	Qualification
PAHs			
MB Batch WG752686 TU518-EX01-01-N TU518-EX01-02-N TU518-EX01-03-N TU518-EX01-04-N TU518-EX01-05-N TU904-EX01-01-N TU904-EX01-02-N TU904-EX01-03-D TU904-EX01-03-N TU904-EX01-04-N TU904-EX01-05-N TU508-EX01-01-N TU508-EX01-01-D TU508-EX01-02-N TU508-EX01-03-N TU508-EX01-04-N TU508-EX01-05-N	Naphthalene	0.000864 mg/Kg	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).

< - Less Than
 PAHs – Polynuclear Aromatic Hydrocarbons

I – Indeterminate Bias
 U – Non-detect

MB – Method Blank

Table 2: MS/MSD Recovery and RPD Outliers and Resultant Data Qualification

Associated Sample	Analyte	%R (Limits)	RPD (Limit)	Qualification
Metals				
TU904-EX01-02-N	Silver	45/30 (80-120)	41 (50)	As the potential bias was considered to be low, the associated were qualified as estimated (UJ MS-L).
TU508-EX01-02-N		44/50 (80-120)	14 (50)	
GRO				
TU904-EX01-02-N	GRO	33.1/33.2 (63-137)	0.26 (30)	As the potential bias was considered to be low, the associated result for sample TU904-EX01-02-N was qualified as estimated (UJ MS-L).
TU508-EX01-02-N		38.5/59.1 (63-137)	42.2 (30)	As the potential bias was considered to be low, and the associated RPD was outside of control limits, the GRO result for sample TU508-EX01-02-N was qualified as estimated (UJ MS, D-L).
VOCs				
TU904-EX01-02-N	1,1,2,2-Tetrachloroethane	140/150 (55-130)	7.15 (50)	As the potential bias was considered to be high, and the associated results for sample TU904-EX01-02-N were reported as non-detect, data qualification was not considered necessary.
	1,2,3-Trichloropropane	142/154 (65-130)	7.75 (50)	
	1,2-Dibromo-3-Chloropropane	167/186 (40-135)	10.8 (50)	
	1,2-Dibromomethane	122/ 130 (70-125)	5.96 (50)	
	2-Hexaneone	158/177 (45/145)	11.3 (50)	
	Bromoform	144/150 (55-135)	4.02 (50)	
	4-Methyl-2-Pentanone	152/168 (45-145)	9.82 (50)	
	Naphthalene	127/134 (40-125)	5.12 (50)	
TU508-EX01-02-N	1,2,3-Trichlorobenzene	59.7/60.8 (60-135)	1.84 (50)	As the potential bias was considered to be low, the associated results for sample TU508-EX01-02-N were qualified as estimated (UJ/J MS-L).
	1,2,4-Trichlorobenzene	58.7/62.8 (65-130)	6.75 (50)	
	1,2-Dichlorobenzene	67.9/69.9 (75-120)	2.94 (50)	
	1,3,5-Trimethylbenzene	64.8/72.6 (65-135)	11.3 (50)	
	1,3-Dichlorobenzene	66.8/68.7 (70-125)	2.75 (50)	
	1,4-Dichlorobenzene	67.4/67.1 (70-125)	0.44 (50)	
	2-Chlorotoluene	69.4/71.4 (71-130)	2.96 (50)	
	4-Chlorotoluene	67.5/69.7 (75-125)	3.17 (50)	

Associated Sample	Analyte	%R (Limits)	RPD (Limit)	Qualification
	Carbon Disulfide	38.9 /46.7 (45-160)	9.09 (50)	
	Chlorobenzene	67.3 / 67.5 (75-125)	0.24 (50)	
	Ethylbenzene	68.5 /76 (75-125)	10.4 (50)	
	Hexachloro-1,3-butadiene	45.6 /58.7 (55-140)	25.2 (50)	
	Isopropylbenzene	67.6 /76 (75-130)	11.6 (50)	
	m,p-Xylene	69.4 / 74.5 (80-125)	7.01 (50)	
	n-Butylbenzene	62.7 /77.1 (65-140)	20.6 (50)	
	o-Xylene	66.9 / 69.4 (75-125)	3.77 (50)	
	p-Isopropyltoluene	63.8 / 74.6 (75-135)	15.6 (50)	
	sec-Butylbenzene	63.6 /74.4 (65-130)	15.7 (50)	
	Styrene	70.9 / 68.5 (75-125)	3.43 (50)	
	Tetrachloroethene	61 /70 (65-140)	12.3 (50)	
	Trichloroethene	71 /77.4 (75-125)	8.47 (50)	
DRO/ORO				
TU508-EX01-02-N	DRO	56.9 /64 (61-145)	11.3 (30)	As the potential bias was considered to be low, the associated result for sample TU508-EX01-02-N was qualified as estimated (UJ MS-L).
SVOCs				
TU904-EX01-02-N	Bis(2-Chloroethoxy) Methane	54.3/ 41 (45-110)	27.9 (50)	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ MS-L).
	Bis(2-Chloroethyl) Ether	42.1/ 34.7 (40-105)	19.2 (50)	
	n-Nitrosodi-n-propylamine	48.2/ 36.8 (40-115)	26.7 (50)	
TU508-EX01-02-N	4,6-Dinitro-2-Methylphenol	18 / 19.3 (30-135)	6.92 (50)	
PAHs				
TU904-EX01-02-N	Anthracene	104/76.4 (67.9-126)	30.2 (30)	As the RPD was outside of control limits, the associated anthracene result for sample TU904-EX01-02-N was qualified as estimated (UJ D-I)
TU508-EX01-02-N		62.7 /75.1 (67.9-126)	17.9 (30)	As the potential bias was considered to be low, the associated results for sample TU508-EX01-02-N were qualified as estimated (UJ MS-L).
	Benzo(a)anthracene	46.8 /52.4 (66.5-122)	11.3 (30)	
	Benzo(a)pyrene	42.9 / 48.4 (66.3-123)	12 (30)	

Associated Sample	Analyte	%R (Limits)	RPD (Limit)	Qualification
	Benzo(b)fluoranthene	37.3/41.7 (64.7-122)	11.3 (30)	

%R – Percent Recoveries

% - Percent

D – Duplicate or spike duplicate precision evaluation criteria not met

DRO – Diesel Range Organics

GRO – Gasoline Range Organics

I – Indeterminate Bias

L – Low Bias

MS/MSD – Matrix Spike Matrix Spike Duplicate

ORO – Oil Range Organics

PAHs – Polynuclear Aromatic Hydrocarbons

RPD – Relative Percent Difference

SVOCs – Semivolatile Organic Compounds

UJ/J – Estimated

VOCs – Volatile Organic Compounds

Bold indicates a recovery or RPD outside of acceptance limit

Table 3: Surrogate Recovery Outliers and Resultant Data Qualification

Sample	Surrogate	%R (Limits)	Qualification
VOCs			
TU518-EX01-01-N	4-Bromofluorobenzene	180 (71-126)	As the potential bias was considered to be high, the associated detected VOC results were qualified as estimated (J SUR-H).
	Dibromofluoromethane	125 (78.3-121)	
TU518-EX01-02-N	4-Bromofluorobenzene	186 (71-126)	
TU508-EX01-04-N	Dibromofluoromethane	125 (78.3-121)	

%R - Percent Recovery

H – High Bias

J – Estimated

SUR – Surrogate

Bold indicates a recovery outside of acceptance limits.

Table 4: Field Duplicate Outliners and Resultant Data Qualification

Field Duplicate Pair	Analyte	Parent Result (mg/Kg)	FD Result (mg/Kg)	Criteria not Met	Qualification
Total Metals					
TU904-EX01-03-N/ TU904-EX01-03-D	Aluminum	1100	480	RPD > 50%	As the RPD between the field duplicate pair results exceeded 50%, the associated results were qualified as estimated (J FD-I).
DRO/ORO					
TU508-EX01-01-N/ TU508-EX01-01-D	DRO	71	19	Absolute Difference >3.5x LOQ	As the absolute difference between the field duplicate pair results exceeded 3.5x the LOQ, the associated results were qualified as estimated (J FD-I).
	ORO	84	35		

% - Percent

> - Greater Than

FD – Field Duplicate

I – Indeterminate Bias

J – Estimated

mg/Kg – Milligrams per Kilogram

LOQ – Limit of Quantitation

RPD – Relative Percent Difference

Table 5: Initial/Continuing Calibration Verification Outliers and Resultant Data Qualification

Associated Samples	Analyte	%D (Limit)	Data Qualification	
VOCs				
TU508-TRIPBLANK02-TT01 TU518-TRIPBLANK01-NT01	Dichlorodifluoromethane	-50.1 (±20)	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ CCAL-L).	
TU518-EX01-01-N TU518-EX01-02-N TU518-EX01-03-N TU518-EX01-04-N TU518-EX01-05-N TU904-EX01-01-N TU904-EX01-02-N TU904-EX01-03-D TU904-EX01-03-N TU904-EX01-04-N TU904-EX01-05-N TU508-EX01-01-N TU508-EX01-01-D TU508-EX01-02-N TU508-EX01-03-N TU508-EX01-04-N	Chloromethane	+20.6 (±20)	As the potential bias was considered to be high, and the associated samples were reported as non-detect, data qualification was not considered necessary.	
TU508-EX01-05-N	Carbon Disulfide	-21.5 (±20)	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ/J CCAL-L).	
	Hexachloro-1,3-butadiene	-21.1 (±20)		
SVOCs				
TU518-EX01-01-N TU518-EX01-02-N TU518-EX01-03-N TU518-EX01-04-N TU904-EX01-01-N TU904-EX01-02-N TU904-EX01-03-D TU904-EX01-03-N TU904-EX01-04-N TU904-EX01-05-N TU508-EX01-01-N TU508-EX01-02-N	n-Nitrosodimethylamine	-21.9 (±20)	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ/J CCAL-L).	
	Bis(2-chloroethyl)ether	-28.3 (±20)		
	3&4-Methyl Phenol	-56.7 (±20)		
	2,4-Dimethylphenol	-27.3 (±20)		
	Bis(2-chloroethyl)ether	-28.3 (±20)		
	2,4-Dimethylphenol	-26.5 (±20)		
	TU508-EX01-01-D	Bis(2-chloroethyl)ether		-33.5 (±20)
		3&4-Methyl Phenol		-58.6 (±20)
		Bis(2-chloroethoxy) methane		-22.1 (±20)

± - Plus or minus

L - Low Bias

VOCs - Volatile Organic Compounds

%D - Percent Difference

SVOCs - Semivolatile Organic Compounds

CCAL - Continuing Calibration

UJ/J - Estimated

Table 6: ICS Outliers and Resultant Data Qualification

Interferent Element	Analyte	ICS A (µg/L)	MDL (µg/L)	Qualified Samples	Qualification
Aluminum, Calcium, Iron, Magnesium	Antimony	-9.5	7.5	TU518-EX01-01-N	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ/J ICS-L).
	Cadmium	-1.4	0.7	TU518-EX01-02-N	
	Lead	-18.5	1.9	TU518-EX01-03-N	
	Nickel	-20.3	4.9	TU518-EX01-04-N	
	Selenium	-20.7	7.4	TU518-EX01-05-N	
	Thallium	-10.2	6.5	TU904-EX01-01-N	
			TU904-EX01-02-N		
			TU904-EX01-03-N		
			TU904-EX01-04-N		
			TU904-EX01-05-N		
			TU508-EX01-02-N		
			TU508-EX01-03-N		
			TU508-EX01-04-N		
			TU508-EX01-05-N		
Calcium, Iron	Antimony	-9.5	7.5	TU904-EX01-03-D	
	Cadmium	-1.4	0.7		
	Lead	-18.5	1.9		
	Selenium	-20.7	7.4		
	Thallium	-10.2	6.5		
Calcium, Iron, Magnesium	Antimony	-9.5	7.5	TU508-EX01-01-N	
	Cadmium	-1.4	0.7		
	Lead	-18.5	1.9		
	Nickel	-20.3	4.9		
	Selenium	-20.7	7.4		
	Thallium	-10.2	6.5		
Calcium, Iron	Antimony	-9.5	7.5	TU508-EX01-01-D	
	Cadmium	-1.4	0.7		
	Lead	-18.5	1.9		
	Nickel	-20.3	4.9		
	Selenium	-20.7	7.4		
	Thallium	-10.2	6.5		

µg/L – Micrograms per Liter
MDL – Method Detection Limit

ICS – Interference Check Standard
UJ/J - Estimated

L – Low Bias

Table 7: Internal Standard Recovery Outliers and Resultant Data Qualification

Sample	Internal Standard	Response (Limits)	Qualification
VOCs			
TU508-EX01-04-N	1,4-Dichlorobenzene-d4	169632 (178000-712000)	As the internal standard responses were below the lower acceptance limits, the non-detect VOC results for sample TU508-EX01-04-N were qualified as estimated (UJ IS-I). Data qualification for the detected VOC results was not considered necessary, as the calculation corrects for reduced extraction efficiency.
	Pentafluorobenzene	243436 (244000-975000)	

PAHs			
TU518-EX01-01-N (1X)	Acenaphthene-d10	49186 (11600-46400)	As the internal standard responses were above the upper acceptance limits, the associated PAH results were qualified as estimated (UJ/J IS-I).
	Phenanthrene-d10	69326 (16100-64300)	
TU518-EX01-02-N (1X)		65250 (16100-64300)	

%R - Percent Recovery

I – Indeterminate Bias

IS – Internal Standard

PAHs – Polynuclear Aromatic Hydrocarbons

UJ – Estimated

VOCs – Volatile Organic Compounds

Bold indicates a recovery outside of acceptance limits.

Table 8: LCS Recovery Outliers and Resultant Data Qualification

Associated Samples	Analyte	%R (Limits)	RPD (Limits)	Qualification
Metals				
LCS WG752305 TU518-EX01-01-N TU518-EX01-02-N TU518-EX01-03-N TU518-EX01-04-N TU518-EX01-05-N TU904-EX01-01-N TU904-EX01-02-N TU904-EX01-03-D TU904-EX01-03-N TU904-EX01-04-N TU904-EX01-05-N TU508-EX01-01-N TU508-EX01-01-D TU508-EX01-02-N TU508-EX01-03-N TU508-EX01-04-N TU508-EX01-05-N	Aluminum	70/71 (80-120)	1 (50)	As the potential bias was considered to be low, the associated aluminum results were qualified as estimated (J LCS-L).
	Antimony	136/126 (80-120)	8 (50)	As the potential bias was considered to be high, and the associated sample results were reported as non-detect, data qualification was not considered necessary.
GRO				
LCS WG752774 TU518-TRIPBLANK01-NT01	GRO	76.9/82.2 (80-120)	6.63 (30)	As the potential bias was considered to be low, the associated aluminum results were qualified as estimated (UJ LCS-L).
PAHs				
LCS WG752686 TU518-EX01-01-N TU518-EX01-02-N TU518-EX01-03-N TU518-EX01-04-N TU518-EX01-05-N TU904-EX01-01-N TU904-EX01-02-N	Anthracene	118/108 (55-110)	8.8 (30)	As the potential bias was considered to be high, and the associated sample results were reported as non-detect, data qualification was not considered necessary. Data qualifications for the detected PAHs were qualified as estimated (J LCS-H).
	Chrysene	120/116 (55-110)	3.38 (30)	
	Fluoranthene	116/116 (55-115)	2.89 (30)	

Associated Samples	Analyte	%R (Limits)	RPD (Limits)	Qualification
TU904-EX01-03-D TU904-EX01-03-N TU904-EX01-04-N TU904-EX01-05-N TU508-EX01-01-N TU508-EX01-01-D TU508-EX01-02-N TU508-EX01-03-N TU508-EX01-04-N TU508-EX01-05-N	2-Methylnapthalene	108 /103 (45-105)	4.85 (30)	

%R – Percent Recoveries

LCS – Laboratory Control Sample

Bold indicates a recovery outside of acceptance limits.

H – High Bias

UJ/J - Estimated

L – Low Bias



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU518-EX01-01-N
Collected By : Jon Mallonee
Collection Date : 10/28/14 10:00

ESC Sample # : L730645-01

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.3				su		9045D	10/31/14	1
Total Solids	TSOLIDS	58.5	.0333			%		2540 G-2	11/04/14	1
Mercury	7439-97-6	U	.0048	0.017	0.034	mg/kg		7471	10/31/14	1
Aluminum	7429-90-5	3200	31	43.	85.	mg/kg		6010B	11/10/14	5
Antimony	7440-36-0	U	6.5	8.6	17.	mg/kg		6010B	11/10/14	5
Arsenic	7440-38-2	U	5.5	8.6	17.	mg/kg		6010B	11/10/14	5
Barium	7440-39-3	74.	1.4	2.1	4.3	mg/kg		6010B	11/10/14	5
Beryllium	7440-41-7	U	.6	0.86	1.7	mg/kg		6010B	11/10/14	5
Cadmium	7440-43-9	U	.6	2.1	4.3	mg/kg		6010B	11/10/14	5
Chromium	7440-47-3	4.8	1.2	4.3	8.5	mg/kg	J	6010B	11/10/14	5
Cobalt	7440-48-4	U	2	4.3	8.5	mg/kg		6010B	11/10/14	5
Copper	7440-50-8	U	4.4	8.6	17.	mg/kg		6010B	11/10/14	5
Lead	7439-92-1	8.2	1.6	2.1	4.3	mg/kg		6010B	11/10/14	5
Manganese	7439-96-5	100	1	4.3	8.5	mg/kg		6010B	11/10/14	5
Nickel	7440-02-0	4.3	4.1	8.6	17.	mg/kg	J	6010B	11/10/14	5
Selenium	7782-49-2	U	6.3	8.6	17.	mg/kg		6010B	11/10/14	5
Silver	7440-22-4	U	2.4	4.3	8.5	mg/kg		6010B	11/10/14	5
Thallium	7440-28-0	U	5.5	8.6	17.	mg/kg		6010B	11/10/14	5
Vanadium	7440-62-2	15.	2	8.6	17.	mg/kg	J	6010B	11/10/14	5
Zinc	7440-66-6	17.	5.1	21.	43.	mg/kg	J	6010B	11/10/14	5
TPH (GC/FID) Low Fraction	8006-61-9	11.	.7	1.6	3.2	mg/kg		8015D/GR	11/07/14	18.75
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	104.				% Rec.		8015D/GR	11/07/14	18.75
Volatile Organics										
Acetone	67-64-1	0.15	.017	0.043	0.085	mg/kg		8260B	11/05/14	1
Benzene	71-43-2	0.0024	.00046	0.00086	0.0017	mg/kg		8260B	11/05/14	1
Bromobenzene	108-86-1	U	.00048	0.00086	0.0017	mg/kg		8260B	11/05/14	1
Bromochloromethane	74-97-5	U	.00067	0.00086	0.0017	mg/kg		8260B	11/05/14	1
Bromodichloromethane	75-27-4	U	.00043	0.00086	0.0017	mg/kg		8260B	11/05/14	1
Bromoform	75-25-2	U	.00072	0.00086	0.0017	mg/kg		8260B	11/05/14	1
Bromomethane	74-83-9	U	.0022	0.0043	0.0085	mg/kg		8260B	11/05/14	1
n-Butylbenzene	104-51-8	0.0048	.00044	0.00086	0.0017	mg/kg		8260B	11/05/14	1
sec-Butylbenzene	135-98-8	0.031	.00034	0.00086	0.0017	mg/kg		8260B	11/05/14	1
tert-Butylbenzene	98-06-6	0.00092	.00036	0.00086	0.0017	mg/kg	J	8260B	11/05/14	1
Carbon Disulfide	75-15-0	0.010	.00048	0.00086	0.0017	mg/kg		8260B	11/05/14	1
Carbon tetrachloride	56-23-5	U	.00056	0.00086	0.0017	mg/kg		8260B	11/05/14	1
Chlorobenzene	108-90-7	U	.00036	0.00086	0.0017	mg/kg		8260B	11/05/14	1
Chlorodibromomethane	124-48-1	U	.00063	0.00086	0.0017	mg/kg		8260B	11/05/14	1
Chloroethane	75-00-3	U	.0016	0.0043	0.0085	mg/kg		8260B	11/05/14	1
Chloroform	67-66-3	U	.00039	0.0043	0.0085	mg/kg		8260B	11/05/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:21

L730645-01 (ICP METALS) - Dilution due to matrix

L730645-01 (PH) - 6.3@20.7c

KA 2/14/15
BMS 2/14/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU518-EX01-01-N
Collected By : Jon Mallonee
Collection Date : 10/28/14 10:00

ESC Sample # : L730645-01

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00065	0.00086	0.0043	mg/kg		8260B	11/05/14	1
2-Chlorotoluene	95-49-8	U	.00051	0.00086	0.0017	mg/kg		8260B	11/05/14	1
4-Chlorotoluene	106-43-4	U	.00041	0.00086	0.0017	mg/kg		8260B	11/05/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0017	0.0043	0.0085	mg/kg		8260B	11/05/14	1
1,2-Dibromoethane	106-93-4	U	.00058	0.00086	0.0017	mg/kg		8260B	11/05/14	1
Dibromomethane	74-95-3	U	.00065	0.00086	0.0017	mg/kg		8260B	11/05/14	1
1,2-Dichlorobenzene	95-50-1	U	.00051	0.00086	0.0017	mg/kg		8260B	11/05/14	1
1,3-Dichlorobenzene	541-73-1	U	.00041	0.00086	0.0017	mg/kg		8260B	11/05/14	1
1,4-Dichlorobenzene	106-46-7	U	.00039	0.00086	0.0017	mg/kg		8260B	11/05/14	1
Dichlorodifluoromethane	75-71-8	U	.0012	0.0043	0.0085	mg/kg		8260B	11/05/14	1
1,1-Dichloroethane	75-34-3	U	.00034	0.00086	0.0017	mg/kg		8260B	11/05/14	1
1,2-Dichloroethane	107-06-2	U	.00044	0.00086	0.0017	mg/kg		8260B	11/05/14	1
1,1-Dichloroethene	75-35-4	U	.00051	0.00086	0.0017	mg/kg		8260B	11/05/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00041	0.00086	0.0017	mg/kg		8260B	11/05/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00044	0.00086	0.0017	mg/kg		8260B	11/05/14	1
1,2-Dichloropropane	78-87-5	U	.00062	0.00086	0.0017	mg/kg		8260B	11/05/14	1
1,1-Dichloropropene	563-58-6	U	.00055	0.00086	0.0017	mg/kg		8260B	11/05/14	1
1,3-Dichloropropane	142-28-9	U	.00036	0.00086	0.0017	mg/kg		8260B	11/05/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00044	0.00086	0.0017	mg/kg		8260B	11/05/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00046	0.00086	0.0017	mg/kg		8260B	11/05/14	1
2,2-Dichloropropane	594-20-7	U	.00048	0.00086	0.0017	mg/kg		8260B	11/05/14	1
Ethylbenzene <i>FJ SQL, SUR-H</i>	100-41-4	0.0011	.00051	0.00086	0.0017	mg/kg	J	8260B	11/05/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00058	0.00086	0.0017	mg/kg		8260B	11/05/14	1
2-Hexanone	591-78-6	U	.0065	0.0086	0.017	mg/kg		8260B	11/05/14	1
Isopropylbenzene <i>J SUR-H</i>	98-82-8	0.0031	.00041	0.00086	0.0017	mg/kg		8260B	11/05/14	1
p-Isopropyltoluene	99-87-6	U	.00034	0.00086	0.0017	mg/kg		8260B	11/05/14	1
2-Butanone (MEK) <i>J SUR-H</i>	78-93-3	0.024	.008	0.0086	0.017	mg/kg		8260B	11/05/14	1
Methylene Chloride	75-09-2	U	.0017	0.0043	0.0085	mg/kg		8260B	11/05/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0032	0.0086	0.017	mg/kg		8260B	11/05/14	1
Methyl tert-butyl ether	1634-04-4	U	.00036	0.00086	0.0017	mg/kg		8260B	11/05/14	1
Naphthalene <i>J SUR-H</i>	91-20-3	0.017	.0017	0.0043	0.0085	mg/kg		8260B	11/05/14	1
n-Propylbenzene <i>J SUR-H</i>	103-65-1	0.0019	.00036	0.00086	0.0017	mg/kg		8260B	11/05/14	1
Styrene	100-42-5	U	.00039	0.00086	0.0017	mg/kg		8260B	11/05/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00044	0.00086	0.0017	mg/kg		8260B	11/05/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00062	0.0013	0.0017	mg/kg		8260B	11/05/14	1
Tetrachloroethene	127-18-4	U	.00048	0.00086	0.0017	mg/kg		8260B	11/05/14	1
Toluene <i>FJ SQL, SUR-H</i>	108-88-3	0.0015	.00074	0.0043	0.0085	mg/kg	J	8260B	11/05/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00053	0.00086	0.0017	mg/kg		8260B	11/05/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00067	0.00086	0.0017	mg/kg		8260B	11/05/14	1
1,1,1-Trichloroethane	71-55-6	U	.00049	0.00086	0.0017	mg/kg		8260B	11/05/14	1
1,1,2-Trichloroethane	79-00-5	U	.00048	0.00086	0.0017	mg/kg		8260B	11/05/14	1
Trichloroethene	79-01-6	U	.00048	0.00086	0.0017	mg/kg		8260B	11/05/14	1
Trichlorofluoromethane	75-69-4	U	.00065	0.0043	0.0085	mg/kg		8260B	11/05/14	1
1,2,3-Trichloropropane	96-18-4	U	.0013	0.0017	0.0043	mg/kg		8260B	11/05/14	1
1,2,4-Trimethylbenzene <i>FJ SQL, SUR-H</i>	98-63-6	0.00090	.00036	0.00086	0.0017	mg/kg	J	8260B	11/05/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:21

L730645-01 (ICP METALS) - Dilution due to matrix

L730645-01 (PH) - 6.3@20.7c

KA 2/9/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB

ESC Sample # : L730645-01

Sample ID : TU518-EX01-01-N

Site ID :

Collected By : Jon Mallonee
Collection Date : 10/28/14 10:00

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00058	0.00086	0.0017	mg/kg		8260B	11/05/14	1
m&p-Xylene	1330-20-7	U	.0012	0.0017	0.0034	mg/kg		8260B	11/05/14	1
Vinyl chloride	75-01-4	U	.0005	0.00086	0.0017	mg/kg		8260B	11/05/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00046	0.00086	0.0017	mg/kg		8260B	11/05/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	95.8				% Rec.		8260B	11/05/14	1
Dibromofluoromethane	1868-53-7	125.				% Rec.	J1	8260B	11/05/14	1
4-Bromofluorobenzene	460-00-4	180.				% Rec.	J1	8260B	11/05/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		1200	14	17.	34.	mg/kg		8015	11/04/14	5
C28-C40 Oil Range		90.	.46	3.4	6.8	mg/kg		8015	11/04/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	109.				% Rec.		8015	11/04/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene <i>F3 SOL IS-I, LCS-H</i>	120-12-7	0.044	.02	0.068	0.20	mg/kg	J	8270C-SI	11/10/14	20
Acenaphthene <i>F3 SOL IS-I</i>	83-32-9	0.082	.02	0.068	0.20	mg/kg	J	8270C-SI	11/10/14	20
Acenaphthylene <i>F3 SOL IS-I</i>	208-96-8	U	.02	0.068	0.20	mg/kg	J	8270C-SI	11/10/14	20
Benzo (a) anthracene <i>F3 SOL IS-I</i>	56-55-3	0.0024	.001	0.0034	0.010	mg/kg	J	8270C-SI	11/06/14	1
Benzo (a) pyrene <i>F3 SOL IS-I</i>	50-32-8	0.0017	.001	0.0034	0.010	mg/kg	J	8270C-SI	11/06/14	1
Benzo (b) fluoranthene <i>F3 SOL IS-I</i>	205-99-2	0.0024	.001	0.0034	0.010	mg/kg	J	8270C-SI	11/06/14	1
Benzo (g, h, i) perylene <i>F3 SOL IS-I</i>	191-24-2	0.0019	.001	0.0034	0.010	mg/kg	J	8270C-SI	11/06/14	1
Benzo (k) fluoranthene	207-08-9	U	.001	0.0034	0.010	mg/kg	J	8270C-SI	11/06/14	1
Chrysene <i>F3 SOL IS-I, LCS-H</i>	218-01-9	0.0013	.001	0.0034	0.010	mg/kg	J	8270C-SI	11/06/14	1
Dibenz (a, h) anthracene	53-70-3	U	.001	0.0034	0.010	mg/kg	J	8270C-SI	11/06/14	1
Fluoranthene <i>F3 SOL IS-I</i>	206-44-0	U	.02	0.068	0.20	mg/kg	J	8270C-SI	11/10/14	20
Fluorene <i>F3 SOL IS-I, LCS-H</i>	86-73-7	0.089	.02	0.068	0.20	mg/kg	J	8270C-SI	11/10/14	20
Indeno (1,2,3-cd) pyrene <i>F3 SOL IS-I</i>	193-39-5	0.0014	.001	0.0034	0.010	mg/kg	J	8270C-SI	11/06/14	1
Naphthalene <i>DNR</i>	91-20-3	0.012	.001	0.010	0.034	mg/kg	J	8270C-SI	11/06/14	1
Phenanthrene <i>F3 SOL IS-I</i>	85-01-8	0.17	.02	0.068	0.20	mg/kg	J	8270C-SI	11/10/14	20
Pyrene	129-00-0	0.067	.001	0.0034	0.010	mg/kg	J	8270C-SI	11/06/14	1
2-Methylnaphthalene <i>F3 SOL IS-I, LCS-H</i>	91-57-6	0.0038	.0011	0.010	0.034	mg/kg	J	8270C-SI	11/06/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	107.				% Rec.		8270C-SI	11/06/14	1
Nitrobenzene-d5	4165-60-0	104.				% Rec.		8270C-SI	11/06/14	1
2-Fluorobiphenyl	321-60-8	106.				% Rec.	J7	8270C-SI	11/10/14	20
Base/Neutral Extractables										
Bis (2-chloroethoxy) methane	111-91-1	U	.013	0.29	0.57	mg/kg		8270C	11/04/14	1
Bis (2-chloroethyl) ether <i>USCCAL-L</i>	111-44-4	U	.015	0.29	0.57	mg/kg		8270C	11/04/14	1
Bis (2-chloroisopropyl) ether <i>USCCAL-L</i>	108-60-1	U	.013	0.29	0.57	mg/kg		8270C	11/04/14	1
Benzyl Alcohol	100-51-6	U	.013	0.29	0.57	mg/kg		8270C	11/04/14	1
Benzoic acid	65-85-0	U	.2	2.9	5.7	mg/kg		8270C	11/04/14	1
Carbazole	86-74-8	U	.0089	0.29	0.57	mg/kg		8270C	11/04/14	1

Results listed are dry weight basis.

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:21

L730645-01 (ICP METALS) - Dilution due to matrix

L730645-01 (PH) - 6.3@20.7c

DNR: Do Not Report

KA 2/1/15

BUS 9/11/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU518-EX01-01-N
Collected By : Jon Mallonee
Collection Date : 10/28/14 10:00

ESC Sample # : L730645-01

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0089	0.29	0.57	mg/kg		8270C	11/04/14	1
4-Bromophenyl-phenylether	101-55-3	U	.019	0.29	0.57	mg/kg		8270C	11/04/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.011	0.29	0.57	mg/kg		8270C	11/04/14	1
2-Chloronaphthalene	91-58-7	U	.011	0.29	0.57	mg/kg		8270C	11/04/14	1
3,3-Dichlorobenzidine	91-94-1	U	.14	0.29	0.57	mg/kg		8270C	11/04/14	1
2,4-Dinitrotoluene	121-14-2	U	.01	0.29	0.57	mg/kg		8270C	11/04/14	1
2,6-Dinitrotoluene	606-20-2	U	.013	0.29	0.57	mg/kg		8270C	11/04/14	1
Hexachlorobenzene	118-74-1	U	.015	0.29	0.57	mg/kg		8270C	11/04/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.017	0.29	0.57	mg/kg		8270C	11/04/14	1
Hexachloroethane	67-72-1	U	.022	0.29	0.57	mg/kg		8270C	11/04/14	1
Isophorone	78-59-1	0.034	.0089	0.29	0.57	mg/kg	J	8270C	11/04/14	1
Nitrobenzene	98-95-3	U	.012	0.29	0.57	mg/kg		8270C	11/04/14	1
n-Nitrosodimethylamine	62-75-9	U	.11	0.29	0.57	mg/kg		8270C	11/04/14	1
n-Nitrosodiphenylamine	86-30-6	U	.01	0.29	0.57	mg/kg		8270C	11/04/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.016	0.29	0.57	mg/kg		8270C	11/04/14	1
Benzylbutyl phthalate	85-68-7	U	.017	0.29	0.57	mg/kg		8270C	11/04/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	1.3	.02	0.29	0.57	mg/kg		8270C	11/04/14	1
Di-n-butyl phthalate	84-74-2	U	.019	0.29	0.57	mg/kg		8270C	11/04/14	1
Diethyl phthalate	84-66-2	U	.012	0.29	0.57	mg/kg		8270C	11/04/14	1
Dimethyl phthalate	131-11-3	U	.0092	0.29	0.57	mg/kg		8270C	11/04/14	1
Di-n-octyl phthalate	117-84-0	2.9	.16	2.9	5.7	mg/kg	J	8270C	11/05/14	10
1,2,4-Trichlorobenzene	120-82-1	U	.015	0.29	0.57	mg/kg		8270C	11/04/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0082	0.29	0.57	mg/kg		8270C	11/04/14	1
2-Chlorophenol	95-57-8	U	.014	0.29	0.57	mg/kg		8270C	11/04/14	1
2,4-Dichlorophenol	120-83-2	U	.013	0.29	0.57	mg/kg		8270C	11/04/14	1
2,4-Dimethylphenol	105-67-9	U	.08	0.29	0.57	mg/kg		8270C	11/04/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.2	0.29	0.57	mg/kg		8270C	11/04/14	1
2,4-Dinitrophenol	51-28-5	U	.17	0.29	0.57	mg/kg		8270C	11/04/14	1
2-Methylphenol	95-48-7	U	.017	0.29	0.57	mg/kg		8270C	11/04/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.013	0.29	0.57	mg/kg		8270C	11/04/14	1
2-Nitrophenol	88-75-5	U	.022	0.29	0.57	mg/kg		8270C	11/04/14	1
4-Nitrophenol	100-02-7	U	.089	0.29	0.57	mg/kg		8270C	11/04/14	1
4-Chloroaniline	106-47-8	U	.006	0.29	0.57	mg/kg		8270C	11/04/14	1
2-Nitroaniline	88-74-4	U	.013	0.29	0.57	mg/kg		8270C	11/04/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0024	0.29	0.57	mg/kg		8270C	11/04/14	1
3-Nitroaniline	99-09-2	U	.014	0.29	0.57	mg/kg		8270C	11/04/14	1
4-Nitroaniline	100-01-6	U	.011	0.29	0.57	mg/kg		8270C	11/04/14	1
Pentachlorophenol	87-86-5	U	.082	0.29	0.57	mg/kg		8270C	11/04/14	1
Phenol	108-95-2	U	.012	0.29	0.57	mg/kg		8270C	11/04/14	1
2,4,5-Trichlorophenol	95-95-4	U	.017	0.29	0.57	mg/kg		8270C	11/04/14	1
2,4,6-Trichlorophenol	88-06-2	U	.013	0.29	0.57	mg/kg		8270C	11/04/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	57.6				% Rec.		8270C	11/04/14	1
Phenol-d5	4165-62-2	57.9				% Rec.		8270C	11/04/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

Note:

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The reported analytical results relate only to the sample submitted

Reported: 11/10/14 16:32 Revised: 11/20/14 09:21

L730645-01 (ICP METALS) - Dilution due to matrix

L730645-01 (PH) - 6.3@20.7c

DNR = Do not report

*KA 2/14/15
BMS 2/17/15*



12065 Lebanon Rd.
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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
 Description : Holloman AFB
 Sample ID : TU518-EX01-01-N
 Collected By : Jon Mallonee
 Collection Date : 10/28/14 10:00

ESC Sample # : L730645-01

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	71.3				% Rec.		8270C	11/04/14	1
2-Fluorobiphenyl	321-60-8	57.7				% Rec.		8270C	11/04/14	1
2,4,6-Tribromophenol	118-79-6	81.7				% Rec.		8270C	11/04/14	1
p-Terphenyl-d14	1718-51-0	57.7				% Rec.		8270C	11/04/14	1

Results listed are dry weight basis.
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Reported: 11/10/14 16:32 Revised: 11/20/14 09:21
 L730645-01 (ICP METALS) - Dilution due to matrix
 L730645-01 (PH) - 6.3@20.7c

KAZ/als



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU518-EX01-02-N
Collected By : Jon Mallonee
Collection Date : 10/28/14 11:10

ESC Sample # : L730645-02

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.4				su		9045D	10/31/14	1
Total Solids	TSOLIDS	62.5	.0333			%		2540 G-2	11/04/14	1
Mercury	7439-97-6	U	.0045	0.016	0.032	mg/kg		7471	10/31/14	1
Aluminum	7429-90-5	800	.29	40.	80.	mg/kg		6010B	11/10/14	5
Antimony	7440-36-0	U	6.1	8.0	16.	mg/kg		6010B	11/10/14	5
Arsenic	7440-38-2	U	5.1	8.0	16.	mg/kg		6010B	11/10/14	5
Barium	7440-39-3	34.	1.4	2.0	4.0	mg/kg		6010B	11/10/14	5
Beryllium	7440-41-7	U	.56	0.80	1.6	mg/kg		6010B	11/10/14	5
Cadmium	7440-43-9	U	.56	2.0	4.0	mg/kg		6010B	11/10/14	5
Chromium	7440-47-3	1.9	1.1	4.0	8.0	mg/kg	J	6010B	11/10/14	5
Cobalt	7440-48-4	U	1.9	4.0	8.0	mg/kg		6010B	11/10/14	5
Copper	7440-50-8	U	4.2	8.0	16.	mg/kg		6010B	11/10/14	5
Lead	7439-92-1	1.9	1.5	2.0	4.0	mg/kg	J	6010B	11/10/14	5
Manganese	7439-96-5	42.	.96	4.0	8.0	mg/kg		6010B	11/10/14	5
Nickel	7440-02-0	U	3.8	8.0	16.	mg/kg		6010B	11/10/14	5
Selenium	7782-49-2	U	5.9	8.0	16.	mg/kg		6010B	11/10/14	5
Silver	7440-22-4	U	2.2	4.0	8.0	mg/kg		6010B	11/10/14	5
Thallium	7440-28-0	U	5.1	8.0	16.	mg/kg		6010B	11/10/14	5
Vanadium	7440-62-2	6.9	1.9	8.0	16.	mg/kg	J	6010B	11/10/14	5
Zinc	7440-66-6	8.5	4.8	20.	40.	mg/kg	J	6010B	11/10/14	5
TPH (GC/FID) Low Fraction	8006-61-9	5.0	.035	0.080	0.16	mg/kg		8015D/GR	11/07/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	99.8				% Rec.		8015D/GR	11/07/14	1
Volatile Organics										
Acetone	67-64-1	0.15	.016	0.040	0.080	mg/kg		8260B	11/05/14	1
Benzene	71-43-2	0.0029	.00043	0.00080	0.0016	mg/kg		8260B	11/05/14	1
Bromobenzene	108-86-1	U	.00045	0.00080	0.0016	mg/kg		8260B	11/05/14	1
Bromochloromethane	74-97-5	U	.00062	0.00080	0.0016	mg/kg		8260B	11/05/14	1
Bromodichloromethane	75-27-4	U	.0004	0.00080	0.0016	mg/kg		8260B	11/05/14	1
Bromoform	75-25-2	U	.00067	0.00080	0.0016	mg/kg		8260B	11/05/14	1
Bromomethane	74-83-9	U	.0021	0.0040	0.0080	mg/kg		8260B	11/05/14	1
n-Butylbenzene	104-51-8	U	.00042	0.00080	0.0016	mg/kg		8260B	11/05/14	1
sec-Butylbenzene	135-98-8	0.035	.00032	0.00080	0.0016	mg/kg		8260B	11/05/14	1
tert-Butylbenzene	98-06-6	0.0013	.00034	0.00080	0.0016	mg/kg	J	8260B	11/05/14	1
Carbon Disulfide	75-15-0	0.0098	.00045	0.00080	0.0016	mg/kg		8260B	11/05/14	1
Carbon tetrachloride	56-23-5	U	.00053	0.00080	0.0016	mg/kg		8260B	11/05/14	1
Chlorobenzene	108-90-7	U	.00034	0.00080	0.0016	mg/kg		8260B	11/05/14	1
Chlorodibromomethane	124-48-1	U	.00059	0.00080	0.0016	mg/kg		8260B	11/05/14	1
Chloroethane	75-00-3	U	.0015	0.0040	0.0080	mg/kg		8260B	11/05/14	1
Chloroform	67-66-3	U	.00037	0.0040	0.0080	mg/kg		8260B	11/05/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:21

L730645-02 (PH) - 6.4@21.1c

L730645-02 (ICP METALS) - Dilution due to matrix

KAZ/alis
BMS 2/19/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU518-EX01-02-N
Collected By : Jon Mallonee
Collection Date : 10/28/14 11:10

ESC Sample # : L730645-02

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00061	0.00080	0.0040	mg/kg		8260B	11/05/14	1
2-Chlorotoluene	95-49-8	U	.00048	0.00080	0.0016	mg/kg		8260B	11/05/14	1
4-Chlorotoluene	106-43-4	U	.00038	0.00080	0.0016	mg/kg		8260B	11/05/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0016	0.0040	0.0080	mg/kg		8260B	11/05/14	1
1,2-Dibromoethane	106-93-4	U	.00054	0.00080	0.0016	mg/kg		8260B	11/05/14	1
Dibromomethane	74-95-3	U	.00061	0.00080	0.0016	mg/kg		8260B	11/05/14	1
1,2-Dichlorobenzene	95-50-1	U	.00048	0.00080	0.0016	mg/kg		8260B	11/05/14	1
1,3-Dichlorobenzene	541-73-1	U	.00038	0.00080	0.0016	mg/kg		8260B	11/05/14	1
1,4-Dichlorobenzene	106-46-7	U	.00037	0.00080	0.0016	mg/kg		8260B	11/05/14	1
Dichlorodifluoromethane	75-71-8	U	.0011	0.0040	0.0080	mg/kg		8260B	11/05/14	1
1,1-Dichloroethane	75-34-3	U	.00032	0.00080	0.0016	mg/kg		8260B	11/05/14	1
1,2-Dichloroethane	107-06-2	U	.00042	0.00080	0.0016	mg/kg		8260B	11/05/14	1
1,1-Dichloroethene	75-35-4	U	.00048	0.00080	0.0016	mg/kg		8260B	11/05/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00038	0.00080	0.0016	mg/kg		8260B	11/05/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00042	0.00080	0.0016	mg/kg		8260B	11/05/14	1
1,2-Dichloropropane	78-87-5	U	.00058	0.00080	0.0016	mg/kg		8260B	11/05/14	1
1,1-Dichloropropene	563-58-6	U	.00051	0.00080	0.0016	mg/kg		8260B	11/05/14	1
1,3-Dichloropropane	142-28-9	U	.00034	0.00080	0.0016	mg/kg		8260B	11/05/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00042	0.00080	0.0016	mg/kg		8260B	11/05/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00043	0.00080	0.0016	mg/kg		8260B	11/05/14	1
2,2-Dichloropropane	594-20-7	U	.00045	0.00080	0.0016	mg/kg		8260B	11/05/14	1
Ethylbenzene <i>FS SOL, SUR-H</i>	100-41-4	0.00069	.00048	0.00080	0.0016	mg/kg	J	8260B	11/05/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00054	0.00080	0.0016	mg/kg		8260B	11/05/14	1
2-Hexanone	591-78-6	U	.0061	0.0080	0.016	mg/kg		8260B	11/05/14	1
Isopropylbenzene <i>J SUR-H</i>	98-82-8	0.0074	.00038	0.00080	0.0016	mg/kg		8260B	11/05/14	1
p-Isopropyltoluene <i>FS SOL, SUR-H</i>	99-87-6	0.00078	.00032	0.00080	0.0016	mg/kg	J	8260B	11/05/14	1
2-Butanone (MEK) <i>J SUR-H</i>	78-93-3	0.026	.0075	0.0080	0.016	mg/kg		8260B	11/05/14	1
Methylene Chloride	75-09-2	U	.0016	0.0040	0.0080	mg/kg		8260B	11/05/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.003	0.0080	0.016	mg/kg		8260B	11/05/14	1
Methyl tert-butyl ether	1634-04-4	U	.00034	0.00080	0.0016	mg/kg		8260B	11/05/14	1
Naphthalene <i>J SUR-H</i>	91-20-3	0.045	.0016	0.0040	0.0080	mg/kg		8260B	11/05/14	1
n-Propylbenzene	103-65-1	U	.00034	0.00080	0.0016	mg/kg		8260B	11/05/14	1
Styrene	100-42-5	U	.00037	0.00080	0.0016	mg/kg		8260B	11/05/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00042	0.00080	0.0016	mg/kg		8260B	11/05/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00058	0.0012	0.0016	mg/kg		8260B	11/05/14	1
Tetrachloroethene	127-18-4	U	.00045	0.00080	0.0016	mg/kg		8260B	11/05/14	1
Toluene <i>FS SOL, SUR-H</i>	108-88-3	0.0026	.00069	0.0040	0.0080	mg/kg	J	8260B	11/05/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.0005	0.00080	0.0016	mg/kg		8260B	11/05/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00062	0.00080	0.0016	mg/kg		8260B	11/05/14	1
1,1,1-Trichloroethane	71-55-6	U	.00046	0.00080	0.0016	mg/kg		8260B	11/05/14	1
1,1,2-Trichloroethane	79-00-5	U	.00045	0.00080	0.0016	mg/kg		8260B	11/05/14	1
Trichloroethene	79-01-6	U	.00045	0.00080	0.0016	mg/kg		8260B	11/05/14	1
Trichlorofluoromethane	75-69-4	U	.00061	0.0040	0.0080	mg/kg		8260B	11/05/14	1
1,2,3-Trichloropropane	96-18-4	U	.0012	0.0016	0.0040	mg/kg		8260B	11/05/14	1
1,2,4-Trimethylbenzene <i>FS SOL, SUR-H</i>	95-63-6	0.0012	.00034	0.00080	0.0016	mg/kg	J	8260B	11/05/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:21

L730645-02 (PH) - 6.4@21.1c

L730645-02 (ICP METALS) - Dilution due to matrix

EA 2/1/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU518-EX01-02-N
Collected By : Jon Mallonee
Collection Date : 10/28/14 11:10

ESC Sample # : L730645-02

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00054	0.00080	0.0016	mg/kg		8260B	11/05/14	1
m&p-Xylene <i>FS SOLISOR-H</i>	1330-20-7	0.0012	.0012	0.0016	0.0032	mg/kg	J	8260B	11/05/14	1
Vinyl chloride	75-01-4	U	.00046	0.00080	0.0016	mg/kg		8260B	11/05/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00043	0.00080	0.0016	mg/kg		8260B	11/05/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	98.1				% Rec.		8260B	11/05/14	1
Dibromofluoromethane	1868-53-7	120.				% Rec.		8260B	11/05/14	1
4-Bromofluorobenzene	460-00-4	186.				% Rec.	J1	8260B	11/05/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		1000	13	16.	32.	mg/kg		8015	11/04/14	5
C28-C40 Oil Range <i>FSOL-I</i>		2.4	.43	3.2	6.4	mg/kg	J	8015	11/04/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	107.				% Rec.		8015	11/04/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene <i>FS SOL, IS, LCS-H</i>	120-12-7	0.080	.019	0.064	0.19	mg/kg	J	8270C-SI	11/10/14	20
Acenaphthene	83-32-9	0.13	.00096	0.0032	0.0096	mg/kg		8270C-SI	11/06/14	1
Acenaphthylene	208-96-8	0.016	.00096	0.0032	0.0096	mg/kg		8270C-SI	11/06/14	1
Benzo(a)anthracene <i>FSOL-I</i>	56-55-3	0.0012	.00096	0.0032	0.0096	mg/kg	J	8270C-SI	11/06/14	1
Benzo(a)pyrene	50-32-8	U	.00096	0.0032	0.0096	mg/kg		8270C-SI	11/06/14	1
Benzo(b)fluoranthene <i>US NS-I</i>	205-99-2	U	.00096	0.0032	0.0096	mg/kg		8270C-SI	11/06/14	1
Benzo(g,h,i)perylene <i>FSOL-I</i>	191-24-2	0.0030	.00096	0.0032	0.0096	mg/kg	J	8270C-SI	11/06/14	1
Benzo(k)fluoranthene	207-08-9	U	.00096	0.0032	0.0096	mg/kg		8270C-SI	11/06/14	1
Chrysene <i>FSOL-I, LCS-H</i>	218-01-9	0.0056	.00096	0.0032	0.0096	mg/kg	J	8270C-SI	11/06/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00096	0.0032	0.0096	mg/kg		8270C-SI	11/06/14	1
Fluoranthene <i>US IS-I</i>	206-44-0	U	.019	0.064	0.19	mg/kg		8270C-SI	11/10/14	20
Fluorene	86-73-7	0.022	.00096	0.0032	0.0096	mg/kg		8270C-SI	11/06/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00096	0.0032	0.0096	mg/kg		8270C-SI	11/06/14	1
Naphthalene <i>DNR</i>	91-20-3	0.032	.00096	0.0032	0.0096	mg/kg		8270C-SI	11/06/14	1
Phenanthrene <i>J IS-I</i>	85-01-8	0.27	.019	0.064	0.19	mg/kg		8270C-SI	11/10/14	20
Pyrene	129-00-0	0.11	.00096	0.0032	0.0096	mg/kg		8270C-SI	11/06/14	1
2-Methylnaphthalene <i>FSOL, LCS-H</i>	91-57-6	0.0088	.001	0.0096	0.032	mg/kg	J	8270C-SI	11/06/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	96.2				% Rec.		8270C-SI	11/06/14	1
Nitrobenzene-d5	4165-60-0	73.4				% Rec.		8270C-SI	11/06/14	1
2-Fluorobiphenyl	321-60-8	97.6				% Rec.		8270C-SI	11/06/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.012	0.27	0.53	mg/kg		8270C	11/04/14	1
Bis(2-chloroethyl)ether <i>US CAL-L</i>	111-44-4	U	.014	0.27	0.53	mg/kg		8270C	11/04/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.012	0.27	0.53	mg/kg		8270C	11/04/14	1
Benzyl Alcohol	100-51-6	U	.012	0.27	0.53	mg/kg		8270C	11/04/14	1
Benzoic acid	65-85-0	U	.19	2.7	5.3	mg/kg		8270C	11/04/14	1
Carbazole	86-74-8	U	.0083	0.27	0.53	mg/kg		8270C	11/04/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:21

L730645-02 (PH) - 6.4@21.1c

L730645-02 (ICP METALS) - Dilution due to matrix

DNR: Do Not Report

*KAZLALIS
BMS 11/11/15*



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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU518-EX01-02-N
Collected By : Jon Mallonee
Collection Date : 10/28/14 11:10

ESC Sample # : L730645-02

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran <i>FSQL-I</i>	132-64-9	0.061	.0083	0.27	0.53	mg/kg	J	8270C	11/04/14	1
4-Bromophenyl-phenylether	101-55-3	U	.018	0.27	0.53	mg/kg		8270C	11/04/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.01	0.27	0.53	mg/kg		8270C	11/04/14	1
2-Chloronaphthalene	91-58-7	U	.01	0.27	0.53	mg/kg		8270C	11/04/14	1
3,3-Dichlorobenzidine	91-94-1	U	.13	0.27	0.53	mg/kg		8270C	11/04/14	1
2,4-Dinitrotoluene	121-14-2	U	.0098	0.27	0.53	mg/kg		8270C	11/04/14	1
2,6-Dinitrotoluene	606-20-2	U	.012	0.27	0.53	mg/kg		8270C	11/04/14	1
Hexachlorobenzene	118-74-1	U	.014	0.27	0.53	mg/kg		8270C	11/04/14	1
Hexachloro-1,3-butadiene <i>DNM</i>	87-68-3	U	.016	0.27	0.53	mg/kg		8270C	11/04/14	1
Hexachloroethane	67-72-1	U	.021	0.27	0.53	mg/kg		8270C	11/04/14	1
Isophorone <i>FSQL-I</i>	78-59-1	0.053	.0083	0.27	0.53	mg/kg	J	8270C	11/04/14	1
Nitrobenzene	98-95-3	U	.011	0.27	0.53	mg/kg		8270C	11/04/14	1
n-Nitrosodimethylamine <i>USCCAL-L</i>	62-75-9	U	.1	0.27	0.53	mg/kg		8270C	11/04/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0094	0.27	0.53	mg/kg		8270C	11/04/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.014	0.27	0.53	mg/kg		8270C	11/04/14	1
Benzylbutyl phthalate	85-68-7	U	.016	0.27	0.53	mg/kg		8270C	11/04/14	1
Bis(2-ethylhexyl)phthalate <i>FSQL-I</i>	117-81-7	0.048	.019	0.27	0.53	mg/kg	J	8270C	11/04/14	1
Di-n-butyl phthalate	84-74-2	U	.018	0.27	0.53	mg/kg		8270C	11/04/14	1
Diethyl phthalate	84-66-2	U	.011	0.27	0.53	mg/kg		8270C	11/04/14	1
Dimethyl phthalate	131-11-3	U	.0086	0.27	0.53	mg/kg		8270C	11/04/14	1
Di-n-octyl phthalate <i>FSQL-I</i>	117-84-0	0.054	.014	0.27	0.53	mg/kg	J	8270C	11/04/14	1
1,2,4-Trichlorobenzene <i>DNM</i>	120-82-1	U	.014	0.27	0.53	mg/kg		8270C	11/04/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0077	0.27	0.53	mg/kg		8270C	11/04/14	1
2-Chlorophenol	95-57-8	U	.013	0.27	0.53	mg/kg		8270C	11/04/14	1
2,4-Dichlorophenol	120-83-2	U	.012	0.27	0.53	mg/kg		8270C	11/04/14	1
2,4-Dimethylphenol <i>USCCAL-L</i>	105-67-9	U	.075	0.27	0.53	mg/kg		8270C	11/04/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.19	0.27	0.53	mg/kg		8270C	11/04/14	1
2,4-Dinitrophenol	51-28-5	U	.16	0.27	0.53	mg/kg		8270C	11/04/14	1
2-Methylphenol	95-48-7	U	.016	0.27	0.53	mg/kg		8270C	11/04/14	1
3&4-Methyl Phenol <i>USCCAL-L</i>	3&4-Methyl	U	.012	0.27	0.53	mg/kg		8270C	11/04/14	1
2-Nitrophenol	88-75-5	U	.021	0.27	0.53	mg/kg		8270C	11/04/14	1
4-Nitrophenol	100-02-7	U	.083	0.27	0.53	mg/kg		8270C	11/04/14	1
4-Chloroaniline	106-47-8	U	.0056	0.27	0.53	mg/kg		8270C	11/04/14	1
2-Nitroaniline	88-74-4	U	.012	0.27	0.53	mg/kg		8270C	11/04/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0022	0.27	0.53	mg/kg		8270C	11/04/14	1
3-Nitroaniline	99-09-2	U	.014	0.27	0.53	mg/kg		8270C	11/04/14	1
4-Nitroaniline	100-01-6	U	.01	0.27	0.53	mg/kg		8270C	11/04/14	1
Pentachlorophenol	87-86-5	U	.077	0.27	0.53	mg/kg		8270C	11/04/14	1
Phenol	108-95-2	U	.011	0.27	0.53	mg/kg		8270C	11/04/14	1
2,4,5-Trichlorophenol	95-95-4	U	.016	0.27	0.53	mg/kg		8270C	11/04/14	1
2,4,6-Trichlorophenol	88-06-2	U	.012	0.27	0.53	mg/kg		8270C	11/04/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	61.2				% Rec.		8270C	11/04/14	1
Phenol-d5	4165-62-2	57.7				% Rec.		8270C	11/04/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:21

L730645-02 (PH) - 6.4@21.1c

L730645-02 (ICP METALS) - Dilution due to matrix

DNM: do not report

*EA 2/1/15
BMS 2/17/15*



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 Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
 Description : Holloman AFB
 Sample ID : TU518-EX01-02-N
 Collected By : Jon Mallonee
 Collection Date : 10/28/14 11:10

ESC Sample # : L730645-02
 Site ID :
 Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	67.9				% Rec.		8270C	11/04/14	1
2-Fluorobiphenyl	321-60-8	59.9				% Rec.		8270C	11/04/14	1
2,4,6-Tribromophenol	118-79-6	76.4				% Rec.		8270C	11/04/14	1
p-Terphenyl-d14	1718-51-0	48.7				% Rec.		8270C	11/04/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:21
 L730645-02 (PH) - 6.4@21.1c
 L730645-02 (ICP METALS) - Dilution due to matrix

KA 2/1/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU518-EX01-03-N
Collected By : Jon Mallonee
Collection Date : 10/28/14 11:40

ESC Sample # : L730645-03

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.5				su		9045D	10/31/14	1
Total Solids	TSOLIDS	89.0	.0333			%		2540 G-2	11/04/14	1
Mercury	7439-97-6	U	.0031	0.011	0.022	mg/kg		7471	10/31/14	1
Aluminum	7429-90-5	1100	20	28.	56.	mg/kg		6010B	11/10/14	5
Antimony	7440-36-0	U	4.3	5.6	11.	mg/kg		6010B	11/10/14	5
Arsenic	7440-38-2	U	3.6	5.6	11.	mg/kg		6010B	11/10/14	5
Barium	7440-39-3	47.	.96	1.4	2.8	mg/kg		6010B	11/10/14	5
Beryllium	7440-41-7	U	.39	0.56	1.1	mg/kg		6010B	11/10/14	5
Cadmium	7440-43-9	U	.39	1.4	2.8	mg/kg		6010B	11/10/14	5
Chromium	7440-47-3	1.2	.79	2.8	5.6	mg/kg	J	6010B	11/10/14	5
Cobalt	7440-48-4	U	1.3	2.8	5.6	mg/kg		6010B	11/10/14	5
Copper	7440-50-8	U	2.9	5.6	11.	mg/kg		6010B	11/10/14	5
Lead	7439-92-1	U	1.1	1.4	2.8	mg/kg		6010B	11/10/14	5
Manganese	7439-96-5	36.	.67	2.8	5.6	mg/kg		6010B	11/10/14	5
Nickel	7440-02-0	U	2.7	5.6	11.	mg/kg		6010B	11/10/14	5
Selenium	7782-49-2	U	4.2	5.6	11.	mg/kg		6010B	11/10/14	5
Silver	7440-22-4	U	1.6	2.8	5.6	mg/kg		6010B	11/10/14	5
Thallium	7440-28-0	U	3.6	5.6	11.	mg/kg		6010B	11/10/14	5
Vanadium	7440-62-2	5.3	1.3	5.6	11.	mg/kg	J	6010B	11/10/14	5
Zinc	7440-66-6	4.0	3.4	14.	28.	mg/kg	J	6010B	11/10/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.025	0.056	0.11	mg/kg		8015D/GR	11/07/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	98-08-8	102.				% Rec.		8015D/GR	11/07/14	1
Volatile Organics										
Acetone	67-64-1	0.039	.011	0.028	0.056	mg/kg	J	8260B	11/05/14	1
Benzene	71-43-2	U	.0003	0.00056	0.0011	mg/kg		8260B	11/05/14	1
Bromobenzene	108-86-1	U	.00031	0.00056	0.0011	mg/kg		8260B	11/05/14	1
Bromochloromethane	74-97-5	U	.00044	0.00056	0.0011	mg/kg		8260B	11/05/14	1
Bromodichloromethane	75-27-4	U	.00028	0.00056	0.0011	mg/kg		8260B	11/05/14	1
Bromoform	75-25-2	U	.00047	0.00056	0.0011	mg/kg		8260B	11/05/14	1
Bromomethane	74-83-9	U	.0015	0.0028	0.0056	mg/kg		8260B	11/05/14	1
n-Butylbenzene	104-51-8	U	.00029	0.00056	0.0011	mg/kg		8260B	11/05/14	1
sec-Butylbenzene	135-98-8	U	.00022	0.00056	0.0011	mg/kg		8260B	11/05/14	1
tert-Butylbenzene	98-06-6	U	.00024	0.00056	0.0011	mg/kg		8260B	11/05/14	1
Carbon Disulfide	75-15-0	0.026	.00031	0.00056	0.0011	mg/kg		8260B	11/05/14	1
Carbon tetrachloride	56-23-5	U	.00037	0.00056	0.0011	mg/kg		8260B	11/05/14	1
Chlorobenzene	108-90-7	U	.00024	0.00056	0.0011	mg/kg		8260B	11/05/14	1
Chlorodibromomethane	124-48-1	U	.00042	0.00056	0.0011	mg/kg		8260B	11/05/14	1
Chloroethane	75-00-3	U	.0011	0.0028	0.0056	mg/kg		8260B	11/05/14	1
Chloroform	67-66-3	U	.00026	0.0028	0.0056	mg/kg		8260B	11/05/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:22

L730645-03 (PH) - 6.5@20.9c

L730645-03 (ICP METALS) - Dilution due to matrix

*KA clark
BMS 2/19/15*



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU518-EX01-03-N
Collected By : Jon Mallonee
Collection Date : 10/28/14 11:40

ESC Sample # : L730645-03

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00043	0.00056	0.0028	mg/kg		8260B	11/05/14	1
2-Chlorotoluene	95-49-8	U	.00034	0.00056	0.0011	mg/kg		8260B	11/05/14	1
4-Chlorotoluene	106-43-4	U	.00027	0.00056	0.0011	mg/kg		8260B	11/05/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0011	0.0028	0.0056	mg/kg		8260B	11/05/14	1
1,2-Dibromoethane	106-93-4	U	.00038	0.00056	0.0011	mg/kg		8260B	11/05/14	1
Dibromomethane	74-95-3	U	.00043	0.00056	0.0011	mg/kg		8260B	11/05/14	1
1,2-Dichlorobenzene	95-50-1	U	.00034	0.00056	0.0011	mg/kg		8260B	11/05/14	1
1,3-Dichlorobenzene	541-73-1	U	.00027	0.00056	0.0011	mg/kg		8260B	11/05/14	1
1,4-Dichlorobenzene	106-46-7	U	.00026	0.00056	0.0011	mg/kg		8260B	11/05/14	1
Dichlorodifluoromethane	75-71-8	U	.0008	0.0028	0.0056	mg/kg		8260B	11/05/14	1
1,1-Dichloroethane	75-34-3	U	.00022	0.00056	0.0011	mg/kg		8260B	11/05/14	1
1,2-Dichloroethane	107-06-2	U	.00029	0.00056	0.0011	mg/kg		8260B	11/05/14	1
1,1-Dichloroethene	75-35-4	U	.00034	0.00056	0.0011	mg/kg		8260B	11/05/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00027	0.00056	0.0011	mg/kg		8260B	11/05/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00029	0.00056	0.0011	mg/kg		8260B	11/05/14	1
1,2-Dichloropropane	78-87-5	U	.0004	0.00056	0.0011	mg/kg		8260B	11/05/14	1
1,1-Dichloropropene	563-58-6	U	.00036	0.00056	0.0011	mg/kg		8260B	11/05/14	1
1,3-Dichloropropane	142-28-9	U	.00024	0.00056	0.0011	mg/kg		8260B	11/05/14	1
cis-1,3-Dichloropropane	10061-01-5	U	.00029	0.00056	0.0011	mg/kg		8260B	11/05/14	1
trans-1,3-Dichloropropane	10061-02-6	U	.0003	0.00056	0.0011	mg/kg		8260B	11/05/14	1
2,2-Dichloropropane	594-20-7	U	.00031	0.00056	0.0011	mg/kg		8260B	11/05/14	1
Ethylbenzene	100-41-4	U	.00034	0.00056	0.0011	mg/kg		8260B	11/05/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00038	0.00056	0.0011	mg/kg		8260B	11/05/14	1
2-Hexanone	591-78-6	U	.0043	0.0056	0.011	mg/kg		8260B	11/05/14	1
Isopropylbenzene	98-82-8	U	.00027	0.00056	0.0011	mg/kg		8260B	11/05/14	1
p-Isopropyltoluene	99-87-6	U	.00022	0.00056	0.0011	mg/kg		8260B	11/05/14	1
2-Butanone (MEK) <i>FSOL-I</i>	78-93-3	0.0066	.0053	0.0056	0.011	mg/kg	J	8260B	11/05/14	1
Methylene Chloride	75-09-2	U	.0011	0.0028	0.0056	mg/kg		8260B	11/05/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0021	0.0056	0.011	mg/kg		8260B	11/05/14	1
Methyl tert-butyl ether	1634-04-4	U	.00024	0.00056	0.0011	mg/kg		8260B	11/05/14	1
Naphthalene <i>FSOL-I</i>	91-20-3	0.0045	.0011	0.0028	0.0056	mg/kg	J	8260B	11/05/14	1
n-Propylbenzene	103-65-1	U	.00024	0.00056	0.0011	mg/kg		8260B	11/05/14	1
Styrene	100-42-5	U	.00026	0.00056	0.0011	mg/kg		8260B	11/05/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00029	0.00056	0.0011	mg/kg		8260B	11/05/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.0004	0.00084	0.0011	mg/kg		8260B	11/05/14	1
Tetrachloroethene	127-18-4	U	.00031	0.00056	0.0011	mg/kg		8260B	11/05/14	1
Toluene	108-88-3	U	.00048	0.0028	0.0056	mg/kg		8260B	11/05/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00035	0.00056	0.0011	mg/kg		8260B	11/05/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00044	0.00056	0.0011	mg/kg		8260B	11/05/14	1
1,1,1-Trichloroethane	71-55-6	U	.00032	0.00056	0.0011	mg/kg		8260B	11/05/14	1
1,1,2-Trichloroethane	79-00-5	U	.00031	0.00056	0.0011	mg/kg		8260B	11/05/14	1
Trichloroethene	79-01-6	U	.00031	0.00056	0.0011	mg/kg		8260B	11/05/14	1
Trichlorofluoromethane	75-69-4	U	.00043	0.0028	0.0056	mg/kg		8260B	11/05/14	1
1,2,3-Trichloropropane	96-18-4	U	.00083	0.0011	0.0028	mg/kg		8260B	11/05/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.00024	0.00056	0.0011	mg/kg		8260B	11/05/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:22

L730645-03 (PH) - 6.5@20.9c

L730645-03 (ICP METALS) - Dilution due to matrix

KA 4/9/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU518-EX01-03-N
Collected By : Jon Mallonee
Collection Date : 10/28/14 11:40

ESC Sample # : L730645-03

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00038	0.00056	0.0011	mg/kg		8260B	11/05/14	1
m&p-Xylene	1330-20-7	U	.00081	0.0011	0.0022	mg/kg		8260B	11/05/14	1
Vinyl chloride	75-01-4	U	.00032	0.00056	0.0011	mg/kg		8260B	11/05/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.0003	0.00056	0.0011	mg/kg		8260B	11/05/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	96.1				% Rec.		8260B	11/05/14	1
Dibromofluoromethane	1868-53-7	121.				% Rec.		8260B	11/05/14	1
4-Bromofluorobenzene	460-00-4	105.				% Rec.		8260B	11/05/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	1.8	2.2	4.5	mg/kg		8015	11/04/14	1
C28-C40 Oil Range		0.79	.3	2.2	4.5	mg/kg	J	8015	11/04/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	95.6				% Rec.		8015	11/04/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00067	0.0022	0.0067	mg/kg		8270C-SI	11/06/14	1
Acenaphthene	83-32-9	U	.00067	0.0022	0.0067	mg/kg		8270C-SI	11/06/14	1
Acenaphthylene	208-96-8	U	.00067	0.0022	0.0067	mg/kg		8270C-SI	11/06/14	1
Benzo(a)anthracene	56-55-3	U	.00067	0.0022	0.0067	mg/kg		8270C-SI	11/06/14	1
Benzo(a)pyrene	50-32-8	U	.00067	0.0022	0.0067	mg/kg		8270C-SI	11/06/14	1
Benzo(b)fluoranthene	205-99-2	U	.00067	0.0022	0.0067	mg/kg		8270C-SI	11/06/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00067	0.0022	0.0067	mg/kg		8270C-SI	11/06/14	1
Benzo(k)fluoranthene	207-08-9	U	.00067	0.0022	0.0067	mg/kg		8270C-SI	11/06/14	1
Chrysene	218-01-9	U	.00067	0.0022	0.0067	mg/kg		8270C-SI	11/06/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00067	0.0022	0.0067	mg/kg		8270C-SI	11/06/14	1
Fluoranthene	206-44-0	U	.00067	0.0022	0.0067	mg/kg		8270C-SI	11/06/14	1
Fluorene	86-73-7	U	.00067	0.0022	0.0067	mg/kg		8270C-SI	11/06/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00067	0.0022	0.0067	mg/kg		8270C-SI	11/06/14	1
Naphthalene	91-20-3	0.0010	.00067	0.0067	0.022	mg/kg	J	8270C-SI	11/06/14	1
Phenanthrene	85-01-8	U	.00067	0.0022	0.0067	mg/kg		8270C-SI	11/06/14	1
Pyrene	129-00-0	U	.00067	0.0022	0.0067	mg/kg		8270C-SI	11/06/14	1
2-Methylnaphthalene	91-57-6	U	.00072	0.0067	0.022	mg/kg		8270C-SI	11/06/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	94.0				% Rec.		8270C-SI	11/06/14	1
Nitrobenzene-d5	4165-60-0	89.4				% Rec.		8270C-SI	11/06/14	1
2-Fluorobiphenyl	321-60-8	103.				% Rec.		8270C-SI	11/06/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.0086	0.19	0.37	mg/kg		8270C	11/04/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.01	0.19	0.37	mg/kg		8270C	11/04/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.0085	0.19	0.37	mg/kg		8270C	11/04/14	1
Benzyl Alcohol	100-51-6	U	.0084	0.19	0.37	mg/kg		8270C	11/04/14	1
Benzoic acid	65-85-0	U	.13	1.9	3.7	mg/kg		8270C	11/04/14	1
Carbazole	86-74-8	U	.0058	0.19	0.37	mg/kg		8270C	11/04/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:22

L730645-03 (PH) - 6.5@20.9c

L730645-03 (ICP METALS) - Dilution due to matrix

DNR: Do Not Report

KA 2/9/15

8ms 7/2/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU518-EX01-03-N
Collected By : Jon Mallonee
Collection Date : 10/28/14 11:40

ESC Sample # : L730645-03

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0058	0.19	0.37	mg/kg		8270C	11/04/14	1
4-Bromophenyl-phenylether	101-55-3	U	.012	0.19	0.37	mg/kg		8270C	11/04/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0071	0.19	0.37	mg/kg		8270C	11/04/14	1
2-Chloronaphthalene	91-58-7	U	.0072	0.19	0.37	mg/kg		8270C	11/04/14	1
3,3-Dichlorobenzidine	91-94-1	U	.089	0.19	0.37	mg/kg		8270C	11/04/14	1
2,4-Dinitrotoluene	121-14-2	U	.0068	0.19	0.37	mg/kg		8270C	11/04/14	1
2,6-Dinitrotoluene	606-20-2	U	.0083	0.19	0.37	mg/kg		8270C	11/04/14	1
Hexachlorobenzene	118-74-1	U	.0097	0.19	0.37	mg/kg		8270C	11/04/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.011	0.19	0.37	mg/kg		8270C	11/04/14	1
Hexachloroethane	67-72-1	U	.015	0.19	0.37	mg/kg		8270C	11/04/14	1
Isophorone	78-59-1	U	.0058	0.19	0.37	mg/kg		8270C	11/04/14	1
Nitrobenzene	98-95-3	U	.0079	0.19	0.37	mg/kg		8270C	11/04/14	1
n-Nitrosodimethylamine	62-75-9	U	.073	0.19	0.37	mg/kg		8270C	11/04/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0066	0.19	0.37	mg/kg		8270C	11/04/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.01	0.19	0.37	mg/kg		8270C	11/04/14	1
Benzylbutyl phthalate	85-68-7	U	.011	0.19	0.37	mg/kg		8270C	11/04/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.013	0.19	0.37	mg/kg		8270C	11/04/14	1
Di-n-butyl phthalate	84-74-2	U	.012	0.19	0.37	mg/kg		8270C	11/04/14	1
Diethyl phthalate	84-66-2	U	.0078	0.19	0.37	mg/kg		8270C	11/04/14	1
Dimethyl phthalate	131-11-3	U	.0061	0.19	0.37	mg/kg		8270C	11/04/14	1
Di-n-octyl phthalate	117-84-0	U	.01	0.19	0.37	mg/kg		8270C	11/04/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.0099	0.19	0.37	mg/kg		8270C	11/04/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0054	0.19	0.37	mg/kg		8270C	11/04/14	1
2-Chlorophenol	95-57-8	U	.0093	0.19	0.37	mg/kg		8270C	11/04/14	1
2,4-Dichlorophenol	120-83-2	U	.0084	0.19	0.37	mg/kg		8270C	11/04/14	1
2,4-Dimethylphenol	105-67-9	U	.053	0.19	0.37	mg/kg		8270C	11/04/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.13	0.19	0.37	mg/kg		8270C	11/04/14	1
2,4-Dinitrophenol	51-28-5	U	.11	0.19	0.37	mg/kg		8270C	11/04/14	1
2-Methylphenol	95-48-7	U	.011	0.19	0.37	mg/kg		8270C	11/04/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.0088	0.19	0.37	mg/kg		8270C	11/04/14	1
2-Nitrophenol	88-75-5	U	.015	0.19	0.37	mg/kg		8270C	11/04/14	1
4-Nitrophenol	100-02-7	U	.058	0.19	0.37	mg/kg		8270C	11/04/14	1
4-Chloroaniline	106-47-8	U	.0039	0.19	0.37	mg/kg		8270C	11/04/14	1
2-Nitroaniline	88-74-4	U	.0085	0.19	0.37	mg/kg		8270C	11/04/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0016	0.19	0.37	mg/kg		8270C	11/04/14	1
3-Nitroaniline	99-09-2	U	.0096	0.19	0.37	mg/kg		8270C	11/04/14	1
4-Nitroaniline	100-01-6	U	.0072	0.19	0.37	mg/kg		8270C	11/04/14	1
Pentachlorophenol	87-86-5	U	.054	0.19	0.37	mg/kg		8270C	11/04/14	1
Phenol	108-95-2	U	.0079	0.19	0.37	mg/kg		8270C	11/04/14	1
2,4,5-Trichlorophenol	95-95-4	U	.011	0.19	0.37	mg/kg		8270C	11/04/14	1
2,4,6-Trichlorophenol	88-06-2	U	.0088	0.19	0.37	mg/kg		8270C	11/04/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	56.2				% Rec.		8270C	11/04/14	1
Phenol-d5	4165-62-2	54.6				% Rec.		8270C	11/04/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:22

L730645-03 (PH) - 6.5@20.9c

L730645-03 (ICP METALS) - Dilution due to matrix

DNR = do not report

*CA 2/17/15
BMS 2/17/15*



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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
 Description : Holloman AFB
 Sample ID : TU518-EX01-03-N
 Collected By : Jon Mallonee
 Collection Date : 10/28/14 11:40

ESC Sample # : L730645-03
 Site ID :
 Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	55.0				% Rec.	8270C	11/04/14	1
2-Fluorobiphenyl	321-60-8	69.1				% Rec.	8270C	11/04/14	1
2,4,6-Tribromophenol	118-79-6	70.5				% Rec.	8270C	11/04/14	1
p-Terphenyl-d14	1718-51-0	57.2				% Rec.	8270C	11/04/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:22
 L730645-03 (PH) - 6.5@20.9c
 L730645-03 (ICP METALS) - Dilution due to matrix

RA 2/1/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU518-EX01-04-N
Collected By : Jon Mallonee
Collection Date : 10/28/14 13:40

ESC Sample # : L730645-04

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.5				su		9045D	10/31/14	1
Total Solids	TSOLIDS	67.5	.0333			%		2540 G-2	11/04/14	1
Mercury	7439-97-6	U	.0041	0.015	0.030	mg/kg		7471	10/31/14	1
Aluminum	7429-90-5	920	.27	37.	74.	mg/kg		6010B	11/10/14	5
Antimony	7440-36-0	U	5.6	7.4	15.	mg/kg		6010B	11/10/14	5
Arsenic	7440-38-2	U	4.7	7.4	15.	mg/kg		6010B	11/10/14	5
Barium	7440-39-3	37.	1.2	1.9	3.7	mg/kg		6010B	11/10/14	5
Beryllium	7440-41-7	U	.52	0.74	1.5	mg/kg		6010B	11/10/14	5
Cadmium	7440-43-9	U	.52	1.9	3.7	mg/kg		6010B	11/10/14	5
Chromium	7440-47-3	1.5	1	3.7	7.4	mg/kg	J	6010B	11/10/14	5
Cobalt	7440-48-4	U	1.8	3.7	7.4	mg/kg		6010B	11/10/14	5
Copper	7440-50-8	U	3.8	7.4	15.	mg/kg		6010B	11/10/14	5
Lead	7439-92-1	U	1.4	1.9	3.7	mg/kg		6010B	11/10/14	5
Manganese	7439-96-5	36.	.89	3.7	7.4	mg/kg		6010B	11/10/14	5
Nickel	7440-02-0	U	3.6	7.4	15.	mg/kg		6010B	11/10/14	5
Selenium	7782-49-2	U	5.5	7.4	15.	mg/kg		6010B	11/10/14	5
Silver	7440-22-4	U	2.1	3.7	7.4	mg/kg		6010B	11/10/14	5
Thallium	7440-28-0	U	4.7	7.4	15.	mg/kg		6010B	11/10/14	5
Vanadium	7440-62-2	4.9	1.8	7.4	15.	mg/kg	J	6010B	11/10/14	5
Zinc	7440-66-6	U	4.4	19.	37.	mg/kg		6010B	11/10/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.032	0.074	0.15	mg/kg		8015D/GR	11/07/14	1
Surrogate Recovery (70-130) a, a, a-Trifluorotoluene (FID)	98-08-8	101.				% Rec.		8015D/GR	11/07/14	1
Volatile Organics										
Acetone	67-64-1	0.031	.015	0.037	0.074	mg/kg	J	8260B	11/05/14	1
Benzene	71-43-2	0.00062	.0004	0.00074	0.0015	mg/kg	J	8260B	11/05/14	1
Bromobenzene	108-86-1	U	.00041	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Bromochloromethane	74-97-5	U	.00058	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Bromodichloromethane	75-27-4	U	.00037	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Bromoform	75-25-2	U	.00062	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Bromomethane	74-83-9	U	.0019	0.0037	0.0074	mg/kg		8260B	11/05/14	1
n-Butylbenzene	104-51-8	U	.00038	0.00074	0.0015	mg/kg		8260B	11/05/14	1
sec-Butylbenzene	135-98-8	U	.0003	0.00074	0.0015	mg/kg		8260B	11/05/14	1
tert-Butylbenzene	98-06-6	U	.00031	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Carbon Disulfide	75-15-0	0.010	.00041	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Carbon tetrachloride	56-23-5	U	.00049	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Chlorobenzene	108-90-7	U	.00031	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Chlorodibromomethane	124-48-1	U	.00055	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Chloroethane	75-00-3	U	.0014	0.0037	0.0074	mg/kg		8260B	11/05/14	1
Chloroform	67-66-3	U	.00034	0.0037	0.0074	mg/kg		8260B	11/05/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:22

L730645-04 (PH) - 6.5@20.8c

L730645-04 (ICP METALS) - Dilution due to matrix

KA 2/6/15
BMS 2/11/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU518-EX01-04-N
Collected By : Jon Mallonee
Collection Date : 10/28/14 13:40

ESC Sample # : L730645-04

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00056	0.00074	0.0037	mg/kg		8260B	11/05/14	1
2-Chlorotoluene	95-49-8	U	.00044	0.00074	0.0015	mg/kg		8260B	11/05/14	1
4-Chlorotoluene	106-43-4	U	.00036	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0015	0.0037	0.0074	mg/kg		8260B	11/05/14	1
1,2-Dibromoethane	106-93-4	U	.0005	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Dibromomethane	74-95-3	U	.00056	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,2-Dichlorobenzene	95-50-1	U	.00044	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,3-Dichlorobenzene	541-73-1	U	.00036	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,4-Dichlorobenzene	106-46-7	U	.00034	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Dichlorodifluoromethane	75-71-8	U	.001	0.0037	0.0074	mg/kg		8260B	11/05/14	1
1,1-Dichloroethane	75-34-3	U	.0003	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,2-Dichloroethane	107-06-2	U	.00038	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,1-Dichloroethene	75-35-4	U	.00044	0.00074	0.0015	mg/kg		8260B	11/05/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00036	0.00074	0.0015	mg/kg		8260B	11/05/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00038	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,2-Dichloropropane	78-87-5	U	.00053	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,1-Dichloropropene	563-58-6	U	.00047	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,3-Dichloropropane	142-28-9	U	.00031	0.00074	0.0015	mg/kg		8260B	11/05/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00038	0.00074	0.0015	mg/kg		8260B	11/05/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.0004	0.00074	0.0015	mg/kg		8260B	11/05/14	1
2,2-Dichloropropane	594-20-7	U	.00041	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Ethylbenzene	100-41-4	U	.00044	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.0005	0.00074	0.0015	mg/kg		8260B	11/05/14	1
2-Hexanone	591-78-6	U	.0056	0.0074	0.015	mg/kg		8260B	11/05/14	1
Isopropylbenzene	98-82-8	U	.00036	0.00074	0.0015	mg/kg		8260B	11/05/14	1
p-Isopropyltoluene	99-87-6	U	.0003	0.00074	0.0015	mg/kg		8260B	11/05/14	1
2-Butanone (MEK)	78-93-3	U	.007	0.0074	0.015	mg/kg		8260B	11/05/14	1
Methylene Chloride	75-09-2	U	.0015	0.0037	0.0074	mg/kg		8260B	11/05/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0028	0.0074	0.015	mg/kg		8260B	11/05/14	1
Methyl tert-butyl ether	1634-04-4	U	.00031	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Naphthalene	91-20-3	U	.0015	0.0037	0.0074	mg/kg		8260B	11/05/14	1
n-Propylbenzene	103-65-1	U	.00031	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Styrene	100-42-5	U	.00034	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00038	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00053	0.0011	0.0015	mg/kg		8260B	11/05/14	1
Tetrachloroethene	127-18-4	U	.00041	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Toluene <i>FSQ-I</i>	108-88-3	0.00064	.00064	0.0037	0.0074	mg/kg	J	8260B	11/05/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00046	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00058	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,1,1-Trichloroethane	71-55-6	U	.00042	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,1,2-Trichloroethane	79-00-5	U	.00041	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Trichloroethene	79-01-6	U	.00041	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Trichlorofluoromethane	75-69-4	U	.00056	0.0037	0.0074	mg/kg		8260B	11/05/14	1
1,2,3-Trichloropropane	96-18-4	U	.0011	0.0015	0.0037	mg/kg		8260B	11/05/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.00031	0.00074	0.0015	mg/kg		8260B	11/05/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:22

L730645-04 (PH) - 6.5@20.8c

L730645-04 (ICP METALS) - Dilution due to matrix

CAZALIS



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU518-EX01-04-N
Collected By : Jon Mallonee
Collection Date : 10/28/14 13:40

ESC Sample # : L730645-04

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.0005	0.00074	0.0015	mg/kg		8260B	11/05/14	1
m&p-Xylene	1330-20-7	U	.0011	0.0015	0.0030	mg/kg		8260B	11/05/14	1
Vinyl chloride	75-01-4	U	.00043	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.0004	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	88.7				% Rec.		8260B	11/05/14	1
Dibromofluoromethane	1868-53-7	119.				% Rec.		8260B	11/05/14	1
4-Bromofluorobenzene	460-00-4	84.1				% Rec.		8260B	11/05/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.4	3.0	5.9	mg/kg		8015	11/04/14	1
C28-C40 Oil Range		U	.4	3.0	5.9	mg/kg		8015	11/04/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	91.0				% Rec.		8015	11/04/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene <i>F SOL-I, LCS-H</i>	120-12-7	0.0031	.00089	0.0030	0.0089	mg/kg	J	8270C-SI	11/06/14	1
Acenaphthene <i>F SOL-I</i>	83-32-9	0.0052	.00089	0.0030	0.0089	mg/kg	J	8270C-SI	11/06/14	1
Acenaphthylene	208-96-8	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	11/06/14	1
Benzo(a)anthracene <i>F SOL-I</i>	56-55-3	0.00095	.00089	0.0030	0.0089	mg/kg	J	8270C-SI	11/06/14	1
Benzo(a)pyrene	50-32-8	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	11/06/14	1
Benzo(b)fluoranthene <i>US NS-L</i>	205-99-2	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	11/06/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	11/06/14	1
Benzo(k)fluoranthene	207-08-9	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	11/06/14	1
Chrysene	218-01-9	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	11/06/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	11/06/14	1
Fluoranthene <i>F SOL-I, LCS-H</i>	206-44-0	0.0013	.00089	0.0030	0.0089	mg/kg	J	8270C-SI	11/06/14	1
Fluorene <i>F SOL-I</i>	86-73-7	0.0086	.00089	0.0030	0.0089	mg/kg	J	8270C-SI	11/06/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	11/06/14	1
Naphthalene <i>HS & DNR</i>	91-20-3	0.0028	.00089	0.0030	0.0089	mg/kg	J	8270C-SI	11/06/14	1
Phenanthrene	85-01-8	0.0098	.00089	0.0030	0.0089	mg/kg		8270C-SI	11/06/14	1
Pyrene <i>F SOL-I</i>	129-00-0	0.0053	.00089	0.0030	0.0089	mg/kg	J	8270C-SI	11/06/14	1
2-Methylnaphthalene	91-57-6	U	.00095	0.0089	0.030	mg/kg		8270C-SI	11/06/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	102.				% Rec.		8270C-SI	11/06/14	1
Nitrobenzene-d5	4165-60-0	89.6				% Rec.		8270C-SI	11/06/14	1
2-Fluorobiphenyl	321-60-8	107.				% Rec.		8270C-SI	11/06/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.011	0.25	0.49	mg/kg		8270C	11/04/14	1
Bis(2-chloroethyl)ether <i>US CAL-L</i>	111-44-4	U	.013	0.25	0.49	mg/kg		8270C	11/04/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.011	0.25	0.49	mg/kg		8270C	11/04/14	1
Benzyl Alcohol	100-51-6	U	.011	0.25	0.49	mg/kg		8270C	11/04/14	1
Benzoic acid	65-85-0	U	.18	2.5	4.9	mg/kg		8270C	11/04/14	1
Carbazole	86-74-8	U	.0077	0.25	0.49	mg/kg		8270C	11/04/14	1

Results listed are dry weight basis.

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:22

L730645-04 (PH) - 6.5@20.8c

L730645-04 (ICP METALS) - Dilution due to matrix

DNR: Do Not Report

RA 2/1/15

BMS 9/1/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU518-EX01-04-N
Collected By : Jon Mallonee
Collection Date : 10/28/14 13:40

ESC Sample # : L730645-04

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0077	0.25	0.49	mg/kg		8270C	11/04/14	1
4-Bromophenyl-phenylether	101-55-3	U	.016	0.25	0.49	mg/kg		8270C	11/04/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0093	0.25	0.49	mg/kg		8270C	11/04/14	1
2-Chloronaphthalene	91-58-7	U	.0095	0.25	0.49	mg/kg		8270C	11/04/14	1
3,3-Dichlorobenzidine	91-94-1	U	.12	0.25	0.49	mg/kg		8270C	11/04/14	1
2,4-Dinitrotoluene	121-14-2	U	.009	0.25	0.49	mg/kg		8270C	11/04/14	1
2,6-Dinitrotoluene	606-20-2	U	.011	0.25	0.49	mg/kg		8270C	11/04/14	1
Hexachlorobenzene	118-74-1	U	.013	0.25	0.49	mg/kg		8270C	11/04/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.015	0.25	0.49	mg/kg		8270C	11/04/14	1
Hexachloroethane	67-72-1	U	.019	0.25	0.49	mg/kg		8270C	11/04/14	1
Isophorone	78-59-1	U	.0077	0.25	0.49	mg/kg		8270C	11/04/14	1
Nitrobenzene	98-95-3	U	.01	0.25	0.49	mg/kg		8270C	11/04/14	1
n-Nitrosodimethylamine	62-75-9	U	.096	0.25	0.49	mg/kg		8270C	11/04/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0087	0.25	0.49	mg/kg		8270C	11/04/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.013	0.25	0.49	mg/kg		8270C	11/04/14	1
Benzylbutyl phthalate	85-68-7	U	.015	0.25	0.49	mg/kg		8270C	11/04/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.018	0.25	0.49	mg/kg		8270C	11/04/14	1
Di-n-butyl phthalate	84-74-2	U	.016	0.25	0.49	mg/kg		8270C	11/04/14	1
Diethyl phthalate	84-66-2	U	.01	0.25	0.49	mg/kg		8270C	11/04/14	1
Dimethyl phthalate	131-11-3	U	.008	0.25	0.49	mg/kg		8270C	11/04/14	1
Di-n-octyl phthalate	117-84-0	U	.013	0.25	0.49	mg/kg		8270C	11/04/14	1
1,2,4-Trichlorobenzene	129-82-1	U	.013	0.25	0.49	mg/kg		8270C	11/04/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0071	0.25	0.49	mg/kg		8270C	11/04/14	1
2-Chlorophenol	95-57-8	U	.012	0.25	0.49	mg/kg		8270C	11/04/14	1
2,4-Dichlorophenol	120-83-2	U	.011	0.25	0.49	mg/kg		8270C	11/04/14	1
2,4-Dimethylphenol	105-67-9	U	.07	0.25	0.49	mg/kg		8270C	11/04/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.18	0.25	0.49	mg/kg		8270C	11/04/14	1
2,4-Dinitrophenol	51-28-5	U	.14	0.25	0.49	mg/kg		8270C	11/04/14	1
2-Methylphenol	95-48-7	U	.015	0.25	0.49	mg/kg		8270C	11/04/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.012	0.25	0.49	mg/kg		8270C	11/04/14	1
2-Nitrophenol	88-75-5	U	.019	0.25	0.49	mg/kg		8270C	11/04/14	1
4-Nitrophenol	100-02-7	U	.077	0.25	0.49	mg/kg		8270C	11/04/14	1
4-Chloroaniline	106-47-8	U	.0052	0.25	0.49	mg/kg		8270C	11/04/14	1
2-Nitroaniline	88-74-4	U	.011	0.25	0.49	mg/kg		8270C	11/04/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0021	0.25	0.49	mg/kg		8270C	11/04/14	1
3-Nitroaniline	99-09-2	U	.012	0.25	0.49	mg/kg		8270C	11/04/14	1
4-Nitroaniline	100-01-6	U	.0095	0.25	0.49	mg/kg		8270C	11/04/14	1
Pentachlorophenol	87-86-5	U	.071	0.25	0.49	mg/kg		8270C	11/04/14	1
Phenol	108-95-2	U	.01	0.25	0.49	mg/kg		8270C	11/04/14	1
2,4,5-Trichlorophenol	95-95-4	U	.015	0.25	0.49	mg/kg		8270C	11/04/14	1
2,4,6-Trichlorophenol	88-06-2	U	.012	0.25	0.49	mg/kg		8270C	11/04/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	61.1				% Rec.		8270C	11/04/14	1
Phenol-d5	4165-62-2	56.7				% Rec.		8270C	11/04/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:22

L730645-04 (PH) - 6.5@20.8c

L730645-04 (ICP METALS) - Dilution due to matrix

DNR: do not Report

*KA dialis
BMS 2/17/15*



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
 Description : Holloman AFB
 Sample ID : TU518-EX01-04-N
 Collected By : Jon Mallonee
 Collection Date : 10/28/14 13:40

ESC Sample # : L730645-04

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	59.3				% Rec.	8270C		11/04/14	1
2-Fluorobiphenyl	321-60-8	69.9				% Rec.	8270C		11/04/14	1
2,4,6-Tribromophenol	118-79-6	78.8				% Rec.	8270C		11/04/14	1
p-Terphenyl-d14	1718-51-0	54.0				% Rec.	8270C		11/04/14	1

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L730645-04 (PH) - 6.5@20.8c

L730645-04 (ICP METALS) - Dilution due to matrix

KAZ/9/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU518-EX01-05-N
Collected By : Jon Mallonee
Collection Date : 10/28/14 15:10

ESC Sample # : L730645-05

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.5				su		9045D	10/31/14	1
Total Solids	TSOLIDS	74.4	.0333			%		2540 G-2	11/04/14	1
Mercury	7439-97-6	U	.0038	0.013	0.027	mg/kg		7471	10/31/14	1
Aluminum	7429-90-5	590	.24	34.	67.	mg/kg		6010B	11/10/14	5
Antimony	7440-36-0	U	5.1	6.7	13.	mg/kg		6010B	11/10/14	5
Arsenic	7440-38-2	U	4.3	6.7	13.	mg/kg		6010B	11/10/14	5
Barium	7440-39-3	38.	1.1	1.7	3.4	mg/kg		6010B	11/10/14	5
Beryllium	7440-41-7	U	.47	0.67	1.3	mg/kg		6010B	11/10/14	5
Cadmium	7440-43-9	U	.47	1.7	3.4	mg/kg		6010B	11/10/14	5
Chromium	7440-47-3	U	.94	3.4	6.7	mg/kg		6010B	11/10/14	5
Cobalt	7440-48-4	U	1.6	3.4	6.7	mg/kg		6010B	11/10/14	5
Copper	7440-50-8	U	3.5	6.7	13.	mg/kg		6010B	11/10/14	5
Lead	7439-92-1	U	1.3	1.7	3.4	mg/kg		6010B	11/10/14	5
Manganese	7439-96-5	34.	.81	3.4	6.7	mg/kg		6010B	11/10/14	5
Nickel	7440-02-0	U	3.2	6.7	13.	mg/kg		6010B	11/10/14	5
Selenium	7782-49-2	U	5	6.7	13.	mg/kg		6010B	11/10/14	5
Silver	7440-22-4	U	1.9	3.4	6.7	mg/kg		6010B	11/10/14	5
Thallium	7440-28-0	U	4.3	6.7	13.	mg/kg		6010B	11/10/14	5
Vanadium	7440-62-2	3.1	1.6	6.7	13.	mg/kg	J	6010B	11/10/14	5
Zinc	7440-66-6	U	4	17.	34.	mg/kg		6010B	11/10/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.03	0.067	0.13	mg/kg		8015D/GR	11/07/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	101.				% Rec.		8015D/GR	11/07/14	1
Volatile Organics										
Acetone	67-64-1	0.034	.013	0.034	0.067	mg/kg	J	8260B	11/05/14	1
Benzene	71-43-2	0.0015	.00036	0.00067	0.0013	mg/kg		8260B	11/05/14	1
Bromobenzene	108-86-1	U	.00038	0.00067	0.0013	mg/kg		8260B	11/05/14	1
Bromochloromethane	74-97-5	U	.00052	0.00067	0.0013	mg/kg		8260B	11/05/14	1
Bromodichloromethane	75-27-4	U	.00034	0.00067	0.0013	mg/kg		8260B	11/05/14	1
Bromoform	75-25-2	U	.00056	0.00067	0.0013	mg/kg		8260B	11/05/14	1
Bromomethane	74-83-9	U	.0017	0.0034	0.0067	mg/kg		8260B	11/05/14	1
n-Butylbenzene	104-51-8	U	.00035	0.00067	0.0013	mg/kg		8260B	11/05/14	1
sec-Butylbenzene	135-98-8	U	.00027	0.00067	0.0013	mg/kg		8260B	11/05/14	1
tert-Butylbenzene	98-06-6	U	.00028	0.00067	0.0013	mg/kg		8260B	11/05/14	1
Carbon Disulfide	75-15-0	0.0032	.00038	0.00067	0.0013	mg/kg		8260B	11/05/14	1
Carbon tetrachloride	56-23-5	U	.00044	0.00067	0.0013	mg/kg		8260B	11/05/14	1
Chlorobenzene	108-90-7	U	.00028	0.00067	0.0013	mg/kg		8260B	11/05/14	1
Chlorodibromomethane	124-48-1	U	.0005	0.00067	0.0013	mg/kg		8260B	11/05/14	1
Chloroethane	75-00-3	U	.0013	0.0034	0.0067	mg/kg		8260B	11/05/14	1
Chloroform	67-66-3	U	.00031	0.0034	0.0067	mg/kg		8260B	11/05/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:22

L730645-05 (PH) - 6.5@20.7c

L730645-05 (ICP METALS) - Dilution due to matrix

KA 2/1/15
BNS 2/1/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU518-EX01-05-N
Collected By : Jon Mallonee
Collection Date : 10/28/14 15:10

ESC Sample # : L730645-05

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00051	0.00067	0.0034	mg/kg		8260B	11/05/14	1
2-Chlorotoluene	95-49-8	U	.0004	0.00067	0.0013	mg/kg		8260B	11/05/14	1
4-Chlorotoluene	106-43-4	U	.00032	0.00067	0.0013	mg/kg		8260B	11/05/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0013	0.0034	0.0067	mg/kg		8260B	11/05/14	1
1,2-Dibromoethane	106-93-4	U	.00046	0.00067	0.0013	mg/kg		8260B	11/05/14	1
Dibromomethane	74-95-3	U	.00051	0.00067	0.0013	mg/kg		8260B	11/05/14	1
1,2-Dichlorobenzene	95-50-1	U	.0004	0.00067	0.0013	mg/kg		8260B	11/05/14	1
1,3-Dichlorobenzene	541-73-1	U	.00032	0.00067	0.0013	mg/kg		8260B	11/05/14	1
1,4-Dichlorobenzene	106-46-7	U	.00031	0.00067	0.0013	mg/kg		8260B	11/05/14	1
Dichlorodifluoromethane	75-71-8	U	.00095	0.0034	0.0067	mg/kg		8260B	11/05/14	1
1,1-Dichloroethane	75-34-3	U	.00027	0.00067	0.0013	mg/kg		8260B	11/05/14	1
1,2-Dichloroethane	107-06-2	U	.00035	0.00067	0.0013	mg/kg		8260B	11/05/14	1
1,1-Dichloroethene	75-35-4	U	.0004	0.00067	0.0013	mg/kg		8260B	11/05/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00032	0.00067	0.0013	mg/kg		8260B	11/05/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00035	0.00067	0.0013	mg/kg		8260B	11/05/14	1
1,2-Dichloropropane	78-87-5	U	.00048	0.00067	0.0013	mg/kg		8260B	11/05/14	1
1,1-Dichloropropene	563-58-6	U	.00043	0.00067	0.0013	mg/kg		8260B	11/05/14	1
1,3-Dichloropropane	142-28-9	U	.00028	0.00067	0.0013	mg/kg		8260B	11/05/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00035	0.00067	0.0013	mg/kg		8260B	11/05/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00036	0.00067	0.0013	mg/kg		8260B	11/05/14	1
2,2-Dichloropropane	594-20-7	U	.00038	0.00067	0.0013	mg/kg		8260B	11/05/14	1
Ethylbenzene	100-41-4	U	.0004	0.00067	0.0013	mg/kg		8260B	11/05/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00046	0.00067	0.0013	mg/kg		8260B	11/05/14	1
2-Hexanone	591-78-6	U	.0051	0.0067	0.013	mg/kg		8260B	11/05/14	1
Isopropylbenzene	98-82-8	U	.00032	0.00067	0.0013	mg/kg		8260B	11/05/14	1
p-Isopropyltoluene	99-87-6	U	.00027	0.00067	0.0013	mg/kg		8260B	11/05/14	1
2-Butanone (MEK)	78-93-3	U	.0063	0.0067	0.013	mg/kg		8260B	11/05/14	1
Methylene Chloride	75-09-2	U	.0013	0.0034	0.0067	mg/kg		8260B	11/05/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0026	0.0067	0.013	mg/kg		8260B	11/05/14	1
Methyl tert-butyl ether	1634-04-4	U	.00028	0.00067	0.0013	mg/kg		8260B	11/05/14	1
Naphthalene <i>F SOL-I</i>	91-20-3	0.0035	.0013	0.0034	0.0067	mg/kg	J	8260B	11/05/14	1
n-Propylbenzene	103-65-1	U	.00028	0.00067	0.0013	mg/kg		8260B	11/05/14	1
Styrene	100-42-5	U	.00031	0.00067	0.0013	mg/kg		8260B	11/05/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00035	0.00067	0.0013	mg/kg		8260B	11/05/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00048	0.0010	0.0013	mg/kg		8260B	11/05/14	1
Tetrachloroethene	127-18-4	U	.00038	0.00067	0.0013	mg/kg		8260B	11/05/14	1
Toluene <i>F SOL-I</i>	108-88-3	0.0015	.00058	0.0034	0.0067	mg/kg	J	8260B	11/05/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00042	0.00067	0.0013	mg/kg		8260B	11/05/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00052	0.00067	0.0013	mg/kg		8260B	11/05/14	1
1,1,1-Trichloroethane	71-55-6	U	.00038	0.00067	0.0013	mg/kg		8260B	11/05/14	1
1,1,2-Trichloroethane	79-00-5	U	.00038	0.00067	0.0013	mg/kg		8260B	11/05/14	1
Trichloroethene	79-01-6	U	.00038	0.00067	0.0013	mg/kg		8260B	11/05/14	1
Trichlorofluoromethane	75-69-4	U	.00051	0.0034	0.0067	mg/kg		8260B	11/05/14	1
1,2,3-Trichloropropane	96-18-4	U	.00099	0.0013	0.0034	mg/kg		8260B	11/05/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.00028	0.00067	0.0013	mg/kg		8260B	11/05/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:22

L730645-05 (PH) - 6.5@20.7c

L730645-05 (ICP METALS) - Dilution due to matrix

KA elatio



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU518-EX01-05-N
Collected By : Jon Mallonee
Collection Date : 10/28/14 15:10

ESC Sample # : L730645-05

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00046	0.00067	0.0013	mg/kg		8260B	11/05/14	1
m&p-Xylene	1330-20-7	U	.00097	0.0013	0.0027	mg/kg		8260B	11/05/14	1
Vinyl chloride	75-01-4	U	.00039	0.00067	0.0013	mg/kg		8260B	11/05/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00036	0.00067	0.0013	mg/kg		8260B	11/05/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	100.				% Rec.		8260B	11/05/14	1
Dibromofluoromethane	1868-53-7	118.				% Rec.		8260B	11/05/14	1
4-Bromofluorobenzene	460-00-4	97.2				% Rec.		8260B	11/05/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		12.	2.2	2.7	5.4	mg/kg		8015	11/04/14	1
C28-C40 Oil Range		U	.36	2.7	5.4	mg/kg		8015	11/04/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	93.1				% Rec.		8015	11/04/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	0.0043	.00081	0.0027	0.0081	mg/kg	J	8270C-SI	11/06/14	1
Acenaphthene	83-32-9	0.0059	.00081	0.0027	0.0081	mg/kg	J	8270C-SI	11/06/14	1
Acenaphthylene	208-96-8	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/06/14	1
Benzo(a)anthracene	56-55-3	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/06/14	1
Benzo(a)pyrene	50-32-8	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/06/14	1
Benzo(b)fluoranthene	205-99-2	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/06/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/06/14	1
Benzo(k)fluoranthene	207-08-9	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/06/14	1
Chrysene	218-01-9	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/06/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/06/14	1
Fluoranthene	206-44-0	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/06/14	1
Fluorene	86-73-7	0.010	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/06/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/06/14	1
Naphthalene	91-20-3	0.0023	.00081	0.0027	0.0081	mg/kg	J	8270C-SI	11/06/14	1
Phenanthrene	85-01-8	0.0062	.00081	0.0027	0.0081	mg/kg	J	8270C-SI	11/06/14	1
Pyrene	129-00-0	0.0054	.00081	0.0027	0.0081	mg/kg	J	8270C-SI	11/06/14	1
2-Methylnaphthalene	91-57-6	U	.00086	0.0081	0.027	mg/kg		8270C-SI	11/06/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	96.5				% Rec.		8270C-SI	11/06/14	1
Nitrobenzene-d5	4165-60-0	87.4				% Rec.		8270C-SI	11/06/14	1
2-Fluorobiphenyl	321-60-8	99.5				% Rec.		8270C-SI	11/06/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.01	0.22	0.45	mg/kg		8270C	11/05/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.012	0.22	0.45	mg/kg		8270C	11/05/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.01	0.22	0.45	mg/kg		8270C	11/05/14	1
Benzyl Alcohol	100-51-6	U	.01	0.22	0.45	mg/kg		8270C	11/05/14	1
Benzoic acid	65-85-0	U	.16	2.2	4.5	mg/kg		8270C	11/05/14	1
Carbazole	86-74-8	U	.007	0.22	0.45	mg/kg		8270C	11/05/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:22

L730645-05 (PH) - 6.5@20.7c

L730645-05 (ICP METALS) - Dilution due to matrix

KAZALIS

Box 9/11/15

DNR: Do Not Report



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU518-EX01-05-N
Collected By : Jon Mallonee
Collection Date : 10/28/14 15:10

ESC Sample # : L730645-05
Site ID :
Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.007	0.22	0.45	mg/kg		8270C	11/05/14	1
4-Bromophenyl-phenylether	101-55-3	U	.015	0.22	0.45	mg/kg		8270C	11/05/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0085	0.22	0.45	mg/kg		8270C	11/05/14	1
2-Chloronaphthalene	91-58-7	U	.0086	0.22	0.45	mg/kg		8270C	11/05/14	1
3,3-Dichlorobenzidine	91-94-1	U	.11	0.22	0.45	mg/kg		8270C	11/05/14	1
2,4-Dinitrotoluene	121-14-2	U	.0082	0.22	0.45	mg/kg		8270C	11/05/14	1
2,6-Dinitrotoluene	606-20-2	U	.0099	0.22	0.45	mg/kg		8270C	11/05/14	1
Hexachlorobenzene	118-74-1	U	.012	0.22	0.45	mg/kg		8270C	11/05/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.013	0.22	0.45	mg/kg		8270C	11/05/14	1
Hexachloroethane	67-72-1	U	.017	0.22	0.45	mg/kg		8270C	11/05/14	1
Isophorone	78-59-1	U	.007	0.22	0.45	mg/kg		8270C	11/05/14	1
Nitrobenzene	98-95-3	U	.0094	0.22	0.45	mg/kg		8270C	11/05/14	1
n-Nitrosodimethylamine	62-75-9	U	.087	0.22	0.45	mg/kg		8270C	11/05/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0079	0.22	0.45	mg/kg		8270C	11/05/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.012	0.22	0.45	mg/kg		8270C	11/05/14	1
Benzylbutyl phthalate	85-68-7	U	.013	0.22	0.45	mg/kg		8270C	11/05/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.016	0.22	0.45	mg/kg		8270C	11/05/14	1
Di-n-butyl phthalate	84-74-2	U	.015	0.22	0.45	mg/kg		8270C	11/05/14	1
Diethyl phthalate	84-66-2	U	.0093	0.22	0.45	mg/kg		8270C	11/05/14	1
Dimethyl phthalate	131-11-3	U	.0072	0.22	0.45	mg/kg		8270C	11/05/14	1
Di-n-octyl phthalate	117-84-0	U	.012	0.22	0.45	mg/kg		8270C	11/05/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.012	0.22	0.45	mg/kg		8270C	11/05/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0064	0.22	0.45	mg/kg		8270C	11/05/14	1
2-Chlorophenol	95-57-8	U	.011	0.22	0.45	mg/kg		8270C	11/05/14	1
2,4-Dichlorophenol	120-83-2	U	.01	0.22	0.45	mg/kg		8270C	11/05/14	1
2,4-Dimethylphenol	105-67-9	U	.063	0.22	0.45	mg/kg		8270C	11/05/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.16	0.22	0.45	mg/kg		8270C	11/05/14	1
2,4-Dinitrophenol	51-28-5	U	.13	0.22	0.45	mg/kg		8270C	11/05/14	1
2-Methylphenol	95-48-7	U	.013	0.22	0.45	mg/kg		8270C	11/05/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.01	0.22	0.45	mg/kg		8270C	11/05/14	1
2-Nitrophenol	88-75-5	U	.017	0.22	0.45	mg/kg		8270C	11/05/14	1
4-Nitrophenol	100-02-7	U	.07	0.22	0.45	mg/kg		8270C	11/05/14	1
4-Chloroaniline	106-47-8	U	.0047	0.22	0.45	mg/kg		8270C	11/05/14	1
2-Nitroaniline	88-74-4	U	.01	0.22	0.45	mg/kg		8270C	11/05/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0019	0.22	0.45	mg/kg		8270C	11/05/14	1
3-Nitroaniline	99-09-2	U	.011	0.22	0.45	mg/kg		8270C	11/05/14	1
4-Nitroaniline	100-01-6	U	.0086	0.22	0.45	mg/kg		8270C	11/05/14	1
Pentachlorophenol	87-86-5	U	.064	0.22	0.45	mg/kg		8270C	11/05/14	1
Phenol	108-95-2	U	.0094	0.22	0.45	mg/kg		8270C	11/05/14	1
2,4,5-Trichlorophenol	95-95-4	U	.013	0.22	0.45	mg/kg		8270C	11/05/14	1
2,4,6-Trichlorophenol	88-06-2	U	.01	0.22	0.45	mg/kg		8270C	11/05/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	69.0				% Rec.		8270C	11/05/14	1
Phenol-d5	4165-62-2	62.2				% Rec.		8270C	11/05/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:22

L730645-05 (PH) - 6.5@20.7c

L730645-05 (ICP METALS) - Dilution due to matrix

DNR = do not report

*KAZLALIS
BMS 2/17/15*



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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
 Description : Holloman AFB
 Sample ID : TU518-EX01-05-N
 Collected By : Jon Mallonee
 Collection Date : 10/28/14 15:10

ESC Sample # : L730645-05
 Site ID :
 Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	64.8				% Rec.		8270C	11/05/14	1
2-Fluorobiphenyl	321-60-8	76.6				% Rec.		8270C	11/05/14	1
2,4,6-Tribromophenol	118-79-6	77.7				% Rec.		8270C	11/05/14	1
p-Terphenyl-d14	1718-51-0	64.3				% Rec.		8270C	11/05/14	1

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 U = Not Detected at the LOD

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:22
 L730645-05 (PH) - 6.5@20.7c
 L730645-05 (ICP METALS) - Dilution due to matrix

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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU904-EX01-01-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 09:20

ESC Sample # : L730645-06

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.6				su		9045D	10/31/14	1
Total Solids	TSOLIDS	80.5	.0333			%		2540 G-2	11/04/14	1
Mercury	7439-97-6	U	.0035	0.012	0.025	mg/kg		7471	10/31/14	1
Aluminum	7429-90-5	1700	22	31.	62.	mg/kg		6010B	11/10/14	5
Antimony	7440-36-0	U	4.7	6.2	12.	mg/kg		6010B	11/10/14	5
Arsenic	7440-38-2	U	4	6.2	12.	mg/kg		6010B	11/10/14	5
Barium	7440-39-3	20.	1	1.6	3.1	mg/kg		6010B	11/10/14	5
Beryllium	7440-41-7	U	.43	0.62	1.2	mg/kg		6010B	11/10/14	5
Cadmium	7440-43-9	U	.43	1.6	3.1	mg/kg		6010B	11/10/14	5
Chromium	7440-47-3	2.1	.87	3.1	6.2	mg/kg	J	6010B	11/10/14	5
Cobalt	7440-48-4	U	1.5	3.1	6.2	mg/kg		6010B	11/10/14	5
Copper	7440-50-8	U	3.2	6.2	12.	mg/kg		6010B	11/10/14	5
Lead	7439-92-1	1.9	1.2	1.6	3.1	mg/kg	J	6010B	11/10/14	5
Manganese	7439-96-5	28.	.74	3.1	6.2	mg/kg		6010B	11/10/14	5
Nickel	7440-02-0	U	3	6.2	12.	mg/kg		6010B	11/10/14	5
Selenium	7782-49-2	U	4.6	6.2	12.	mg/kg		6010B	11/10/14	5
Silver	7440-22-4	U	1.7	3.1	6.2	mg/kg		6010B	11/10/14	5
Thallium	7440-28-0	U	4	6.2	12.	mg/kg		6010B	11/10/14	5
Vanadium	7440-62-2	9.3	1.5	6.2	12.	mg/kg	J	6010B	11/10/14	5
Zinc	7440-66-6	5.8	3.7	16.	31.	mg/kg	J	6010B	11/10/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.027	0.065	0.13	mg/kg		8015D/GR	11/07/14	1.04
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	101.				% Rec.		8015D/GR	11/07/14	1.04
Volatile Organics										
Acetone	67-64-1	0.034	.012	0.031	0.062	mg/kg	J	8260B	11/05/14	1
Benzene	71-43-2	0.00084	.00034	0.00062	0.0012	mg/kg	J	8260B	11/05/14	1
Bromobenzene	108-86-1	U	.00035	0.00062	0.0012	mg/kg		8260B	11/05/14	1
Bromochloromethane	74-97-5	U	.00048	0.00062	0.0012	mg/kg		8260B	11/05/14	1
Bromodichloromethane	75-27-4	U	.00031	0.00062	0.0012	mg/kg		8260B	11/05/14	1
Bromoform	75-25-2	U	.00052	0.00062	0.0012	mg/kg		8260B	11/05/14	1
Bromomethane	74-83-9	U	.0016	0.0031	0.0062	mg/kg		8260B	11/05/14	1
n-Butylbenzene	104-51-8	U	.00032	0.00062	0.0012	mg/kg		8260B	11/05/14	1
sec-Butylbenzene	135-98-8	U	.00025	0.00062	0.0012	mg/kg		8260B	11/05/14	1
tert-Butylbenzene	98-06-6	U	.00026	0.00062	0.0012	mg/kg		8260B	11/05/14	1
Carbon Disulfide	75-15-0	U	.00035	0.00062	0.0012	mg/kg		8260B	11/05/14	1
Carbon tetrachloride	56-23-5	U	.00041	0.00062	0.0012	mg/kg		8260B	11/05/14	1
Chlorobenzene	108-90-7	U	.00026	0.00062	0.0012	mg/kg		8260B	11/05/14	1
Chlorodibromomethane	124-48-1	U	.00046	0.00062	0.0012	mg/kg		8260B	11/05/14	1
Chloroethane	75-00-3	U	.0012	0.0031	0.0062	mg/kg		8260B	11/05/14	1
Chloroform	67-66-3	U	.00028	0.00031	0.00062	mg/kg		8260B	11/05/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:22

L730645-06 (ICP METALS) - Dilution due to matrix

L730645-06 (PH) - 6.6@20.9c

Handwritten notes:
KA 2/1/15
BWS 2/1/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB

ESC Sample # : L730645-06

Sample ID : TU904-EX01-01-N

Site ID :

Collected By : Jon Mallonee
Collection Date : 10/29/14 09:20

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00047	0.00062	0.0031	mg/kg		8260B	11/05/14	1
2-Chlorotoluene	95-49-8	U	.00037	0.00062	0.0012	mg/kg		8260B	11/05/14	1
4-Chlorotoluene	106-43-4	U	.0003	0.00062	0.0012	mg/kg		8260B	11/05/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0012	0.0031	0.0062	mg/kg		8260B	11/05/14	1
1,2-Dibromoethane	106-93-4	U	.00042	0.00062	0.0012	mg/kg		8260B	11/05/14	1
Dibromomethane	74-95-3	U	.00047	0.00062	0.0012	mg/kg		8260B	11/05/14	1
1,2-Dichlorobenzene	95-50-1	U	.00037	0.00062	0.0012	mg/kg		8260B	11/05/14	1
1,3-Dichlorobenzene	541-73-1	U	.0003	0.00062	0.0012	mg/kg		8260B	11/05/14	1
1,4-Dichlorobenzene	106-46-7	U	.00028	0.00062	0.0012	mg/kg		8260B	11/05/14	1
Dichlorodifluoromethane	75-71-8	U	.00088	0.0031	0.0062	mg/kg		8260B	11/05/14	1
1,1-Dichloroethane	75-34-3	U	.00025	0.00062	0.0012	mg/kg		8260B	11/05/14	1
1,2-Dichloroethane	107-06-2	U	.00032	0.00062	0.0012	mg/kg		8260B	11/05/14	1
1,1-Dichloroethene	75-35-4	U	.00037	0.00062	0.0012	mg/kg		8260B	11/05/14	1
cis-1,2-Dichloroethene	156-59-2	U	.0003	0.00062	0.0012	mg/kg		8260B	11/05/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00032	0.00062	0.0012	mg/kg		8260B	11/05/14	1
1,2-Dichloropropane	78-87-5	U	.00045	0.00062	0.0012	mg/kg		8260B	11/05/14	1
1,1-Dichloropropene	563-58-6	U	.0004	0.00062	0.0012	mg/kg		8260B	11/05/14	1
1,3-Dichloropropane	142-28-9	U	.00026	0.00062	0.0012	mg/kg		8260B	11/05/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00032	0.00062	0.0012	mg/kg		8260B	11/05/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00034	0.00062	0.0012	mg/kg		8260B	11/05/14	1
2,2-Dichloropropane	594-20-7	U	.00035	0.00062	0.0012	mg/kg		8260B	11/05/14	1
Ethylbenzene	100-41-4	U	.00037	0.00062	0.0012	mg/kg		8260B	11/05/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00042	0.00062	0.0012	mg/kg		8260B	11/05/14	1
2-Hexanone	591-78-6	U	.0047	0.0062	0.012	mg/kg		8260B	11/05/14	1
Isopropylbenzene	98-82-8	U	.0003	0.00062	0.0012	mg/kg		8260B	11/05/14	1
p-Isopropyltoluene	99-87-6	U	.00025	0.00062	0.0012	mg/kg		8260B	11/05/14	1
2-Butanone (MEK) <i>FSOL-I</i>	78-93-3	0.0062	.0058	0.0062	0.012	mg/kg	J	8260B	11/05/14	1
Methylene Chloride	75-09-2	U	.0012	0.0031	0.0062	mg/kg		8260B	11/05/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0024	0.0062	0.012	mg/kg		8260B	11/05/14	1
Methyl tert-butyl ether	1634-04-4	U	.00026	0.00062	0.0012	mg/kg		8260B	11/05/14	1
Naphthalene	91-20-3	U	.0012	0.0031	0.0062	mg/kg		8260B	11/05/14	1
n-Propylbenzene	103-65-1	U	.00026	0.00062	0.0012	mg/kg		8260B	11/05/14	1
Styrene	100-42-5	U	.00028	0.00062	0.0012	mg/kg		8260B	11/05/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00032	0.00062	0.0012	mg/kg		8260B	11/05/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00045	0.00093	0.0012	mg/kg		8260B	11/05/14	1
Tetrachloroethene	127-18-4	U	.00035	0.00062	0.0012	mg/kg		8260B	11/05/14	1
Toluene <i>FSOL-I</i>	108-88-3	0.00071	.00053	0.0031	0.0062	mg/kg	J	8260B	11/05/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00038	0.00062	0.0012	mg/kg		8260B	11/05/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00048	0.00062	0.0012	mg/kg		8260B	11/05/14	1
1,1,1-Trichloroethane	71-55-6	U	.00036	0.00062	0.0012	mg/kg		8260B	11/05/14	1
1,1,2-Trichloroethane	79-00-5	U	.00035	0.00062	0.0012	mg/kg		8260B	11/05/14	1
Trichloroethene	79-01-6	U	.00035	0.00062	0.0012	mg/kg		8260B	11/05/14	1
Trichlorofluoromethane	75-69-4	U	.00047	0.0031	0.0062	mg/kg		8260B	11/05/14	1
1,2,3-Trichloropropane	96-18-4	U	.00092	0.0012	0.0031	mg/kg		8260B	11/05/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.00026	0.00062	0.0012	mg/kg		8260B	11/05/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:22

L730645-06 (ICP METALS) - Dilution due to matrix

L730645-06 (PH) - 6.6@20.9c

KAZ/al/s



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU904-EX01-01-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 09:20

ESC Sample # : L730645-06

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00042	0.00062	0.0012	mg/kg		8260B	11/05/14	1
m&p-Xylene	1330-20-7	U	.00089	0.0012	0.0025	mg/kg		8260B	11/05/14	1
Vinyl chloride	75-01-4	U	.00036	0.00062	0.0012	mg/kg		8260B	11/05/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00034	0.00062	0.0012	mg/kg		8260B	11/05/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	98.9				% Rec.		8260B	11/05/14	1
Dibromofluoromethane	1868-53-7	117.				% Rec.		8260B	11/05/14	1
4-Bromofluorobenzene	460-00-4	88.0				% Rec.		8260B	11/05/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2	2.5	5.0	mg/kg		8015	11/04/14	1
C28-C40 Oil Range		U	.34	2.5	5.0	mg/kg		8015	11/04/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	92.5				% Rec.		8015	11/04/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	11/06/14	1
Acenaphthene	83-32-9	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	11/06/14	1
Acenaphthylene	208-96-8	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	11/06/14	1
Benzo(a)anthracene	56-55-3	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	11/06/14	1
Benzo(a)pyrene	50-32-8	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	11/06/14	1
Benzo(b)fluoranthene	205-99-2	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	11/06/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	11/06/14	1
Benzo(k)fluoranthene	207-08-9	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	11/06/14	1
Chrysene	218-01-9	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	11/06/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	11/06/14	1
Fluoranthene	206-44-0	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	11/06/14	1
Fluorene	86-73-7	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	11/06/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	11/06/14	1
Naphthalene	91-20-3	0.0012	.00074	0.0025	0.0074	mg/kg	J	8270C-SI	11/06/14	1
Phenanthrene	85-01-8	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	11/06/14	1
Pyrene	129-00-0	U	.00074	0.0025	0.0074	mg/kg		8270C-SI	11/06/14	1
2-Methylnaphthalene	91-57-6	U	.0008	0.0075	0.025	mg/kg		8270C-SI	11/06/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	82.5				% Rec.		8270C-SI	11/06/14	1
Nitrobenzene-d5	4165-60-0	79.4				% Rec.		8270C-SI	11/06/14	1
2-Fluorobiphenyl	321-60-8	93.2				% Rec.		8270C-SI	11/06/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	.0096	0.21	0.41	mg/kg		8270C	11/04/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.011	0.21	0.41	mg/kg		8270C	11/04/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.0094	0.21	0.41	mg/kg		8270C	11/04/14	1
Benzyl Alcohol	100-51-6	U	.0093	0.21	0.41	mg/kg		8270C	11/04/14	1
Benzoic acid	65-85-0	U	.15	2.1	4.1	mg/kg		8270C	11/04/14	1
Carbazole	86-74-8	U	.0064	0.21	0.41	mg/kg		8270C	11/04/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:22

L730645-06 (ICP METALS) - Dilution due to matrix

L730645-06 (PH) - 6.6@20.9c

DNR: DO NOT REPORT

KA status
BNS 9/2/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU904-EX01-01-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 09:20

ESC Sample # : L730645-06

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0064	0.21	0.41	mg/kg		8270C	11/04/14	1
4-Bromophenyl-phenylether	101-55-3	U	.014	0.21	0.41	mg/kg		8270C	11/04/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0078	0.21	0.41	mg/kg		8270C	11/04/14	1
2-Chloronaphthalene	91-58-7	U	.008	0.21	0.41	mg/kg		8270C	11/04/14	1
3,3-Dichlorobenzidine	91-94-1	U	.098	0.21	0.41	mg/kg		8270C	11/04/14	1
2,4-Dinitrotoluene	121-14-2	U	.0076	0.21	0.41	mg/kg		8270C	11/04/14	1
2,6-Dinitrotoluene	606-20-2	U	.0092	0.21	0.41	mg/kg		8270C	11/04/14	1
Hexachlorobenzene	118-74-1	U	.011	0.21	0.41	mg/kg		8270C	11/04/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.012	0.21	0.41	mg/kg		8270C	11/04/14	1
Hexachloroethane	67-72-1	U	.016	0.21	0.41	mg/kg		8270C	11/04/14	1
Isophorone	78-59-1	U	.0064	0.21	0.41	mg/kg		8270C	11/04/14	1
Nitrobenzene	98-95-3	U	.0087	0.21	0.41	mg/kg		8270C	11/04/14	1
n-Nitrosodimethylamine	62-75-9	U	.081	0.21	0.41	mg/kg		8270C	11/04/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0073	0.21	0.41	mg/kg		8270C	11/04/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.011	0.21	0.41	mg/kg		8270C	11/04/14	1
Benzylbutyl phthalate	85-68-7	U	.012	0.21	0.41	mg/kg		8270C	11/04/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.015	0.21	0.41	mg/kg		8270C	11/04/14	1
Di-n-butyl phthalate	84-74-2	U	.014	0.21	0.41	mg/kg		8270C	11/04/14	1
Diethyl phthalate	84-66-2	U	.0086	0.21	0.41	mg/kg		8270C	11/04/14	1
Dimethyl phthalate	131-11-3	U	.0067	0.21	0.41	mg/kg		8270C	11/04/14	1
Di-n-octyl phthalate	117-84-0	U	.011	0.21	0.41	mg/kg		8270C	11/04/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.011	0.21	0.41	mg/kg		8270C	11/04/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.006	0.21	0.41	mg/kg		8270C	11/04/14	1
2-Chlorophenol	95-57-8	U	.01	0.21	0.41	mg/kg		8270C	11/04/14	1
2,4-Dichlorophenol	120-83-2	U	.0093	0.21	0.41	mg/kg		8270C	11/04/14	1
2,4-Dimethylphenol	105-67-9	U	.058	0.21	0.41	mg/kg		8270C	11/04/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.15	0.21	0.41	mg/kg		8270C	11/04/14	1
2,4-Dinitrophenol	51-28-5	U	.12	0.21	0.41	mg/kg		8270C	11/04/14	1
2-Methylphenol	95-48-7	U	.012	0.21	0.41	mg/kg		8270C	11/04/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.0097	0.21	0.41	mg/kg		8270C	11/04/14	1
2-Nitrophenol	88-75-5	U	.016	0.21	0.41	mg/kg		8270C	11/04/14	1
4-Nitrophenol	100-02-7	U	.064	0.21	0.41	mg/kg		8270C	11/04/14	1
4-Chloroaniline	106-47-8	U	.0043	0.21	0.41	mg/kg		8270C	11/04/14	1
2-Nitroaniline	88-74-4	U	.0094	0.21	0.41	mg/kg		8270C	11/04/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0017	0.21	0.41	mg/kg		8270C	11/04/14	1
3-Nitroaniline	99-09-2	U	.01	0.21	0.41	mg/kg		8270C	11/04/14	1
4-Nitroaniline	100-01-6	U	.008	0.21	0.41	mg/kg		8270C	11/04/14	1
Pentachlorophenol	87-86-5	U	.06	0.21	0.41	mg/kg		8270C	11/04/14	1
Phenol	108-95-2	U	.0087	0.21	0.41	mg/kg		8270C	11/04/14	1
2,4,5-Trichlorophenol	95-95-4	U	.012	0.21	0.41	mg/kg		8270C	11/04/14	1
2,4,6-Trichlorophenol	88-06-2	U	.0097	0.21	0.41	mg/kg		8270C	11/04/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	51.1				% Rec.		8270C	11/04/14	1
Phenol-d5	4165-62-2	45.6				% Rec.		8270C	11/04/14	1

Results listed are dry weight basis.

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L730645-06 (ICP METALS) - Dilution due to matrix

L730645-06 (PH) - 6.6@20.9c

DNR = do not report

KA states



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 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
 Description : Holloman AFB
 Sample ID : TU904-EX01-01-N
 Collected By : Jon Mallonee
 Collection Date : 10/29/14 09:20

ESC Sample # : L730645-06
 Site ID :
 Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	48.3				% Rec.		8270C	11/04/14	1
2-Fluorobiphenyl	321-60-8	56.7				% Rec.		8270C	11/04/14	1
2,4,6-Tribromophenol	118-79-6	59.2				% Rec.		8270C	11/04/14	1
p-Terphenyl-d14	1718-51-0	55.7				% Rec.		8270C	11/04/14	1

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Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB

ESC Sample # : L730645-07

Sample ID : TU904-EX01-02-N

Site ID :

Collected By : Jon Mallonee
Collection Date : 10/29/14 09:30

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	7.1				su		9045D	10/31/14	1
Total Solids	TSOLIDS	79.5	.0333			%		2540 G-2	11/04/14	1
Mercury <i>FSOL-I</i>	7439-97-6	0.0043	.0035	0.013	0.025	mg/kg	J	7471	10/31/14	1
Aluminum <i>J LCS-X FO-I L</i>	7429-90-5	1900	23	31.	63.	mg/kg	V	6010B	11/10/14	5
Antimony <i>US ICS-L</i>	7440-36-0	U	4.8	6.3	12.	mg/kg		6010B	11/10/14	5
Arsenic	7440-38-2	U	4	6.3	12.	mg/kg		6010B	11/10/14	5
Barium <i>J FO-I</i>	7440-39-3	23.	1.1	1.6	3.1	mg/kg		6010B	11/10/14	5
Beryllium	7440-41-7	U	.44	0.63	1.2	mg/kg		6010B	11/10/14	5
Cadmium <i>US ICS-L</i>	7440-43-9	U	.44	1.6	3.1	mg/kg		6010B	11/10/14	5
Chromium <i>FSOL-I</i>	7440-47-3	2.3	.88	3.1	6.3	mg/kg	J	6010B	11/10/14	5
Cobalt	7440-48-4	U	1.5	3.1	6.3	mg/kg		6010B	11/10/14	5
Copper	7440-50-8	U	3.3	6.3	12.	mg/kg		6010B	11/10/14	5
Lead <i>FS SOL ICS-L</i>	7439-92-1	1.5	1.2	1.6	3.1	mg/kg	J	6010B	11/10/14	5
Manganese <i>J FO-I</i>	7439-96-5	33.	.75	3.1	6.3	mg/kg		6010B	11/10/14	5
Nickel <i>US ICS-L</i>	7440-02-0	U	3	6.3	12.	mg/kg		6010B	11/10/14	5
Selenium <i>US ICS-L</i>	7782-49-2	U	4.6	6.3	12.	mg/kg		6010B	11/10/14	5
Silver <i>US MS-L</i>	7440-22-4	U	1.8	3.1	6.3	mg/kg	J6J3	6010B	11/10/14	5
Thallium <i>US ICS-L</i>	7440-28-0	U	4	6.3	12.	mg/kg		6010B	11/10/14	5
Vanadium <i>FSOL-I</i>	7440-62-2	9.7	1.5	6.3	12.	mg/kg	J	6010B	11/10/14	5
Zinc <i>FSOL-I</i>	7440-66-6	6.9	3.8	16.	31.	mg/kg	J	6010B	11/10/14	5
TPH (GC/FID) Low Fraction <i>US MS-L</i>	8006-61-9	U	.028	0.063	0.12	mg/kg		8015D/GR	11/06/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	85.0				% Rec.		8015D/GR	11/06/14	1
Volatile Organics										
Acetone <i>FSOL-I</i>	67-64-1	0.060	.012	0.031	0.063	mg/kg	J	8260B	11/05/14	1
Benzene <i>FSOL-I</i>	71-43-2	0.00048	.00034	0.00063	0.0012	mg/kg	J	8260B	11/05/14	1
Bromobenzene	108-86-1	U	.00035	0.00063	0.0012	mg/kg		8260B	11/05/14	1
Bromochloromethane	74-97-5	U	.00049	0.00063	0.0012	mg/kg		8260B	11/05/14	1
Bromodichloromethane	75-27-4	U	.00031	0.00063	0.0012	mg/kg		8260B	11/05/14	1
Bromoform	75-25-2	U	.00053	0.00063	0.0012	mg/kg	J5	8260B	11/05/14	1
Bromomethane	74-83-9	U	.0016	0.0031	0.0063	mg/kg		8260B	11/05/14	1
n-Butylbenzene	104-51-8	U	.00033	0.00063	0.0012	mg/kg		8260B	11/05/14	1
sec-Butylbenzene	135-98-8	U	.00025	0.00063	0.0012	mg/kg		8260B	11/05/14	1
tert-Butylbenzene	98-06-6	U	.00026	0.00063	0.0012	mg/kg		8260B	11/05/14	1
Carbon Disulfide	75-15-0	U	.00035	0.00063	0.0012	mg/kg		8260B	11/05/14	1
Carbon tetrachloride	56-23-5	U	.00042	0.00063	0.0012	mg/kg		8260B	11/05/14	1
Chlorobenzene	108-90-7	U	.00026	0.00063	0.0012	mg/kg		8260B	11/05/14	1
Chlorodibromomethane	124-48-1	U	.00046	0.00063	0.0012	mg/kg		8260B	11/05/14	1
Chloroethane	75-00-3	U	.0012	0.0031	0.0063	mg/kg		8260B	11/05/14	1
Chloroform	67-66-3	U	.00029	0.0031	0.0063	mg/kg		8260B	11/05/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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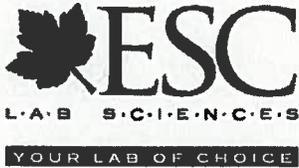
The reported analytical results relate only to the sample submitted

Reported: 11/10/14 16:32 Revised: 11/20/14 09:22

L730645-07 (ICP METALS) - Dilution due to matrix

L730645-07 (PH) - 7.1@22.0c

KA 2/1/15



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Tax I.D. 62-0814289

Est. 1970

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ESC Sample # : L730645-07

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00048	0.00063	0.0031	mg/kg		8260B	11/05/14	1
2-Chlorotoluene	95-49-8	U	.00038	0.00063	0.0012	mg/kg		8260B	11/05/14	1
4-Chlorotoluene	106-43-4	U	.0003	0.00063	0.0012	mg/kg		8260B	11/05/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0012	0.0031	0.0063	mg/kg	J5	8260B	11/05/14	1
1,2-Dibromoethane	106-93-4	U	.00043	0.00063	0.0012	mg/kg	J5	8260B	11/05/14	1
Dibromomethane	74-95-3	U	.00048	0.00063	0.0012	mg/kg		8260B	11/05/14	1
1,2-Dichlorobenzene	95-50-1	U	.00038	0.00063	0.0012	mg/kg		8260B	11/05/14	1
1,3-Dichlorobenzene	541-73-1	U	.0003	0.00063	0.0012	mg/kg		8260B	11/05/14	1
1,4-Dichlorobenzene	106-46-7	U	.00029	0.00063	0.0012	mg/kg		8260B	11/05/14	1
Dichlorodifluoromethane	75-71-8	U	.00089	0.0031	0.0063	mg/kg		8260B	11/05/14	1
1,1-Dichloroethane	75-34-3	U	.00025	0.00063	0.0012	mg/kg		8260B	11/05/14	1
1,2-Dichloroethane	107-06-2	U	.00033	0.00063	0.0012	mg/kg		8260B	11/05/14	1
1,1-Dichloroethene	75-35-4	U	.00038	0.00063	0.0012	mg/kg		8260B	11/05/14	1
cis-1,2-Dichloroethene	156-59-2	U	.0003	0.00063	0.0012	mg/kg		8260B	11/05/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00033	0.00063	0.0012	mg/kg		8260B	11/05/14	1
1,2-Dichloropropane	78-87-5	U	.00045	0.00063	0.0012	mg/kg		8260B	11/05/14	1
1,1-Dichloropropene	563-58-6	U	.0004	0.00063	0.0012	mg/kg		8260B	11/05/14	1
1,3-Dichloropropane	142-28-9	U	.00026	0.00063	0.0012	mg/kg		8260B	11/05/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00033	0.00063	0.0012	mg/kg		8260B	11/05/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00034	0.00063	0.0012	mg/kg		8260B	11/05/14	1
2,2-Dichloropropane	594-20-7	U	.00035	0.00063	0.0012	mg/kg		8260B	11/05/14	1
Ethylbenzene	100-41-4	U	.00038	0.00063	0.0012	mg/kg		8260B	11/05/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00043	0.00063	0.0012	mg/kg		8260B	11/05/14	1
2-Hexanone	591-78-6	U	.0048	0.0063	0.012	mg/kg	J5	8260B	11/05/14	1
Isopropylbenzene	98-82-8	U	.0003	0.00063	0.0012	mg/kg		8260B	11/05/14	1
p-Isopropyltoluene	99-87-6	U	.00025	0.00063	0.0012	mg/kg		8260B	11/05/14	1
2-Butanone (MEK) <i>F SOL-I</i>	78-93-3	0.0080	.0059	0.0063	0.012	mg/kg	JJ5	8260B	11/05/14	1
Methylene Chloride	75-09-2	U	.0012	0.0031	0.0063	mg/kg		8260B	11/05/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0024	0.0063	0.012	mg/kg	J5	8260B	11/05/14	1
Methyl tert-butyl ether	1634-04-4	U	.00026	0.00063	0.0012	mg/kg		8260B	11/05/14	1
Naphthalene	91-20-3	U	.0012	0.0031	0.0063	mg/kg		8260B	11/05/14	1
n-Propylbenzene	103-65-1	U	.00026	0.00063	0.0012	mg/kg		8260B	11/05/14	1
Styrene	100-42-5	U	.00029	0.00063	0.0012	mg/kg		8260B	11/05/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00033	0.00063	0.0012	mg/kg		8260B	11/05/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00045	0.00094	0.0012	mg/kg	J5	8260B	11/05/14	1
Tetrachloroethene	127-18-4	U	.00035	0.00063	0.0012	mg/kg		8260B	11/05/14	1
Toluene <i>F SOL-I</i>	108-88-3	0.00058	.00054	0.0031	0.0063	mg/kg	J	8260B	11/05/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00039	0.00063	0.0012	mg/kg		8260B	11/05/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00049	0.00063	0.0012	mg/kg		8260B	11/05/14	1
1,1,1-Trichloroethane	71-55-6	U	.00036	0.00063	0.0012	mg/kg		8260B	11/05/14	1
1,1,2-Trichloroethane	79-00-5	U	.00035	0.00063	0.0012	mg/kg		8260B	11/05/14	1
Trichloroethene	79-01-6	U	.00035	0.00063	0.0012	mg/kg		8260B	11/05/14	1
Trichlorofluoromethane	75-69-4	U	.00048	0.0031	0.0063	mg/kg		8260B	11/05/14	1
1,2,3-Trichloropropane	96-18-4	U	.00093	0.0013	0.0031	mg/kg	J5	8260B	11/05/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.00026	0.00063	0.0012	mg/kg		8260B	11/05/14	1

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Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00043	0.00063	0.0012	mg/kg		8260B	11/05/14	1
m&p-Xylene	1330-20-7	U	.0009	0.0013	0.0025	mg/kg		8260B	11/05/14	1
Vinyl chloride	75-01-4	U	.00036	0.00063	0.0012	mg/kg		8260B	11/05/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00034	0.00063	0.0012	mg/kg		8260B	11/05/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	96.9				% Rec.		8260B	11/05/14	1
Dibromofluoromethane	1868-53-7	112.				% Rec.		8260B	11/05/14	1
4-Bromofluorobenzene	460-00-4	89.1				% Rec.		8260B	11/05/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2	2.5	5.0	mg/kg		8015	11/04/14	1
C28-C40 Oil Range		U	.34	2.5	5.0	mg/kg		8015	11/04/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	83.9				% Rec.		8015	11/04/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene <i>UJ D-I</i>	120-12-7	U	.00075	0.0025	0.0075	mg/kg	J3	8270C-SI	11/06/14	1
Acenaphthene	83-32-9	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	11/06/14	1
Acenaphthylene	208-96-8	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	11/06/14	1
Benzo(a)anthracene <i>F SOL-I</i>	56-55-3	0.0030	.00075	0.0025	0.0075	mg/kg	J	8270C-SI	11/06/14	1
Benzo(a)pyrene	50-32-8	0.0035	.00075	0.0025	0.0075	mg/kg	J	8270C-SI	11/06/14	1
Benzo(b)fluoranthene	205-99-2	0.0058	.00075	0.0025	0.0075	mg/kg	J	8270C-SI	11/06/14	1
Benzo(g,h,i)perylene	191-24-2	0.0039	.00075	0.0025	0.0075	mg/kg	J	8270C-SI	11/06/14	1
Benzo(k)fluoranthene	207-08-9	0.0033	.00075	0.0025	0.0075	mg/kg	J	8270C-SI	11/06/14	1
Chrysene <i>FJ SOL, LCS-H</i>	218-01-9	0.0057	.00075	0.0025	0.0075	mg/kg	J	8270C-SI	11/06/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	11/06/14	1
Fluoranthene <i>LCS-H</i>	206-44-0	0.012	.00075	0.0025	0.0075	mg/kg	J	8270C-SI	11/06/14	1
Fluorene	86-73-7	U	.00075	0.0025	0.0075	mg/kg		8270C-SI	11/06/14	1
Indeno(1,2,3-cd)pyrene <i>F SOL-I</i>	193-39-5	0.0030	.00075	0.0025	0.0075	mg/kg	J	8270C-SI	11/06/14	1
Naphthalene <i>UJ MS-L DNR</i>	91-20-3	0.0016	.00075	0.0025	0.0075	mg/kg	J	8270C-SI	11/06/14	1
Phenanthrene <i>F SOL-I</i>	85-01-8	0.0034	.00075	0.0025	0.0075	mg/kg	J	8270C-SI	11/06/14	1
Pyrene	129-00-0	0.0079	.00075	0.0025	0.0075	mg/kg		8270C-SI	11/06/14	1
2-Methylnaphthalene	91-57-6	U	.0008	0.0075	0.025	mg/kg		8270C-SI	11/06/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	87.5				% Rec.		8270C-SI	11/06/14	1
Nitrobenzene-d5	4165-60-0	81.4				% Rec.		8270C-SI	11/06/14	1
2-Fluorobiphenyl	321-60-8	95.9				% Rec.		8270C-SI	11/06/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane <i>UJ MS-L</i>	111-91-1	U	.0097	0.21	0.42	mg/kg	J3	8270C	11/04/14	1
Bis(2-chloroethyl)ether <i>UJ MS-L</i>	111-44-4	U	.011	0.21	0.42	mg/kg		8270C	11/04/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.0096	0.21	0.42	mg/kg		8270C	11/04/14	1
Benzyl Alcohol	100-51-6	U	.0094	0.21	0.42	mg/kg		8270C	11/04/14	1
Benzoic acid	65-85-0	U	.15	2.1	4.2	mg/kg	J3	8270C	11/04/14	1
Carbazole	86-74-8	U	.0065	0.21	0.42	mg/kg		8270C	11/04/14	1

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L730645-07 (PH) - 7.1e22.0c

DNR: Do Not Report

*KA analysis
BMS 2/18/15
AMS 9/11/15*



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Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0065	0.21	0.42	mg/kg	J3	8270C	11/04/14	1
4-Bromophenyl-phenylether	101-55-3	U	.014	0.21	0.42	mg/kg		8270C	11/04/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0079	0.21	0.42	mg/kg		8270C	11/04/14	1
2-Chloronaphthalene	91-58-7	U	.008	0.21	0.42	mg/kg		8270C	11/04/14	1
3,3-Dichlorobenzidine	91-94-1	U	.099	0.21	0.42	mg/kg		8270C	11/04/14	1
2,4-Dinitrotoluene	121-14-2	U	.0077	0.21	0.42	mg/kg		8270C	11/04/14	1
2,6-Dinitrotoluene	606-20-2	U	.0093	0.21	0.42	mg/kg		8270C	11/04/14	1
Hexachlorobenzene	118-74-1	U	.011	0.21	0.42	mg/kg		8270C	11/04/14	1
Hexachloro-1,3-butadiene	67-68-3	U	.012	0.21	0.42	mg/kg		8270C	11/04/14	1
Hexachloroethane	67-72-1	U	.016	0.21	0.42	mg/kg		8270C	11/04/14	1
Isophorone	78-59-1	U	.0065	0.21	0.42	mg/kg		8270C	11/04/14	1
Nitrobenzene	98-95-3	U	.0088	0.21	0.42	mg/kg		8270C	11/04/14	1
n-Nitrosodimethylamine	62-75-9	U	.082	0.21	0.42	mg/kg		8270C	11/04/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0074	0.21	0.42	mg/kg		8270C	11/04/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.011	0.21	0.42	mg/kg		8270C	11/04/14	1
Benzylbutyl phthalate	85-68-7	U	.012	0.21	0.42	mg/kg		8270C	11/04/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.015	0.21	0.42	mg/kg		8270C	11/04/14	1
Di-n-butyl phthalate	84-74-2	U	.014	0.21	0.42	mg/kg		8270C	11/04/14	1
Diethyl phthalate	84-66-2	U	.0087	0.21	0.42	mg/kg		8270C	11/04/14	1
Dimethyl phthalate	131-11-3	U	.0068	0.21	0.42	mg/kg		8270C	11/04/14	1
Di-n-octyl phthalate	117-84-0	U	.011	0.21	0.42	mg/kg		8270C	11/04/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.011	0.21	0.42	mg/kg		8270C	11/04/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.006	0.21	0.42	mg/kg		8270C	11/04/14	1
2-Chlorophenol	95-57-8	U	.01	0.21	0.42	mg/kg		8270C	11/04/14	1
2,4-Dichlorophenol	120-83-2	U	.0094	0.21	0.42	mg/kg	J3	8270C	11/04/14	1
2,4-Dimethylphenol	105-67-9	U	.059	0.21	0.42	mg/kg		8270C	11/04/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.15	0.21	0.42	mg/kg		8270C	11/04/14	1
2,4-Dinitrophenol	51-28-5	U	.12	0.21	0.42	mg/kg		8270C	11/04/14	1
2-Methylphenol	95-48-7	U	.012	0.21	0.42	mg/kg		8270C	11/04/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.0098	0.21	0.42	mg/kg		8270C	11/04/14	1
2-Nitrophenol	88-75-5	U	.016	0.21	0.42	mg/kg		8270C	11/04/14	1
4-Nitrophenol	100-02-7	U	.065	0.21	0.42	mg/kg		8270C	11/04/14	1
4-Chloroaniline	106-47-8	U	.0044	0.21	0.42	mg/kg		8270C	11/04/14	1
2-Nitroaniline	88-74-4	U	.0096	0.21	0.42	mg/kg		8270C	11/04/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0018	0.21	0.42	mg/kg		8270C	11/04/14	1
3-Nitroaniline	99-09-2	U	.011	0.21	0.42	mg/kg		8270C	11/04/14	1
4-Nitroaniline	100-01-6	U	.008	0.21	0.42	mg/kg		8270C	11/04/14	1
Pentachlorophenol	87-86-5	U	.06	0.21	0.42	mg/kg		8270C	11/04/14	1
Phenol	108-95-2	U	.0088	0.21	0.42	mg/kg		8270C	11/04/14	1
2,4,5-Trichlorophenol	95-95-4	U	.012	0.21	0.42	mg/kg	J3	8270C	11/04/14	1
2,4,6-Trichlorophenol	88-06-2	U	.0098	0.21	0.42	mg/kg		8270C	11/04/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	47.4				% Rec.		8270C	11/04/14	1
Phenol-d5	4165-62-2	44.9				% Rec.		8270C	11/04/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

Note:

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The reported analytical results relate only to the sample submitted

Reported: 11/10/14 16:32 Revised: 11/20/14 09:22

L730645-07 (ICP METALS) - Dilution due to matrix

L730645-07 (PH) - 7.1@22.0c

DNR: Do not report

*ICA 2/1/15
BMS 2/17/15*



12065 Lebanon Rd.
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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
 Description : Holloman AFB
 Sample ID : TU904-EX01-02-N
 Collected By : Jon Mallonee
 Collection Date : 10/29/14 09:30

ESC Sample # : L730645-07
 Site ID :
 Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	47.6				% Rec.		8270C	11/04/14	1
2-Fluorobiphenyl	321-60-8	59.3				% Rec.		8270C	11/04/14	1
2,4,6-Tribromophenol	118-79-6	65.9				% Rec.		8270C	11/04/14	1
p-Terphenyl-d14	1718-51-0	57.1				% Rec.		8270C	11/04/14	1

Results listed are dry weight basis.
 U = Not Detected at the LOD

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:22
 L730645-07 (ICP METALS) - Dilution due to matrix
 L730645-07 (PH) - 7.1@22.0c

KA 2/9/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU904-EX01-03-D
Collected By : Jon Mallonee
Collection Date : 10/29/14 10:05

ESC Sample # : L730645-08

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	7.1				su		9045D	10/31/14	1
Total Solids	TSOLIDS	73.2	.0333			%		2540 G-2	11/04/14	1
Mercury	7439-97-6	U	.0038	0.014	0.027	mg/kg		7471	10/31/14	1
Aluminum	7429-90-5	480	24	34.	68.	mg/kg		6010B	11/10/14	5
Antimony	7440-36-0	U	5.2	6.8	14.	mg/kg		6010B	11/10/14	5
Arsenic	7440-38-2	U	4.4	6.8	14.	mg/kg		6010B	11/10/14	5
Barium	7440-39-3	9.4	1.2	1.7	3.4	mg/kg		6010B	11/10/14	5
Beryllium	7440-41-7	U	.48	0.68	1.4	mg/kg		6010B	11/10/14	5
Cadmium	7440-43-9	U	.48	1.7	3.4	mg/kg		6010B	11/10/14	5
Chromium	7440-47-3	U	.96	3.4	6.8	mg/kg		6010B	11/10/14	5
Cobalt	7440-48-4	U	1.6	3.4	6.8	mg/kg		6010B	11/10/14	5
Copper	7440-50-8	U	3.6	6.8	14.	mg/kg		6010B	11/10/14	5
Lead	7439-92-1	U	1.3	1.7	3.4	mg/kg		6010B	11/10/14	5
Manganese	7439-96-5	11.	.82	3.4	6.8	mg/kg		6010B	11/10/14	5
Nickel	7440-02-0	140	3.3	6.8	14.	mg/kg		6010B	11/10/14	5
Selenium	7782-49-2	U	5	6.8	14.	mg/kg		6010B	11/10/14	5
Silver	7440-22-4	U	1.9	3.4	6.8	mg/kg		6010B	11/10/14	5
Thallium	7440-28-0	U	4.4	6.8	14.	mg/kg		6010B	11/10/14	5
Vanadium	7440-62-2	U	1.6	6.8	14.	mg/kg		6010B	11/10/14	5
Zinc	7440-66-6	U	4.1	17.	34.	mg/kg		6010B	11/10/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.03	0.068	0.14	mg/kg		8015D/GR	11/07/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	101.				% Rec.		8015D/GR	11/07/14	1
Volatile Organics										
Acetone	67-64-1	0.064	.015	0.039	0.077	mg/kg	J	8260B	11/05/14	1.13
Benzene	71-43-2	U	.00041	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
Bromobenzene	108-86-1	U	.00044	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
Bromochloromethane	74-97-5	U	.0006	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
Bromodichloromethane	75-27-4	U	.0004	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
Bromoform	75-25-2	U	.00066	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
Bromomethane	74-83-9	U	.002	0.0039	0.0077	mg/kg		8260B	11/05/14	1.13
n-Butylbenzene	104-51-8	U	.0004	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
sec-Butylbenzene	135-98-8	U	.00031	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
tert-Butylbenzene	98-06-6	U	.00031	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
Carbon Disulfide	75-15-0	U	.00044	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
Carbon tetrachloride	56-23-5	U	.0005	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
Chlorobenzene	108-90-7	U	.00033	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
Chlorodibromomethane	124-48-1	U	.00057	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
Chloroethane	75-00-3	U	.0015	0.0039	0.0077	mg/kg		8260B	11/05/14	1.13
Chloroform	67-66-3	U	.00036	0.0039	0.0077	mg/kg		8260B	11/05/14	1.13

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:22

L730645-08 (PH) - 7.1@22.1c

L730645-08 (ICP METALS) - Dilution due to matrix

KA2015
BWS 2/6/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
 Description : Holloman AFB
 Sample ID : TU904-EX01-03-D
 Collected By : Jon Mallonee
 Collection Date : 10/29/14 10:05

ESC Sample # : L730645-08

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00057	0.00077	0.0038	mg/kg		8260B	11/05/14	1.13
2-Chlorotoluene	95-49-8	U	.00046	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
4-Chlorotoluene	106-43-4	U	.00037	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0016	0.0039	0.0077	mg/kg		8260B	11/05/14	1.13
1,2-Dibromoethane	106-93-4	U	.00053	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
Dibromomethane	74-95-3	U	.00059	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
1,2-Dichlorobenzene	95-50-1	U	.00046	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
1,3-Dichlorobenzene	541-73-1	U	.00037	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
1,4-Dichlorobenzene	106-46-7	U	.00036	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
Dichlorodifluoromethane	75-71-8	U	.0011	0.0039	0.0077	mg/kg		8260B	11/05/14	1.13
1,1-Dichloroethane	75-34-3	U	.0003	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
1,2-Dichloroethane	107-06-2	U	.00041	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
1,1-Dichloroethene	75-35-4	U	.00046	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
cis-1,2-Dichloroethene	156-59-2	U	.00036	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
trans-1,2-Dichloroethene	156-60-5	U	.00041	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
1,2-Dichloropropane	78-87-5	U	.00055	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
1,1-Dichloropropene	563-58-6	U	.00049	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
1,3-Dichloropropane	142-28-9	U	.00031	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
cis-1,3-Dichloropropene	10061-01-5	U	.00041	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
trans-1,3-Dichloropropene	10061-02-6	U	.00041	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
2,2-Dichloropropane	594-20-7	U	.00044	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
Ethylbenzene	100-41-4	U	.00046	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
Hexachloro-1,3-butadiene	87-68-3	U	.00053	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
2-Hexanone	591-78-6	U	.0059	0.0077	0.015	mg/kg		8260B	11/05/14	1.13
Isopropylbenzene	98-82-8	U	.00037	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
p-Isopropyltoluene	99-87-6	U	.00031	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
2-Butanone (MEK) <i>FSOL-I</i>	78-93-3	0.010	.0072	0.0077	0.015	mg/kg	J	8260B	11/05/14	1.13
Methylene Chloride	75-09-2	U	.0015	0.0039	0.0077	mg/kg		8260B	11/05/14	1.13
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0029	0.0077	0.015	mg/kg		8260B	11/05/14	1.13
Methyl tert-butyl ether	1634-04-4	U	.00033	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
Naphthalene	91-20-3	U	.0015	0.0039	0.0077	mg/kg		8260B	11/05/14	1.13
n-Propylbenzene	103-65-1	U	.00031	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
Styrene	100-42-5	U	.00036	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
1,1,1,2-Tetrachloroethane	630-20-6	U	.00041	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
1,1,2,2-Tetrachloroethane	79-34-5	U	.00056	0.0012	0.0015	mg/kg		8260B	11/05/14	1.13
Tetrachloroethene	127-18-4	U	.00042	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
Toluene	108-88-3	U	.00067	0.0039	0.0077	mg/kg		8260B	11/05/14	1.13
1,2,3-Trichlorobenzene	87-61-6	U	.00046	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
1,2,4-Trichlorobenzene	120-82-1	U	.0006	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
1,1,1-Trichloroethane	71-55-6	U	.00044	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
1,1,2-Trichloroethane	79-00-5	U	.00042	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
Trichloroethene	79-01-6	U	.00044	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
Trichlorofluoromethane	75-69-4	U	.00059	0.0039	0.0077	mg/kg		8260B	11/05/14	1.13
1,2,3-Trichloropropane	96-18-4	U	.0011	0.0015	0.0038	mg/kg		8260B	11/05/14	1.13
1,2,4-Trimethylbenzene	95-63-6	U	.00033	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:22

L730645-08 (PH) - 7.1@22.1c

L730645-08 (ICP METALS) - Dilution due to matrix

KA 2/1/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU904-EX01-03-D
Collected By : Jon Mallonee
Collection Date : 10/29/14 10:05

ESC Sample # : L730645-08

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00052	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
m&p-Xylene	1330-20-7	U	.0011	0.0015	0.0031	mg/kg		8260B	11/05/14	1.13
Vinyl chloride	75-01-4	U	.00045	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
1,3,5-Trimethylbenzene	108-67-8	U	.00041	0.00077	0.0015	mg/kg		8260B	11/05/14	1.13
Surrogate Recovery										
Toluene-d8	2037-26-5	92.2				% Rec.		8260B	11/05/14	1.13
Dibromofluoromethane	1868-53-7	118.				% Rec.		8260B	11/05/14	1.13
4-Bromofluorobenzene	460-00-4	98.1				% Rec.		8260B	11/05/14	1.13
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.2	2.7	5.5	mg/kg		8015	11/04/14	1
C28-C40 Oil Range		U	.37	2.7	5.5	mg/kg		8015	11/04/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	100.				% Rec.		8015	11/04/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/06/14	1
Acenaphthene	83-32-9	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/06/14	1
Acenaphthylene	208-96-8	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/06/14	1
Benzo(a)anthracene	56-55-3	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/06/14	1
Benzo(a)pyrene	50-32-8	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/06/14	1
Benzo(b)fluoranthene	205-99-2	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/06/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/06/14	1
Benzo(k)fluoranthene	207-08-9	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/06/14	1
Chrysene	218-01-9	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/06/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/06/14	1
Fluoranthene	206-44-0	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/06/14	1
Fluorene	86-73-7	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/06/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/06/14	1
Naphthalene	91-20-3	0.0014	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/06/14	1
Phenanthrene	85-01-8	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/06/14	1
Pyrene	129-00-0	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/06/14	1
2-Methylnaphthalene	91-57-6	U	.00087	0.0082	0.027	mg/kg		8270C-SI	11/06/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	91.5				% Rec.		8270C-SI	11/06/14	1
Nitrobenzene-d5	4165-60-0	88.7				% Rec.		8270C-SI	11/06/14	1
2-Fluorobiphenyl	321-60-8	103.				% Rec.		8270C-SI	11/06/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.01	0.23	0.45	mg/kg		8270C	11/04/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.012	0.23	0.45	mg/kg		8270C	11/04/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.01	0.23	0.45	mg/kg		8270C	11/04/14	1
Benzyl Alcohol	100-51-6	U	.01	0.23	0.45	mg/kg		8270C	11/04/14	1
Benzoic acid	65-85-0	U	.16	2.3	4.5	mg/kg		8270C	11/04/14	1
Carbazole	86-74-8	U	.0071	0.23	0.45	mg/kg		8270C	11/04/14	1

Results listed are dry weight basis.
U = Not Detected at the LOD

Note:

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:22

L730645-08 (PH) - 7.1@22.1c

L730645-08 (ICP METALS) - Dilution due to matrix

DNR: DO NOT REPORT

KA 2/1/15
BMS 9/2/15



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(615) 758-5858
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU904-EX01-03-D
Collected By : Jon Mallonee
Collection Date : 10/29/14 10:05

ESC Sample # : L730645-08
Site ID :
Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0071	0.23	0.45	mg/kg		8270C	11/04/14	1
4-Bromophenyl-phenylether	101-55-3	U	.015	0.23	0.45	mg/kg		8270C	11/04/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0086	0.23	0.45	mg/kg		8270C	11/04/14	1
2-Chloronaphthalene	91-58-7	U	.0087	0.23	0.45	mg/kg		8270C	11/04/14	1
3,3-Dichlorobenzidine	91-94-1	U	.11	0.23	0.45	mg/kg		8270C	11/04/14	1
2,4-Dinitrotoluene	121-14-2	U	.0083	0.23	0.45	mg/kg		8270C	11/04/14	1
2,6-Dinitrotoluene	606-20-2	U	.01	0.23	0.45	mg/kg		8270C	11/04/14	1
Hexachlorobenzene	118-74-1	U	.012	0.23	0.45	mg/kg		8270C	11/04/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.014	0.23	0.45	mg/kg		8270C	11/04/14	1
Hexachloroethane	67-72-1	U	.018	0.23	0.45	mg/kg		8270C	11/04/14	1
Isophorone	78-59-1	U	.0071	0.23	0.45	mg/kg		8270C	11/04/14	1
Nitrobenzene	98-95-3	U	.0096	0.23	0.45	mg/kg		8270C	11/04/14	1
n-Nitrosodimethylamine	62-75-9	U	.089	0.23	0.45	mg/kg		8270C	11/04/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0081	0.23	0.45	mg/kg		8270C	11/04/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.012	0.23	0.45	mg/kg		8270C	11/04/14	1
Benzylbutyl phthalate	85-68-7	U	.014	0.23	0.45	mg/kg		8270C	11/04/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.016	0.23	0.45	mg/kg		8270C	11/04/14	1
Di-n-butyl phthalate	84-74-2	U	.015	0.23	0.45	mg/kg		8270C	11/04/14	1
Diethyl phthalate	84-66-2	U	.0094	0.23	0.45	mg/kg		8270C	11/04/14	1
Dimethyl phthalate	131-11-3	U	.0074	0.23	0.45	mg/kg		8270C	11/04/14	1
Di-n-octyl phthalate	117-84-0	U	.012	0.23	0.45	mg/kg		8270C	11/04/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.012	0.23	0.45	mg/kg		8270C	11/04/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0066	0.23	0.45	mg/kg		8270C	11/04/14	1
2-Chlorophenol	95-57-8	U	.011	0.23	0.45	mg/kg		8270C	11/04/14	1
2,4-Dichlorophenol	120-83-2	U	.01	0.23	0.45	mg/kg		8270C	11/04/14	1
2,4-Dimethylphenol	105-67-9	U	.064	0.23	0.45	mg/kg		8270C	11/04/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.16	0.23	0.45	mg/kg		8270C	11/04/14	1
2,4-Dinitrophenol	51-28-5	U	.13	0.23	0.45	mg/kg		8270C	11/04/14	1
2-Methylphenol	95-48-7	U	.014	0.23	0.45	mg/kg		8270C	11/04/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.011	0.23	0.45	mg/kg		8270C	11/04/14	1
2-Nitrophenol	88-75-5	U	.018	0.23	0.45	mg/kg		8270C	11/04/14	1
4-Nitrophenol	100-02-7	U	.071	0.23	0.45	mg/kg		8270C	11/04/14	1
4-Chloroaniline	106-47-8	U	.0048	0.23	0.45	mg/kg		8270C	11/04/14	1
2-Nitroaniline	88-74-4	U	.01	0.23	0.45	mg/kg		8270C	11/04/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0019	0.23	0.45	mg/kg		8270C	11/04/14	1
3-Nitroaniline	99-09-2	U	.012	0.23	0.45	mg/kg		8270C	11/04/14	1
4-Nitroaniline	100-01-6	U	.0087	0.23	0.45	mg/kg		8270C	11/04/14	1
Pentachlorophenol	87-86-5	U	.066	0.23	0.45	mg/kg		8270C	11/04/14	1
Phenol	108-95-2	U	.0096	0.23	0.45	mg/kg		8270C	11/04/14	1
2,4,5-Trichlorophenol	95-95-4	U	.014	0.23	0.45	mg/kg		8270C	11/04/14	1
2,4,6-Trichlorophenol	88-06-2	U	.011	0.23	0.45	mg/kg		8270C	11/04/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	64.1				% Rec.		8270C	11/04/14	1
Phenol-d5	4165-62-2	59.3				% Rec.		8270C	11/04/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:22

L730645-08 (PH) - 7.1@22.1c

L730645-08 (ICP METALS) - Dilution due to matrix

DNR = do not Report

KA 2/11/15
BMS 2/17/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
 Description : Holloman AFB
 Sample ID : TU904-EX01-03-D
 Collected By : Jon Mallonee
 Collection Date : 10/29/14 10:05

ESC Sample # : L730645-08

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	59.6				% Rec.		8270C	11/04/14	1
2-Fluorobiphenyl	321-60-8	70.6				% Rec.		8270C	11/04/14	1
2,4,6-Tribromophenol	118-79-6	77.5				% Rec.		8270C	11/04/14	1
p-Terphenyl-d14	1718-51-0	61.4				% Rec.		8270C	11/04/14	1

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L730645-08 (PH) - 7.1@22.1c

L730645-08 (ICP METALS) - Dilution due to matrix

KA 2/19/15



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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU904-EX01-03-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 10:05

ESC Sample # : L730645-09

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	7.2				su		9045D	10/31/14	1
Total Solids	TSOLIDS	64.3	.0333			%		2540 G-2	11/04/14	1
Mercury	7439-97-6	U	.0044	0.016	0.031	mg/kg		7471	10/31/14	1
Aluminum	7429-90-5	1100	.28	39.	78.	mg/kg		6010B	11/10/14	5
Antimony	7440-36-0	U	5.9	7.8	16.	mg/kg		6010B	11/10/14	5
Arsenic	7440-38-2	U	5	7.8	16.	mg/kg		6010B	11/10/14	5
Barium	7440-39-3	23.	1.3	1.9	3.9	mg/kg		6010B	11/10/14	5
Beryllium	7440-41-7	U	.54	0.78	1.6	mg/kg		6010B	11/10/14	5
Cadmium	7440-43-9	U	.54	1.9	3.9	mg/kg		6010B	11/10/14	5
Chromium	7440-47-3	1.7	1.1	3.9	7.8	mg/kg	J	6010B	11/10/14	5
Cobalt	7440-48-4	U	1.9	3.9	7.8	mg/kg		6010B	11/10/14	5
Copper	7440-50-8	U	4	7.8	16.	mg/kg		6010B	11/10/14	5
Lead	7439-92-1	U	1.5	1.9	3.9	mg/kg		6010B	11/10/14	5
Manganese	7439-96-5	25.	.93	3.9	7.8	mg/kg		6010B	11/10/14	5
Nickel	7440-02-0	U	3.7	7.8	16.	mg/kg		6010B	11/10/14	5
Selenium	7782-49-2	U	5.8	7.8	16.	mg/kg		6010B	11/10/14	5
Silver	7440-22-4	U	2.2	3.9	7.8	mg/kg		6010B	11/10/14	5
Thallium	7440-28-0	U	5	7.8	16.	mg/kg		6010B	11/10/14	5
Vanadium	7440-62-2	7.8	1.9	7.8	16.	mg/kg	J	6010B	11/10/14	5
Zinc	7440-66-6	7.3	4.7	19.	39.	mg/kg	J	6010B	11/10/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.034	0.078	0.16	mg/kg		8015D/GR	11/07/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	98-08-8	102.				% Rec.		8015D/GR	11/07/14	1
Volatile Organics										
Acetone	67-64-1	0.073	.016	0.040	0.079	mg/kg	J	8260B	11/05/14	1.02
Benzene	71-43-2	U	.00044	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
Bromobenzene	108-86-1	U	.00045	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
Bromochloromethane	74-97-5	U	.00062	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
Bromodichloromethane	75-27-4	U	.0004	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
Bromoform	75-25-2	U	.00067	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
Bromomethane	74-83-9	U	.0022	0.0040	0.0079	mg/kg		8260B	11/05/14	1.02
n-Butylbenzene	104-51-8	U	.0004	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
sec-Butylbenzene	135-98-8	U	.00031	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
tert-Butylbenzene	98-06-6	U	.00033	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
Carbon Disulfide	75-15-0	U	.00044	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
Carbon tetrachloride	56-23-5	U	.00051	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
Chlorobenzene	108-90-7	U	.00034	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
Chlorodibromomethane	124-48-1	U	.00059	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
Chloroethane	75-00-3	U	.0015	0.0040	0.0079	mg/kg		8260B	11/05/14	1.02
Chloroform	67-66-3	U	.00036	0.0040	0.0079	mg/kg		8260B	11/05/14	1.02

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:22

L730645-09 (PH) - 7.2@21.5c

L730645-09 (ICP METALS) - Dilution due to matrix

KA 2/1/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU904-EX01-03-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 10:05

ESC Sample # : L730645-09

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00059	0.00079	0.0040	mg/kg		8260B	11/05/14	1.02
2-Chlorotoluene	95-49-8	U	.00048	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
4-Chlorotoluene	106-43-4	U	.00037	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0017	0.0040	0.0079	mg/kg		8260B	11/05/14	1.02
1,2-Dibromoethane	106-93-4	U	.00054	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
Dibromomethane	74-95-3	U	.00061	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
1,2-Dichlorobenzene	95-50-1	U	.00048	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
1,3-Dichlorobenzene	541-73-1	U	.00037	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
1,4-Dichlorobenzene	106-46-7	U	.00036	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
Dichlorodifluoromethane	75-71-8	U	.0011	0.0040	0.0079	mg/kg		8260B	11/05/14	1.02
1,1-Dichloroethane	75-34-3	U	.00031	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
1,2-Dichloroethane	107-06-2	U	.00042	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
1,1-Dichloroethene	75-35-4	U	.00048	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
cis-1,2-Dichloroethene	156-59-2	U	.00037	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
trans-1,2-Dichloroethene	156-60-5	U	.00042	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
1,2-Dichloropropane	78-87-5	U	.00056	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
1,1-Dichloropropene	563-58-6	U	.0005	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
1,3-Dichloropropane	142-28-9	U	.00033	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
cis-1,3-Dichloropropene	10061-01-5	U	.00042	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
trans-1,3-Dichloropropene	10061-02-6	U	.00042	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
2,2-Dichloropropane	594-20-7	U	.00044	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
Ethylbenzene	100-41-4	U	.00047	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
Hexachloro-1,3-butadiene	87-68-3	U	.00054	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
2-Hexanone	591-78-6	U	.0061	0.0079	0.016	mg/kg		8260B	11/05/14	1.02
Isopropylbenzene	98-82-8	U	.00039	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
p-Isopropyltoluene	99-87-6	U	.00033	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
2-Butanone (MEK) <i>FSOL-I</i>	78-93-3	0.010	.0075	0.0079	0.016	mg/kg	J	8260B	11/05/14	1.02
Methylene Chloride	75-09-2	U	.0016	0.0040	0.0079	mg/kg		8260B	11/05/14	1.02
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.003	0.0079	0.016	mg/kg		8260B	11/05/14	1.02
Methyl tert-butyl ether	1634-04-4	U	.00034	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
Naphthalene	91-20-3	U	.0016	0.0040	0.0079	mg/kg		8260B	11/05/14	1.02
n-Propylbenzene	103-65-1	U	.00033	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
Styrene	100-42-5	U	.00037	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
1,1,1,2-Tetrachloroethane	630-20-6	U	.00042	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
1,1,2,2-Tetrachloroethane	79-34-5	U	.00058	0.0012	0.0016	mg/kg		8260B	11/05/14	1.02
Tetrachloroethene	127-18-4	U	.00044	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
Toluene	108-88-3	U	.00068	0.0040	0.0079	mg/kg		8260B	11/05/14	1.02
1,2,3-Trichlorobenzene	87-61-6	U	.00048	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
1,2,4-Trichlorobenzene	120-82-1	U	.00062	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
1,1,1-Trichloroethane	71-55-6	U	.00045	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
1,1,2-Trichloroethane	79-00-5	U	.00044	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
Trichloroethene	79-01-6	U	.00044	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
Trichlorofluoromethane	75-69-4	U	.00061	0.0040	0.0079	mg/kg		8260B	11/05/14	1.02
1,2,3-Trichloropropane	96-18-4	U	.0012	0.0016	0.0040	mg/kg		8260B	11/05/14	1.02
1,2,4-Trimethylbenzene	95-63-6	U	.00034	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02

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L730645-09 (PH) - 7.2@21.5c
L730645-09 (ICP METALS) - Dilution due to matrix

KA 2/14/15



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REPORT OF ANALYSIS

Sheri Fling
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8181 E. Tufts Avenue
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November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU904-EX01-03-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 10:05

ESC Sample # : L730645-09

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00054	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
m&p-Xylene	1330-20-7	U	.0011	0.0016	0.0032	mg/kg		8260B	11/05/14	1.02
Vinyl chloride	75-01-4	U	.00047	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
1,3,5-Trimethylbenzene	108-67-8	U	.00042	0.00079	0.0016	mg/kg		8260B	11/05/14	1.02
Surrogate Recovery										
Toluene-d8	2037-26-5	97.5				% Rec.		8260B	11/05/14	1.02
Dibromofluoromethane	1868-53-7	120.				% Rec.		8260B	11/05/14	1.02
4-Bromofluorobenzene	460-00-4	92.7				% Rec.		8260B	11/05/14	1.02
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.5	3.1	6.2	mg/kg		8015	11/04/14	1
C28-C40 Oil Range		U	.42	3.1	6.2	mg/kg		8015	11/04/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	51.0				% Rec.		8015	11/04/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00093	0.0031	0.0093	mg/kg		8270C-SI	11/06/14	1
Acenaphthene	83-32-9	U	.00093	0.0031	0.0093	mg/kg		8270C-SI	11/06/14	1
Acenaphthylene	208-96-8	U	.00093	0.0031	0.0093	mg/kg		8270C-SI	11/06/14	1
Benzo (a) anthracene	56-55-3	U	.00093	0.0031	0.0093	mg/kg		8270C-SI	11/06/14	1
Benzo (a) pyrene	50-32-8	U	.00093	0.0031	0.0093	mg/kg		8270C-SI	11/06/14	1
Benzo (b) fluoranthene	205-99-2	U	.00093	0.0031	0.0093	mg/kg		8270C-SI	11/06/14	1
Benzo (g,h,i) perylene	191-24-2	U	.00093	0.0031	0.0093	mg/kg		8270C-SI	11/06/14	1
Benzo (k) fluoranthene	207-08-9	U	.00093	0.0031	0.0093	mg/kg		8270C-SI	11/06/14	1
Chrysene	218-01-9	U	.00093	0.0031	0.0093	mg/kg		8270C-SI	11/06/14	1
Dibenz (a,h) anthracene	53-70-3	U	.00093	0.0031	0.0093	mg/kg		8270C-SI	11/06/14	1
Fluoranthene	206-44-0	U	.00093	0.0031	0.0093	mg/kg		8270C-SI	11/06/14	1
Fluorene	86-73-7	U	.00093	0.0031	0.0093	mg/kg		8270C-SI	11/06/14	1
Indeno (1,2,3-cd) pyrene	193-39-5	U	.00093	0.0031	0.0093	mg/kg		8270C-SI	11/06/14	1
Naphthalene	91-20-3	0.0016	.00093	0.0031	0.0093	mg/kg		8270C-SI	11/06/14	1
Phenanthrene	85-01-8	U	.00093	0.0031	0.0093	mg/kg		8270C-SI	11/06/14	1
Pyrene	129-00-0	U	.00093	0.0031	0.0093	mg/kg		8270C-SI	11/06/14	1
2-Methylnaphthalene	91-57-6	U	.001	0.0093	0.031	mg/kg		8270C-SI	11/06/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	35.5				% Rec.		8270C-SI	11/06/14	1
Nitrobenzene-d5	4165-60-0	48.6				% Rec.		8270C-SI	11/06/14	1
2-Fluorobiphenyl	321-60-8	63.4				% Rec.		8270C-SI	11/06/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.012	0.26	0.52	mg/kg		8270C	11/04/14	1
Bis(2-chloroethyl) ether	111-44-4	U	.014	0.26	0.52	mg/kg		8270C	11/04/14	1
Bis(2-chloroisopropyl) ether	108-60-1	U	.012	0.26	0.52	mg/kg		8270C	11/04/14	1
Benzyl Alcohol	100-51-6	U	.012	0.26	0.52	mg/kg		8270C	11/04/14	1
Benzoic acid	65-85-0	U	.19	2.6	5.2	mg/kg		8270C	11/04/14	1
Carbazole	86-74-8	U	.0081	0.26	0.52	mg/kg		8270C	11/04/14	1

Results listed are dry weight basis.
U = Not Detected at the LOD

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:22

L730645-09 (PH) - 7.2@21.5c

L730645-09 (ICP METALS) - Dilution due to matrix

DNR: DO NOT REPORT

KA 2/1/15

BMS 9/4/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU904-EX01-03-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 10:05

ESC Sample # : L730645-09

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0081	0.26	0.52	mg/kg		8270C	11/04/14	1
4-Bromophenyl-phenylether	101-55-3	U	.017	0.26	0.52	mg/kg		8270C	11/04/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0098	0.26	0.52	mg/kg		8270C	11/04/14	1
2-Chloronaphthalene	91-58-7	U	.01	0.26	0.52	mg/kg		8270C	11/04/14	1
3,3-Dichlorobenzidine	91-94-1	U	.12	0.26	0.52	mg/kg		8270C	11/04/14	1
2,4-Dinitrotoluene	121-14-2	U	.0095	0.26	0.52	mg/kg		8270C	11/04/14	1
2,6-Dinitrotoluene	606-20-2	U	.012	0.26	0.52	mg/kg		8270C	11/04/14	1
Hexachlorobenzene	118-74-1	U	.013	0.26	0.52	mg/kg		8270C	11/04/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.016	0.26	0.52	mg/kg		8270C	11/04/14	1
Hexachloroethane	67-72-1	U	.02	0.26	0.52	mg/kg		8270C	11/04/14	1
Isophorone	78-59-1	U	.0081	0.26	0.52	mg/kg		8270C	11/04/14	1
Nitrobenzene	98-95-3	U	.011	0.26	0.52	mg/kg		8270C	11/04/14	1
n-Nitrosodimethylamine	62-75-9	U	.1	0.26	0.52	mg/kg		8270C	11/04/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0092	0.26	0.52	mg/kg		8270C	11/04/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.014	0.26	0.52	mg/kg		8270C	11/04/14	1
Benzylbutyl phthalate	85-68-7	U	.016	0.26	0.52	mg/kg		8270C	11/04/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.019	0.26	0.52	mg/kg		8270C	11/04/14	1
Di-n-butyl phthalate	84-74-2	U	.017	0.26	0.52	mg/kg		8270C	11/04/14	1
Diethyl phthalate	84-66-2	U	.011	0.26	0.52	mg/kg		8270C	11/04/14	1
Dimethyl phthalate	131-11-3	U	.0084	0.26	0.52	mg/kg		8270C	11/04/14	1
Di-n-octyl phthalate	117-84-0	U	.014	0.26	0.52	mg/kg		8270C	11/04/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.014	0.26	0.52	mg/kg		8270C	11/04/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0075	0.26	0.52	mg/kg		8270C	11/04/14	1
2-Chlorophenol	95-57-8	U	.013	0.26	0.52	mg/kg		8270C	11/04/14	1
2,4-Dichlorophenol	120-83-2	U	.012	0.26	0.52	mg/kg		8270C	11/04/14	1
2,4-Dimethylphenol	105-67-9	U	.073	0.26	0.52	mg/kg		8270C	11/04/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.19	0.26	0.52	mg/kg		8270C	11/04/14	1
2,4-Dinitrophenol	51-28-5	U	.15	0.26	0.52	mg/kg		8270C	11/04/14	1
2-Methylphenol	95-48-7	U	.015	0.26	0.52	mg/kg		8270C	11/04/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.012	0.26	0.52	mg/kg		8270C	11/04/14	1
2-Nitrophenol	88-75-5	U	.02	0.26	0.52	mg/kg		8270C	11/04/14	1
4-Nitrophenol	100-02-7	U	.081	0.26	0.52	mg/kg		8270C	11/04/14	1
4-Chloroaniline	106-47-8	U	.0054	0.26	0.52	mg/kg		8270C	11/04/14	1
2-Nitroaniline	88-74-4	U	.012	0.26	0.52	mg/kg		8270C	11/04/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0022	0.26	0.52	mg/kg		8270C	11/04/14	1
3-Nitroaniline	99-09-2	U	.013	0.26	0.52	mg/kg		8270C	11/04/14	1
4-Nitroaniline	100-01-6	U	.01	0.26	0.52	mg/kg		8270C	11/04/14	1
Pentachlorophenol	87-86-5	U	.075	0.26	0.52	mg/kg		8270C	11/04/14	1
Phenol	108-95-2	U	.011	0.26	0.52	mg/kg		8270C	11/04/14	1
2,4,5-Trichlorophenol	95-95-4	U	.016	0.26	0.52	mg/kg		8270C	11/04/14	1
2,4,6-Trichlorophenol	88-06-2	U	.012	0.26	0.52	mg/kg		8270C	11/04/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	56.7				% Rec.		8270C	11/04/14	1
Phenol-d5	4165-62-2	52.0				% Rec.		8270C	11/04/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:22

L730645-09 (PR) - 7.2@21.5c

L730645-09 (ICP METALS) - Dilution due to matrix

DNR - Do Not Report

*KA 2/1/15
BMS 2/17/15*



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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
 Description : Holloman AFB
 Sample ID : TU904-EX01-03-N
 Collected By : Jon Mallonee
 Collection Date : 10/29/14 10:05

ESC Sample # : L730645-09

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	58.9				% Rec.		8270C	11/04/14	1
2-Fluorobiphenyl	321-60-8	70.5				% Rec.		8270C	11/04/14	1
2,4,6-Tribromophenol	118-79-6	67.1				% Rec.		8270C	11/04/14	1
p-Terphenyl-d14	1718-51-0	57.9				% Rec.		8270C	11/04/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:22
 L730645-09 (PH) - 7.2@21.5c
 L730645-09 (ICP METALS) - Dilution due to matrix

ICP Metals



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU904-EX01-04-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 10:20

ESC Sample # : L730645-10
Site ID :
Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	7.2				su		9045D	10/31/14	1
Total Solids	TSOLIDS	76.8	.0333			%		2540 G-2	11/04/14	1
Mercury <i>FSQL-I</i>	7439-97-6	0.0040	.0036	0.013	0.026	mg/kg	J	7471	10/31/14	1
Aluminum <i>J LCS-X FD-XL</i>	7429-90-5	910	.23	33.	65.	mg/kg		6010B	11/10/14	5
Antimony <i>US ICS-L</i>	7440-36-0	U	4.9	6.5	13.	mg/kg		6010B	11/10/14	5
Arsenic	7440-38-2	U	4.2	6.5	13.	mg/kg		6010B	11/10/14	5
Barium <i>J FD-I</i>	7440-39-3	18.	1.1	1.6	3.2	mg/kg		6010B	11/10/14	5
Beryllium	7440-41-7	U	.46	0.65	1.3	mg/kg		6010B	11/10/14	5
Cadmium <i>US ICS-L</i>	7440-43-9	U	.46	1.6	3.2	mg/kg		6010B	11/10/14	5
Chromium <i>FSQL-I</i>	7440-47-3	1.4	.91	3.3	6.5	mg/kg	J	6010B	11/10/14	5
Cobalt	7440-48-4	U	1.6	3.3	6.5	mg/kg		6010B	11/10/14	5
Copper	7440-50-8	U	3.4	6.5	13.	mg/kg		6010B	11/10/14	5
Lead <i>US ICS-L</i>	7439-92-1	U	1.2	1.6	3.2	mg/kg		6010B	11/10/14	5
Manganese <i>J FD-I</i>	7439-96-5	21.	.78	3.3	6.5	mg/kg		6010B	11/10/14	5
Nickel <i>US ICS-L</i>	7440-02-0	U	3.1	6.5	13.	mg/kg		6010B	11/10/14	5
Selenium <i>US ICS-L</i>	7782-49-2	U	4.8	6.5	13.	mg/kg		6010B	11/10/14	5
Silver <i>US MS-L</i>	7440-22-4	U	1.8	3.3	6.5	mg/kg		6010B	11/10/14	5
Thallium <i>US ICS-L</i>	7440-28-0	U	4.2	6.5	13.	mg/kg		6010B	11/10/14	5
Vanadium <i>FSQL-I</i>	7440-62-2	4.3	1.6	6.5	13.	mg/kg	J	6010B	11/10/14	5
Zinc	7440-66-6	U	3.9	16.	32.	mg/kg		6010B	11/10/14	5
TPH (GC/FID) Low Fraction <i>US MS-L</i>	8006-61-9	U	.03	0.070	0.14	mg/kg		8015D/GR	11/06/14	1.07
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	84.6				% Rec.		8015D/GR	11/06/14	1.07
Volatile Organics										
Acetone <i>FSQL-I</i>	67-64-1	0.049	.013	0.033	0.065	mg/kg	J	8260B	11/05/14	1
Benzene	71-43-2	U	.00035	0.00065	0.0013	mg/kg		8260B	11/05/14	1
Bromobenzene	108-86-1	U	.00036	0.00065	0.0013	mg/kg		8260B	11/05/14	1
Bromochloromethane	74-97-5	U	.00051	0.00065	0.0013	mg/kg		8260B	11/05/14	1
Bromodichloromethane	75-27-4	U	.00032	0.00065	0.0013	mg/kg		8260B	11/05/14	1
Bromoform	75-25-2	U	.00055	0.00065	0.0013	mg/kg		8260B	11/05/14	1
Bromomethane	74-83-9	U	.0017	0.0033	0.0065	mg/kg		8260B	11/05/14	1
n-Butylbenzene	104-51-8	U	.00034	0.00065	0.0013	mg/kg		8260B	11/05/14	1
sec-Butylbenzene	135-98-8	U	.00026	0.00065	0.0013	mg/kg		8260B	11/05/14	1
tert-Butylbenzene	98-06-6	U	.00027	0.00065	0.0013	mg/kg		8260B	11/05/14	1
Carbon Disulfide	75-15-0	U	.00036	0.00065	0.0013	mg/kg		8260B	11/05/14	1
Carbon tetrachloride	56-23-5	U	.00043	0.00065	0.0013	mg/kg		8260B	11/05/14	1
Chlorobenzene	108-90-7	U	.00027	0.00065	0.0013	mg/kg		8260B	11/05/14	1
Chlorodibromomethane	124-48-1	U	.00048	0.00065	0.0013	mg/kg		8260B	11/05/14	1
Chloroethane	75-00-3	U	.0012	0.0033	0.0065	mg/kg		8260B	11/05/14	1
Chloroform	67-66-3	U	.0003	0.0033	0.0065	mg/kg		8260B	11/05/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23
L730645-10 (ICP METALS) - Dilution due to matrix
L730645-10 (PH) - 7.2@21.4c

KA 2/9/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU904-EX01-04-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 10:20

ESC Sample # : L730645-10

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00049	0.00065	0.0032	mg/kg		8260B	11/05/14	1
2-Chlorotoluene	95-49-8	U	.00039	0.00065	0.0013	mg/kg		8260B	11/05/14	1
4-Chlorotoluene	106-43-4	U	.00031	0.00065	0.0013	mg/kg		8260B	11/05/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0013	0.0033	0.0065	mg/kg		8260B	11/05/14	1
1,2-Dibromoethane	106-93-4	U	.00044	0.00065	0.0013	mg/kg		8260B	11/05/14	1
Dibromomethane	74-95-3	U	.00049	0.00065	0.0013	mg/kg		8260B	11/05/14	1
1,2-Dichlorobenzene	95-50-1	U	.00039	0.00065	0.0013	mg/kg		8260B	11/05/14	1
1,3-Dichlorobenzene	541-73-1	U	.00031	0.00065	0.0013	mg/kg		8260B	11/05/14	1
1,4-Dichlorobenzene	106-46-7	U	.0003	0.00065	0.0013	mg/kg		8260B	11/05/14	1
Dichlorodifluoromethane	75-71-8	U	.00092	0.0033	0.0065	mg/kg		8260B	11/05/14	1
1,1-Dichloroethane	75-34-3	U	.00026	0.00065	0.0013	mg/kg		8260B	11/05/14	1
1,2-Dichloroethane	107-06-2	U	.00034	0.00065	0.0013	mg/kg		8260B	11/05/14	1
1,1-Dichloroethene	75-35-4	U	.00039	0.00065	0.0013	mg/kg		8260B	11/05/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00031	0.00065	0.0013	mg/kg		8260B	11/05/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00034	0.00065	0.0013	mg/kg		8260B	11/05/14	1
1,2-Dichloropropane	78-87-5	U	.00047	0.00065	0.0013	mg/kg		8260B	11/05/14	1
1,1-Dichloropropene	563-58-6	U	.00042	0.00065	0.0013	mg/kg		8260B	11/05/14	1
1,3-Dichloropropane	142-28-9	U	.00027	0.00065	0.0013	mg/kg		8260B	11/05/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00034	0.00065	0.0013	mg/kg		8260B	11/05/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00035	0.00065	0.0013	mg/kg		8260B	11/05/14	1
2,2-Dichloropropane	594-20-7	U	.00036	0.00065	0.0013	mg/kg		8260B	11/05/14	1
Ethylbenzene	100-41-4	U	.00039	0.00065	0.0013	mg/kg		8260B	11/05/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00044	0.00065	0.0013	mg/kg		8260B	11/05/14	1
2-Hexanone	591-78-6	U	.0049	0.0065	0.013	mg/kg		8260B	11/05/14	1
Isopropylbenzene	98-82-8	U	.00031	0.00065	0.0013	mg/kg		8260B	11/05/14	1
p-Isopropyltoluene	99-87-6	U	.00026	0.00065	0.0013	mg/kg		8260B	11/05/14	1
2-Butanone (MEK) <i>P SOL-I</i>	78-93-3	0.0079	.0061	0.0065	0.013	mg/kg	J	8260B	11/05/14	1
Methylene Chloride	75-09-2	U	.0013	0.0033	0.0065	mg/kg		8260B	11/05/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0025	0.0065	0.013	mg/kg		8260B	11/05/14	1
Methyl tert-butyl ether	1634-04-4	U	.00027	0.00065	0.0013	mg/kg		8260B	11/05/14	1
Naphthalene	91-20-3	U	.0013	0.0033	0.0065	mg/kg		8260B	11/05/14	1
n-Propylbenzene	103-65-1	U	.00027	0.00065	0.0013	mg/kg		8260B	11/05/14	1
Styrene	100-42-5	U	.0003	0.00065	0.0013	mg/kg		8260B	11/05/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00034	0.00065	0.0013	mg/kg		8260B	11/05/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00047	0.00098	0.0013	mg/kg		8260B	11/05/14	1
Tetrachloroethene	127-18-4	U	.00036	0.00065	0.0013	mg/kg		8260B	11/05/14	1
Toluene	108-88-3	U	.00056	0.0033	0.0065	mg/kg		8260B	11/05/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.0004	0.00065	0.0013	mg/kg		8260B	11/05/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00051	0.00065	0.0013	mg/kg		8260B	11/05/14	1
1,1,1-Trichloroethane	71-55-6	U	.00037	0.00065	0.0013	mg/kg		8260B	11/05/14	1
1,1,2-Trichloroethane	79-00-5	U	.00036	0.00065	0.0013	mg/kg		8260B	11/05/14	1
Trichloroethene	79-01-6	U	.00036	0.00065	0.0013	mg/kg		8260B	11/05/14	1
Trichlorofluoromethane	75-69-4	U	.00049	0.0033	0.0065	mg/kg		8260B	11/05/14	1
1,2,3-Trichloropropane	96-18-4	U	.00096	0.0013	0.0032	mg/kg		8260B	11/05/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.00027	0.00065	0.0013	mg/kg		8260B	11/05/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23

L730645-10 (ICP METALS) - Dilution due to matrix

L730645-10 (PH) - 7.2@21.4c

KA alahis



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU904-EX01-04-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 10:20

ESC Sample # : L730645-10

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00044	0.00065	0.0013	mg/kg		8260B	11/05/14	1
m&p-Xylene	1330-20-7	U	.00094	0.0013	0.0026	mg/kg		8260B	11/05/14	1
Vinyl chloride	75-01-4	U	.00038	0.00065	0.0013	mg/kg		8260B	11/05/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00035	0.00065	0.0013	mg/kg		8260B	11/05/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	95.8				% Rec.		8260B	11/05/14	1
Dibromofluoromethane	1868-53-7	118.				% Rec.		8260B	11/05/14	1
4-Bromofluorobenzene	460-00-4	95.3				% Rec.		8260B	11/05/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.1	2.6	5.2	mg/kg		8015	11/04/14	1
C28-C40 Oil Range		U	.35	2.6	5.2	mg/kg		8015	11/04/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	93.3				% Rec.		8015	11/04/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	11/06/14	1
Acenaphthene	83-32-9	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	11/06/14	1
Acenaphthylene	208-96-8	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	11/06/14	1
Benzo(a)anthracene	56-55-3	0.0011	.00078	0.0026	0.0078	mg/kg	J	8270C-SI	11/06/14	1
Benzo(a)pyrene	50-32-8	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	11/06/14	1
Benzo(b)fluoranthene	205-99-2	0.00094	.00078	0.0026	0.0078	mg/kg	J	8270C-SI	11/06/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	11/06/14	1
Benzo(k)fluoranthene	207-08-9	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	11/06/14	1
Chrysene	218-01-9	0.0011	.00078	0.0026	0.0078	mg/kg	J	8270C-SI	11/06/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	11/06/14	1
Fluoranthene	206-44-0	0.0023	.00078	0.0026	0.0078	mg/kg	J	8270C-SI	11/06/14	1
Fluorene	86-73-7	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	11/06/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	11/06/14	1
Naphthalene	91-20-3	0.0013	.00078	0.0026	0.0078	mg/kg	J	8270C-SI	11/06/14	1
Phenanthrene	85-01-8	U	.00078	0.0026	0.0078	mg/kg		8270C-SI	11/06/14	1
Pyrene	129-00-0	0.0017	.00078	0.0026	0.0078	mg/kg	J	8270C-SI	11/06/14	1
2-Methylnaphthalene	91-57-6	U	.00083	0.0078	0.026	mg/kg		8270C-SI	11/06/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	86.2				% Rec.		8270C-SI	11/06/14	1
Nitrobenzene-d5	4165-60-0	81.6				% Rec.		8270C-SI	11/06/14	1
2-Fluorobiphenyl	321-60-8	96.6				% Rec.		8270C-SI	11/06/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.01	0.22	0.43	mg/kg		8270C	11/04/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.012	0.22	0.43	mg/kg		8270C	11/04/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.0099	0.22	0.43	mg/kg		8270C	11/04/14	1
Benzyl Alcohol	100-51-6	U	.0098	0.22	0.43	mg/kg		8270C	11/04/14	1
Benzoic acid	65-85-0	U	.16	2.2	4.3	mg/kg		8270C	11/04/14	1
Carbazole	86-74-8	U	.0068	0.22	0.43	mg/kg		8270C	11/04/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23

L730645-10 (ICP METALS) - Dilution due to matrix

L730645-10 (PH) - 7.2@21.4c

DNR: DO NOT REPORT

KA 2/1/15

BWS 9/1/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU904-EX01-04-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 10:20

ESC Sample # : L730645-10

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0068	0.22	0.43	mg/kg		8270C	11/04/14	1
4-Bromophenyl-phenylether	101-55-3	U	.014	0.22	0.43	mg/kg		8270C	11/04/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0082	0.22	0.43	mg/kg		8270C	11/04/14	1
2-Chloronaphthalene	91-58-7	U	.0083	0.22	0.43	mg/kg		8270C	11/04/14	1
3,3-Dichlorobenzidine	91-94-1	U	.1	0.22	0.43	mg/kg		8270C	11/04/14	1
2,4-Dinitrotoluene	121-14-2	U	.0079	0.22	0.43	mg/kg		8270C	11/04/14	1
2,6-Dinitrotoluene	606-20-2	U	.0096	0.22	0.43	mg/kg		8270C	11/04/14	1
Hexachlorobenzene	118-74-1	U	.011	0.22	0.43	mg/kg		8270C	11/04/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.013	0.22	0.43	mg/kg		8270C	11/04/14	1
Hexachloroethane	67-72-1	U	.017	0.22	0.43	mg/kg		8270C	11/04/14	1
Isophorone	78-59-1	U	.0068	0.22	0.43	mg/kg		8270C	11/04/14	1
Nitrobenzene	98-95-3	U	.0091	0.22	0.43	mg/kg		8270C	11/04/14	1
n-Nitrosodimethylamine	62-75-9	U	.085	0.22	0.43	mg/kg		8270C	11/04/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0077	0.22	0.43	mg/kg		8270C	11/04/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.012	0.22	0.43	mg/kg		8270C	11/04/14	1
Benzylbutyl phthalate	85-68-7	U	.013	0.22	0.43	mg/kg		8270C	11/04/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.016	0.22	0.43	mg/kg		8270C	11/04/14	1
Di-n-butyl phthalate	84-74-2	U	.014	0.22	0.43	mg/kg		8270C	11/04/14	1
Diethyl phthalate	84-66-2	U	.009	0.22	0.43	mg/kg		8270C	11/04/14	1
Dimethyl phthalate	131-11-3	U	.007	0.22	0.43	mg/kg		8270C	11/04/14	1
Di-n-octyl phthalate	117-84-0	U	.012	0.22	0.43	mg/kg		8270C	11/04/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.011	0.22	0.43	mg/kg		8270C	11/04/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0062	0.22	0.43	mg/kg		8270C	11/04/14	1
2-Chlorophenol	95-57-8	U	.011	0.22	0.43	mg/kg		8270C	11/04/14	1
2,4-Dichlorophenol	120-83-2	U	.0098	0.22	0.43	mg/kg		8270C	11/04/14	1
2,4-Dimethylphenol	105-67-9	U	.061	0.22	0.43	mg/kg		8270C	11/04/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.16	0.22	0.43	mg/kg		8270C	11/04/14	1
2,4-Dinitrophenol	51-28-5	U	.13	0.22	0.43	mg/kg		8270C	11/04/14	1
2-Methylphenol	95-48-7	U	.013	0.22	0.43	mg/kg		8270C	11/04/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.01	0.22	0.43	mg/kg		8270C	11/04/14	1
2-Nitrophenol	88-75-5	U	.017	0.22	0.43	mg/kg		8270C	11/04/14	1
4-Nitrophenol	100-02-7	U	.068	0.22	0.43	mg/kg		8270C	11/04/14	1
4-Chloroaniline	106-47-8	U	.0046	0.22	0.43	mg/kg		8270C	11/04/14	1
2-Nitroaniline	88-74-4	U	.0099	0.22	0.43	mg/kg		8270C	11/04/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0018	0.22	0.43	mg/kg		8270C	11/04/14	1
3-Nitroaniline	99-09-2	U	.011	0.22	0.43	mg/kg		8270C	11/04/14	1
4-Nitroaniline	100-01-6	U	.0083	0.22	0.43	mg/kg		8270C	11/04/14	1
Pentachlorophenol	87-86-5	U	.062	0.22	0.43	mg/kg		8270C	11/04/14	1
Phenol	108-95-2	U	.0091	0.22	0.43	mg/kg		8270C	11/04/14	1
2,4,5-Trichlorophenol	95-95-4	U	.013	0.22	0.43	mg/kg		8270C	11/04/14	1
2,4,6-Trichlorophenol	88-06-2	U	.01	0.22	0.43	mg/kg		8270C	11/04/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	59.5				% Rec.		8270C	11/04/14	1
Phenol-d5	4165-62-2	55.5				% Rec.		8270C	11/04/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23

L730645-10 (ICP METALS) - Dilution due to matrix

L730645-10 (PH) - 7.2@21.4c

DNR: do not report

*ICAA/alis
BMS 2/17/15*



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 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
 Description : Holloman AFB
 Sample ID : TU904-EX01-04-N
 Collected By : Jon Mallonee
 Collection Date : 10/29/14 10:20

ESC Sample # : L730645-10

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	55.5				% Rec.		8270C	11/04/14	1
2-Fluorobiphenyl	321-60-8	63.2				% Rec.		8270C	11/04/14	1
2,4,6-Tribromophenol	118-79-6	70.5				% Rec.		8270C	11/04/14	1
p-Terphenyl-d14	1718-51-0	55.9				% Rec.		8270C	11/04/14	1

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L730645-10 (ICP METALS) - Dilution due to matrix

L730645-10 (PH) - 7.2@21.4c

KA2/ALIS



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU904-EX01-05-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 10:50

ESC Sample # : L730645-11

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	7.2				su		9045D	10/31/14	1
Total Solids	TSOLIDS	78.9	.0333			%		2540 G-2	11/04/14	1
Mercury	7439-97-6	U	.0035	0.013	0.025	mg/kg		7471	10/31/14	1
Aluminum	7429-90-5	1300	23	32.	63.	mg/kg		6010B	11/10/14	5
Antimony	7440-36-0	U	4.8	6.3	13.	mg/kg		6010B	11/10/14	5
Arsenic	7440-38-2	U	4	6.3	13.	mg/kg		6010B	11/10/14	5
Barium	7440-39-3	16.	1.1	1.6	3.2	mg/kg		6010B	11/10/14	5
Beryllium	7440-41-7	U	.44	0.63	1.3	mg/kg		6010B	11/10/14	5
Cadmium	7440-43-9	U	.44	1.6	3.2	mg/kg		6010B	11/10/14	5
Chromium	7440-47-3	1.5	.89	3.2	6.3	mg/kg	J	6010B	11/10/14	5
Cobalt	7440-48-4	U	1.5	3.2	6.3	mg/kg		6010B	11/10/14	5
Copper	7440-50-8	U	3.3	6.3	13.	mg/kg		6010B	11/10/14	5
Lead	7439-92-1	U	1.2	1.6	3.2	mg/kg		6010B	11/10/14	5
Manganese	7439-96-5	28.	.76	3.2	6.3	mg/kg		6010B	11/10/14	5
Nickel	7440-02-0	U	3	6.3	13.	mg/kg		6010B	11/10/14	5
Selenium	7782-49-2	U	4.7	6.3	13.	mg/kg		6010B	11/10/14	5
Silver	7440-22-4	U	1.8	3.2	6.3	mg/kg		6010B	11/10/14	5
Thallium	7440-28-0	U	4	6.3	13.	mg/kg		6010B	11/10/14	5
Vanadium	7440-62-2	8.0	1.5	6.3	13.	mg/kg	J	6010B	11/10/14	5
Zinc	7440-66-6	4.3	3.8	16.	32.	mg/kg	J	6010B	11/10/14	5
TPH (GC/FID) Low Fraction	9006-61-9	U	.028	0.065	0.13	mg/kg		8015D/GR	11/06/14	1.02
Surrogate Recovery (70-130) a, a, a-Trifluorotoluene (FID)	98-08-8	84.4				% Rec.		8015D/GR	11/06/14	1.02
Volatile Organics										
Acetone	67-64-1	0.033	.013	0.032	0.063	mg/kg	J	8260B	11/05/14	1
Benzene	71-43-2	U	.00034	0.00063	0.0013	mg/kg		8260B	11/05/14	1
Bromobenzene	108-86-1	U	.00035	0.00063	0.0013	mg/kg		8260B	11/05/14	1
Bromochloromethane	74-97-5	U	.00049	0.00063	0.0013	mg/kg		8260B	11/05/14	1
Bromodichloromethane	75-27-4	U	.00032	0.00063	0.0013	mg/kg		8260B	11/05/14	1
Bromoform	75-25-2	U	.00053	0.00063	0.0013	mg/kg		8260B	11/05/14	1
Bromomethane	74-83-9	U	.0016	0.0032	0.0063	mg/kg		8260B	11/05/14	1
n-Butylbenzene	104-51-8	U	.00033	0.00063	0.0013	mg/kg		8260B	11/05/14	1
sec-Butylbenzene	135-98-8	U	.00025	0.00063	0.0013	mg/kg		8260B	11/05/14	1
tert-Butylbenzene	98-06-6	U	.00027	0.00063	0.0013	mg/kg		8260B	11/05/14	1
Carbon Disulfide	75-15-0	U	.00035	0.00063	0.0013	mg/kg		8260B	11/05/14	1
Carbon tetrachloride	56-23-5	U	.00042	0.00063	0.0013	mg/kg		8260B	11/05/14	1
Chlorobenzene	108-90-7	U	.00027	0.00063	0.0013	mg/kg		8260B	11/05/14	1
Chlorodibromomethane	124-48-1	U	.00047	0.00063	0.0013	mg/kg		8260B	11/05/14	1
Chloroethane	75-00-3	U	.0012	0.0032	0.0063	mg/kg		8260B	11/05/14	1
Chloroform	67-66-3	U	.00029	0.0032	0.0063	mg/kg		8260B	11/05/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23

L730645-11 (PH) - 7.2@20.6c

L730645-11 (ICP METALS) - Dilution due to matrix

ICA 2/9/15



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REPORT OF ANALYSIS

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November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU904-EX01-05-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 10:50

ESC Sample # : L730645-11

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00048	0.00063	0.0032	mg/kg	8260B	11/05/14	1	
2-Chlorotoluene	95-49-8	U	.00038	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
4-Chlorotoluene	106-43-4	U	.0003	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0013	0.0032	0.0063	mg/kg	8260B	11/05/14	1	
1,2-Dibromoethane	106-93-4	U	.00043	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
Dibromomethane	74-95-3	U	.00048	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
1,2-Dichlorobenzene	95-50-1	U	.00038	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
1,3-Dichlorobenzene	541-73-1	U	.0003	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
1,4-Dichlorobenzene	106-46-7	U	.00029	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
Dichlorodifluoromethane	75-71-8	U	.0009	0.0032	0.0063	mg/kg	8260B	11/05/14	1	
1,1-Dichloroethane	75-34-3	U	.00025	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
1,2-Dichloroethane	107-06-2	U	.00033	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
1,1-Dichloroethene	75-35-4	U	.00038	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
cis-1,2-Dichloroethene	156-59-2	U	.0003	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
trans-1,2-Dichloroethene	156-60-5	U	.00033	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
1,2-Dichloropropane	78-87-5	U	.00046	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
1,1-Dichloropropene	563-58-6	U	.0004	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
1,3-Dichloropropane	142-28-9	U	.00027	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
cis-1,3-Dichloropropene	10061-01-5	U	.00033	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
trans-1,3-Dichloropropene	10061-02-6	U	.00034	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
2,2-Dichloropropane	594-20-7	U	.00035	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
Ethylbenzene	100-41-4	U	.00038	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
Hexachloro-1,3-butadiene	87-68-3	U	.00043	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
2-Hexanone	591-78-6	U	.0048	0.0063	0.013	mg/kg	8260B	11/05/14	1	
Isopropylbenzene	98-82-8	U	.0003	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
p-Isopropyltoluene	99-87-6	U	.00025	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
2-Butanone (MEK)	78-93-3	U	.006	0.0063	0.013	mg/kg	8260B	11/05/14	1	
Methylene Chloride	75-09-2	U	.0013	0.0032	0.0063	mg/kg	8260B	11/05/14	1	
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0024	0.0063	0.013	mg/kg	8260B	11/05/14	1	
Methyl tert-butyl ether	1634-04-4	U	.00027	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
Naphthalene	91-20-3	U	.0013	0.0032	0.0063	mg/kg	8260B	11/05/14	1	
n-Propylbenzene	103-65-1	U	.00027	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
Styrene	100-42-5	U	.00029	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
1,1,1,2-Tetrachloroethane	630-20-6	U	.00033	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
1,1,2,2-Tetrachloroethane	79-34-5	U	.00046	0.00095	0.0013	mg/kg	8260B	11/05/14	1	
Tetrachloroethene	127-18-4	U	.00035	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
Toluene <i>F SOL-I</i>	108-88-3	0.00056	.00054	0.0032	0.0063	mg/kg	J 8260B	11/05/14	1	
1,2,3-Trichlorobenzene	87-61-6	U	.00039	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
1,2,4-Trichlorobenzene	120-82-1	U	.00049	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
1,1,1-Trichloroethane	71-55-6	U	.00036	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
1,1,2-Trichloroethane	79-00-5	U	.00035	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
Trichloroethene	79-01-6	U	.00035	0.00063	0.0013	mg/kg	8260B	11/05/14	1	
Trichlorofluoromethane	75-69-4	U	.00048	0.0032	0.0063	mg/kg	8260B	11/05/14	1	
1,2,3-Trichloropropane	96-18-4	U	.00094	0.0013	0.0032	mg/kg	8260B	11/05/14	1	
1,2,4-Trimethylbenzene	95-63-6	U	.00027	0.00063	0.0013	mg/kg	8260B	11/05/14	1	

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23

L730645-11 (PH) - 7.2@20.6c

L730645-11 (ICP METALS) - Dilution due to matrix

KA 2/1/15



12065 Lebanon Rd.
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1-800-767-5859
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU904-EX01-05-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 10:50

ESC Sample # : L730645-11

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00043	0.00063	0.0013	mg/kg		8260B	11/05/14	1
m&p-Xylene	1330-20-7	U	.00091	0.0013	0.0025	mg/kg		8260B	11/05/14	1
Vinyl chloride	75-01-4	U	.00037	0.00063	0.0013	mg/kg		8260B	11/05/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00034	0.00063	0.0013	mg/kg		8260B	11/05/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	95.6				% Rec.		8260B	11/05/14	1
Dibromofluoromethane	1868-53-7	117.				% Rec.		8260B	11/05/14	1
4-Bromofluorobenzene	460-00-4	91.7				% Rec.		8260B	11/05/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2	2.5	5.1	mg/kg		8015	11/04/14	1
C28-C40 Oil Range		U	.34	2.5	5.1	mg/kg		8015	11/04/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	88.8				% Rec.		8015	11/04/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	11/06/14	1
Acenaphthene	83-32-9	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	11/06/14	1
Acenaphthylene	208-96-8	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	11/06/14	1
Benzo (a) anthracene	56-55-3	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	11/06/14	1
Benzo (a) pyrene	50-32-8	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	11/06/14	1
Benzo (b) fluoranthene	205-99-2	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	11/06/14	1
Benzo (g, h, i) perylene	191-24-2	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	11/06/14	1
Benzo (k) fluoranthene	207-08-9	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	11/06/14	1
Chrysene	218-01-9	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	11/06/14	1
Dibenz (a, h) anthracene	53-70-3	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	11/06/14	1
Fluoranthene	206-44-0	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	11/06/14	1
Fluorene	86-73-7	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	11/06/14	1
Indeno (1,2,3-cd) pyrene	193-39-5	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	11/06/14	1
Naphthalene	91-20-3	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	11/06/14	1
Phenanthrene	85-01-8	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	11/06/14	1
Pyrene	129-00-0	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	11/06/14	1
2-Methylnaphthalene	91-57-6	U	.00081	0.0076	0.025	mg/kg		8270C-SI	11/06/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	79.0				% Rec.		8270C-SI	11/06/14	1
Nitrobenzene-d5	4165-60-0	72.1				% Rec.		8270C-SI	11/06/14	1
2-Fluorobiphenyl	321-60-8	89.1				% Rec.		8270C-SI	11/06/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	.0098	0.21	0.42	mg/kg		8270C	11/04/14	1
Bis(2-chloroethyl) ether	111-44-4	U	.011	0.21	0.42	mg/kg		8270C	11/04/14	1
Bis(2-chloroisopropyl) ether	108-60-1	U	.0096	0.21	0.42	mg/kg		8270C	11/04/14	1
Benzyl Alcohol	100-51-6	U	.0095	0.21	0.42	mg/kg		8270C	11/04/14	1
Benzoic acid	65-85-0	U	.15	2.1	4.2	mg/kg		8270C	11/04/14	1
Carbazole	86-74-8	U	.0066	0.21	0.42	mg/kg		8270C	11/04/14	1

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L730645-11 (PH) - 7.2@20.6c

L730645-11 (ICP METALS) - Dilution due to matrix

DNR: Do Not Report

*KA 2/1/15
BNS 9/2/15*



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU904-EX01-05-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 10:50

ESC Sample # : L730645-11

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0066	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
4-Bromophenyl-phenylether	101-55-3	U	.014	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.008	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
2-Chloronaphthalene	91-58-7	U	.0081	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
3,3-Dichlorobenzidine	91-94-1	U	.1	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
2,4-Dinitrotoluene	121-14-2	U	.0077	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
2,6-Dinitrotoluene	606-20-2	U	.0094	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
Hexachlorobenzene	118-74-1	U	.011	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
Hexachloro-1,3-butadiene <i>ONR</i>	87-68-3	U	.013	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
Hexachloroethane	67-72-1	U	.016	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
Isophorone	78-59-1	U	.0066	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
Nitrobenzene	98-95-3	U	.0089	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
n-Nitrosodimethylamine <i>USCCAL-L</i>	62-75-9	U	.082	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0075	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.012	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
Benzylbutyl phthalate	85-68-7	U	.013	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.015	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
Di-n-butyl phthalate	84-74-2	U	.014	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
Diethyl phthalate	84-66-2	U	.0087	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
Dimethyl phthalate	131-11-3	U	.0068	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
Di-n-octyl phthalate	117-84-0	U	.012	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
1,2,4-Trichlorobenzene <i>PUR</i>	120-82-1	U	.011	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0061	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
2-Chlorophenol	95-57-8	U	.01	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
2,4-Dichlorophenol	120-83-2	U	.0095	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
2,4-Dimethylphenol <i>USCCAL-L</i>	105-67-9	U	.06	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.15	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
2,4-Dinitrophenol	51-28-5	U	.12	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
2-Methylphenol	95-48-7	U	.012	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
3&4-Methyl Phenol <i>USCCAL-L</i>	3&4-Methyl	U	.0099	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
2-Nitrophenol	88-75-5	U	.016	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
4-Nitrophenol	100-02-7	U	.066	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
4-Chloroaniline	106-47-8	U	.0044	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
2-Nitroaniline	88-74-4	U	.0096	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0018	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
3-Nitroaniline	99-09-2	U	.011	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
4-Nitroaniline	100-01-6	U	.0081	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
Pentachlorophenol	87-86-5	U	.061	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
Phenol	108-95-2	U	.0089	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
2,4,5-Trichlorophenol	95-95-4	U	.013	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
2,4,6-Trichlorophenol	88-06-2	U	.0099	0.21	0.42	mg/kg	8270C	8270C	11/04/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	48.2				% Rec.	8270C	8270C	11/04/14	1
Phenol-d5	4165-62-2	45.4				% Rec.	8270C	8270C	11/04/14	1

Results listed are dry weight basis.

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L730645-11 (PH) - 7.2@20.6c

L730645-11 (ICP METALS) - Dilution due to matrix

ONR: do not report

*KA 2/1/15
Brs 2/17/15*



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
 Description : Holloman AFB
 Sample ID : TU904-EX01-05-N
 Collected By : Jon Mallonee
 Collection Date : 10/29/14 10:50

ESC Sample # : L730645-11

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	46.0				% Rec.		8270C	11/04/14	1
2-Fluorobiphenyl	321-60-8	61.8				% Rec.		8270C	11/04/14	1
2,4,6-Tribromophenol	118-79-6	67.0				% Rec.		8270C	11/04/14	1
p-Terphenyl-d14	1718-51-0	53.0				% Rec.		8270C	11/04/14	1

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L730645-11 (PH) - 7.2@20.6c

L730645-11 (ICP METALS) - Dilution due to matrix

KA 2/14/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU508-EX01-01-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 12:20

ESC Sample # : L730645-12

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	7.2				su		9045D	10/31/14	1
Total Solids	TSOLIDS	69.3	.0333			%		2540 G-2	11/04/14	1
Mercury	7439-97-6	U	.004	0.014	0.029	mg/kg		7471	10/31/14	1
Aluminum	7429-90-5	480	26	36.	72.	mg/kg		6010B	11/10/14	5
Antimony	7440-36-0	U	5.5	7.2	14.	mg/kg		6010B	11/10/14	5
Arsenic	7440-38-2	U	4.6	7.2	14.	mg/kg		6010B	11/10/14	5
Barium	7440-39-3	22.	1.2	1.8	3.6	mg/kg		6010B	11/10/14	5
Beryllium	7440-41-7	U	.5	0.72	1.4	mg/kg		6010B	11/10/14	5
Cadmium	7440-43-9	U	.5	1.8	3.6	mg/kg		6010B	11/10/14	5
Chromium	7440-47-3	U	1	3.6	7.2	mg/kg		6010B	11/10/14	5
Cobalt	7440-48-4	U	1.7	3.6	7.2	mg/kg		6010B	11/10/14	5
Copper	7440-50-8	U	3.8	7.2	14.	mg/kg		6010B	11/10/14	5
Lead	7439-92-1	U	1.4	1.8	3.6	mg/kg		6010B	11/10/14	5
Manganese	7439-96-5	12.	.86	3.6	7.2	mg/kg		6010B	11/10/14	5
Nickel	7440-02-0	U	3.5	7.2	14.	mg/kg		6010B	11/10/14	5
Selenium	7782-49-2	U	5.3	7.2	14.	mg/kg		6010B	11/10/14	5
Silver	7440-22-4	U	2	3.6	7.2	mg/kg		6010B	11/10/14	5
Thallium	7440-28-0	U	4.6	7.2	14.	mg/kg		6010B	11/10/14	5
Vanadium	7440-62-2	6.1	1.7	7.2	14.	mg/kg	J	6010B	11/10/14	5
Zinc	7440-66-6	U	4.3	18.	36.	mg/kg		6010B	11/10/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.032	0.072	0.14	mg/kg		8015D/GR	11/06/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	98-08-8	85.0				% Rec.		8015D/GR	11/06/14	1
Volatile Organics										
Acetone	67-64-1	0.032	.014	0.036	0.072	mg/kg	J	8260B	11/05/14	1
Benzene	71-43-2	U	.00039	0.00072	0.0014	mg/kg		8260B	11/05/14	1
Bromobenzene	108-86-1	U	.0004	0.00072	0.0014	mg/kg		8260B	11/05/14	1
Bromochloromethane	74-97-5	U	.00056	0.00072	0.0014	mg/kg		8260B	11/05/14	1
Bromodichloromethane	75-27-4	U	.00036	0.00072	0.0014	mg/kg		8260B	11/05/14	1
Bromoform	75-25-2	U	.00061	0.00072	0.0014	mg/kg		8260B	11/05/14	1
Bromomethane	74-83-9	U	.0019	0.0036	0.0072	mg/kg		8260B	11/05/14	1
n-Butylbenzene	104-51-8	U	.00038	0.00072	0.0014	mg/kg		8260B	11/05/14	1
sec-Butylbenzene	135-98-8	U	.00029	0.00072	0.0014	mg/kg		8260B	11/05/14	1
tert-Butylbenzene	98-06-6	U	.0003	0.00072	0.0014	mg/kg		8260B	11/05/14	1
Carbon Disulfide	75-15-0	0.0036	.0004	0.00072	0.0014	mg/kg		8260B	11/05/14	1
Carbon tetrachloride	56-23-5	U	.00048	0.00072	0.0014	mg/kg		8260B	11/05/14	1
Chlorobenzene	108-90-7	U	.0003	0.00072	0.0014	mg/kg		8260B	11/05/14	1
Chlorodibromomethane	124-48-1	U	.00053	0.00072	0.0014	mg/kg		8260B	11/05/14	1
Chloroethane	75-00-3	U	.0014	0.0036	0.0072	mg/kg		8260B	11/05/14	1
Chloroform	67-66-3	U	.00033	0.0036	0.0072	mg/kg		8260B	11/05/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23

L730645-12 (ICP METALS) - Dilution due to matrix

L730645-12 (PH) - 7.2@21.0c

KA 2/11/15
BMS 2/11/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU508-EX01-01-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 12:20

ESC Sample # : L730645-12

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00055	0.00072	0.0036	mg/kg	8260B	11/05/14	1	
2-Chlorotoluene	95-49-8	U	.00043	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
4-Chlorotoluene	106-43-4	U	.00035	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0014	0.0036	0.0072	mg/kg	8260B	11/05/14	1	
1,2-Dibromoethane	106-93-4	U	.00049	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
Dibromomethane	74-95-3	U	.00055	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
1,2-Dichlorobenzene	95-50-1	U	.00043	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
1,3-Dichlorobenzene	541-73-1	U	.00035	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
1,4-Dichlorobenzene	106-46-7	U	.00033	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
Dichlorodifluoromethane	75-71-8	U	.001	0.0036	0.0072	mg/kg	8260B	11/05/14	1	
1,1-Dichloroethane	75-34-3	U	.00029	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
1,2-Dichloroethane	107-06-2	U	.00038	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
1,1-Dichloroethene	75-35-4	U	.00043	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
cis-1,2-Dichloroethene	156-59-2	U	.00035	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
trans-1,2-Dichloroethene	156-60-5	U	.00038	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
1,2-Dichloropropane	78-87-5	U	.00052	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
1,1-Dichloropropene	563-58-6	U	.00046	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
1,3-Dichloropropane	142-28-9	U	.0003	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
cis-1,3-Dichloropropene	10061-01-5	U	.00038	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
trans-1,3-Dichloropropene	10061-02-6	U	.00039	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
2,2-Dichloropropane	594-20-7	U	.0004	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
Ethylbenzene	100-41-4	U	.00043	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
Hexachloro-1,3-butadiene	87-68-3	U	.00049	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
2-Hexanone	591-78-6	U	.0055	0.0072	0.014	mg/kg	8260B	11/05/14	1	
Isopropylbenzene	98-82-8	U	.00035	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
p-Isopropyltoluene	99-87-6	U	.00029	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
2-Butanone (MEK)	78-93-3	U	.0068	0.0072	0.014	mg/kg	8260B	11/05/14	1	
Methylene Chloride	75-09-2	U	.0014	0.0036	0.0072	mg/kg	8260B	11/05/14	1	
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0027	0.0072	0.014	mg/kg	8260B	11/05/14	1	
Methyl tert-butyl ether	1634-04-4	U	.0003	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
Naphthalene	91-20-3	U	.0014	0.0036	0.0072	mg/kg	8260B	11/05/14	1	
n-Propylbenzene	103-65-1	U	.0003	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
Styrene	100-42-5	U	.00033	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
1,1,1,2-Tetrachloroethane	630-20-6	U	.00038	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
1,1,2,2-Tetrachloroethane	79-34-5	U	.00052	0.0011	0.0014	mg/kg	8260B	11/05/14	1	
Tetrachloroethene	127-18-4	U	.0004	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
Toluene	108-88-3	U	.00062	0.0036	0.0072	mg/kg	8260B	11/05/14	1	
1,2,3-Trichlorobenzene	87-61-6	U	.00045	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
1,2,4-Trichlorobenzene	120-82-1	U	.00056	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
1,1,1-Trichloroethane	71-55-6	U	.00041	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
1,1,2-Trichloroethane	79-00-5	U	.0004	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
Trichloroethene	79-01-6	U	.0004	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
Trichlorofluoromethane	75-69-4	U	.00055	0.0036	0.0072	mg/kg	8260B	11/05/14	1	
1,2,3-Trichloropropane	96-18-4	U	.0011	0.0014	0.0036	mg/kg	8260B	11/05/14	1	
1,2,4-Trimethylbenzene	95-63-6	U	.0003	0.00072	0.0014	mg/kg	8260B	11/05/14	1	

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23

L730645-12 (ICP METALS) - Dilution due to matrix

L730645-12 (PH) - 7.2@21.0c

KA 2/9/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU508-EX01-01-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 12:20

ESC Sample # : L730645-12

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual Method	Date	Dil.
o-Xylene	95-47-6	U	.00049	0.00072	0.0014	mg/kg	8260B	11/05/14	1
m&p-Xylene	1330-20-7	U	.001	0.0014	0.0029	mg/kg	8260B	11/05/14	1
Vinyl chloride	75-01-4	U	.00042	0.00072	0.0014	mg/kg	8260B	11/05/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00039	0.00072	0.0014	mg/kg	8260B	11/05/14	1
Surrogate Recovery									
Toluene-d8	2037-26-5	96.8				% Rec.	8260B	11/05/14	1
Dibromofluoromethane	1868-53-7	118.				% Rec.	8260B	11/05/14	1
4-Bromofluorobenzene	460-00-4	87.9				% Rec.	8260B	11/05/14	1
Diesel and Oil Ranges									
C10-C28 Diesel Range		71.	2.3	2.9	5.8	mg/kg	8015	11/04/14	1
C28-C40 Oil Range		84.	.39	2.9	5.8	mg/kg	8015	11/04/14	1
Surrogate Recovery									
o-Terphenyl	84-15-1	94.6				% Rec.	8015	11/04/14	1
Polynuclear Aromatic Hydrocarbons									
Anthracene	120-12-7	U	.00086	0.0029	0.0086	mg/kg	8270C-SI	11/06/14	1
Acenaphthene	83-32-9	U	.00086	0.0029	0.0086	mg/kg	8270C-SI	11/06/14	1
Acenaphthylene	208-96-8	U	.00086	0.0029	0.0086	mg/kg	8270C-SI	11/06/14	1
Benzo(a)anthracene	56-55-3	U	.00086	0.0029	0.0086	mg/kg	8270C-SI	11/06/14	1
Benzo(a)pyrene	50-32-8	U	.00086	0.0029	0.0086	mg/kg	8270C-SI	11/06/14	1
Benzo(b)fluoranthene	205-99-2	U	.00086	0.0029	0.0086	mg/kg	8270C-SI	11/06/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00086	0.0029	0.0086	mg/kg	8270C-SI	11/06/14	1
Benzo(k)fluoranthene	207-08-9	U	.00086	0.0029	0.0086	mg/kg	8270C-SI	11/06/14	1
Chrysene	218-01-9	U	.00086	0.0029	0.0086	mg/kg	8270C-SI	11/06/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00086	0.0029	0.0086	mg/kg	8270C-SI	11/06/14	1
Fluoranthene	206-44-0	U	.00086	0.0029	0.0086	mg/kg	8270C-SI	11/06/14	1
Fluorene	86-73-7	U	.00086	0.0029	0.0086	mg/kg	8270C-SI	11/06/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00086	0.0029	0.0086	mg/kg	8270C-SI	11/06/14	1
Naphthalene	91-20-3	U	.00086	0.0029	0.0086	mg/kg	8270C-SI	11/06/14	1
Phenanthrene	85-01-8	U	.00086	0.0029	0.0086	mg/kg	8270C-SI	11/06/14	1
Pyrene	129-00-0	U	.00086	0.0029	0.0086	mg/kg	8270C-SI	11/06/14	1
2-Methylnaphthalene	91-57-6	U	.00092	0.0087	0.029	mg/kg	8270C-SI	11/06/14	1
Surrogate Recovery									
p-Terphenyl-d14	1718-51-0	79.4				% Rec.	8270C-SI	11/06/14	1
Nitrobenzene-d5	4165-60-0	84.5				% Rec.	8270C-SI	11/06/14	1
2-Fluorobiphenyl	321-60-8	96.6				% Rec.	8270C-SI	11/06/14	1
Base/Neutral Extractables									
Bis(2-chloroethoxy)methane	111-91-1	U	.011	0.24	0.48	mg/kg	8270C	11/04/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.013	0.24	0.48	mg/kg	8270C	11/04/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.011	0.24	0.48	mg/kg	8270C	11/04/14	1
Benzyl Alcohol	100-51-6	U	.011	0.24	0.48	mg/kg	8270C	11/04/14	1
Benzoic acid	65-85-0	U	.17	2.4	4.8	mg/kg	8270C	11/04/14	1
Carbazole	86-74-8	U	.0075	0.24	0.48	mg/kg	8270C	11/04/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23

L730645-12 (ICP METALS) - Dilution due to matrix

L730645-12 (PH) - 7.2@21.0c

DNR: Do Not Report

KA 2/1/15

Brs 9/2/15



YOUR LAB OF CHOICE

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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU508-EX01-01-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 12:20

ESC Sample # : L730645-12

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0075	0.24	0.48	mg/kg		8270C	11/04/14	1
4-Bromophenyl-phenylether	101-55-3	U	.016	0.24	0.48	mg/kg		8270C	11/04/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0091	0.24	0.48	mg/kg		8270C	11/04/14	1
2-Chloronaphthalene	91-58-7	U	.0092	0.24	0.48	mg/kg		8270C	11/04/14	1
3,3-Dichlorobenzidine	91-94-1	U	.11	0.24	0.48	mg/kg		8270C	11/04/14	1
2,4-Dinitrotoluene	121-14-2	U	.0088	0.24	0.48	mg/kg		8270C	11/04/14	1
2,6-Dinitrotoluene	606-20-2	U	.011	0.24	0.48	mg/kg		8270C	11/04/14	1
Hexachlorobenzene	118-74-1	U	.012	0.24	0.48	mg/kg		8270C	11/04/14	1
Hexachloro-1,3-butadiene <i>DNR</i>	87-68-3	U	.014	0.24	0.48	mg/kg		8270C	11/04/14	1
Hexachloroethane	67-72-1	U	.019	0.24	0.48	mg/kg		8270C	11/04/14	1
Isophorone	78-59-1	U	.0075	0.24	0.48	mg/kg		8270C	11/04/14	1
Nitrobenzene	98-95-3	U	.01	0.24	0.48	mg/kg		8270C	11/04/14	1
n-Nitrosodimethylamine <i>US CCAL-L</i>	62-75-9	U	.094	0.24	0.48	mg/kg		8270C	11/04/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0085	0.24	0.48	mg/kg		8270C	11/04/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.013	0.24	0.48	mg/kg		8270C	11/04/14	1
Benzylbutyl phthalate	85-68-7	U	.014	0.24	0.48	mg/kg		8270C	11/04/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.017	0.24	0.48	mg/kg		8270C	11/04/14	1
Di-n-butyl phthalate	84-74-2	U	.016	0.24	0.48	mg/kg		8270C	11/04/14	1
Diethyl phthalate	84-66-2	U	.01	0.24	0.48	mg/kg		8270C	11/04/14	1
Dimethyl phthalate	131-11-3	U	.0078	0.24	0.48	mg/kg		8270C	11/04/14	1
Di-n-octyl phthalate	117-84-0	U	.013	0.24	0.48	mg/kg		8270C	11/04/14	1
1,2,4-Trichlorobenzene <i>DNR</i>	120-82-1	U	.013	0.24	0.48	mg/kg		8270C	11/04/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0069	0.24	0.48	mg/kg		8270C	11/04/14	1
2-Chlorophenol	95-57-8	U	.012	0.24	0.48	mg/kg		8270C	11/04/14	1
2,4-Dichlorophenol	120-83-2	U	.011	0.24	0.48	mg/kg		8270C	11/04/14	1
2,4-Dimethylphenol <i>US CCAL-L</i>	105-67-9	U	.068	0.24	0.48	mg/kg		8270C	11/04/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.17	0.24	0.48	mg/kg		8270C	11/04/14	1
2,4-Dinitrophenol	51-28-5	U	.14	0.24	0.48	mg/kg		8270C	11/04/14	1
2-Methylphenol	95-48-7	U	.014	0.24	0.48	mg/kg		8270C	11/04/14	1
3&4-Methyl Phenol <i>US CCAL-L</i>	3&4-Methyl	U	.011	0.24	0.48	mg/kg		8270C	11/04/14	1
2-Nitrophenol	88-75-5	U	.019	0.24	0.48	mg/kg		8270C	11/04/14	1
4-Nitrophenol	100-02-7	U	.075	0.24	0.48	mg/kg		8270C	11/04/14	1
4-Chloroaniline	106-47-8	U	.005	0.24	0.48	mg/kg		8270C	11/04/14	1
2-Nitroaniline	88-74-4	U	.011	0.24	0.48	mg/kg		8270C	11/04/14	1
1,2-Diphenylhydrazine	103-33-3	U	.002	0.24	0.48	mg/kg		8270C	11/04/14	1
3-Nitroaniline	99-09-2	U	.012	0.24	0.48	mg/kg		8270C	11/04/14	1
4-Nitroaniline	100-01-6	U	.0092	0.24	0.48	mg/kg		8270C	11/04/14	1
Pentachlorophenol	87-86-5	U	.069	0.24	0.48	mg/kg		8270C	11/04/14	1
Phenol	108-95-2	U	.01	0.24	0.48	mg/kg		8270C	11/04/14	1
2,4,5-Trichlorophenol	95-95-4	U	.014	0.24	0.48	mg/kg		8270C	11/04/14	1
2,4,6-Trichlorophenol	88-06-2	U	.011	0.24	0.48	mg/kg		8270C	11/04/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	64.6				% Rec.		8270C	11/04/14	1
Phenol-d5	4165-62-2	63.2				% Rec.		8270C	11/04/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

Note:

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The reported analytical results relate only to the sample submitted

Reported: 11/10/14 16:32 Revised: 11/20/14 09:23

L730645-12 (ICP METALS) - Dilution due to matrix

L730645-12 (PH) - 7.2@21.0c

DNR = do not report

KA 2/1/15
BMS 2/17/15



12065 Lebanon Rd.
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 (615) 758-5858
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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
 Description : Holloman AFB
 Sample ID : TU508-EX01-01-N
 Collected By : Jon Mallonee
 Collection Date : 10/29/14 12:20

ESC Sample # : L730645-12
 Site ID :
 Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	64.3				% Rec.		8270C	11/04/14	1
2-Fluorobiphenyl	321-60-8	71.7				% Rec.		8270C	11/04/14	1
2,4,6-Tribromophenol	118-79-6	85.9				% Rec.		8270C	11/04/14	1
p-Terphenyl-d14	1718-51-0	39.6				% Rec.		8270C	11/04/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23
 L730645-12 (ICP METALS) - Dilution due to matrix
 L730645-12 (PH) - 7.2@21.0c

KA-2/11/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU508-EX01-01-D
Collected By : Jon Mallonee
Collection Date : 10/29/14 12:20

ESC Sample # : L730645-13

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	7.3				su		9045D	10/31/14	1
Total Solids	TSOLIDS	68.6	.0333			%		2540 G-2	11/04/14	1
Mercury	7439-97-6	U	.0041	0.015	0.029	mg/kg		7471	10/31/14	1
Aluminum	7429-90-5	600	26	36.	73.	mg/kg		6010B	11/10/14	5
Antimony	7440-36-0	U	5.5	7.3	14.	mg/kg		6010B	11/10/14	5
Arsenic	7440-38-2	U	4.7	7.3	14.	mg/kg		6010B	11/10/14	5
Barium	7440-39-3	23.	1.2	1.8	3.6	mg/kg		6010B	11/10/14	5
Beryllium	7440-41-7	U	.51	0.73	1.4	mg/kg		6010B	11/10/14	5
Cadmium	7440-43-9	U	.51	1.8	3.6	mg/kg		6010B	11/10/14	5
Chromium	7440-47-3	1.3	1	3.6	7.3	mg/kg	J	6010B	11/10/14	5
Cobalt	7440-48-4	U	1.7	3.6	7.3	mg/kg		6010B	11/10/14	5
Copper	7440-50-8	U	3.8	7.3	14.	mg/kg		6010B	11/10/14	5
Lead	7439-92-1	U	1.4	1.8	3.6	mg/kg		6010B	11/10/14	5
Manganese	7439-96-5	16.	.87	3.6	7.3	mg/kg		6010B	11/10/14	5
Nickel	7440-02-0	U	3.5	7.3	14.	mg/kg		6010B	11/10/14	5
Selenium	7782-49-2	U	5.4	7.3	14.	mg/kg		6010B	11/10/14	5
Silver	7440-22-4	U	2	3.6	7.3	mg/kg		6010B	11/10/14	5
Thallium	7440-28-0	U	4.7	7.3	14.	mg/kg		6010B	11/10/14	5
Vanadium	7440-62-2	5.4	1.7	7.3	14.	mg/kg	J	6010B	11/10/14	5
Zinc	7440-66-6	U	4.4	18.	36.	mg/kg		6010B	11/10/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.032	0.073	0.14	mg/kg		8015D/GR	11/06/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	98-08-8	84.9				% Rec.		8015D/GR	11/06/14	1
Volatile Organics										
Acetone	67-64-1	0.031	.014	0.036	0.073	mg/kg	J	8260B	11/05/14	1
Benzene	71-43-2	U	.00039	0.00073	0.0014	mg/kg		8260B	11/05/14	1
Bromobenzene	108-86-1	U	.00041	0.00073	0.0014	mg/kg		8260B	11/05/14	1
Bromochloromethane	74-97-5	U	.00057	0.00073	0.0014	mg/kg		8260B	11/05/14	1
Bromodichloromethane	75-27-4	U	.00036	0.00073	0.0014	mg/kg		8260B	11/05/14	1
Bromoform	75-25-2	U	.00061	0.00073	0.0014	mg/kg		8260B	11/05/14	1
Bromomethane	74-83-9	U	.0019	0.0036	0.0073	mg/kg		8260B	11/05/14	1
n-Butylbenzene	104-51-8	U	.00038	0.00073	0.0014	mg/kg		8260B	11/05/14	1
sec-Butylbenzene	135-98-8	U	.00029	0.00073	0.0014	mg/kg		8260B	11/05/14	1
tert-Butylbenzene	98-06-6	U	.00031	0.00073	0.0014	mg/kg		8260B	11/05/14	1
Carbon Disulfide	75-15-0	0.0029	.00041	0.00073	0.0014	mg/kg		8260B	11/05/14	1
Carbon tetrachloride	56-23-5	U	.00048	0.00073	0.0014	mg/kg		8260B	11/05/14	1
Chlorobenzene	108-90-7	U	.00031	0.00073	0.0014	mg/kg		8260B	11/05/14	1
Chlorodibromomethane	124-48-1	U	.00054	0.00073	0.0014	mg/kg		8260B	11/05/14	1
Chloroethane	75-00-3	U	.0014	0.0036	0.0073	mg/kg		8260B	11/05/14	1
Chloroform	67-66-3	U	.00034	0.0036	0.0073	mg/kg		8260B	11/05/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23

L730645-13 (PH) - 7.3@21.0c

L730645-13 (ICP METALS) - Dilution due to matrix

KA 2/1/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU508-EX01-01-D
Collected By : Jon Mallonee
Collection Date : 10/29/14 12:20

ESC Sample # : L730645-13

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00055	0.00073	0.0036	mg/kg	8260B	11/05/14	1	
2-Chlorotoluene	95-49-8	U	.00044	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
4-Chlorotoluene	106-43-4	U	.00035	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0014	0.0036	0.0073	mg/kg	8260B	11/05/14	1	
1,2-Dibromoethane	106-93-4	U	.0005	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
Dibromomethane	74-95-3	U	.00055	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
1,2-Dichlorobenzene	95-50-1	U	.00044	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
1,3-Dichlorobenzene	541-73-1	U	.00035	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
1,4-Dichlorobenzene	106-46-7	U	.00034	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
Dichlorodifluoromethane	75-71-8	U	.001	0.0036	0.0073	mg/kg	8260B	11/05/14	1	
1,1-Dichloroethane	75-34-3	U	.00029	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
1,2-Dichloroethane	107-06-2	U	.00038	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
1,1-Dichloroethene	75-35-4	U	.00044	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
cis-1,2-Dichloroethene	156-59-2	U	.00035	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
trans-1,2-Dichloroethene	156-60-5	U	.00038	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
1,2-Dichloropropane	78-87-5	U	.00052	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
1,1-Dichloropropene	563-58-6	U	.00047	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
1,3-Dichloropropane	142-28-9	U	.00031	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
cis-1,3-Dichloropropene	10061-01-5	U	.00038	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
trans-1,3-Dichloropropene	10061-02-6	U	.00039	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
2,2-Dichloropropane	594-20-7	U	.00041	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
Ethylbenzene	100-41-4	U	.00044	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
Hexachloro-1,3-butadiene	87-68-3	U	.0005	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
2-Hexanone	591-78-6	U	.0055	0.0073	0.014	mg/kg	8260B	11/05/14	1	
Isopropylbenzene	98-82-8	U	.00035	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
p-Isopropyltoluene	99-87-6	U	.00029	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
2-Butanone (MEK)	78-93-3	U	.0068	0.0073	0.014	mg/kg	8260B	11/05/14	1	
Methylene Chloride	75-09-2	U	.0014	0.0036	0.0073	mg/kg	8260B	11/05/14	1	
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0028	0.0073	0.014	mg/kg	8260B	11/05/14	1	
Methyl tert-butyl ether	1634-04-4	U	.00031	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
Naphthalene	91-20-3	U	.0014	0.0036	0.0073	mg/kg	8260B	11/05/14	1	
n-Propylbenzene	103-65-1	U	.00031	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
Styrene	100-42-5	U	.00034	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
1,1,1,2-Tetrachloroethane	630-20-6	U	.00038	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
1,1,2,2-Tetrachloroethane	79-34-5	U	.00052	0.0011	0.0014	mg/kg	8260B	11/05/14	1	
Tetrachloroethene	127-18-4	U	.00041	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
Toluene	108-88-3	U	.00063	0.0036	0.0073	mg/kg	8260B	11/05/14	1	
1,2,3-Trichlorobenzene	87-61-6	U	.00045	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
1,2,4-Trichlorobenzene	120-82-1	U	.00057	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
1,1,1-Trichloroethane	71-55-6	U	.00042	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
1,1,2-Trichloroethane	79-00-5	U	.00041	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
Trichloroethene	79-01-6	U	.00041	0.00073	0.0014	mg/kg	8260B	11/05/14	1	
Trichlorofluoromethane	75-69-4	U	.00055	0.0036	0.0073	mg/kg	8260B	11/05/14	1	
1,2,3-Trichloropropane	96-18-4	U	.0011	0.0015	0.0036	mg/kg	8260B	11/05/14	1	
1,2,4-Trimethylbenzene	95-63-6	U	.00031	0.00073	0.0014	mg/kg	8260B	11/05/14	1	

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23

L730645-13 (PH) - 7.3@21.0c

L730645-13 (ICP METALS) - Dilution due to matrix

KA2/alis



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU508-EX01-01-D
Collected By : Jon Mallonee
Collection Date : 10/29/14 12:20

ESC Sample # : L730645-13

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.0005	0.00073	0.0014	mg/kg		8260B	11/05/14	1
m&p-Xylene	1330-20-7	U	.001	0.0015	0.0029	mg/kg		8260B	11/05/14	1
Vinyl chloride	75-01-4	U	.00042	0.00073	0.0014	mg/kg		8260B	11/05/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00039	0.00073	0.0014	mg/kg		8260B	11/05/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	96.1				% Rec.		8260B	11/05/14	1
Dibromofluoromethane	1868-53-7	119.				% Rec.		8260B	11/05/14	1
4-Bromofluorobenzene	460-00-4	93.5				% Rec.		8260B	11/05/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		19.	2.3	2.9	5.8	mg/kg		8015	11/04/14	1
C28-C40 Oil Range		35.	.39	2.9	5.8	mg/kg		8015	11/04/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	95.5				% Rec.		8015	11/04/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Acenaphthene	83-32-9	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Acenaphthylene	208-96-8	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Benzo (a) anthracene	56-55-3	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Benzo (a) pyrene	50-32-8	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Benzo (b) fluoranthene	205-99-2	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Benzo (g, h, i) perylene	191-24-2	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Benzo (k) fluoranthene	207-08-9	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Chrysene	218-01-9	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Dibenz (a, h) anthracene	53-70-3	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Fluoranthene	206-44-0	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Fluorene	86-73-7	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Indeno (1,2,3-cd) pyrene	193-39-5	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Naphthalene	91-20-3	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Phenanthrene	85-01-8	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Pyrene	129-00-0	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
2-Methylnaphthalene	91-57-6	U	.00093	0.0087	0.029	mg/kg		8270C-SI	11/06/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	82.0				% Rec.		8270C-SI	11/06/14	1
Nitrobenzene-d5	4165-60-0	89.9				% Rec.		8270C-SI	11/06/14	1
2-Fluorobiphenyl	321-60-8	99.4				% Rec.		8270C-SI	11/06/14	1
Base/Neutral Extractables										
Bis (2-chloroethoxy) methane	111-91-1	U	.011	0.24	0.48	mg/kg		8270C	11/06/14	1
Bis (2-chloroethyl) ether	111-44-4	U	.013	0.24	0.48	mg/kg		8270C	11/06/14	1
Bis (2-chloroisopropyl) ether	108-60-1	U	.011	0.24	0.48	mg/kg		8270C	11/06/14	1
Benzyl Alcohol	100-51-6	U	.011	0.24	0.48	mg/kg		8270C	11/06/14	1
Benzoic acid	65-85-0	U	.17	2.4	4.8	mg/kg		8270C	11/06/14	1
Carbazole	86-74-8	U	.0076	0.24	0.48	mg/kg		8270C	11/06/14	1

Results listed are dry weight basis.

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23

L730645-13 (PH) - 7.3@21.0c

L730645-13 (ICP METALS) - Dilution due to matrix

DNR: Do Not Report

KAZALIS
8/2/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU508-EX01-01-D
Collected By : Jon Mallonee
Collection Date : 10/29/14 12:20

ESC Sample # : L730645-13

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0076	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
4-Bromophenyl-phenylether	101-55-3	U	.016	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0092	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
2-Chloronaphthalene	91-58-7	U	.0093	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
3,3-Dichlorobenzidine	91-94-1	U	.12	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
2,4-Dinitrotoluene	121-14-2	U	.0089	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
2,6-Dinitrotoluene	606-20-2	U	.011	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
Hexachlorobenzene	118-74-1	U	.012	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
Hexachloro-1,3-butadiene <i>PPR</i>	87-68-3	U	.014	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
Hexachloroethane	67-72-1	U	.019	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
Isophorone	78-59-1	U	.0076	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
Nitrobenzene	98-95-3	U	.01	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
n-Nitrosodimethylamine	62-75-9	U	.095	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0086	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.013	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
Benzylbutyl phthalate	85-68-7	U	.014	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
Bis(2-ethylhexyl)phthalate <i>FSQL-I</i>	117-81-7	0.017	.017	0.24	0.48	mg/kg	J	8270C	11/06/14	1
Di-n-butyl phthalate	84-74-2	U	.016	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
Diethyl phthalate	84-66-2	U	.01	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
Dimethyl phthalate	131-11-3	U	.0079	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
Di-n-octyl phthalate	117-84-0	U	.013	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
1,2,4-Trichlorobenzene <i>DNR</i>	120-82-1	U	.013	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.007	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
2-Chlorophenol	95-57-8	U	.012	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
2,4-Dichlorophenol	120-83-2	U	.011	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
2,4-Dimethylphenol	105-67-9	U	.068	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.17	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
2,4-Dinitrophenol	51-28-5	U	.14	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
2-Methylphenol	95-48-7	U	.014	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
3&4-Methyl Phenol <i>US CRAL-L</i>	3&4-Methyl	U	.011	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
2-Nitrophenol	88-75-5	U	.019	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
4-Nitrophenol	100-02-7	U	.076	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
4-Chloroaniline	106-47-8	U	.0051	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
2-Nitroaniline	88-74-4	U	.011	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
1,2-Diphenylhydrazine	103-33-3	U	.002	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
3-Nitroaniline	99-09-2	U	.012	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
4-Nitroaniline	100-01-6	U	.0093	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
Pentachlorophenol	87-86-5	U	.07	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
Phenol	108-95-2	U	.01	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
2,4,5-Trichlorophenol	95-95-4	U	.014	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
2,4,6-Trichlorophenol	88-06-2	U	.011	0.24	0.48	mg/kg	8270C	8270C	11/06/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	67.3				% Rec.	8270C	8270C	11/06/14	1
Phenol-d5	4165-62-2	64.2				% Rec.	8270C	8270C	11/06/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23

L730645-13 (PH) - 7.3@21.0c

L730645-13 (ICP METALS) - Dilution due to matrix

DNR = do not report

*KA 2/1/15
BWS 2/17/15*



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 Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
 Description : Holloman AFB
 Sample ID : TU508-EX01-01-D
 Collected By : Jon Mallonee
 Collection Date : 10/29/14 12:20

ESC Sample # : L730645-13
 Site ID :
 Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	65.0				% Rec.		8270C	11/06/14	1
2-Fluorobiphenyl	321-60-8	81.8				% Rec.		8270C	11/06/14	1
2,4,6-Tribromophenol	118-79-6	82.5				% Rec.		8270C	11/06/14	1
p-Terphenyl-d14	1718-51-0	70.3				% Rec.		8270C	11/06/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23

L730645-13 (PH) - 7.3@21.0c

L730645-13 (ICP METALS) - Dilution due to matrix

KA 2/19/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB

ESC Sample # : L730645-14

Sample ID : TU508-EX01-02-N

Site ID :

Collected By : Jon Mallonee
Collection Date : 10/29/14 12:30

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	7.3				su		9045D	10/31/14	1
Total Solids	TSOLIDS	67.4	.0333			%		2540 G-2	11/04/14	1
Mercury	7439-97-6	U	.0042	0.015	0.030	mg/kg		7471	10/31/14	1
Aluminum	7429-90-5	560	27	37.	74.	mg/kg	J5J3	6010B	11/10/14	5
Antimony	7440-36-0	U	5.6	7.4	15.	mg/kg		6010B	11/10/14	5
Arsenic	7440-38-2	U	4.7	7.4	15.	mg/kg		6010B	11/10/14	5
Barium	7440-39-3	15.	1.3	1.9	3.7	mg/kg		6010B	11/10/14	5
Beryllium	7440-41-7	U	.52	0.74	1.5	mg/kg		6010B	11/10/14	5
Cadmium	7440-43-9	U	.52	1.9	3.7	mg/kg		6010B	11/10/14	5
Chromium	7440-47-3	U	1	3.7	7.4	mg/kg		6010B	11/10/14	5
Cobalt	7440-48-4	U	1.8	3.7	7.4	mg/kg		6010B	11/10/14	5
Copper	7440-50-8	U	3.8	7.4	15.	mg/kg		6010B	11/10/14	5
Lead	7439-92-1	U	1.4	1.9	3.7	mg/kg		6010B	11/10/14	5
Manganese	7439-96-5	18.	.89	3.7	7.4	mg/kg		6010B	11/10/14	5
Nickel	7440-02-0	U	3.6	7.4	15.	mg/kg		6010B	11/10/14	5
Selenium	7782-49-2	U	5.5	7.4	15.	mg/kg		6010B	11/10/14	5
Silver	7440-22-4	U	2.1	3.7	7.4	mg/kg	J6	6010B	11/10/14	5
Thallium	7440-28-0	U	4.7	7.4	15.	mg/kg		6010B	11/10/14	5
Vanadium	7440-62-2	5.2	1.8	7.4	15.	mg/kg	J	6010B	11/10/14	5
Zinc	7440-66-6	U	4.4	19.	37.	mg/kg		6010B	11/10/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.033	0.074	0.15	mg/kg	J3	8015D/GR	11/07/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	100.				% Rec.		8015D/GR	11/07/14	1
Volatile Organics										
Acetone	67-64-1	0.042	.015	0.037	0.074	mg/kg	J	8260B	11/05/14	1
Benzene	71-43-2	0.00049	.0004	0.00074	0.0015	mg/kg	J	8260B	11/05/14	1
Bromobenzene	108-86-1	U	.00042	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Bromochloromethane	74-97-5	U	.00058	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Bromodichloromethane	75-27-4	U	.00037	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Bromoform	75-25-2	U	.00062	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Bromomethane	74-83-9	U	.0019	0.0037	0.0074	mg/kg		8260B	11/05/14	1
n-Butylbenzene	104-51-8	U	.00038	0.00074	0.0015	mg/kg	J3	8260B	11/05/14	1
sec-Butylbenzene	135-98-8	U	.0003	0.00074	0.0015	mg/kg		8260B	11/05/14	1
tert-Butylbenzene	98-06-6	U	.00031	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Carbon Disulfide	75-15-0	0.016	.00042	0.00074	0.0015	mg/kg	J6	8260B	11/05/14	1
Carbon tetrachloride	56-23-5	U	.00049	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Chlorobenzene	108-90-7	U	.00031	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Chlorodibromomethane	124-48-1	U	.00055	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Chloroethane	75-00-3	U	.0014	0.0037	0.0074	mg/kg		8260B	11/05/14	1
Chloroform	67-66-3	U	.00034	0.0037	0.0074	mg/kg		8260B	11/05/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23

L730645-14 (ICP METALS) - Dilution due to matrix

L730645-14 (PH) - 7.3@20.2c

KA 2/11/15
Brs 2/19/15



YOUR LAB OF CHOICE

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU508-EX01-02-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 12:30

ESC Sample # : L730645-14

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00056	0.00074	0.0037	mg/kg		8260B	11/05/14	1
2-Chlorotoluene <i>UJ MS-L</i>	95-49-8	U	.00044	0.00074	0.0015	mg/kg		8260B	11/05/14	1
4-Chlorotoluene <i>UJ MS-L</i>	106-43-4	U	.00036	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0015	0.0037	0.0074	mg/kg		8260B	11/05/14	1
1,2-Dibromoethane	106-93-4	U	.0005	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Dibromomethane	74-95-3	U	.00056	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,2-Dichlorobenzene <i>UJ MS-L</i>	95-50-1	U	.00044	0.00074	0.0015	mg/kg	J6	8260B	11/05/14	1
1,3-Dichlorobenzene <i>UJ MS-L</i>	541-73-1	U	.00036	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,4-Dichlorobenzene <i>UJ MS-L</i>	106-46-7	U	.00034	0.00074	0.0015	mg/kg	J6	8260B	11/05/14	1
Dichlorodifluoromethane	75-71-8	U	.001	0.0037	0.0074	mg/kg		8260B	11/05/14	1
1,1-Dichloroethane	75-34-3	U	.0003	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,2-Dichloroethane	107-06-2	U	.00038	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,1-Dichloroethene	75-35-4	U	.00044	0.00074	0.0015	mg/kg		8260B	11/05/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00036	0.00074	0.0015	mg/kg		8260B	11/05/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00038	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,2-Dichloropropane	78-87-5	U	.00053	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,1-Dichloropropene	563-58-6	U	.00047	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,3-Dichloropropane	142-28-9	U	.00031	0.00074	0.0015	mg/kg		8260B	11/05/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00038	0.00074	0.0015	mg/kg		8260B	11/05/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.0004	0.00074	0.0015	mg/kg		8260B	11/05/14	1
2,2-Dichloropropane	594-20-7	U	.00042	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Ethylbenzene <i>UJ MS-L</i>	100-41-4	U	.00044	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Hexachloro-1,3-butadiene <i>UJ MS-L</i>	87-68-3	U	.0005	0.00074	0.0015	mg/kg	J6J3	8260B	11/05/14	1
2-Hexanone	591-78-6	U	.0056	0.0074	0.015	mg/kg		8260B	11/05/14	1
Isopropylbenzene <i>UJ MS-L</i>	98-82-8	U	.00036	0.00074	0.0015	mg/kg		8260B	11/05/14	1
p-Isopropyltoluene <i>UJ MS-L</i>	99-87-6	U	.0003	0.00074	0.0015	mg/kg		8260B	11/05/14	1
2-Butanone (MEK)	78-93-3	U	.007	0.0074	0.015	mg/kg		8260B	11/05/14	1
Methylene Chloride	75-09-2	U	.0015	0.0037	0.0074	mg/kg		8260B	11/05/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0028	0.0074	0.015	mg/kg		8260B	11/05/14	1
Methyl tert-butyl ether	1634-04-4	U	.00031	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Napthalene	91-20-3	U	.0015	0.0037	0.0074	mg/kg		8260B	11/05/14	1
n-Propylbenzene	103-65-1	U	.00031	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Styrene <i>UJ MS-L</i>	100-42-5	U	.00034	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00038	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00053	0.0011	0.0015	mg/kg		8260B	11/05/14	1
Tetrachloroethene <i>J MS-L</i>	127-18-4	0.0031	.00042	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Toluene	108-88-3	U	.00064	0.0037	0.0074	mg/kg		8260B	11/05/14	1
1,2,3-Trichlorobenzene <i>UJ MS-L</i>	87-61-6	U	.00046	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,2,4-Trichlorobenzene <i>UJ MS-L</i>	120-82-1	U	.00058	0.00074	0.0015	mg/kg	J6	8260B	11/05/14	1
1,1,1-Trichloroethane	71-55-6	U	.00042	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,1,2-Trichloroethane	79-00-5	U	.00042	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Trichloroethene <i>FJ SOL MS-L</i>	79-01-6	0.00050	.00042	0.00074	0.0015	mg/kg	J	8260B	11/05/14	1
Trichlorofluoromethane	75-69-4	U	.00056	0.0037	0.0074	mg/kg		8260B	11/05/14	1
1,2,3-Trichloropropane	96-18-4	U	.0011	0.0015	0.0037	mg/kg		8260B	11/05/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.00031	0.00074	0.0015	mg/kg		8260B	11/05/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23

L730645-14 (ICP METALS) - Dilution due to matrix

L730645-14 (PH) - 7.3@20.2c

KA 2/11/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU508-EX01-02-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 12:30

ESC Sample # : L730645-14

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene <i>UJ MS-L</i>	95-47-6	U	.0005	0.00074	0.0015	mg/kg		8260B	11/05/14	1
m&p-Xylene <i>UJ MS-L</i>	1330-20-7	U	.0011	0.0015	0.0030	mg/kg		8260B	11/05/14	1
Vinyl chloride	75-01-4	U	.00043	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,3,5-Trimethylbenzene <i>UJ MS-L</i>	108-67-8	U	.0004	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	97.0				% Rec.		8260B	11/05/14	1
Dibromofluoromethane	1868-53-7	113.				% Rec.		8260B	11/05/14	1
4-Bromofluorobenzene	460-00-4	93.0				% Rec.		8260B	11/05/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range <i>FJ SOL, MS-L</i>		2.5	2.4	3.0	5.9	mg/kg	J	8015	11/04/14	1
C28-C40 Oil Range		7.4	.4	3.0	5.9	mg/kg		8015	11/04/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	94.6				% Rec.		8015	11/04/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene <i>UJ MS-L</i>	120-12-7	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	11/06/14	1
Acenaphthene	83-32-9	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	11/06/14	1
Acenaphthylene	208-96-8	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	11/06/14	1
Benzo(a)anthracene <i>UJ MS-L</i>	56-55-3	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	11/06/14	1
Benzo(a)pyrene <i>UJ MS-L</i>	50-32-8	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	11/06/14	1
Benzo(b)fluoranthene <i>UJ MS-L</i>	205-99-2	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	11/06/14	1
Benzo(g,h,i)perylene <i>UJ MS-L</i>	191-24-2	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	11/06/14	1
Benzo(k)fluoranthene <i>UJ MS-L</i>	207-08-9	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	11/06/14	1
Chrysene <i>UJ MS-L</i>	218-01-9	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	11/06/14	1
Dibenz(a,h)anthracene <i>UJ MS-L</i>	53-70-3	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	11/06/14	1
Fluoranthene <i>UJ MS-L</i>	206-44-0	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	11/06/14	1
Fluorene	86-73-7	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	11/06/14	1
Indeno(1,2,3-cd)pyrene <i>UJ MS-L</i>	193-39-5	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	11/06/14	1
Naphthalene <i>UJ MS-L</i>	91-20-3	0.0014	0.0014	0.0089	0.030	mg/kg	J	8270C-SI	11/06/14	1
Phenanthrene <i>UJ MS-L</i>	85-01-8	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	11/06/14	1
Pyrene <i>UJ MS-L</i>	129-00-0	U	.00089	0.0030	0.0089	mg/kg		8270C-SI	11/06/14	1
2-Methylnaphthalene	91-57-6	U	.00095	0.0089	0.030	mg/kg		8270C-SI	11/06/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	70.4				% Rec.		8270C-SI	11/06/14	1
Nitrobenzene-d5	4165-60-0	85.0				% Rec.		8270C-SI	11/06/14	1
2-Fluorobiphenyl	321-60-8	88.7				% Rec.		8270C-SI	11/06/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	.011	0.25	0.49	mg/kg		8270C	11/04/14	1
Bis(2-chloroethyl)ether <i>USCCAL-L</i>	111-44-4	U	.013	0.25	0.49	mg/kg		8270C	11/04/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.011	0.25	0.49	mg/kg		8270C	11/04/14	1
Benzyl Alcohol	100-51-6	U	.011	0.25	0.49	mg/kg		8270C	11/04/14	1
Benzoic acid	65-85-0	U	.18	2.5	4.9	mg/kg		8270C	11/04/14	1
Carbazole	86-74-8	U	.0077	0.25	0.49	mg/kg		8270C	11/04/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23

L730645-14 (ICP METALS) - Dilution due to matrix

L730645-14 (PH) - 7.3@20.2c

DNR: DO NOT REPORT

KA 2/1/15

BMS 9/2/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU508-EX01-02-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 12:30

ESC Sample # : L730645-14

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0077	0.25	0.49	mg/kg		8270C	11/04/14	1
4-Bromophenyl-phenylether	101-55-3	U	.016	0.25	0.49	mg/kg		8270C	11/04/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0093	0.25	0.49	mg/kg		8270C	11/04/14	1
2-Chloronaphthalene	91-58-7	U	.0095	0.25	0.49	mg/kg		8270C	11/04/14	1
3,3-Dichlorobenzidine	91-94-1	U	.12	0.25	0.49	mg/kg		8270C	11/04/14	1
2,4-Dinitrotoluene	121-14-2	U	.009	0.25	0.49	mg/kg		8270C	11/04/14	1
2,6-Dinitrotoluene	606-20-2	U	.011	0.25	0.49	mg/kg		8270C	11/04/14	1
Hexachlorobenzene	118-74-1	U	.013	0.25	0.49	mg/kg		8270C	11/04/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.015	0.25	0.49	mg/kg		8270C	11/04/14	1
Hexachloroethane	67-72-1	U	.019	0.25	0.49	mg/kg		8270C	11/04/14	1
Isophorone	78-59-1	U	.0077	0.25	0.49	mg/kg		8270C	11/04/14	1
Nitrobenzene	98-95-3	U	.01	0.25	0.49	mg/kg		8270C	11/04/14	1
n-Nitrosodimethylamine	62-75-9	U	.096	0.25	0.49	mg/kg		8270C	11/04/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0088	0.25	0.49	mg/kg		8270C	11/04/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.014	0.25	0.49	mg/kg		8270C	11/04/14	1
Benzylbutyl phthalate	85-68-7	U	.015	0.25	0.49	mg/kg		8270C	11/04/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.018	0.25	0.49	mg/kg		8270C	11/04/14	1
Di-n-butyl phthalate	84-74-2	U	.016	0.25	0.49	mg/kg		8270C	11/04/14	1
Diethyl phthalate	84-66-2	U	.01	0.25	0.49	mg/kg		8270C	11/04/14	1
Dimethyl phthalate	131-11-3	U	.008	0.25	0.49	mg/kg		8270C	11/04/14	1
Di-n-octyl phthalate	117-84-0	U	.014	0.25	0.49	mg/kg		8270C	11/04/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.013	0.25	0.49	mg/kg		8270C	11/04/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0071	0.25	0.49	mg/kg		8270C	11/04/14	1
2-Chlorophenol	95-57-8	U	.012	0.25	0.49	mg/kg		8270C	11/04/14	1
2,4-Dichlorophenol	120-83-2	U	.011	0.25	0.49	mg/kg		8270C	11/04/14	1
2,4-Dimethylphenol	105-67-9	U	.07	0.25	0.49	mg/kg		8270C	11/04/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.18	0.25	0.49	mg/kg		8270C	11/04/14	1
2,4-Dinitrophenol	51-28-5	U	.14	0.25	0.49	mg/kg		8270C	11/04/14	1
2-Methylphenol	95-48-7	U	.015	0.25	0.49	mg/kg		8270C	11/04/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.012	0.25	0.49	mg/kg		8270C	11/04/14	1
2-Nitrophenol	88-75-5	U	.019	0.25	0.49	mg/kg		8270C	11/04/14	1
4-Nitrophenol	100-02-7	U	.077	0.25	0.49	mg/kg		8270C	11/04/14	1
4-Chloroaniline	106-47-8	U	.0052	0.25	0.49	mg/kg		8270C	11/04/14	1
2-Nitroaniline	88-74-4	U	.011	0.25	0.49	mg/kg		8270C	11/04/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0021	0.25	0.49	mg/kg		8270C	11/04/14	1
3-Nitroaniline	99-09-2	U	.013	0.25	0.49	mg/kg		8270C	11/04/14	1
4-Nitroaniline	100-01-6	U	.0095	0.25	0.49	mg/kg		8270C	11/04/14	1
Pentachlorophenol	87-86-5	U	.071	0.25	0.49	mg/kg		8270C	11/04/14	1
Phenol	108-95-2	U	.01	0.25	0.49	mg/kg		8270C	11/04/14	1
2,4,5-Trichlorophenol	95-95-4	U	.015	0.25	0.49	mg/kg		8270C	11/04/14	1
2,4,6-Trichlorophenol	88-06-2	U	.012	0.25	0.49	mg/kg		8270C	11/04/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	60.7				% Rec.		8270C	11/04/14	1
Phenol-d5	4165-62-2	55.2				% Rec.		8270C	11/04/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23

L730645-14 (ICP METALS) - Dilution due to matrix

L730645-14 (PH) - 7.3@20.2c

DNR = do not report

*ICA 2/1/15
BMS 2/17/15*



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 Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
 Description : Holloman AFB
 Sample ID : TU508-EX01-02-N
 Collected By : Jon Mallonee
 Collection Date : 10/29/14 12:30

ESC Sample # : L730645-14
 Site ID :
 Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	61.3				% Rec.		8270C	11/04/14	1
2-Fluorobiphenyl	321-60-8	66.0				% Rec.		8270C	11/04/14	1
2,4,6-Tribromophenol	118-79-6	80.0				% Rec.		8270C	11/04/14	1
p-Terphenyl-d14	1718-51-0	46.8				% Rec.		8270C	11/04/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23

L730645-14 (ICP METALS) - Dilution due to matrix

L730645-14 (PH) - 7.3@20.2c

KA 2/9/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB

ESC Sample # : L730645-15

Sample ID : TU508-EX01-03-N

Site ID :

Collected By : Jon Mallonee
Collection Date : 10/29/14 12:35

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	7.3				su		9045D	10/31/14	1
Total Solids	TSOLIDS	69.8	.0333			%		2540 G-2	11/04/14	1
Mercury	7439-97-6	U	.004	0.014	0.029	mg/kg		7471	10/31/14	1
Aluminum	7429-90-5	1100	26	36.	72.	mg/kg		6010B	11/10/14	5
Antimony	7440-36-0	U	5.4	7.2	14.	mg/kg		6010B	11/10/14	5
Arsenic	7440-38-2	U	4.6	7.2	14.	mg/kg		6010B	11/10/14	5
Barium	7440-39-3	21.	1.2	1.8	3.6	mg/kg		6010B	11/10/14	5
Beryllium	7440-41-7	U	.5	0.72	1.4	mg/kg		6010B	11/10/14	5
Cadmium	7440-43-9	U	.5	1.8	3.6	mg/kg		6010B	11/10/14	5
Chromium	7440-47-3	1.4	1	3.6	7.2	mg/kg	J	6010B	11/10/14	5
Cobalt	7440-48-4	U	1.7	3.6	7.2	mg/kg		6010B	11/10/14	5
Copper	7440-50-8	U	3.7	7.2	14.	mg/kg		6010B	11/10/14	5
Lead	7439-92-1	U	1.4	1.8	3.6	mg/kg		6010B	11/10/14	5
Manganese	7439-96-5	19.	.86	3.6	7.2	mg/kg		6010B	11/10/14	5
Nickel	7440-02-0	U	3.4	7.2	14.	mg/kg		6010B	11/10/14	5
Selenium	7782-49-2	U	5.3	7.2	14.	mg/kg		6010B	11/10/14	5
Silver	7440-22-4	U	2	3.6	7.2	mg/kg		6010B	11/10/14	5
Thallium	7440-28-0	U	4.6	7.2	14.	mg/kg		6010B	11/10/14	5
Vanadium	7440-62-2	7.0	1.7	7.2	14.	mg/kg	J	6010B	11/10/14	5
Zinc	7440-66-6	U	4.3	18.	36.	mg/kg		6010B	11/10/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	.032	0.072	0.14	mg/kg		8015D/GR	11/06/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	84.9				% Rec.		8015D/GR	11/06/14	1
Volatile Organics										
Acetone	67-64-1	0.049	.014	0.036	0.072	mg/kg	J	8260B	11/05/14	1
Benzene	71-43-2	U	.00039	0.00072	0.0014	mg/kg		8260B	11/05/14	1
Bromobenzene	108-86-1	U	.0004	0.00072	0.0014	mg/kg		8260B	11/05/14	1
Bromochloromethane	74-97-5	U	.00056	0.00072	0.0014	mg/kg		8260B	11/05/14	1
Bromodichloromethane	75-27-4	U	.00036	0.00072	0.0014	mg/kg		8260B	11/05/14	1
Bromoform	75-25-2	U	.0006	0.00072	0.0014	mg/kg		8260B	11/05/14	1
Bromomethane	74-83-9	U	.0019	0.0036	0.0072	mg/kg		8260B	11/05/14	1
n-Butylbenzene	104-51-8	U	.00037	0.00072	0.0014	mg/kg		8260B	11/05/14	1
sec-Butylbenzene	135-98-8	U	.00029	0.00072	0.0014	mg/kg		8260B	11/05/14	1
tert-Butylbenzene	98-06-6	U	.0003	0.00072	0.0014	mg/kg		8260B	11/05/14	1
Carbon Disulfide	75-15-0	0.00073	.0004	0.00072	0.0014	mg/kg	J	8260B	11/05/14	1
Carbon tetrachloride	56-23-5	U	.00047	0.00072	0.0014	mg/kg		8260B	11/05/14	1
Chlorobenzene	108-90-7	U	.0003	0.00072	0.0014	mg/kg		8260B	11/05/14	1
Chlorodibromomethane	124-48-1	U	.00053	0.00072	0.0014	mg/kg		8260B	11/05/14	1
Chloroethane	75-00-3	U	.0014	0.0036	0.0072	mg/kg		8260B	11/05/14	1
Chloroform	67-66-3	U	.00033	0.0036	0.0072	mg/kg		8260B	11/05/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23

L730645-15 (PH) - 7.3@20.4c

L730645-15 (ICP METALS) - Dilution due to matrix

KA 2/11/15
BMS 2/11/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU508-EX01-03-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 12:35

ESC Sample # : L730645-15

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00054	0.00072	0.0036	mg/kg	8260B	11/05/14	1	
2-Chlorotoluene	95-49-8	U	.00043	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
4-Chlorotoluene	106-43-4	U	.00034	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0014	0.0036	0.0072	mg/kg	8260B	11/05/14	1	
1,2-Dibromoethane	106-93-4	U	.00049	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
Dibromomethane	74-95-3	U	.00054	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
1,2-Dichlorobenzene	95-50-1	U	.00043	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
1,3-Dichlorobenzene	541-73-1	U	.00034	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
1,4-Dichlorobenzene	106-46-7	U	.00033	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
Dichlorodifluoromethane	75-71-8	U	.001	0.0036	0.0072	mg/kg	8260B	11/05/14	1	
1,1-Dichloroethane	75-34-3	U	.00029	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
1,2-Dichloroethane	107-06-2	U	.00037	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
1,1-Dichloroethene	75-35-4	U	.00043	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
cis-1,2-Dichloroethene	156-59-2	U	.00034	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
trans-1,2-Dichloroethene	156-60-5	U	.00037	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
1,2-Dichloropropane	78-87-5	U	.00052	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
1,1-Dichloropropene	563-58-6	U	.00046	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
1,3-Dichloropropane	142-28-9	U	.0003	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
cis-1,3-Dichloropropene	10061-01-5	U	.00037	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
trans-1,3-Dichloropropene	10061-02-6	U	.00039	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
2,2-Dichloropropane	594-20-7	U	.0004	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
Ethylbenzene	100-41-4	U	.00043	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
Hexachloro-1,3-butadiene	87-68-3	U	.00049	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
2-Hexanone	591-78-6	U	.0054	0.0072	0.014	mg/kg	8260B	11/05/14	1	
Isopropylbenzene	98-82-8	U	.00034	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
p-Isopropyltoluene	99-87-6	U	.00029	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
2-Butanone (MEK) PSOL-I	78-93-3	0.0073	.0067	0.0072	0.014	mg/kg	J	8260B	11/05/14	1
Methylene Chloride	75-09-2	U	.0014	0.0036	0.0072	mg/kg	8260B	11/05/14	1	
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0027	0.0072	0.014	mg/kg	8260B	11/05/14	1	
Methyl tert-butyl ether	1634-04-4	U	.0003	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
Naphthalene	91-20-3	U	.0014	0.0036	0.0072	mg/kg	8260B	11/05/14	1	
n-Propylbenzene	103-65-1	U	.0003	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
Styrene	100-42-5	U	.00033	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
1,1,1,2-Tetrachloroethane	630-20-6	U	.00037	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
1,1,2,2-Tetrachloroethane	79-34-5	U	.00052	0.0011	0.0014	mg/kg	8260B	11/05/14	1	
Tetrachloroethene	127-18-4	0.0019	.0004	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
Toluene	108-88-3	U	.00062	0.0036	0.0072	mg/kg	8260B	11/05/14	1	
1,2,3-Trichlorobenzene	87-61-6	U	.00044	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
1,2,4-Trichlorobenzene	120-82-1	U	.00056	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
1,1,1-Trichloroethane	71-55-6	U	.00041	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
1,1,2-Trichloroethane	79-00-5	U	.0004	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
Trichloroethene	79-01-6	U	.0004	0.00072	0.0014	mg/kg	8260B	11/05/14	1	
Trichlorofluoromethane	75-69-4	U	.00054	0.0036	0.0072	mg/kg	8260B	11/05/14	1	
1,2,3-Trichloropropane	96-18-4	U	.0011	0.0014	0.0036	mg/kg	8260B	11/05/14	1	
1,2,4-Trimethylbenzene	95-63-6	U	.0003	0.00072	0.0014	mg/kg	8260B	11/05/14	1	

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23

L730645-15 (PH) - 7.3@20.4c

L730645-15 (ICP METALS) - Dilution due to matrix

KA 2/1/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU508-EX01-03-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 12:35

ESC Sample # : L730645-15
Site ID :
Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.00049	0.00072	0.0014	mg/kg		8260B	11/05/14	1
m&p-Xylene	1330-20-7	U	.001	0.0014	0.0029	mg/kg		8260B	11/05/14	1
Vinyl chloride	75-01-4	U	.00042	0.00072	0.0014	mg/kg		8260B	11/05/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00039	0.00072	0.0014	mg/kg		8260B	11/05/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	97.3				% Rec.		8260B	11/05/14	1
Dibromofluoromethane	1868-53-7	120.				% Rec.		8260B	11/05/14	1
4-Bromofluorobenzene	460-00-4	95.2				% Rec.		8260B	11/05/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.3	2.9	5.7	mg/kg		8015	11/04/14	1
C28-C40 Oil Range		U	.39	2.9	5.7	mg/kg		8015	11/04/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	93.3				% Rec.		8015	11/04/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	11/06/14	1
Acenaphthene	83-32-9	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	11/06/14	1
Acenaphthylene	208-96-8	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	11/06/14	1
Benzo(a)anthracene	56-55-3	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	11/06/14	1
Benzo(a)pyrene	50-32-8	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	11/06/14	1
Benzo(b)fluoranthene	205-99-2	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	11/06/14	1
Benzo(g,h,i)perylene	191-24-2	0.0012	.00086	0.0029	0.0086	mg/kg	J	8270C-SI	11/06/14	1
Benzo(k)fluoranthene	207-08-9	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	11/06/14	1
Chrysene	218-01-9	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	11/06/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	11/06/14	1
Fluoranthene	206-44-0	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	11/06/14	1
Fluorene	86-73-7	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	11/06/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	11/06/14	1
Naphthalene	91-20-3	0.0020	.00086	0.0029	0.0086	mg/kg	J	8270C-SI	11/06/14	1
Phenanthrene	85-01-8	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	11/06/14	1
Pyrene	129-00-0	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	11/06/14	1
2-Methylnaphthalene	91-57-6	U	.00092	0.0086	0.029	mg/kg		8270C-SI	11/06/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	73.4				% Rec.		8270C-SI	11/06/14	1
Nitrobenzene-d5	4165-60-0	88.9				% Rec.		8270C-SI	11/06/14	1
2-Fluorobiphenyl	321-60-8	94.9				% Rec.		8270C-SI	11/06/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.011	0.24	0.48	mg/kg		8270C	11/05/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.013	0.24	0.48	mg/kg		8270C	11/05/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.011	0.24	0.48	mg/kg		8270C	11/05/14	1
Benzyl Alcohol	100-51-6	U	.011	0.24	0.48	mg/kg		8270C	11/05/14	1
Benzoic acid	65-85-0	U	.17	2.4	4.8	mg/kg		8270C	11/05/14	1
Carbazole	86-74-8	U	.0074	0.24	0.48	mg/kg		8270C	11/05/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23
L730645-15 (PH) - 7.3@20.4c
L730645-15 (ICP METALS) - Dilution due to matrix

DNR: Do Not Report

KA 2/1/15

Bms 7/2/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU508-EX01-03-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 12:35

ESC Sample # : L730645-15

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0074	0.24	0.48	mg/kg		8270C	11/05/14	1
4-Bromophenyl-phenylether	101-55-3	U	.016	0.24	0.48	mg/kg		8270C	11/05/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.009	0.24	0.48	mg/kg		8270C	11/05/14	1
2-Chloronaphthalene	91-58-7	U	.0092	0.24	0.48	mg/kg		8270C	11/05/14	1
3,3-Dichlorobenzidine	91-94-1	U	.11	0.24	0.48	mg/kg		8270C	11/05/14	1
2,4-Dinitrotoluene	121-14-2	U	.0087	0.24	0.48	mg/kg		8270C	11/05/14	1
2,6-Dinitrotoluene	606-20-2	U	.011	0.24	0.48	mg/kg		8270C	11/05/14	1
Hexachlorobenzene	118-74-1	U	.012	0.24	0.48	mg/kg		8270C	11/05/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.014	0.24	0.48	mg/kg		8270C	11/05/14	1
Hexachloroethane	67-72-1	U	.019	0.24	0.48	mg/kg		8270C	11/05/14	1
Isophorone	78-59-1	U	.0074	0.24	0.48	mg/kg		8270C	11/05/14	1
Nitrobenzene	98-95-3	U	.01	0.24	0.48	mg/kg		8270C	11/05/14	1
n-Nitrosodimethylamine	62-75-9	U	.093	0.24	0.48	mg/kg		8270C	11/05/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0084	0.24	0.48	mg/kg		8270C	11/05/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.013	0.24	0.48	mg/kg		8270C	11/05/14	1
Benzylbutyl phthalate	85-68-7	U	.014	0.24	0.48	mg/kg		8270C	11/05/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.017	0.24	0.48	mg/kg		8270C	11/05/14	1
Di-n-butyl phthalate	84-74-2	U	.016	0.24	0.48	mg/kg		8270C	11/05/14	1
Diethyl phthalate	84-66-2	U	.0099	0.24	0.48	mg/kg		8270C	11/05/14	1
Dimethyl phthalate	131-11-3	U	.0077	0.24	0.48	mg/kg		8270C	11/05/14	1
Di-n-octyl phthalate	117-84-0	U	.013	0.24	0.48	mg/kg		8270C	11/05/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.013	0.24	0.48	mg/kg		8270C	11/05/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0069	0.24	0.48	mg/kg		8270C	11/05/14	1
2-Chlorophenol	95-57-8	U	.012	0.24	0.48	mg/kg		8270C	11/05/14	1
2,4-Dichlorophenol	120-83-2	U	.011	0.24	0.48	mg/kg		8270C	11/05/14	1
2,4-Dimethylphenol	105-67-9	U	.067	0.24	0.48	mg/kg		8270C	11/05/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.17	0.24	0.48	mg/kg		8270C	11/05/14	1
2,4-Dinitrophenol	51-28-5	U	.14	0.24	0.48	mg/kg		8270C	11/05/14	1
2-Methylphenol	95-48-7	U	.014	0.24	0.48	mg/kg		8270C	11/05/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.011	0.24	0.48	mg/kg		8270C	11/05/14	1
2-Nitrophenol	88-75-5	U	.019	0.24	0.48	mg/kg		8270C	11/05/14	1
4-Nitrophenol	100-02-7	U	.074	0.24	0.48	mg/kg		8270C	11/05/14	1
4-Chloroaniline	106-47-8	U	.005	0.24	0.48	mg/kg		8270C	11/05/14	1
2-Nitroaniline	88-74-4	U	.011	0.24	0.48	mg/kg		8270C	11/05/14	1
1,2-Diphenylhydrazine	103-33-3	U	.002	0.24	0.48	mg/kg		8270C	11/05/14	1
3-Nitroaniline	99-09-2	U	.012	0.24	0.48	mg/kg		8270C	11/05/14	1
4-Nitroaniline	100-01-6	U	.0092	0.24	0.48	mg/kg		8270C	11/05/14	1
Pentachlorophenol	87-86-5	U	.069	0.24	0.48	mg/kg		8270C	11/05/14	1
Phenol	108-95-2	U	.01	0.24	0.48	mg/kg		8270C	11/05/14	1
2,4,5-Trichlorophenol	95-95-4	U	.014	0.24	0.48	mg/kg		8270C	11/05/14	1
2,4,6-Trichlorophenol	88-06-2	U	.011	0.24	0.48	mg/kg		8270C	11/05/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	68.8				% Rec.		8270C	11/05/14	1
Phenol-d5	4165-62-2	62.4				% Rec.		8270C	11/05/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23

L730645-15 (PH) - 7.3@20.4c

L730645-15 (ICP METALS) - Dilution due to matrix

DNR: do not report

*KA 2/9/15
BMS 2/17/15*



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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
 Description : Holloman AFB
 Sample ID : TU508-EX01-03-N
 Collected By : Jon Mallonee
 Collection Date : 10/29/14 12:35

ESC Sample # : L730645-15
 Site ID :
 Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	61.5				% Rec.		8270C	11/05/14	1
2-Fluorobiphenyl	321-60-8	65.3				% Rec.		8270C	11/05/14	1
2,4,6-Tribromophenol	118-79-6	75.6				% Rec.		8270C	11/05/14	1
p-Terphenyl-d14	1718-51-0	51.2				% Rec.		8270C	11/05/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23
 L730645-15 (PH) - 7.3020.4c
 L730645-15 (ICP METALS) - Dilution due to matrix

KA2/ahs



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB

ESC Sample # : L730645-16

Sample ID : TU508-EX01-04-N

Site ID :

Collected By : Jon Mallonee
Collection Date : 10/29/14 12:50

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	7.3				su		9045D	10/31/14	1
Total Solids	TSOLIDS	67.9	.0333			%		2540 G-2	11/04/14	1
Mercury	7439-97-6	U	.0041	0.015	0.029	mg/kg		7471	10/31/14	1
Aluminum	7429-90-5	940	.26	37.	74.	mg/kg		6010B	11/10/14	5
Antimony	7440-36-0	U	5.6	7.4	15.	mg/kg		6010B	11/10/14	5
Arsenic	7440-38-2	U	4.7	7.4	15.	mg/kg		6010B	11/10/14	5
Barium	7440-39-3	13.	1.2	1.8	3.7	mg/kg		6010B	11/10/14	5
Beryllium	7440-41-7	U	.52	0.74	1.5	mg/kg		6010B	11/10/14	5
Cadmium	7440-43-9	U	.52	1.8	3.7	mg/kg		6010B	11/10/14	5
Chromium	7440-47-3	1.4	1	3.7	7.4	mg/kg	J	6010B	11/10/14	5
Cobalt	7440-48-4	U	1.8	3.7	7.4	mg/kg		6010B	11/10/14	5
Copper	7440-50-8	U	3.8	7.4	15.	mg/kg		6010B	11/10/14	5
Lead	7439-92-1	2.1	1.4	1.8	3.7	mg/kg	J	6010B	11/10/14	5
Manganese	7439-96-5	18.	.88	3.7	7.4	mg/kg		6010B	11/10/14	5
Nickel	7440-02-0	U	3.5	7.4	15.	mg/kg		6010B	11/10/14	5
Selenium	7782-49-2	U	5.4	7.4	15.	mg/kg		6010B	11/10/14	5
Silver	7440-22-4	U	2.1	3.7	7.4	mg/kg		6010B	11/10/14	5
Thallium	7440-28-0	U	4.7	7.4	15.	mg/kg		6010B	11/10/14	5
Vanadium	7440-62-2	5.4	1.8	7.4	15.	mg/kg	J	6010B	11/10/14	5
Zinc	7440-66-6	5.9	4.4	18.	37.	mg/kg	J	6010B	11/10/14	5
TPH (GC/FID) Low Fraction	9006-61-9	U	.032	0.074	0.15	mg/kg		8015D/GR	11/06/14	1
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	84.9				% Rec.		8015D/GR	11/06/14	1
Volatile Organics										
Acetone	67-64-1	0.068	.015	0.037	0.074	mg/kg	JV3	8260B	11/05/14	1
Benzene	71-43-2	U	.0004	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Bromobenzene	108-86-1	U	.00041	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Bromochloromethane	74-97-5	U	.00057	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Bromodichloromethane	75-27-4	U	.00037	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Bromoform	75-25-2	U	.00062	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Bromomethane	74-83-9	U	.0019	0.0037	0.0074	mg/kg		8260B	11/05/14	1
n-Butylbenzene	104-51-8	U	.00038	0.00074	0.0015	mg/kg		8260B	11/05/14	1
sec-Butylbenzene	135-98-8	U	.00029	0.00074	0.0015	mg/kg		8260B	11/05/14	1
tert-Butylbenzene	98-06-6	U	.00031	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Carbon Disulfide	75-15-0	0.0068	.00041	0.00074	0.0015	mg/kg	V3	8260B	11/05/14	1
Carbon tetrachloride	56-23-5	U	.00049	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Chlorobenzene	108-90-7	U	.00031	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Chlorodibromomethane	124-48-1	U	.00054	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Chloroethane	75-00-3	U	.0014	0.0037	0.0074	mg/kg		8260B	11/05/14	1
Chloroform	67-66-3	U	.00034	0.0037	0.0074	mg/kg		8260B	11/05/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23

L730645-16 (PH) - 7.3@20.3c

L730645-16 (ICP METALS) - Dilution due to matrix

KA 2/9/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB

ESC Sample # : L730645-16

Sample ID : TU508-EX01-04-N

Site ID :

Collected By : Jon Mallonee
Collection Date : 10/29/14 12:50

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane <i>VJ IS-I</i>	74-87-3	U	.00056	0.00074	0.0037	mg/kg		8260B	11/05/14	1
2-Chlorotoluene	95-49-8	U	.00044	0.00074	0.0015	mg/kg		8260B	11/05/14	1
4-Chlorotoluene	106-43-4	U	.00035	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,2-Dibromo-3-Chloropropane <i>VJ IS-I</i>	96-12-8	U	.0015	0.0037	0.0074	mg/kg		8260B	11/05/14	1
1,2-Dibromoethane	106-93-4	U	.0005	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Dibromomethane	74-95-3	U	.00056	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,2-Dichlorobenzene <i>VJ IS-I</i>	95-50-1	U	.00044	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,3-Dichlorobenzene	541-73-1	U	.00035	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,4-Dichlorobenzene <i>VJ IS-I</i>	106-46-7	U	.00034	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Dichlorodifluoromethane <i>VJ IS-I</i>	75-71-8	U	.001	0.0037	0.0074	mg/kg		8260B	11/05/14	1
1,1-Dichloroethane <i>VJ IS-I</i>	75-34-3	U	.00029	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,2-Dichloroethane <i>VJ IS-I</i>	107-06-2	U	.00038	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,1-Dichloroethene <i>VJ IS-I</i>	75-35-4	U	.00044	0.00074	0.0015	mg/kg		8260B	11/05/14	1
cis-1,2-Dichloroethene <i>VJ IS-I</i>	156-59-2	U	.00035	0.00074	0.0015	mg/kg		8260B	11/05/14	1
trans-1,2-Dichloroethene <i>VJ IS-I</i>	156-60-5	U	.00038	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,2-Dichloropropane	78-87-5	U	.00053	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,1-Dichloropropene <i>VJ IS-I</i>	563-58-6	U	.00047	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,3-Dichloropropane	142-28-9	U	.00031	0.00074	0.0015	mg/kg		8260B	11/05/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00038	0.00074	0.0015	mg/kg		8260B	11/05/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.0004	0.00074	0.0015	mg/kg		8260B	11/05/14	1
2,2-Dichloropropane	594-20-7	U	.00041	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Ethylbenzene	100-41-4	U	.00044	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Hexachloro-1,3-butadiene <i>VJ IS-I</i>	87-68-3	U	.0005	0.00074	0.0015	mg/kg		8260B	11/05/14	1
2-Hexanone	591-78-6	U	.0056	0.0074	0.015	mg/kg		8260B	11/05/14	1
Isopropylbenzene	98-82-8	U	.00035	0.00074	0.0015	mg/kg		8260B	11/05/14	1
p-Isopropyltoluene	99-87-6	U	.00029	0.00074	0.0015	mg/kg		8260B	11/05/14	1
2-Butanone (MEK) <i>FJ SOL SUR-H</i>	78-93-3	0.0082	.0069	0.0074	0.015	mg/kg	JV3	8260B	11/05/14	1
Methylene Chloride <i>VJ IS-I</i>	75-09-2	U	.0015	0.0037	0.0074	mg/kg		8260B	11/05/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0028	0.0074	0.015	mg/kg		8260B	11/05/14	1
Methyl tert-butyl ether <i>VJ IS-I</i>	1634-04-4	U	.00031	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Naphthalene <i>VJ IS-I</i>	91-20-3	U	.0015	0.0037	0.0074	mg/kg		8260B	11/05/14	1
n-Propylbenzene	103-65-1	U	.00031	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Styrene	100-42-5	U	.00034	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00038	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.00053	0.0011	0.0015	mg/kg		8260B	11/05/14	1
Tetrachloroethene <i>J SUR-H</i>	127-18-4	0.0016	.00041	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Toluene	108-88-3	U	.00063	0.0037	0.0074	mg/kg		8260B	11/05/14	1
1,2,3-Trichlorobenzene <i>VJ IS-I</i>	87-61-6	U	.00046	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,2,4-Trichlorobenzene <i>VJ IS-I</i>	120-82-1	U	.00057	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,1,1-Trichloroethane <i>VJ IS-I</i>	71-55-6	U	.00042	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,1,2-Trichloroethane	79-00-5	U	.00041	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Trichloroethene	79-01-6	U	.00041	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Trichlorofluoromethane <i>VJ IS-I</i>	75-69-4	U	.00056	0.0037	0.0074	mg/kg		8260B	11/05/14	1
1,2,3-Trichloropropane	96-18-4	U	.0011	0.0015	0.0037	mg/kg		8260B	11/05/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.00031	0.00074	0.0015	mg/kg		8260B	11/05/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23

L730645-16 (PH) - 7.3@20.3c

L730645-16 (ICP METALS) - Dilution due to matrix

CA 2/9/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU508-EX01-04-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 12:50

ESC Sample # : L730645-16

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.0005	0.00074	0.0015	mg/kg		8260B	11/05/14	1
m&p-Xylene	1330-20-7	U	.0011	0.0015	0.0029	mg/kg		8260B	11/05/14	1
Vinyl chloride <i>US IS-I</i>	75-01-4	U	.00043	0.00074	0.0015	mg/kg		8260B	11/05/14	1
1,3,5-Trimethylbenzene <i>US IS-I</i>	108-67-8	U	.0004	0.00074	0.0015	mg/kg		8260B	11/05/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	96.8				% Rec.		8260B	11/05/14	1
Dibromofluoromethane	1868-53-7	122.				% Rec.	J1	8260B	11/05/14	1
4-Bromofluorobenzene	460-00-4	92.7				% Rec.		8260B	11/05/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.4	2.9	5.9	mg/kg		8015	11/04/14	1
C28-C40 Oil Range		U	.4	2.9	5.9	mg/kg		8015	11/04/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	88.1				% Rec.		8015	11/04/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00088	0.0029	0.0088	mg/kg		8270C-SI	11/06/14	1
Acenaphthene	83-32-9	U	.00088	0.0029	0.0088	mg/kg		8270C-SI	11/06/14	1
Acenaphthylene	208-96-8	U	.00088	0.0029	0.0088	mg/kg		8270C-SI	11/06/14	1
Benzo(a)anthracene	56-55-3	U	.00088	0.0029	0.0088	mg/kg		8270C-SI	11/06/14	1
Benzo(a)pyrene	50-32-8	U	.00088	0.0029	0.0088	mg/kg		8270C-SI	11/06/14	1
Benzo(b)fluoranthene <i>US NS-L</i>	205-99-2	U	.00088	0.0029	0.0088	mg/kg		8270C-SI	11/06/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00088	0.0029	0.0088	mg/kg		8270C-SI	11/06/14	1
Benzo(k)fluoranthene	207-08-9	U	.00088	0.0029	0.0088	mg/kg		8270C-SI	11/06/14	1
Chrysene	218-01-9	U	.00088	0.0029	0.0088	mg/kg		8270C-SI	11/06/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00088	0.0029	0.0088	mg/kg		8270C-SI	11/06/14	1
Fluoranthene	206-44-0	U	.00088	0.0029	0.0088	mg/kg		8270C-SI	11/06/14	1
Fluorene	86-73-7	U	.00088	0.0029	0.0088	mg/kg		8270C-SI	11/06/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00088	0.0029	0.0088	mg/kg		8270C-SI	11/06/14	1
Naphthalene <i>U MS -> DNR</i>	91-20-3	0.0021	.00088	0.0088	0.029	mg/kg	J	8270C-SI	11/06/14	1
Phenanthrene	85-01-8	U	.00088	0.0029	0.0088	mg/kg		8270C-SI	11/06/14	1
Pyrene	129-00-0	U	.00088	0.0029	0.0088	mg/kg		8270C-SI	11/06/14	1
2-Methylnaphthalene	91-57-6	U	.00094	0.0088	0.029	mg/kg		8270C-SI	11/06/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	76.2				% Rec.		8270C-SI	11/06/14	1
Nitrobenzene-d5	4165-60-0	84.6				% Rec.		8270C-SI	11/06/14	1
2-Fluorobiphenyl	321-60-8	96.9				% Rec.		8270C-SI	11/06/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.011	0.25	0.49	mg/kg		8270C	11/05/14	1
Bis(2-chloroethyl)ether <i>US CCAL-L</i>	111-44-4	U	.013	0.25	0.49	mg/kg		8270C	11/05/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.011	0.25	0.49	mg/kg		8270C	11/05/14	1
Benzyl Alcohol	100-51-6	U	.011	0.25	0.49	mg/kg		8270C	11/05/14	1
Benzoic acid	65-85-0	U	.18	2.5	4.9	mg/kg		8270C	11/05/14	1
Carbazole	86-74-8	U	.0076	0.25	0.49	mg/kg		8270C	11/05/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23

L730645-16 (PH) - 7.3@20.3c

L730645-16 (ICP METALS) - Dilution due to matrix

DNR-Do Not Report

KA 2/1/15

BMS 9/1/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU508-EX01-04-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 12:50

ESC Sample # : L730645-16

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0076	0.25	0.49	mg/kg		8270C	11/05/14	1
4-Bromophenyl-phenylether	101-55-3	U	.016	0.25	0.49	mg/kg		8270C	11/05/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0093	0.25	0.49	mg/kg		8270C	11/05/14	1
2-Chloronaphthalene	91-58-7	U	.0094	0.25	0.49	mg/kg		8270C	11/05/14	1
3,3-Dichlorobenzidine	91-94-1	U	.12	0.25	0.49	mg/kg		8270C	11/05/14	1
2,4-Dinitrotoluene	121-14-2	U	.009	0.25	0.49	mg/kg		8270C	11/05/14	1
2,6-Dinitrotoluene	606-20-2	U	.011	0.25	0.49	mg/kg		8270C	11/05/14	1
Hexachlorobenzene	118-74-1	U	.013	0.25	0.49	mg/kg		8270C	11/05/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.015	0.25	0.49	mg/kg		8270C	11/05/14	1
Hexachloroethane	67-72-1	U	.019	0.25	0.49	mg/kg		8270C	11/05/14	1
Isophorone	78-59-1	U	.0076	0.25	0.49	mg/kg		8270C	11/05/14	1
Nitrobenzene	98-95-3	U	.01	0.25	0.49	mg/kg		8270C	11/05/14	1
n-Nitrosodimethylamine	62-75-9	U	.096	0.25	0.49	mg/kg		8270C	11/05/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0087	0.25	0.49	mg/kg		8270C	11/05/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.013	0.25	0.49	mg/kg		8270C	11/05/14	1
Benzylbutyl phthalate	85-68-7	U	.015	0.25	0.49	mg/kg		8270C	11/05/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.018	0.25	0.49	mg/kg		8270C	11/05/14	1
Di-n-butyl phthalate	84-74-2	U	.016	0.25	0.49	mg/kg		8270C	11/05/14	1
Diethyl phthalate	84-66-2	U	.01	0.25	0.49	mg/kg		8270C	11/05/14	1
Dimethyl phthalate	131-11-3	U	.008	0.25	0.49	mg/kg		8270C	11/05/14	1
Di-n-octyl phthalate	117-84-0	U	.013	0.25	0.49	mg/kg		8270C	11/05/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.013	0.25	0.49	mg/kg		8270C	11/05/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0071	0.25	0.49	mg/kg		8270C	11/05/14	1
2-Chlorophenol	95-57-8	U	.012	0.25	0.49	mg/kg		8270C	11/05/14	1
2,4-Dichlorophenol	120-83-2	U	.011	0.25	0.49	mg/kg		8270C	11/05/14	1
2,4-Dimethylphenol	105-67-9	U	.069	0.25	0.49	mg/kg		8270C	11/05/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.18	0.25	0.49	mg/kg		8270C	11/05/14	1
2,4-Dinitrophenol	51-28-5	U	.14	0.25	0.49	mg/kg		8270C	11/05/14	1
2-Methylphenol	95-48-7	U	.014	0.25	0.49	mg/kg		8270C	11/05/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.011	0.25	0.49	mg/kg		8270C	11/05/14	1
2-Nitrophenol	88-75-5	U	.019	0.25	0.49	mg/kg		8270C	11/05/14	1
4-Nitrophenol	100-02-7	U	.076	0.25	0.49	mg/kg		8270C	11/05/14	1
4-Chloroaniline	106-47-8	U	.0052	0.25	0.49	mg/kg		8270C	11/05/14	1
2-Nitroaniline	88-74-4	U	.011	0.25	0.49	mg/kg		8270C	11/05/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0021	0.25	0.49	mg/kg		8270C	11/05/14	1
3-Nitroaniline	99-09-2	U	.012	0.25	0.49	mg/kg		8270C	11/05/14	1
4-Nitroaniline	100-01-6	U	.0094	0.25	0.49	mg/kg		8270C	11/05/14	1
Pentachlorophenol	87-86-5	U	.071	0.25	0.49	mg/kg		8270C	11/05/14	1
Phenol	108-95-2	U	.01	0.25	0.49	mg/kg		8270C	11/05/14	1
2,4,5-Trichlorophenol	95-95-4	U	.015	0.25	0.49	mg/kg		8270C	11/05/14	1
2,4,6-Trichlorophenol	88-06-2	U	.011	0.25	0.49	mg/kg		8270C	11/05/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	60.2				% Rec.		8270C	11/05/14	1
Phenol-d5	4165-62-2	57.5				% Rec.		8270C	11/05/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23

L730645-16 (PH) - 7.3@20.3c

L730645-16 (ICP METALS) - Dilution due to matrix

DNR = do not report

KA 2/19/15

BMS 2/17/15



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 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
 Description : Holloman AFB
 Sample ID : TU508-EX01-04-N
 Collected By : Jon Mallonee
 Collection Date : 10/29/14 12:50

ESC Sample # : L730645-16
 Site ID :
 Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	59.1				% Rec.		8270C	11/05/14	1
2-Fluorobiphenyl	321-60-8	66.7				% Rec.		8270C	11/05/14	1
2,4,6-Tribromophenol	118-79-6	74.1				% Rec.		8270C	11/05/14	1
p-Terphenyl-d14	1718-51-0	38.1				% Rec.		8270C	11/05/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:23
 L730645-16 (PH) - 7.3@20.3c
 L730645-16 (ICP METALS) - Dilution due to matrix

KA2/klis



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU508-EX01-05-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 12:55

ESC Sample # : L730645-17

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	7.4				su		9045D	10/31/14	1
Total Solids	TSOLIDS	69.2	.0333			%		2540 G-2	11/04/14	1
Mercury	7439-97-6	U	.004	0.014	0.029	mg/kg		7471	10/31/14	1
Aluminum	7429-90-5	970	26	36.	72.	mg/kg		6010B	11/10/14	5
Antimony	7440-36-0	U	5.5	7.2	14.	mg/kg		6010B	11/10/14	5
Arsenic	7440-38-2	U	4.6	7.2	14.	mg/kg		6010B	11/10/14	5
Barium	7440-39-3	17.	1.2	1.8	3.6	mg/kg		6010B	11/10/14	5
Beryllium	7440-41-7	U	.5	0.72	1.4	mg/kg		6010B	11/10/14	5
Cadmium	7440-43-9	U	.5	1.8	3.6	mg/kg		6010B	11/10/14	5
Chromium	7440-47-3	1.2	1	3.6	7.2	mg/kg	J	6010B	11/10/14	5
Cobalt	7440-48-4	U	1.7	3.6	7.2	mg/kg		6010B	11/10/14	5
Copper	7440-50-8	U	3.8	7.2	14.	mg/kg		6010B	11/10/14	5
Lead	7439-92-1	U	1.4	1.8	3.6	mg/kg		6010B	11/10/14	5
Manganese	7439-96-5	20.	.87	3.6	7.2	mg/kg		6010B	11/10/14	5
Nickel	7440-02-0	U	3.5	7.2	14.	mg/kg		6010B	11/10/14	5
Selenium	7782-49-2	U	5.3	7.2	14.	mg/kg		6010B	11/10/14	5
Silver	7440-22-4	U	2	3.6	7.2	mg/kg		6010B	11/10/14	5
Thallium	7440-28-0	U	4.6	7.2	14.	mg/kg		6010B	11/10/14	5
Vanadium	7440-62-2	6.2	1.7	7.2	14.	mg/kg	J	6010B	11/10/14	5
Zinc	7440-66-6	U	4.3	18.	36.	mg/kg		6010B	11/10/14	5
TPH (GC/FID) Low Fraction Surrogate Recovery (70-130) a,a, a-Trifluorotoluene (FID)	8006-61-9	U	.035	0.079	0.16	mg/kg		8015D/GR	11/06/14	1.09
	98-08-8	84.8				% Rec.		8015D/GR	11/06/14	1.09
Volatile Organics										
Acetone	67-64-1	0.048	.014	0.037	0.074	mg/kg	J	8260B	11/06/14	1.03
Benzene	71-43-2	U	.0004	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
Bromobenzene	108-86-1	U	.00042	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
Bromochloromethane	74-97-5	U	.00058	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
Bromodichloromethane	75-27-4	U	.00038	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
Bromoform	75-25-2	U	.00064	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
Bromomethane	74-83-9	U	.002	0.0037	0.0074	mg/kg		8260B	11/06/14	1.03
n-Butylbenzene	104-51-8	U	.00038	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
sec-Butylbenzene	135-98-8	U	.0003	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
tert-Butylbenzene	98-06-6	U	.0003	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
Carbon Disulfide	75-15-0	0.0014	.00042	0.00074	0.0015	mg/kg	J	8260B	11/06/14	1.03
Carbon tetrachloride	56-23-5	U	.00049	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
Chlorobenzene	108-90-7	U	.00032	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
Chlorodibromomethane	124-48-1	U	.00055	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
Chloroethane	75-00-3	U	.0014	0.0037	0.0074	mg/kg		8260B	11/06/14	1.03
Chloroform	67-66-3	U	.00035	0.0037	0.0074	mg/kg		8260B	11/06/14	1.03

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:24

L730645-17 (ICP METALS) - Dilution due to matrix

L730645-17 (PH) - 7.4@20.0c

KA2/9/15



12065 Lebanon Rd.
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(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB

ESC Sample # : L730645-17

Sample ID : TU508-EX01-05-N

Site ID :

Collected By : Jon Mallonee
Collection Date : 10/29/14 12:55

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Chloromethane	74-87-3	U	.00056	0.00074	0.0037	mg/kg		8260B	11/06/14	1.03
2-Chlorotoluene	95-49-8	U	.00045	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
4-Chlorotoluene	106-43-4	U	.00036	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0016	0.0037	0.0074	mg/kg		8260B	11/06/14	1.03
1,2-Dibromoethane	106-93-4	U	.0005	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
Dibromomethane	74-95-3	U	.00056	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
1,2-Dichlorobenzene	95-50-1	U	.00045	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
1,3-Dichlorobenzene	541-73-1	U	.00036	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
1,4-Dichlorobenzene	106-46-7	U	.00033	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
Dichlorodifluoromethane	75-71-8	U	.001	0.0037	0.0074	mg/kg		8260B	11/06/14	1.03
1,1-Dichloroethane	75-34-3	U	.00029	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
1,2-Dichloroethane	107-06-2	U	.00039	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
1,1-Dichloroethene	75-35-4	U	.00045	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
cis-1,2-Dichloroethene	156-59-2	U	.00035	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
trans-1,2-Dichloroethene	156-60-5	U	.00039	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
1,2-Dichloropropane	78-87-5	U	.00053	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
1,1-Dichloropropene	563-58-6	U	.00048	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
1,3-Dichloropropane	142-28-9	U	.0003	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
cis-1,3-Dichloropropene	10061-01-5	U	.00039	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
trans-1,3-Dichloropropene	10061-02-6	U	.0004	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
2,2-Dichloropropane	594-20-7	U	.00042	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
Ethylbenzene	100-41-4	U	.00043	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
Hexachloro-1,3-butadiene	87-68-3	U	.0005	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
2-Hexanone	591-78-6	U	.0056	0.0074	0.015	mg/kg		8260B	11/06/14	1.03
Isopropylbenzene	98-82-8	U	.00036	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
p-Isopropyltoluene	99-87-6	U	.0003	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
2-Butanone (MEK)	78-93-3	0.0084	.0069	0.0074	0.015	mg/kg	J	8260B	11/06/14	1.03
Methylene Chloride	75-09-2	U	.0014	0.0037	0.0074	mg/kg		8260B	11/06/14	1.03
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0027	0.0074	0.015	mg/kg		8260B	11/06/14	1.03
Methyl tert-butyl ether	1634-04-4	U	.00032	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
Naphthalene	91-20-3	U	.0014	0.0037	0.0074	mg/kg		8260B	11/06/14	1.03
n-Propylbenzene	103-65-1	U	.0003	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
Styrene	100-42-5	U	.00035	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
1,1,1,2-Tetrachloroethane	630-20-6	U	.00039	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
1,1,2,2-Tetrachloroethane	79-34-5	U	.00055	0.0011	0.0015	mg/kg		8260B	11/06/14	1.03
Tetrachloroethene	127-18-4	0.00062	.0004	0.00074	0.0015	mg/kg	J	8260B	11/06/14	1.03
Toluene	108-88-3	U	.00065	0.0037	0.0074	mg/kg		8260B	11/06/14	1.03
1,2,3-Trichlorobenzene	87-61-6	U	.00046	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
1,2,4-Trichlorobenzene	120-82-1	U	.00058	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
1,1,1-Trichloroethane	71-55-6	U	.00042	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
1,1,2-Trichloroethane	79-00-5	U	.0004	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
Trichloroethene	79-01-6	U	.00042	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
Trichlorofluoromethane	75-69-4	U	.00056	0.0037	0.0074	mg/kg		8260B	11/06/14	1.03
1,2,3-Trichloropropane	96-18-4	U	.0011	0.0015	0.0037	mg/kg		8260B	11/06/14	1.03
1,2,4-Trimethylbenzene	95-63-6	U	.00032	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03

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L730645-17 (ICP METALS) - Dilution due to matrix

L730645-17 (PH) - 7.4@20.0c

KA2/14/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU508-EX01-05-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 12:55

ESC Sample # : L730645-17

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
o-Xylene	95-47-6	U	.0005	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
m&p-Xylene	1330-20-7	U	.0011	0.0015	0.0030	mg/kg		8260B	11/06/14	1.03
Vinyl chloride	75-01-4	U	.00043	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
1,3,5-Trimethylbenzene	108-67-8	U	.00039	0.00074	0.0015	mg/kg		8260B	11/06/14	1.03
Surrogate Recovery										
Toluene-d8	2037-26-5	101.				% Rec.		8260B	11/06/14	1.03
Dibromofluoromethane	1868-53-7	104.				% Rec.		8260B	11/06/14	1.03
4-Bromofluorobenzene	460-00-4	94.5				% Rec.		8260B	11/06/14	1.03
Diesel and Oil Ranges										
C10-C28 Diesel Range		52.	2.3	2.9	5.8	mg/kg		8015	11/04/14	1
C28-C40 Oil Range		69.	.39	2.9	5.8	mg/kg		8015	11/04/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	87.7				% Rec.		8015	11/04/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Acenaphthene	83-32-9	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Acenaphthylene	208-96-8	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Benzo(a)anthracene	56-55-3	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Benzo(a)pyrene	50-32-8	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Benzo(b)fluoranthene	205-99-2	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Benzo(k)fluoranthene	207-08-9	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Chrysene	218-01-9	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Fluoranthene	206-44-0	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Fluorene	86-73-7	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Naphthalene	91-20-3	0.0023	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Phenanthrene	85-01-8	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
Pyrene	129-00-0	U	.00087	0.0029	0.0087	mg/kg		8270C-SI	11/06/14	1
2-Methylnaphthalene	91-57-6	U	.00092	0.0087	0.029	mg/kg		8270C-SI	11/06/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	78.5				% Rec.		8270C-SI	11/06/14	1
Nitrobenzene-d5	4165-60-0	91.1				% Rec.		8270C-SI	11/06/14	1
2-Fluorobiphenyl	321-60-8	97.1				% Rec.		8270C-SI	11/06/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.011	0.24	0.48	mg/kg		8270C	11/05/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.013	0.24	0.48	mg/kg		8270C	11/05/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.011	0.24	0.48	mg/kg		8270C	11/05/14	1
Benzyl Alcohol	100-51-6	U	.011	0.24	0.48	mg/kg		8270C	11/05/14	1
Benzoic acid	65-85-0	U	.17	2.4	4.8	mg/kg		8270C	11/05/14	1
Carbazole	86-74-8	U	.0075	0.24	0.48	mg/kg		8270C	11/05/14	1

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:24

L730645-17 (ICP METALS) - Dilution due to matrix

L730645-17 (PH) - 7.4@20.0c

DNR: DO NOT REPORT

KA 2/11/15

BMS 7/2/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU508-EX01-05-N
Collected By : Jon Mallonee
Collection Date : 10/29/14 12:55

ESC Sample # : L730645-17

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Dibenzofuran	132-64-9	U	.0075	0.24	0.48	mg/kg		8270C	11/05/14	1
4-Bromophenyl-phenylether	101-55-3	U	.016	0.24	0.48	mg/kg		8270C	11/05/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0091	0.24	0.48	mg/kg		8270C	11/05/14	1
2-Chloronaphthalene	91-58-7	U	.0092	0.24	0.48	mg/kg		8270C	11/05/14	1
3,3-Dichlorobenzidine	91-94-1	U	.11	0.24	0.48	mg/kg		8270C	11/05/14	1
2,4-Dinitrotoluene	121-14-2	U	.0088	0.24	0.48	mg/kg		8270C	11/05/14	1
2,6-Dinitrotoluene	606-20-2	U	.011	0.24	0.48	mg/kg		8270C	11/05/14	1
Hexachlorobenzene	118-74-1	U	.012	0.24	0.48	mg/kg		8270C	11/05/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.014	0.24	0.48	mg/kg		8270C	11/05/14	1
Hexachloroethane	67-72-1	U	.019	0.24	0.48	mg/kg		8270C	11/05/14	1
Isophorone	78-59-1	U	.0075	0.24	0.48	mg/kg		8270C	11/05/14	1
Nitrobenzene	98-95-3	U	.01	0.24	0.48	mg/kg		8270C	11/05/14	1
n-Nitrosodimethylamine	62-75-9	U	.094	0.24	0.48	mg/kg		8270C	11/05/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0085	0.24	0.48	mg/kg		8270C	11/05/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.013	0.24	0.48	mg/kg		8270C	11/05/14	1
Benzylbutyl phthalate	85-68-7	U	.014	0.24	0.48	mg/kg		8270C	11/05/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.017	0.24	0.48	mg/kg		8270C	11/05/14	1
Di-n-butyl phthalate	84-74-2	U	.016	0.24	0.48	mg/kg		8270C	11/05/14	1
Diethyl phthalate	84-66-2	U	.01	0.24	0.48	mg/kg		8270C	11/05/14	1
Dimethyl phthalate	131-11-3	U	.0078	0.24	0.48	mg/kg		8270C	11/05/14	1
Di-n-octyl phthalate	117-84-0	U	.013	0.24	0.48	mg/kg		8270C	11/05/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.013	0.24	0.48	mg/kg		8270C	11/05/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0069	0.24	0.48	mg/kg		8270C	11/05/14	1
2-Chlorophenol	95-57-8	U	.012	0.24	0.48	mg/kg		8270C	11/05/14	1
2,4-Dichlorophenol	120-83-2	U	.011	0.24	0.48	mg/kg		8270C	11/05/14	1
2,4-Dimethylphenol	105-67-9	U	.068	0.24	0.48	mg/kg		8270C	11/05/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.17	0.24	0.48	mg/kg		8270C	11/05/14	1
2,4-Dinitrophenol	51-28-5	U	.14	0.24	0.48	mg/kg		8270C	11/05/14	1
2-Methylphenol	95-48-7	U	.014	0.24	0.48	mg/kg		8270C	11/05/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.011	0.24	0.48	mg/kg		8270C	11/05/14	1
2-Nitrophenol	88-75-5	U	.019	0.24	0.48	mg/kg		8270C	11/05/14	1
4-Nitrophenol	100-02-7	U	.075	0.24	0.48	mg/kg		8270C	11/05/14	1
4-Chloroaniline	106-47-8	U	.005	0.24	0.48	mg/kg		8270C	11/05/14	1
2-Nitroaniline	88-74-4	U	.011	0.24	0.48	mg/kg		8270C	11/05/14	1
1,2-Diphenylhydrazine	103-33-3	U	.002	0.24	0.48	mg/kg		8270C	11/05/14	1
3-Nitroaniline	99-09-2	U	.012	0.24	0.48	mg/kg		8270C	11/05/14	1
4-Nitroaniline	100-01-6	U	.0092	0.24	0.48	mg/kg		8270C	11/05/14	1
Pentachlorophenol	87-86-5	U	.069	0.24	0.48	mg/kg		8270C	11/05/14	1
Phenol	108-95-2	U	.01	0.24	0.48	mg/kg		8270C	11/05/14	1
2,4,5-Trichlorophenol	95-95-4	U	.014	0.24	0.48	mg/kg		8270C	11/05/14	1
2,4,6-Trichlorophenol	88-06-2	U	.011	0.24	0.48	mg/kg		8270C	11/05/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	63.3				% Rec.		8270C	11/05/14	1
Phenol-d5	4165-62-2	57.5				% Rec.		8270C	11/05/14	1

Results listed are dry weight basis.

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L730645-17 (ICP METALS) - Dilution due to matrix

L730645-17 (PH) - 7.4@20.0c

DNR = do not report

*KA 2/11/15
BMS 2/17/15*



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
 Description : Holloman AFB
 Sample ID : TU508-EX01-05-N
 Collected By : Jon Mallonee
 Collection Date : 10/29/14 12:55

ESC Sample # : L730645-17

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Nitrobenzene-d5	4165-60-0	62.9				% Rec.		8270C	11/05/14	1
2-Fluorobiphenyl	321-60-8	66.2				% Rec.		8270C	11/05/14	1
2,4,6-Tribromophenol	118-79-6	73.2				% Rec.		8270C	11/05/14	1
p-Terphenyl-d14	1718-51-0	40.9				% Rec.		8270C	11/05/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 11/10/14 16:32 Revised: 11/20/14 09:24
 L730645-17 (ICP METALS) - Dilution due to matrix
 L730645-17 (PH) - 7.4@20.0c

KA2/11/15



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 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
 Description : Holloman AFB
 Sample ID : TU508-TRIPBLANK02-TT01
 Collected By : Jon Mallonee
 Collection Date : 10/29/14 12:20

ESC Sample # : L730645-18

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	11/04/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	95.6				% Rec.		8015D/G	11/04/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/02/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/02/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/02/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/02/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/02/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/02/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/02/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/02/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/02/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/02/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/02/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/02/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/02/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/02/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1

U = Not Detected at the LOD

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
 Description : Holloman AFB
 Sample ID : TU508-TRIPBLANK02-TT01
 Collected By : Jon Mallonee
 Collection Date : 10/29/14 12:20

ESC Sample # : L730645-18

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/02/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/02/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/02/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	11/02/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	11/02/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/02/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/02/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/02/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/02/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/02/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/02/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/02/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	99.0					% Rec.	8260B	11/02/14	1
Dibromofluoromethane	1868-53-7	98.9					% Rec.	8260B	11/02/14	1
4-Bromofluorobenzene	460-00-4	93.7					% Rec.	8260B	11/02/14	1

U = Not Detected at the LOD

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
Description : Holloman AFB
Sample ID : TU518-TRIPBLANK01-NT01
Collected By : Jon Mallonee
Collection Date : 10/29/14 13:00

ESC Sample # : L730645-19

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	11/05/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	82.4				% Rec.		8015D/G	11/05/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/02/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/02/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/02/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/02/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/02/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/02/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/02/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/02/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/02/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/02/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/02/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/02/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/02/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/02/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/02/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/02/14	1

U = Not Detected at the LOD

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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

November 20, 2014

Date Received : October 30, 2014
 Description : Holloman AFB
 Sample ID : TU518-TRIPBLANK01-NT01
 Collected By : Jon Mallonee
 Collection Date : 10/29/14 13:00

ESC Sample # : L730645-19

Site ID :

Project # : 58AA/53AA/55AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/02/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/02/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/02/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/02/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	11/02/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/02/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/02/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	11/02/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/02/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/02/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/02/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/02/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/02/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/02/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/02/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/02/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/02/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/02/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/02/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/02/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	99.4					% Rec.	8260B	11/02/14	1
Dibromofluoromethane	1868-53-7	99.9					% Rec.	8260B	11/02/14	1
4-Bromofluorobenzene	460-00-4	95.4					% Rec.	8260B	11/02/14	1

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KA 2/1/15

**Holloman AFB
Groundwater Monitoring
Data Review Summary**

Data Package Number: L734231

Sampling Event Dates: November 15, 17, 20, 2014

Sample-specific Parameter Review/Laboratory Performance Parameters: Yes

Full Validation (e.g. result recalculation): No

Data Reviewer: Katie Abbott, URS Project Chemist

Date Completed: February 12, 2015

Peer Reviewer: Sheri Fling, URS Project Quality Assurance Manager (QAM)

The table below summarizes the data package and sample identifications discussed in this data review.

Field Identification	Sample Type	Lab Identification	Matrix	Analyses							
				GRO	VOCs	PAHs	DRO/ORO	SVOCs	Total Metals	Dissolved Metals	pH
L734231											
TU518-TRIPBLANK-TT01	TB	L734231-01	Water	X	X	---	---	---	---	---	---
H-TU518-FIELDBLANK01-FT01	FB	L734231-02	Water	X	X	---	---	---	---	---	---
TU518-SB01-NS02	SA	L734231-03	Soil	X	X	X	X	X	X ^m	---	X
TU518-SB01-NS01	SA	L734231-04	Soil	X	X	X	X	X	X	---	X
TU518-SB02-NS02	SA	L734231-05	Soil	X	X	X	X	X	X	---	X
TU518-SB02-NS01	SA	L734231-06	Soil	X	X	X	X	X	X	---	X
TU518-SB03-NS02	SA	L734231-07	Soil	X	X	X	X	X	X	---	X
TU518-SB03-NS01	SA	L734231-08	Soil	X	X	X	X	X	X ^m	---	X
TU518-TRIPBLANK-TT01	TB	L734231-09	Water	X	X	---	---	---	---	---	---
H-TU518-FIELDBLANK01-FT01	FB	L734231-10	Water	X	X ^m	---	---	---	---	---	---
TU518-SB04-NS02	SA	L734231-11	Soil	X	X	X ^m	X ^m	X	X	---	X
TU518-SB04-NS01	SA	L734231-12	Soil	X	X	X	X	X	X	---	X
H-TU518-MW04-NT01	SA	L734231-14	Water	X	X ^m	---	X	---	---	---	---
H-TU518-MW04-ND01	SA	L734231-15	Water	---	---	---	---	---	---	X ^m	---
H-TU518-MW04-NT01	SA	L734231-16	Water	---	---	X	---	X	X ^m	---	---
H-TU518-MW05-NT01	SA	L734231-17	Water	X	X	---	X	---	---	---	---
H-TU518-MW05-ND01	SA	L734231-18	Water	---	---	---	---	---	---	X	---
H-TU518-MW05-NT01	SA	L734231-19	Water	---	---	X	---	X	X	---	---
H-TU518-MW06-NT01	SA	L734231-20	Water	---	---	X	---	X	X	---	---

Review Parameter	Criteria Met?	Comment
Chain of Custody & Sample Receipt	Yes	The samples were received by ESC Lab Sciences in good condition and were consistent with the accompanying chain of custody (COC). The cooler temperatures upon receipt were within the recommended ≤ 6 degrees Celsius ($^{\circ}\text{C}$) temperature range.
Reporting	Yes	<p>During review of a representative data package selected for full validation, it was noted that improper reference spectra were displayed in the printed version of the data package for Method 8260B. Due to a LIMS limitation, the data package reference spectra were not consistently representative of the actual spectra for the analytes detected. Because the laboratory data review involves the use of NBS reference spectra and not the reference spectra taken from the instrument calibration, the analyst was not seeing the improper alignment of spectra noted in the data package during his/her review at the instrument. The laboratory revised and reissued the data package with correct reference spectral data, consistent with method requirements, and no results were changed. Therefore, no further action is necessary as a result of this validation finding.</p> <p>Method 8270C Semivolatile Organic Compounds (SVOCs)</p> <p>The results for 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene are not reported by Method 8270C SVOCs but are reported by Method 8260B volatile organic compounds (VOCs). As the detection limits (DLs), limits of detection (LODs), and limits of quantitation (LOQs) are lower by Method 8260B, further action was not necessary.</p> <p>The laboratory noted 4-methylphenol cannot be reported as 3 & 4-methylphenol coelute during the analysis; therefore, the analytes are reported together and 3&4-methylphenol on the data sheets and in the electronic database.</p>
Holding Times	Yes	All samples were analyzed within the method required holding time.
Laboratory Blanks <ul style="list-style-type: none"> • Method Blank • Initial/Continuing Calibration Blank 	No	With the exceptions listed in Table 1, target analytes were not detected within the method or calibration blanks.
Matrix Quality Control <ul style="list-style-type: none"> • Matrix Spike/ Matrix Spike Duplicate TU518-SB01-NS02 (6010B Lead) TU518-SB03-NS01 (6010B Metals) H-TU518-FIELDBLANK02-FT01 (VOCs) TU518-SB04-NS02 (DRO, PAHs) H-TU518-MW04-NT01 (VOCs) H-TU518-MW04-ND01 (6020 Dissolved Metals) H-TU518-MW04-NT01 (6010B/6020 Metals) • Laboratory Duplicate TU518-SB01-NS02 (pH) • Total vs. Partial Analyses (Metals) 	No	<p>Matrix Spike/ Matrix Spike Duplicate (MS/MSD)</p> <p>The frequency of MS/MSDs met the QAPP requirement of one per twenty samples.</p> <p>With the exceptions listed in Table 2, the MS/MSD recoveries and relative percent differences (RPDs) met quality control criteria.</p> <p>The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the sample matrix could not be assessed for oil range organics (ORO).</p> <p>Results in the native sample greater than four times the concentration of the spike added during digestions/extractions are not considered to be a representative measure of accuracy. Further action with respect to spike recovery evaluation or qualification of data was not considered necessary.</p> <p>Consistent with standard operating procedure (SOP) 14, when MS/MSD issues accounted for less than 35% of the MS/MSD analyses conducted, applicable data qualification was limited to qualification of the parent sample of the affected analyte. When $>35\%$ of the MS/MSD results did not meet criteria, evaluation was extended to all associated samples. See</p>

Review Parameter	Criteria Met?	Comment
		<p>Section 4.1 of the data validation report for overall qualifiers resulting from the MS/MSD evaluation.</p> <p>Laboratory Duplicate</p> <p>The comparison between results of the laboratory duplicate pair met the criteria listed below.</p> <ul style="list-style-type: none"> When both the sample and duplicate values are >5x the LOQ acceptable sampling and analytical precision is indicated by an RPD between the results of ≤20% for water samples (≤35% for soil samples). <p>Where the result for one or both analytes of the laboratory duplicate pair is <5xLOQ, satisfactory precision is indicated if the absolute difference between the field duplicate results is <1xLOQ for water samples (<2xLOQ for soil samples).</p> <p>Total vs. Partial Analyses (Metals)</p> <p>Consistent with SOP 14, results for the total analysis of a particular analyte should be greater than the results for a partial analyte of that analyte. The following criteria were used to evaluate the total versus dissolved results:</p> <ul style="list-style-type: none"> In instances where the value for a partial analysis exceed that for a total analysis and both of the results are >5xLOQ, the criterion utilized is that the two values should agree within ±30%. In instances where the value for a partial analysis exceeds that for a total analysis and either of the results is 5x the LOQ, the absolute difference between the results is compared against an evaluation criterion of 2xLOQ. <p>The total metal sample results were compared with the associated dissolved sample results against the concentration-dependent criteria set forth in SOP 14.</p>
<p>Metals Only</p> <ul style="list-style-type: none"> Serial Dilution TU518-SB01-NS02 (6010B Lead) TU518-SB03-NS01 (6010B Metals) H-TU518-MW04-ND01 (6020 Dissolved Metals) H-TU518-MW04-NT01 (6010B/6020 Metals) Post Digestion Spike TU518-SB01-NS02 (6010B Lead) TU518-SB03-NS01 (6010B Metals) H-TU518-MW04-NT01 (6010B Metals) 	No	<p>Serial Dilution (Metals Only)</p> <p>Consistent with the method, only the results that were greater than 50 times their respective DLs were appropriate for comparing to the serial dilution evaluation criterion. With the exception listed in Table 3, all percent differences (%Ds) between the original sample results and the results obtained from the sample-diluted 1:5 were ≤10%.</p> <p>Post Digestion Spike (PDS) (Metals Only)</p> <p>With the exception listed in Table 4, all PDS recoveries were within the acceptance limits.</p>
<p>Method Quality Control</p> <ul style="list-style-type: none"> Surrogates (VOCs, SVOCs, PAHs, GRO, DRO/ORO) 	Yes	<p>The surrogate recoveries were within the laboratory specified acceptance criteria.</p>
<p>Field Quality Control</p> <ul style="list-style-type: none"> Trip Blank TU518-TRIPBLANK-TT01 (GRO, VOCs) TU518-TRIPBLANK-TT01 (GRO, VOCs) H-TU518-TRIPBLANK-TT01 (GRO, VOCs) Field Duplicate None in this package Equipment Blank 	Yes	<p>Trip Blank</p> <p>Target analytes were not detected in the trip blanks.</p> <p>Field Duplicate</p> <p>The frequency of field duplicates met the QAPP requirement of one per twenty samples.</p>

Review Parameter	Criteria Met?	Comment
None in this package <ul style="list-style-type: none"> Field Blank H-TU518-FIELDBLANK01-FT01 H-TU518-FIELDBLANK02-FT01		<p>A field duplicate was not submitted with the data package.</p> <p>Consistent with SOP 14, when field duplicate issues accounted for less than 35% of the field duplicate analyses conducted, applicable data qualification was limited to qualification of the parent sample for the affected analyte. When >35% of the field duplicate results did not meet criteria, evaluation was extended to all associated samples. See Section 4.3 of the data validation report for overall qualifiers resulting from the field duplicate evaluation.</p> <p>Equipment Blank</p> <p>As dedicated equipment was used to collect these samples, an equipment blank was not submitted for this sampling event. Further action was not necessary.</p> <p>Field Blank</p> <p>The frequency of field blanks met the QAPP requirement of one per twenty samples.</p> <p>See Section 4.4 of the data validation report for overall qualifiers resulting from the field blank evaluation.</p>
LODs met?	No	Due to dilutions, several samples were reported as non-detect at elevated LODs. See Section 3.7 of the validation report for further discussion.
Other Parameters	Yes	<p>Naphthalene (8260B and 8270C-PAHs) and hexachloro-1,3-butadiene and 1,2,4-trichlorobenzene (8260B and 8270C) were analyzed by multiple methods. Results were selected for reporting using the following criteria:</p> <ul style="list-style-type: none"> If both results were non-detect, the non-detect result with the lower DL was selected. If both results were reported as detected, the higher detected result was selected for reporting. If one result was reported as non-detect and the other result was reported as detected, the detected result was selected for reporting.
Initial Calibration	Yes	<p>Methods 8260B VOCs & 8270C SVOCs</p> <p>A minimum relative response factor (RRF) of 0.05 was used for the system performance check compounds (SPCCs) and all SPCCs met this criterion. The percent relative standard deviations (%RSDs) over the initial calibration RRFs for all calibration check compounds (CCCs) satisfied the method requirement of <30%. For all other target compounds, a requirement of 15% was used. The %RSD values for all target analytes in the calibration were less than 15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)</p> <p>The %RSD values for all target analytes in the calibration were less than 20%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8015D Gasoline Range Organics (GRO)/DRO/ORO</p> <p>The relationship between instrument response and concentration was established with a blank and at least five standards for each analyte. The %RSD over the initial calibrations curve satisfied the method requirement of <15%. Therefore, the initial calibration met method acceptance criteria.</p>

Review Parameter	Criteria Met?	Comment
		<p>Methods 6010B (Inductively Coupled Plasma [ICP] Metals) and 6020 (ICPMS Metals)</p> <p>The initial calibrations (ICALs) were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with a blank and at least five standards. The calibrations were verified with the analysis of an initial calibration verification (ICV) standard. All metals were recovered within the method acceptance range of 90-110%.</p> <p>7470A (Mercury)</p> <p>The ICALs were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with five standards. The correlation coefficient was >0.995. The calibration was verified with the analysis of an ICV standard. The analytes were recovered within the acceptance range of 90-110%. Response and linearity criteria were met and data qualification on the basis of initial calibration was not necessary.</p>
Initial Calibration Verification/Continuing Calibration Verification	No	<p>Method 8260B VOCs</p> <p>With the exceptions listed in Table 5, the percent differences (%Ds) for all CCCs in the ICVs and continuing calibrations (CCALs) were less than 20%, satisfying method requirements, and other target analytes satisfied the %D criterion of 20%.</p> <p>Methods 8270C PAHs/SVOCs</p> <p>With the exceptions listed in Table 5, the %D values for all target analytes in the calibration were less than 20%.</p> <p>Method 8015D GRO/DRO/ORO</p> <p>The %Ds for all target compounds in the ICVs and CCALs were less than 15%. Data qualification was not necessary.</p> <p>Methods 6010B (ICP Metals), 6020 (ICPMS Metals), and 7470A (Mercury)</p> <p>Calibration verification analyses were conducted at the proper frequency. All metals were recovered within the DOD QSM 4.2 low level acceptance range of 80-120% and the method medium/high acceptance range of 90-110%.</p>
Interference Check Standard (Metals Only)	No	<p>The interference check standard (ICS) AB solutions were analyzed at the proper frequency. The target analytes were recovered within the acceptance range of 90-10% in the ICS AB solution. With the exceptions listed in Table 6, interferent elements were not present in the samples at concentrations greater than those in the ICSs.</p> <p>The interferent elements aluminum, calcium, iron, and magnesium were present in most samples in this data package at concentrations greater than or equal to those in the ICSs. As such, these samples were evaluated for positive and negative biases suggested by the ICS A. Data qualification was issued if the absolute value of the ICS A result was greater than the DL and it suggested a positive or negative bias which accounted for more than 25% of associated sample results or LODs. (Note: The ICS A solution only contains the interferent elements aluminum, calcium, iron, and magnesium so any positive or negative result for other analytes is inferred</p>

Review Parameter	Criteria Met?	Comment
		to be a bias potentially caused by one or more of the interferent elements present). Table 6 summarizes the resultant data qualification on the basis of the ICS results.
Internal Standard (VOCs/SVOCs/PAHs/Metals (6020))	Yes	Recoveries for the internal standards in field samples were within the applicable acceptance limits.
Laboratory Control Sample/ Laboratory Control Sample Duplicate	No	One laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) per method per analytical batch was prepared and analyzed. With the exceptions listed in Table 7, all of the LCS recoveries and LCS/LCSD RPDs were within the QAPP acceptance limits. These results are indicative of an acceptable level of accuracy and precision with respect to the analytical method. Method 8015 DRO/ORO The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the method could not be assessed for ORO.
Package Completeness	Yes	The results are usable as qualified for the project objective. The data are 100% complete.

< - Less Than
 ≤ - Less Than or Equal to
 °C – Degrees Celsius
 % - Percent
 %Ds – Percent Differences
 %RSD – Percent Relative Standard Deviation
 CCALs – Continuing Calibrations
 CCBs – Continuing Calibration Blanks
 CCCs – Calibration Check Compounds
 COC – Chain of Custody
 COD – Coefficient of Determination
 DLs – Detection Limits
 DRO – Diesel Range Organics
 GRO – Gasoline Range Organics
 ICAL – Initial Calibration
 ICB – Initial Calibration Blank
 ICP – Inductively Coupled Plasma

ICS – Interference Check Standard
 ICV – Initial Calibration Verification
 LCS – Laboratory Control Sample
 LCSD – Laboratory Control Sample Duplicate
 LOD – Limit of Detection
 LOQ – Limit of Quantitation
 MS/MSD – Matrix Spike/ Matrix Spike Duplicate
 ORO – Oil Range Organics
 PAHs – Polynuclear Aromatic Hydrocarbons
 PDS – Post Digestion Spike
 QAPP – Quality Assurance Project Plan
 RPDs – Relative Percent Differences
 RRF – Relative Response Factor
 SOP – Standard Operating Procedure
 SPCCs – System Performance Check Compounds
 SVOCs – Semivolatile Organic Compounds
 VOCs – Volatile Organic Compounds

Table 1: Blank Outliers and Resultant Data Qualification

Associated Samples	Analyte	Concentration	Qualification	
Total Metals				
MB Batch WG755609 TU518-SB04-NS02 TU518-SB04-NS01	Mercury	0.00574 mg/Kg	None. The associated results were reported as non-detect or at concentrations >5x the concentration of the blank contamination.	
MB Batch WG755430 TU518-SB01-NS02 TU518-SB01-NS01 TU518-SB02-NS02 TU518-SB02-NS01 TU518-SB03-NS02 TU518-SB03-NS01	Aluminum	7.19 mg/Kg		
MB Batch WG756921 H-TU518-MW04-NT01 H-TU518-MW05-NT01 H-TU518-MW06-NT01 H-TU518-MW07-NT01	Arsenic	0.268 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).	
	Selenium	0.431 µg/L		
CCB 11/26/2014 2:24PM TU518-SB01-NS02 TU518-SB01-NS01 TU518-SB02-NS02 TU518-SB02-NS01 TU518-SB03-NS02 TU518-SB03-NS01	Vanadium	4.15 µg/L* (0.57 mg/Kg)	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U CCB-I).	
	CCB 11/26/2014 3:16PM TU518-SB01-NS02 TU518-SB01-NS01 TU518-SB02-NS02 TU518-SB02-NS01 TU518-SB03-NS02			3.84 µg/L (0.53 mg/Kg)
	CCB 11/28/2014 6:16PM TU518-SB04-NS02 TU518-SB04-NS01			2.5 µg/L (0.35 mg/Kg)
	CCB 11/28/2014 7:15PM TU518-SB04-NS02 TU518-SB04-NS01			5.13 µg/L (0.73 mg/Kg)
	CCB 11/28/2014 5:08PM H-TU518-MW06-NT01 H-TU518-MW07-NT01			3.06 µg/L
	CCB 12/2/2014 5:14PM H-TU518-MW04-NT01 H-TU518-MW05-NT01 H-TU518-MW06-NT01 H-TU518-MW07-NT01	Antimony		0.347 µg/L
		Selenium		0.444 µg/L
Dissolved Metals				
MB Batch WG756740 H-TU518-MW04-ND01 H-TU518-MW05-ND01 H-TU518-MW06-ND01 H-TU518-MW07-ND01	Aluminum	43.4 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).	
	Vanadium	3.51 µg/L		

Associated Samples	Analyte	Concentration	Qualification
CCB 11/26/2014 4:08PM H-TU518-MW04-ND01 H-TU518-MW05-ND01 H-TU518-MW06-ND01 H-TU518-MW07-ND01	Aluminum	48.5 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U CCB-I).
	Vanadium	3.25 µg/L	
CCB 11/26/2014 5:22PM H-TU518-MW04-ND01 H-TU518-MW05-ND01 H-TU518-MW06-ND01 H-TU518-MW07-ND01		5.48 µg/L	
CCB 11/28/2014 2:55PM H-TU518-MW04-ND01 H-TU518-MW05-ND01 H-TU518-MW06-ND01 H-TU518-MW07-ND01	Nickel	2.13 µg/L	
PAHs			
MB Batch WG755656 TU518-SB01-NS02 TU518-SB01-NS01 TU518-SB02-NS02 TU518-SB02-NS01 TU518-SB03-NS02 TU518-SB03-NS01	Naphthalene	0.000627 mg/Kg	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).
		0.000606 mg/Kg	
		0.0148 µg/L	
MB Batch WG755875 TU518-SB04-NS02 TU518-SB04-NS01			
MB Batch WG756543 H-TU518-MW04-NT01 H-TU518-MW05-NT01 H-TU518-MW06-NT01 H-TU518-MW07-NT01			

< - Less Than

PAHs – Polynuclear Aromatic Hydrocarbons

I – Indeterminate Bias

U – Non-detect

MB – Method Blank

Table 2: MS/MSD Recovery and RPD Outliers and Resultant Data Qualification

Associated Sample	Analyte	%R (Limits)	RPD (Limit)	Qualification
Total Metals				
TU518-SB03-NS01	Antimony	121 /116 (80-120)	4 (50)	As the potential bias was considered to be high, and the associated results for sample TU518-SB03-NS01 were reported as non-detect, data qualification was not considered necessary.
	Cadmium	121 /115 (80-120)	5 (50)	
	Selenium	124 /118 (80-120)	5 (50)	
	Silver	41/39 (80-120)	6 (50)	As the potential bias was considered to be low, the associated result was qualified as estimated (UJ MS-L).
Dissolved Metals				
H-TU518-MW04-ND01	Nickel	99/ 122 (80-120)	20 (30)	As the potential bias was considered to be high, and the associated results for sample H-TU518-MW04-ND01 were reported as non-detect, data qualification was not considered necessary.
DRO/ORO				
TU518-SB04-NS01	DRO	58.9 /69 (61-145)	15.6 (30)	As the potential bias was considered to be low, the associated result was qualified as estimated (UJ MS-L).

%R – Percent Recoveries

L – Low Bias

RPD – Relative Percent Difference

Bold indicates a recovery or RPD outside of acceptance limit

% - Percent

MS/MSD – Matrix Spike Matrix Spike Duplicate

UJ – Estimated

DRO – Diesel Range Organics

Table 3: Serial Dilution Outliers and Resultant Data Qualification

Associated Sample	Analyte	Parent Sample Result (µg/L)	Serial Dilution Result (µg/L)	%RPD (Limits)	Qualification
Total Metals					
TU518-SB03-NS01	Aluminum	1243.4	1448.4	16 (10)	The associated sample results were qualified as estimated (J DL-L). The bias is considered to be low as the native sample concentration is less than the diluted result.

µg/L – Micrograms per Liter

L – Low Bias

Bold indicates a recovery or RPD outside of acceptance limits

%D – Percent Difference

DL – Serial Dilution

Table 4: Post-Digestion Spike Outliers and Resultant Data Qualification

Associated Samples	Analyte	%R (Limits)	Qualification
Total Metals			
H-TU518-MW04-NT01	Aluminum	128 (75-125)	As the potential bias was considered to be high, the associated detected aluminum result was qualified as estimated (J PDS-H).

%R – Percent Recovery
PDS – Post Digestion Spike

H – High Bias

J – Estimated

Bold indicates a recovery or RPD outside of acceptance limit

Table 5: Initial/Continuing Calibration Verification Outliers and Resultant Data Qualification

Associated Samples	Analyte	%D (Limit)	Data Qualification
VOCs			
TU518-SB01-NS02 TU518-SB01-NS01 TU518-SB02-NS02 TU518-SB02-NS01 TU518-SB03-NS02 TU518-SB03-NS01	Bromomethane Acetone	-44.1 (±20) -22.7 (±20)	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ CCAL-L).
TU518-TRIPBLANK-TT01 H-TU518-IELDBLANK0FT01	Dichlorodifluoromethane	+27.4 (±20)	As the potential bias was considered to be high, and the associated samples were reported as non-detect, data qualification was not considered necessary.
TU518-SB04-NS02 TU518-SB04-NS01	Chloroethane Acetone	-21.5 (±20) +68.6 (±20)	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ CCAL-L). As the potential bias was considered to be high, and the associated samples were reported as non-detect, data qualification was not considered necessary.
SVOCs			
TU518-SB01-NS02 TU518-SB01-NS01 TU518-SB02-NS02 TU518-SB02-NS01 TU518-SB03-NS02 TU518-SB03-NS01 TU518-SB04-NS02 TU518-SB04-NS01	3&4-Methyl Phenol	-51.4 (±20)	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ/J CCAL-L).
H-TU518-MW04-NT01 H-TU518-MW05-NT01 H-TU518-MW06-NT01 H-TU518-MW07-NT01		-49.8 (±20)	

± - Plus or minus
L – Low Bias

VOCs – Volatile Organic Compounds

%D – Percent Difference
SVOCs – Semivolatile Organic Compounds

CCAL – Continuing Calibration
UJ/J – Estimated

Table 6: ICS Outliers and Resultant Data Qualification

Interferent Element	Analyte	ICS A (µg/L)	MDL (µg/L)	Qualified Samples	Qualification
Aluminum, Magnesium	Cadmium	-0.9	0.7	TU518-SB01-NS02	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ/J ICS-L).
	Lead	-30.2	1.9		
	Nickel	-13.2	4.9		
Aluminum, Calcium, Iron, Magnesium	Cadmium	-0.9	0.7	TU518-SB01-NS01	
	Lead	-30.2	1.9	TU518-SB02-NS02	
	Nickel	-13.2	4.9	TU518-SB02-NS01 TU518-SB03-NS02	
	Cadmium	-0.9	0.7	TU518-SB03-NS01	
	Lead	-30.2	1.9		
Calcium, Iron, Magnesium	Arsenic	-24.2	6.5	TU518-SB04-NS02	As the potential bias was considered to be high, the associated detected result was qualified as estimated (J ICS-H).
	Cadmium	-3.0	0.7		
	Lead	24.8	1.9		
	Nickel	-18.7	4.9		As the potential bias was considered to be low, the associated results were qualified as estimated (UJ/J ICS-L).
Calcium, Magnesium	Arsenic	-24.2	6.5	TU518-SB04-NS01	As the potential bias was considered to be high, the associated detected results were qualified as estimated (J ICS-H).
	Cadmium	-3.0	0.7		
	Nickel	-18.7	4.9		
	Antimony	0.5	0.4		
	Cadmium	0.6	0.4		
Calcium	Antimony	0.5	0.4	H-TU518-MW07-ND01 H-TU518-MW07-NT01	

µg/L – Micrograms per Liter
L – Low Bias

H – High Bias
MDL – Method Detection Limit

ICS – Interference Check Standard
UJ/J - Estimated

Table 7: LCS Recovery Outliers and Resultant Data Qualification

Associated Samples	Analyte	%R (Limits)	RPD (Limits)	Qualification
Total Metals				
LCS WG755609 TU518-SB04-NS02 TU518-SB04-NS01	Mercury	76/90 (80-120)	17 (50)	As the potential bias was considered to be low, the associated aluminum results were qualified as estimated (UJ/J LCS-L).
LCS WG755430 TU518-SB01-NS02 TU518-SB01-NS01 TU518-SB02-NS02 TU518-SB02-NS01 TU518-SB03-NS02 TU518-SB03-NS01	Aluminum	86/76 (80-120)	13 (50)	
	Antimony	120/156 (80-120)	27 (50)	As the potential bias was considered to be high, and the associated samples were reported as non-detect, data qualification was not considered necessary.
	LCS WG756536 TU518-SB04-NS02 TU518-SB04-NS01	Aluminum	83/74 (80-120)	12 (50)

Associated Samples	Analyte	%R (Limits)	RPD (Limits)	Qualification
VOCs				
LCS WG756068 TU518-SB04-NS02 TU518-SB04-NS01	Acetone	186/166 (20-160)	11.7 (50)	As the potential bias was considered to be high, and the associated samples were reported as non-detect, data qualification was not considered necessary.
LCS WG756630 H-TU518-TRIPBLANK-TT01		173/179 (40-140)	3.28 (30)	
	2-Hexanone	131/138 (55-130)	5.16 (30)	
SVOCs				
LCS WG755911 TU518-SB01-NS02 TU518-SB01-NS01 TU518-SB02-NS02 TU518-SB02-NS01 TU518-SB03-NS02 TU518-SB03-NS01 TU518-SB04-NS02 TU518-SB04-NS01	Benzoic Acid	29.5/14.1 (10-110)	70.5 (50)	As the RPD was outside of control limits, the associated benzoic acid results were qualified as estimated (UJ D-I)

%R – Percent Recoveries

L – Low Bias

UJ/J – Estimated

Bold indicates a recovery outside of acceptance limits.

D – Duplicate or spike duplicate precision evaluation criteria not met

LCS – Laboratory Control Sample

VOCs – Volatile Organic Compounds

SVOCs – Semivolatile Organic Compounds



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
 Description : HOLLOMAN AFB
 Sample ID : TU518-TRIPBLANK-TT01
 Collected By :
 Collection Date : 11/15/14 14:00

ESC Sample # : L734231-01

Site ID :

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l	8015D/G	11/23/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	98.7				% Rec.	8015D/G	11/23/14	1
Volatile Organics									
Acetone	67-64-1	U	10	25.	50	ug/l	8260B	11/21/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l	8260B	11/21/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l	8260B	11/21/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l	8260B	11/21/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l	8260B	11/21/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l	8260B	11/21/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l	8260B	11/21/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l	8260B	11/21/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l	8260B	11/21/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l	8260B	11/21/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l	8260B	11/21/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l	8260B	11/21/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l	8260B	11/21/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l	8260B	11/21/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l	8260B	11/21/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l	8260B	11/21/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l	8260B	11/21/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l	8260B	11/21/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l	8260B	11/21/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l	8260B	11/21/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l	8260B	11/21/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l	8260B	11/21/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l	8260B	11/21/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l	J3 8260B	11/21/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l	8260B	11/21/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l	8260B	11/21/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l	8260B	11/21/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l	8260B	11/21/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l	8260B	11/21/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l	8260B	11/21/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l	8260B	11/21/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l	8260B	11/21/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l	8260B	11/21/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l	8260B	11/21/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l	8260B	11/21/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l	8260B	11/21/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l	8260B	11/21/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l	8260B	11/21/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l	8260B	11/21/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l	8260B	11/21/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l	8260B	11/21/14	1

U = Not Detected at the LOD

Note:

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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
 Description : HOLLOMAN AFB
 Sample ID : TU518-TRIPBLANK-TT01
 Collected By :
 Collection Date : 11/15/14 14:00

ESC Sample # : L734231-01
 Site ID :
 Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l	J3	8260B	11/21/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/21/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/21/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/21/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/21/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	11/21/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/21/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/21/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/21/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	11/21/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/21/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/21/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/21/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/21/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/21/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/21/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/21/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/21/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/21/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l	J3	8260B	11/21/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/21/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/21/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/21/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/21/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	100.				% Rec.		8260B	11/21/14	1
Dibromofluoromethane	1868-53-7	96.9				% Rec.		8260B	11/21/14	1
4-Bromofluorobenzene	460-00-4	104.				% Rec.		8260B	11/21/14	1

U = Not Detected at the LOD

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
 Description : HOLLoman AFB
 Sample ID : H-TU518-FIELDBLANK-FT01
 Collected By :
 Collection Date : 11/15/14 11:21

ESC Sample # : L734231-02
 Site ID :
 Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	11/23/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	114.				% Rec.		8015D/G	11/23/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/21/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/21/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/21/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/21/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/21/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/21/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/21/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/21/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/21/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/21/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/21/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/21/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/21/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/21/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/21/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/21/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/21/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/21/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/21/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/21/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/21/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/21/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/21/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l	J3	8260B	11/21/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/21/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/21/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/21/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/21/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/21/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/21/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/21/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/21/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/21/14	1
1,3-Dichloropropene	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/21/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/21/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/21/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/21/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/21/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/21/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/21/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/21/14	1

U = Not Detected at the LOD

Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
Description : HOLLoman AFB
Sample ID : H-TU518-FIELDBLANK-FT01
Collected By :
Collection Date : 11/15/14 11:21

ESC Sample # : L734231-02

Site ID :

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l	J3	8260B	11/21/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/21/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/21/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/21/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/21/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	11/21/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/21/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/21/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/21/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	11/21/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/21/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/21/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/21/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/21/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/21/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/21/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/21/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/21/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/21/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l	J3	8260B	11/21/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/21/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/21/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/21/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/21/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	99.3					% Rec.	8260B	11/21/14	1
Dibromofluoromethane	1868-53-7	96.6					% Rec.	8260B	11/21/14	1
4-Bromofluorobenzene	460-00-4	102.					% Rec.	8260B	11/21/14	1

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Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
Description : HOLLOWAN AFB
Sample ID : TU518-SB01-NS02
Collected By :
Collection Date : 11/15/14 13:20

ESC Sample # : L734231-03

Site ID :

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	2.8				su		9045D	11/22/14	1
Total Solids	TSOLIDS	74.9	.0333			%		2540 G-2	11/21/14	1
Mercury	7439-97-6	U	.0037	0.013	0.027	mg/kg		7471	11/19/14	1
Aluminum <i>US J LCS 1/2 FD-L</i>	7429-90-5	790	.24	33.	67.	mg/kg	B	6010B	11/26/14	5
Antimony	7440-36-0	U	5.1	6.7	13.	mg/kg	J3	6010B	11/26/14	5
Arsenic	7440-38-2	U	4.3	6.7	13.	mg/kg		6010B	11/26/14	5
Barium <i>3 FD-I</i>	7440-39-3	33.	1.1	1.7	3.3	mg/kg		6010B	11/26/14	5
Beryllium	7440-41-7	U	.47	0.67	1.3	mg/kg		6010B	11/26/14	5
Cadmium <i>US JCS-L</i>	7440-43-9	U	.47	1.7	3.3	mg/kg		6010B	11/26/14	5
Chromium <i>F SOL-I</i>	7440-47-3	1.2	.93	3.3	6.7	mg/kg	J	6010B	11/26/14	5
Cobalt	7440-48-4	U	1.6	3.3	6.7	mg/kg		6010B	11/26/14	5
Copper	7440-50-8	U	3.5	6.7	13.	mg/kg		6010B	11/26/14	5
Lead <i>F3 SOL JCS-L</i>	7439-92-1	2.1	1.3	1.7	3.3	mg/kg	J	6010B	11/28/14	5
Manganese <i>J FD-I</i>	7439-96-5	29.	.8	3.3	6.7	mg/kg		6010B	11/26/14	5
Nickel <i>US JCS-L</i>	7440-02-0	U	3.2	6.7	13.	mg/kg		6010B	11/26/14	5
Selenium	7782-49-2	U	4.9	6.7	13.	mg/kg		6010B	11/26/14	5
Silver <i>US MS-L</i>	7440-22-4	U	1.9	3.3	6.7	mg/kg		6010B	11/26/14	5
Thallium	7440-28-0	U	4.3	6.7	13.	mg/kg		6010B	11/26/14	5
Vanadium <i>U CCB-I</i>	7440-62-2	6.7	1.6 6.7	6.7	13.	mg/kg	J	6010B	11/26/14	5
Zinc	7440-66-6	U	4	17.	33.	mg/kg		6010B	11/26/14	5
TPH (GC/FID) Low Fraction <i>F3 SOL MS-L</i>	8006-61-9	1.2	.67	1.5	3.1	mg/kg	J	8015D/GR	11/22/14	23
Surrogate Recovery (70-130) a, a-Trifluorotoluene (FID)	98-08-8	111.				% Rec.		8015D/GR	11/22/14	23
Volatile Organics										
Acetone <i>F3 SOL CCAL-L</i>	67-64-1	0.020	.013	0.033	0.067	mg/kg	J	8260B	11/22/14	1
Benzene	71-43-2	U	.00036	0.00067	0.0013	mg/kg		8260B	11/22/14	1
Bromobenzene	108-86-1	U	.00037	0.00067	0.0013	mg/kg		8260B	11/22/14	1
Bromochloromethane	74-97-5	U	.00052	0.00067	0.0013	mg/kg		8260B	11/22/14	1
Bromodichloromethane	75-27-4	U	.00033	0.00067	0.0013	mg/kg		8260B	11/22/14	1
Bromoform	75-25-2	U	.00056	0.00067	0.0013	mg/kg		8260B	11/22/14	1
Bromomethane <i>US CCAL-L</i>	74-83-9	U	.0017	0.0033	0.0067	mg/kg		8260B	11/22/14	1
n-Butylbenzene	104-51-8	U	.00035	0.00067	0.0013	mg/kg		8260B	11/22/14	1
sec-Butylbenzene	135-98-8	U	.00027	0.00067	0.0013	mg/kg		8260B	11/22/14	1
tert-Butylbenzene	98-06-6	U	.00028	0.00067	0.0013	mg/kg		8260B	11/22/14	1
Carbon Disulfide	75-15-0	0.0077	.00037	0.00067	0.0013	mg/kg		8260B	11/22/14	1
Carbon tetrachloride	56-23-5	U	.00044	0.00067	0.0013	mg/kg		8260B	11/22/14	1
Chlorobenzene	108-90-7	U	.00028	0.00067	0.0013	mg/kg		8260B	11/22/14	1
Chlorodibromomethane	124-48-1	U	.00049	0.00067	0.0013	mg/kg		8260B	11/22/14	1
Chloroethane	75-00-3	U	.0013	0.0033	0.0067	mg/kg		8260B	11/22/14	1
Chloroform	67-66-3	U	.00031	0.0033	0.0067	mg/kg		8260B	11/22/14	1
Chloromethane	74-87-3	U	.00051	0.00067	0.0033	mg/kg		8260B	11/22/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:00

L734231-03 (DRORLA) - Dilution due to matrix

L734231-03 (PH) - 2.82@22.0c

L734231-03 (ICP METALS) - Diluted due to matrix interference.

EA 2/13/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
 Description : HOLLOWMAN AFB

ESC Sample # : L734231-03

Sample ID : TU518-SB01-NS02

Site ID :

Collected By :
 Collection Date : 11/15/14 13:20

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2-Chlorotoluene	95-49-8	U	.0004	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
4-Chlorotoluene	106-43-4	U	.00032	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0013	0.0033	0.0067	mg/kg	8260B	11/22/14	1	
1,2-Dibromoethane	106-93-4	U	.00045	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
Dibromomethane	74-95-3	U	.00051	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
1,2-Dichlorobenzene	95-50-1	U	.0004	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
1,3-Dichlorobenzene	541-73-1	U	.00032	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
1,4-Dichlorobenzene	106-46-7	U	.00031	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
Dichlorodifluoromethane	75-71-8	U	.00095	0.0033	0.0067	mg/kg	8260B	11/22/14	1	
1,1-Dichloroethane	75-34-3	U	.00027	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
1,2-Dichloroethane	107-06-2	U	.00035	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
1,1-Dichloroethene	75-35-4	U	.0004	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
cis-1,2-Dichloroethene	156-59-2	U	.00032	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
trans-1,2-Dichloroethene	156-60-5	U	.00035	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
1,2-Dichloropropane	78-87-5	U	.00048	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
1,1-Dichloropropene	563-58-6	U	.00043	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
1,3-Dichloropropane	142-28-9	U	.00028	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
cis-1,3-Dichloropropene	10061-01-5	U	.00035	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
trans-1,3-Dichloropropene	10061-02-6	U	.00036	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
2,2-Dichloropropane	594-20-7	U	.00037	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
Ethylbenzene	100-41-4	U	.0004	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
Hexachloro-1,3-butadiene	87-68-3	U	.00045	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
2-Hexanone	591-78-6	U	.0051	0.0067	0.013	mg/kg	8260B	11/22/14	1	
Isopropylbenzene	98-82-8	U	.00032	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
p-Isopropyltoluene	99-87-6	U	.00027	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
2-Butanone (MEK)	78-93-3	U	.0063	0.0067	0.013	mg/kg	8260B	11/22/14	1	
Methylene Chloride	75-09-2	U	.0013	0.0033	0.0067	mg/kg	8260B	11/22/14	1	
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0025	0.0067	0.013	mg/kg	8260B	11/22/14	1	
Methyl tert-butyl ether	1634-04-4	U	.00028	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
Naphthalene	91-20-3	U	.0013	0.0033	0.0067	mg/kg	8260B	11/22/14	1	
n-Propylbenzene	103-65-1	U	.00028	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
Styrene	100-42-5	U	.00031	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
1,1,1,3-Tetrachloroethane	630-20-6	U	.00035	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
1,1,2,2-Tetrachloroethane	79-34-5	U	.00048	0.0010	0.0013	mg/kg	8260B	11/22/14	1	
Tetrachloroethene	127-18-4	U	.00037	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
Toluene	108-88-3	U	.00057	0.0033	0.0067	mg/kg	8260B	11/22/14	1	
1,2,3-Trichlorobenzene	87-61-6	U	.00041	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
1,2,4-Trichlorobenzene	120-82-1	U	.00052	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
1,1,1-Trichloroethane	71-55-6	U	.00038	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
1,1,2-Trichloroethane	79-00-5	U	.00037	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
Trichloroethene	79-01-6	U	.00037	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
Trichlorofluoromethane	75-69-4	U	.00051	0.0033	0.0067	mg/kg	8260B	11/22/14	1	
1,2,3-Trichloropropane	96-18-4	U	.00099	0.0013	0.0033	mg/kg	8260B	11/22/14	1	
1,2,4-Trimethylbenzene	95-63-6	U	.00028	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
o-Xylene	95-47-6	U	.00045	0.00067	0.0013	mg/kg	8260B	11/22/14	1	
m&p-Xylene	1330-20-7	U	.00096	0.0013	0.0027	mg/kg	8260B	11/22/14	1	

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L734231-03 (DRORLA) - Dilution due to matrix

L734231-03 (PH) - 2.82@22.0c

L734231-03 (ICP METALS) - Diluted due to matrix interference.

KA 2/13/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
Description : HOLLOWMAN AFB

ESC Sample # : L734231-03

Sample ID : TU518-SB01-NS02

Site ID :

Collected By :
Collection Date : 11/15/14 13:20

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Vinyl chloride	75-01-4	U	.00039	0.00067	0.0013	mg/kg		8260B	11/22/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00036	0.00067	0.0013	mg/kg		8260B	11/22/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	99.3				% Rec.		8260B	11/22/14	1
Dibromofluoromethane	1868-53-7	87.7				% Rec.		8260B	11/22/14	1
4-Bromofluorobenzene	460-00-4	105.				% Rec.		8260B	11/22/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	11	13.	27.	mg/kg		8015	11/25/14	5
C28-C40 Oil Range		U	1.9	13.	27.	mg/kg		8015	11/25/14	5
Surrogate Recovery										
o-Terphenyl	84-15-1	65.4				% Rec.		8015	11/25/14	5
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	11/20/14	1
Acenaphthene	83-32-9	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	11/20/14	1
Acenaphthylene	208-96-8	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	11/20/14	1
Benzo(a)anthracene	56-55-3	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	11/20/14	1
Benzo(a)pyrene	50-32-8	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	11/20/14	1
Benzo(b)fluoranthene	205-99-2	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	11/20/14	1
Benzo(g,h,i)perylene	191-24-2	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	11/20/14	1
Benzo(k)fluoranthene	207-08-9	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	11/20/14	1
Chrysene	218-01-9	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	11/20/14	1
Dibenz(a,h)anthracene	53-70-3	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	11/20/14	1
Fluoranthene	206-44-0	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	11/20/14	1
Fluorene	86-73-7	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	11/20/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	11/20/14	1
Naphthalene	91-20-3	0.0013	.0008	0.0027	0.0080	mg/kg	J	8270C-SI	11/20/14	1
Phenanthrene	85-01-8	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	11/20/14	1
Pyrene	129-00-0	U	.0008	0.0027	0.0080	mg/kg		8270C-SI	11/20/14	1
2-Methylnaphthalene	91-57-6	U	.00085	0.0080	0.027	mg/kg		8270C-SI	11/20/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	88.8				% Rec.		8270C-SI	11/20/14	1
Nitrobenzene-d5	4165-60-0	95.0				% Rec.		8270C-SI	11/20/14	1
2-Fluorobiphenyl	321-60-8	89.8				% Rec.		8270C-SI	11/20/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.051	1.1	2.2	mg/kg		8270C	11/24/14	5
Bis(2-chloroethyl)ether	111-44-4	U	.06	1.1	2.2	mg/kg		8270C	11/24/14	5
Bis(2-chloroisopropyl)ether	108-60-1	U	.051	1.1	2.2	mg/kg		8270C	11/24/14	5
Benzyl Alcohol	100-51-6	U	.051	1.1	2.2	mg/kg		8270C	11/24/14	5
Benzoic acid	65-85-0	U	.83	11.	22.	mg/kg	J3	8270C	11/24/14	5
Carbazole	86-74-8	U	.035	1.1	2.2	mg/kg		8270C	11/24/14	5
Dibenzofuran	132-64-9	U	.035	1.1	2.2	mg/kg		8270C	11/24/14	5
4-Bromophenyl-phenylether	101-55-3	U	.076	1.1	2.2	mg/kg		8270C	11/24/14	5
4-Chlorophenyl-phenylether	7005-72-3	U	.041	1.1	2.2	mg/kg		8270C	11/24/14	5

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L734231-03 (DRORLA) - Dilution due to matrix

L734231-03 (PH) - 2.82@22.0c

L734231-03 (ICP METALS) - Diluted due to matrix interference.

DNR: DO NOT REPORT

KA 2/13/15

BMS 9/2/15



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
 Description : HOLLOWMAN AFB
 Sample ID : TU518-SB01-NS02
 Collected By :
 Collection Date : 11/15/14 13:20

ESC Sample # : L734231-03
 Site ID :
 Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2-Chloronaphthalene	91-58-7	U	.041	1.1	2.2	mg/kg		8270C	11/24/14	5
3,3-Dichlorobenzidine	91-94-1	U	.53	1.1	2.2	mg/kg		8270C	11/24/14	5
2,4-Dinitrotoluene	121-14-2	U	.04	1.1	2.2	mg/kg		8270C	11/24/14	5
2,6-Dinitrotoluene	606-20-2	U	.049	1.1	2.2	mg/kg		8270C	11/24/14	5
Hexachlorobenzene	118-74-1	U	.057	1.1	2.2	mg/kg		8270C	11/24/14	5
Hexachloro-1,3-butadiene	87-68-3	U	.067	1.1	2.2	mg/kg		8270C	11/24/14	5
Hexachloroethane	67-72-1	U	.089	1.1	2.2	mg/kg		8270C	11/24/14	5
Isophorone	78-59-1	U	.035	1.1	2.2	mg/kg		8270C	11/24/14	5
Nitrobenzene	98-95-3	U	.047	1.1	2.2	mg/kg		8270C	11/24/14	5
n-Nitrosodimethylamine	62-75-9	U	.43	1.1	2.2	mg/kg		8270C	11/24/14	5
n-Nitrosodiphenylamine	86-30-6	U	.04	1.1	2.2	mg/kg		8270C	11/24/14	5
n-Nitrosodi-n-propylamine	621-64-7	U	.06	1.1	2.2	mg/kg		8270C	11/24/14	5
Benzylbutyl phthalate	85-68-7	U	.069	1.1	2.2	mg/kg		8270C	11/24/14	5
Bis(2-ethylhexyl)phthalate	117-81-7	U	.08	1.1	2.2	mg/kg		8270C	11/24/14	5
Di-n-butyl phthalate	84-74-2	U	.072	1.1	2.2	mg/kg		8270C	11/24/14	5
Diethyl phthalate	84-66-2	U	.045	1.1	2.2	mg/kg		8270C	11/24/14	5
Dimethyl phthalate	131-11-3	U	.036	1.1	2.2	mg/kg		8270C	11/24/14	5
Di-n-octyl phthalate	117-84-0	U	.06	1.1	2.2	mg/kg		8270C	11/24/14	5
1,2,4-Trichlorobenzene	120-82-1	U	.059	1.1	2.2	mg/kg		8270C	11/24/14	5
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.032	1.1	2.2	mg/kg		8270C	11/24/14	5
2-Chlorophenol	95-57-8	U	.056	1.1	2.2	mg/kg		8270C	11/24/14	5
2,4-Dichlorophenol	120-83-2	U	.049	1.1	2.2	mg/kg		8270C	11/24/14	5
2,4-Dimethylphenol	105-67-9	U	.32	1.1	2.2	mg/kg		8270C	11/24/14	5
4,6-Dinitro-2-methylphenol	534-52-1	U	.83	1.1	2.2	mg/kg		8270C	11/24/14	5
2,4-Dinitrophenol	51-28-5	U	.65	1.1	2.2	mg/kg	J3	8270C	11/24/14	5
2-Methylphenol	95-48-7	U	.065	1.1	2.2	mg/kg		8270C	11/24/14	5
3&4-Methyl Phenol	3&4-Methyl	U	.052	1.1	2.2	mg/kg		8270C	11/24/14	5
2-Nitrophenol	88-75-5	U	.087	1.1	2.2	mg/kg		8270C	11/24/14	5
4-Nitrophenol	100-02-7	U	.35	1.1	2.2	mg/kg		8270C	11/24/14	5
4-Chloroaniline	106-47-8	U	.024	1.1	2.2	mg/kg		8270C	11/24/14	5
2-Nitroaniline	88-74-4	U	.051	1.1	2.2	mg/kg		8270C	11/24/14	5
1,2-Diphenylhydrazine	103-33-3	U	.0093	1.1	2.2	mg/kg		8270C	11/24/14	5
3-Nitroaniline	99-09-2	U	.056	1.1	2.2	mg/kg		8270C	11/24/14	5
4-Nitroaniline	100-01-6	U	.043	1.1	2.2	mg/kg		8270C	11/24/14	5
Pentachlorophenol	87-86-5	U	.32	1.1	2.2	mg/kg		8270C	11/24/14	5
Phenol	108-95-2	U	.047	1.1	2.2	mg/kg		8270C	11/24/14	5
2,4,5-Trichlorophenol	95-95-4	U	.069	1.1	2.2	mg/kg		8270C	11/24/14	5
2,4,6-Trichlorophenol	88-06-2	U	.052	1.1	2.2	mg/kg		8270C	11/24/14	5
Surrogate Recovery										
2-Fluorophenol	367-12-4	34.3				% Rec.		8270C	11/24/14	5
Phenol-d5	4165-62-2	41.2				% Rec.		8270C	11/24/14	5
Nitrobenzene-d5	4165-60-0	33.7				% Rec.		8270C	11/24/14	5
2-Fluorobiphenyl	321-60-8	46.1				% Rec.		8270C	11/24/14	5
2,4,6-Tribromophenol	118-79-6	41.3				% Rec.		8270C	11/24/14	5
p-Terphenyl-d14	1718-51-0	44.5				% Rec.		8270C	11/24/14	5

Results listed are dry weight basis.
 U = Not Detected at the LOD
 Note:

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 Reported: 12/03/14 10:11 Revised: 12/19/14 10:00
 L734231-03 (DRORLA) - Dilution due to matrix
 L734231-03 (PH) - 2.82@22.0c
 L734231-03 (ICP METALS) - Diluted due to matrix interference.

KA 2/3/15

DNR: DO NOT REPORT



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
Description : HOLLOWAN AFB
Sample ID : TU518-SB01-NS01
Collected By :
Collection Date : 11/15/14 11:56

ESC Sample # : L734231-04
Site ID :
Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.0				su		9045D	11/22/14	1
Total Solids	TSOLIDS	71.3	.0333			%		2540 G-2	11/21/14	1
Mercury	7439-97-6	U	.0039	0.014	0.028	mg/kg		7471	11/19/14	1
Aluminum	7429-90-5	1300	25	35.	70.	mg/kg	B	6010B	11/26/14	5
Antimony	7440-36-0	U	5.3	7.0	14.	mg/kg	J3	6010B	11/26/14	5
Arsenic	7440-38-2	U	4.5	7.0	14.	mg/kg		6010B	11/26/14	5
Barium	7440-39-3	39.	1.2	1.8	3.5	mg/kg		6010B	11/26/14	5
Beryllium	7440-41-7	U	.49	0.70	1.4	mg/kg		6010B	11/26/14	5
Cadmium	7440-43-9	U	.49	1.8	3.5	mg/kg		6010B	11/26/14	5
Chromium	7440-47-3	1.7	.98	3.5	7.0	mg/kg	J	6010B	11/26/14	5
Cobalt	7440-48-4	U	1.7	3.5	7.0	mg/kg		6010B	11/26/14	5
Copper	7440-50-8	U	3.6	7.0	14.	mg/kg		6010B	11/26/14	5
Lead	7439-92-1	U	1.3	1.8	3.5	mg/kg		6010B	11/28/14	5
Manganese	7439-96-5	36.	.84	3.5	7.0	mg/kg		6010B	11/26/14	5
Nickel	7440-02-0	U	3.4	7.0	14.	mg/kg		6010B	11/26/14	5
Selenium	7782-49-2	U	5.2	7.0	14.	mg/kg		6010B	11/26/14	5
Silver	7440-22-4	U	2	3.5	7.0	mg/kg		6010B	11/26/14	5
Thallium	7440-28-0	U	4.5	7.0	14.	mg/kg		6010B	11/26/14	5
Vanadium	7440-62-2	13.	1.7 13	7.0 13	14.	mg/kg	J	6010B	11/26/14	5
Zinc	7440-66-6	4.3	4.2	18.	35.	mg/kg	J	6010B	11/26/14	5
TPH (GC/FID) Low Fraction	8006-61-9	0.94	.63	1.5	2.9	mg/kg	J	8015D/GR	11/22/14	20.75
Surrogate Recovery (70-130) a, a, a-Trifluorotoluene (FID)	98-08-8	111.				% Rec.		8015D/GR	11/22/14	20.75
Volatile Organics										
Acetone	67-64-1	0.056	.014	0.035	0.070	mg/kg	J	8260B	11/22/14	1
Benzene	71-43-2	U	.00038	0.00070	0.0014	mg/kg		8260B	11/22/14	1
Bromobenzene	108-86-1	U	.00039	0.00070	0.0014	mg/kg		8260B	11/22/14	1
Bromochloromethane	74-97-5	U	.00055	0.00070	0.0014	mg/kg		8260B	11/22/14	1
Bromodichloromethane	75-27-4	U	.00035	0.00070	0.0014	mg/kg		8260B	11/22/14	1
Bromoform	75-25-2	U	.00059	0.00070	0.0014	mg/kg		8260B	11/22/14	1
Bromomethane	74-83-9	U	.0018	0.0035	0.0070	mg/kg		8260B	11/22/14	1
n-Butylbenzene	104-51-8	U	.00036	0.00070	0.0014	mg/kg		8260B	11/22/14	1
sec-Butylbenzene	135-98-8	U	.00028	0.00070	0.0014	mg/kg		8260B	11/22/14	1
tert-Butylbenzene	98-06-6	U	.00029	0.00070	0.0014	mg/kg		8260B	11/22/14	1
Carbon Disulfide	75-15-0	0.0076	.00039	0.00070	0.0014	mg/kg		8260B	11/22/14	1
Carbon tetrachloride	56-23-5	U	.00046	0.00070	0.0014	mg/kg		8260B	11/22/14	1
Chlorobenzene	108-90-7	U	.00029	0.00070	0.0014	mg/kg		8260B	11/22/14	1
Chlorodibromomethane	124-48-1	U	.00052	0.00070	0.0014	mg/kg		8260B	11/22/14	1
Chloroethane	75-00-3	U	.0013	0.0035	0.0070	mg/kg		8260B	11/22/14	1
Chloroform	67-66-3	U	.00032	0.0035	0.0070	mg/kg		8260B	11/22/14	1
Chloromethane	74-87-3	U	.00053	0.00070	0.0035	mg/kg		8260B	11/22/14	1

Results listed are dry weight basis.

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:00

L734231-04 (PH) - 6.0@21.1c

L734231-04 (ICP METALS) - Diluted due to matrix interference.

Handwritten signatures:
ICA 2/13/15
BMS 2/19/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
Description : HOLLOWMAN AFB

ESC Sample # : L734231-04

Sample ID : TU518-SB01-NS01

Site ID :

Collected By :
Collection Date : 11/15/14 11:56

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2-Chlorotoluene	95-49-8	U	.00042	0.00070	0.0014	mg/kg		8260B	11/22/14	1
4-Chlorotoluene	106-43-4	U	.00034	0.00070	0.0014	mg/kg		8260B	11/22/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0014	0.0035	0.0070	mg/kg		8260B	11/22/14	1
1,2-Dibromoethane	106-93-4	U	.00048	0.00070	0.0014	mg/kg		8260B	11/22/14	1
Dibromomethane	74-95-3	U	.00053	0.00070	0.0014	mg/kg		8260B	11/22/14	1
1,2-Dichlorobenzene	95-50-1	U	.00042	0.00070	0.0014	mg/kg		8260B	11/22/14	1
1,3-Dichlorobenzene	541-73-1	U	.00034	0.00070	0.0014	mg/kg		8260B	11/22/14	1
1,4-Dichlorobenzene	106-46-7	U	.00032	0.00070	0.0014	mg/kg		8260B	11/22/14	1
Dichlorodifluoromethane	75-71-8	U	.001	0.0035	0.0070	mg/kg		8260B	11/22/14	1
1,1-Dichloroethane	75-34-3	U	.00028	0.00070	0.0014	mg/kg		8260B	11/22/14	1
1,2-Dichloroethane	107-06-2	U	.00036	0.00070	0.0014	mg/kg		8260B	11/22/14	1
1,1-Dichloroethene	75-35-4	U	.00042	0.00070	0.0014	mg/kg		8260B	11/22/14	1
cis-1,2-Dichloroethene	156-59-2	U	.00034	0.00070	0.0014	mg/kg		8260B	11/22/14	1
trans-1,2-Dichloroethene	156-60-5	U	.00036	0.00070	0.0014	mg/kg		8260B	11/22/14	1
1,2-Dichloropropane	78-87-5	U	.0005	0.00070	0.0014	mg/kg		8260B	11/22/14	1
1,1-Dichloropropene	563-58-6	U	.00045	0.00070	0.0014	mg/kg		8260B	11/22/14	1
1,3-Dichloropropane	142-28-9	U	.00029	0.00070	0.0014	mg/kg		8260B	11/22/14	1
cis-1,3-Dichloropropene	10061-01-5	U	.00036	0.00070	0.0014	mg/kg		8260B	11/22/14	1
trans-1,3-Dichloropropene	10061-02-6	U	.00038	0.00070	0.0014	mg/kg		8260B	11/22/14	1
2,2-Dichloropropane	594-20-7	U	.00039	0.00070	0.0014	mg/kg		8260B	11/22/14	1
Ethylbenzene	100-41-4	U	.00042	0.00070	0.0014	mg/kg		8260B	11/22/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.00048	0.00070	0.0014	mg/kg		8260B	11/22/14	1
2-Hexanone	591-78-6	U	.0053	0.0070	0.014	mg/kg		8260B	11/22/14	1
Isopropylbenzene	98-82-8	U	.00034	0.00070	0.0014	mg/kg		8260B	11/22/14	1
p-Isopropyltoluene	99-87-6	U	.00028	0.00070	0.0014	mg/kg		8260B	11/22/14	1
2-Butanone (MEK) FSQ-I	78-93-3	0.014	.0066	0.0070	0.014	mg/kg	J	8260B	11/22/14	1
Methylene Chloride	75-09-2	U	.0014	0.0035	0.0070	mg/kg		8260B	11/22/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0027	0.0070	0.014	mg/kg		8260B	11/22/14	1
Methyl tert-butyl ether	1634-04-4	U	.00029	0.00070	0.0014	mg/kg		8260B	11/22/14	1
Naphthalene	91-20-3	U	.0014	0.0035	0.0070	mg/kg		8260B	11/22/14	1
n-Propylbenzene	103-65-1	U	.00029	0.00070	0.0014	mg/kg		8260B	11/22/14	1
Styrene	100-42-5	U	.00032	0.00070	0.0014	mg/kg		8260B	11/22/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	.00036	0.00070	0.0014	mg/kg		8260B	11/22/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	.0005	0.0011	0.0014	mg/kg		8260B	11/22/14	1
Tetrachloroethene	127-18-4	U	.00039	0.00070	0.0014	mg/kg		8260B	11/22/14	1
Toluene FSQ-I	108-88-3	0.00064	.0006	0.0035	0.0070	mg/kg	J	8260B	11/22/14	1
1,2,3-Trichlorobenzene	87-61-6	U	.00043	0.00070	0.0014	mg/kg		8260B	11/22/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.00055	0.00070	0.0014	mg/kg		8260B	11/22/14	1
1,1,1-Trichloroethane	71-55-6	U	.0004	0.00070	0.0014	mg/kg		8260B	11/22/14	1
1,1,2-Trichloroethane	79-00-5	U	.00039	0.00070	0.0014	mg/kg		8260B	11/22/14	1
Trichloroethene	79-01-6	U	.00039	0.00070	0.0014	mg/kg		8260B	11/22/14	1
Trichlorofluoromethane	75-69-4	U	.00053	0.0035	0.0070	mg/kg		8260B	11/22/14	1
1,2,3-Trichloropropane	96-18-4	U	.001	0.0014	0.0035	mg/kg		8260B	11/22/14	1
1,2,4-Trimethylbenzene	95-63-6	U	.00029	0.00070	0.0014	mg/kg		8260B	11/22/14	1
o-Xylene	95-47-6	U	.00048	0.00070	0.0014	mg/kg		8260B	11/22/14	1
m&p-Xylene	1330-20-7	U	.001	0.0014	0.0028	mg/kg		8260B	11/22/14	1

Results listed are dry weight basis.

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:00

L734231-04 (PH) - 6.0@21.1c

L734231-04 (ICP METALS) - Diluted due to matrix interference.

CA 2/13/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
Description : HOLLOWAN AFB
Sample ID : TU518-SB01-NS01
Collected By :
Collection Date : 11/15/14 11:56

ESC Sample # : L734231-04

Site ID :

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Vinyl chloride	75-01-4	U	.00041	0.00070	0.0014	mg/kg		8260B	11/22/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00038	0.00070	0.0014	mg/kg		8260B	11/22/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	97.1				% Rec.		8260B	11/22/14	1
Dibromofluoromethane	1868-53-7	88.9				% Rec.		8260B	11/22/14	1
4-Bromofluorobenzene	460-00-4	102.				% Rec.		8260B	11/22/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.2	2.8	5.6	mg/kg		8015	11/25/14	1
C28-C40 Oil Range		U	.38	2.8	5.6	mg/kg		8015	11/25/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	62.3				% Rec.		8015	11/25/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00084	0.0028	0.0084	mg/kg		8270C-SI	11/20/14	1
Acenaphthene	83-32-9	U	.00084	0.0028	0.0084	mg/kg		8270C-SI	11/20/14	1
Acenaphthylene	208-96-8	U	.00084	0.0028	0.0084	mg/kg		8270C-SI	11/20/14	1
Benzo(a)anthracene	56-55-3	U	.00084	0.0028	0.0084	mg/kg		8270C-SI	11/20/14	1
Benzo(a)pyrene	50-32-8	U	.00084	0.0028	0.0084	mg/kg		8270C-SI	11/20/14	1
Benzo(b)fluoranthene	205-99-2	U	.00084	0.0028	0.0084	mg/kg		8270C-SI	11/20/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00084	0.0028	0.0084	mg/kg		8270C-SI	11/20/14	1
Benzo(k)fluoranthene	207-08-9	U	.00084	0.0028	0.0084	mg/kg		8270C-SI	11/20/14	1
Chrysene	218-01-9	U	.00084	0.0028	0.0084	mg/kg		8270C-SI	11/20/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00084	0.0028	0.0084	mg/kg		8270C-SI	11/20/14	1
Fluoranthene	206-44-0	U	.00084	0.0028	0.0084	mg/kg		8270C-SI	11/20/14	1
Fluorene	86-73-7	U	.00084	0.0028	0.0084	mg/kg		8270C-SI	11/20/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00084	0.0028	0.0084	mg/kg		8270C-SI	11/20/14	1
Naphthalene	91-20-3	0.0012	.00084	0.0028	0.0084	mg/kg	J	8270C-SI	11/20/14	1
Phenanthrene	85-01-8	U	.00084	0.0028	0.0084	mg/kg		8270C-SI	11/20/14	1
Pyrene	129-00-0	U	.00084	0.0028	0.0084	mg/kg		8270C-SI	11/20/14	1
2-Methylnaphthalene	91-57-6	U	.0009	0.0084	0.028	mg/kg		8270C-SI	11/20/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	92.3				% Rec.		8270C-SI	11/20/14	1
Nitrobenzene-d5	4165-60-0	98.9				% Rec.		8270C-SI	11/20/14	1
2-Fluorobiphenyl	321-60-8	91.8				% Rec.		8270C-SI	11/20/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	.011	0.23	0.47	mg/kg		8270C	11/24/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.013	0.23	0.47	mg/kg		8270C	11/24/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.011	0.23	0.47	mg/kg		8270C	11/24/14	1
Benzyl Alcohol	100-51-6	U	.01	0.23	0.47	mg/kg		8270C	11/24/14	1
Benzoic acid	65-85-0	U	.17	2.3	4.7	mg/kg	J3	8270C	11/24/14	1
Carbazole	86-74-8	U	.0073	0.23	0.47	mg/kg		8270C	11/24/14	1
Dibenzofuran	132-64-9	U	.0073	0.23	0.47	mg/kg		8270C	11/24/14	1
4-Bromophenyl-phenylether	101-55-3	U	.015	0.23	0.47	mg/kg		8270C	11/24/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0088	0.23	0.47	mg/kg		8270C	11/24/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:00

L734231-04 (PH) - 6.0@21.1c

L734231-04 (ICP METALS) - Diluted due to matrix interference.

KA 2/13/15

DNR: DO NOT REPORT

BJS 9/2/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
Description : HOLLoman AFB
Sample ID : TU518-SB01-NS01
Collected By :
Collection Date : 11/15/14 11:56

ESC Sample # : L734231-04
Site ID :
Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2-Chloronaphthalene	91-58-7	U	.0088	0.23	0.47	mg/kg		8270C	11/24/14	1
3,3-Dichlorobenzidine	91-94-1	U	.11	0.23	0.47	mg/kg		8270C	11/24/14	1
2,4-Dinitrotoluene	121-14-2	U	.0086	0.23	0.47	mg/kg		8270C	11/24/14	1
2,6-Dinitrotoluene	606-20-2	U	.01	0.23	0.47	mg/kg		8270C	11/24/14	1
Hexachlorobenzene	118-74-1	U	.012	0.23	0.47	mg/kg		8270C	11/24/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.014	0.23	0.47	mg/kg		8270C	11/24/14	1
Hexachloroethane	67-72-1	U	.018	0.23	0.47	mg/kg		8270C	11/24/14	1
Isophorone	78-59-1	U	.0073	0.23	0.47	mg/kg		8270C	11/24/14	1
Nitrobenzene	98-95-3	U	.0098	0.23	0.47	mg/kg		8270C	11/24/14	1
n-Nitrosodimethylamine	62-75-9	U	.091	0.23	0.47	mg/kg		8270C	11/24/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0083	0.23	0.47	mg/kg		8270C	11/24/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.013	0.23	0.47	mg/kg		8270C	11/24/14	1
Benzylbutyl phthalate	85-68-7	U	.014	0.23	0.47	mg/kg		8270C	11/24/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.017	0.23	0.47	mg/kg		8270C	11/24/14	1
Di-n-butyl phthalate	84-74-2	U	.015	0.23	0.47	mg/kg		8270C	11/24/14	1
Diethyl phthalate	84-66-2	U	.0097	0.23	0.47	mg/kg		8270C	11/24/14	1
Dimethyl phthalate	131-11-3	U	.0076	0.23	0.47	mg/kg		8270C	11/24/14	1
Di-n-octyl phthalate	117-84-0	U	.013	0.23	0.47	mg/kg		8270C	11/24/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.012	0.23	0.47	mg/kg		8270C	11/24/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0067	0.23	0.47	mg/kg		8270C	11/24/14	1
2-Chlorophenol	95-57-8	U	.012	0.23	0.47	mg/kg		8270C	11/24/14	1
2,4-Dichlorophenol	120-83-2	U	.01	0.23	0.47	mg/kg		8270C	11/24/14	1
2,4-Dimethylphenol	105-67-9	U	.066	0.23	0.47	mg/kg		8270C	11/24/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.17	0.23	0.47	mg/kg		8270C	11/24/14	1
2,4-Dinitrophenol	51-28-5	U	.14	0.23	0.47	mg/kg	J3	8270C	11/24/14	1
2-Methylphenol	95-48-7	U	.014	0.23	0.47	mg/kg		8270C	11/24/14	1
3&4-Methyl Phenol	U3 CCAL-L	U	.011	0.23	0.47	mg/kg		8270C	11/24/14	1
2-Nitrophenol	88-75-5	U	.018	0.23	0.47	mg/kg		8270C	11/24/14	1
4-Nitrophenol	100-02-7	U	.073	0.23	0.47	mg/kg		8270C	11/24/14	1
4-Chloroaniline	106-47-8	U	.0049	0.23	0.47	mg/kg		8270C	11/24/14	1
2-Nitroaniline	88-74-4	U	.011	0.23	0.47	mg/kg		8270C	11/24/14	1
1,2-Diphenylhydrazine	103-33-3	U	.002	0.23	0.47	mg/kg		8270C	11/24/14	1
3-Nitroaniline	99-09-2	U	.012	0.23	0.47	mg/kg		8270C	11/24/14	1
4-Nitroaniline	100-01-6	U	.009	0.23	0.47	mg/kg		8270C	11/24/14	1
Pentachlorophenol	87-86-5	U	.067	0.23	0.47	mg/kg		8270C	11/24/14	1
Phenol	108-95-2	U	.0098	0.23	0.47	mg/kg		8270C	11/24/14	1
2,4,5-Trichlorophenol	95-95-4	U	.014	0.23	0.47	mg/kg		8270C	11/24/14	1
2,4,6-Trichlorophenol	88-06-2	U	.011	0.23	0.47	mg/kg		8270C	11/24/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	58.4				% Rec.		8270C	11/24/14	1
Phenol-d5	4165-62-2	61.0				% Rec.		8270C	11/24/14	1
Nitrobenzene-d5	4165-60-0	56.5				% Rec.		8270C	11/24/14	1
2-Fluorobiphenyl	321-60-8	64.5				% Rec.		8270C	11/24/14	1
2,4,6-Tribromophenol	118-79-6	73.9				% Rec.		8270C	11/24/14	1
p-Terphenyl-d14	1718-51-0	62.1				% Rec.		8270C	11/24/14	1

Results listed are dry weight basis.
U = Not Detected at the LOD

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:00

L734231-04 (PH) - 6.0@21.1c

L734231-04 (ICP METALS) - Diluted due to matrix interference.

KA 2/13/15

DNR: DO NOT REPORT



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
Description : HOLLOMAN AFB

ESC Sample # : L734231-05

Sample ID : TU518-SB02-NS02

Site ID :

Collected By :
Collection Date : 11/15/14 15:30

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.1				su		9045D	11/22/14	1
Total Solids	TSOLIDS	73.6	.0333			%		2540 G-2	11/21/14	1
Mercury	7439-97-6	U	.0038	0.014	0.027	mg/kg		7471	11/19/14	1
Aluminum	7429-90-5	560	24	34.	68.	mg/kg	B	6010B	11/26/14	5
Antimony	7440-36-0	U	5.2	6.8	14.	mg/kg	J3	6010B	11/26/14	5
Arsenic	7440-38-2	U	4.3	6.8	14.	mg/kg		6010B	11/26/14	5
Barium	7440-39-3	30.	1.2	1.7	3.4	mg/kg		6010B	11/26/14	5
Beryllium	7440-41-7	U	.48	0.68	1.4	mg/kg		6010B	11/26/14	5
Cadmium	7440-43-9	U	.48	1.7	3.4	mg/kg		6010B	11/26/14	5
Chromium	7440-47-3	U	.95	3.4	6.8	mg/kg		6010B	11/26/14	5
Cobalt	7440-48-4	U	1.6	3.4	6.8	mg/kg		6010B	11/26/14	5
Copper	7440-50-8	U	3.5	6.8	14.	mg/kg		6010B	11/26/14	5
Lead	7439-92-1	U	1.3	1.7	3.4	mg/kg		6010B	11/28/14	5
Manganese	7439-96-5	20.	.82	3.4	6.8	mg/kg		6010B	11/26/14	5
Nickel	7440-02-0	U	3.3	6.8	14.	mg/kg		6010B	11/26/14	5
Selenium	7782-49-2	U	5	6.8	14.	mg/kg		6010B	11/26/14	5
Silver	7440-22-4	U	1.9	3.4	6.8	mg/kg		6010B	11/26/14	5
Thallium	7440-28-0	U	4.3	6.8	14.	mg/kg		6010B	11/26/14	5
Vanadium	7440-62-2	6.8	1.6 6.8	6.8	14.	mg/kg	J	6010B	11/26/14	5
Zinc	7440-66-6	U	4.1	17.	34.	mg/kg		6010B	11/26/14	5
TPH (GC/FID) Low Fraction	8006-61-9	1.2	.72	1.6	3.3	mg/kg	J	8015D/GR	11/22/14	24.25
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	111.				% Rec.		8015D/GR	11/22/14	24.25
Volatile Organics										
Acetone	67-64-1	0.020	.014	0.034	0.068	mg/kg	J	8260B	11/22/14	1
Benzene	71-43-2	U	.00037	0.00068	0.0014	mg/kg		8260B	11/22/14	1
Bromobenzene	108-86-1	U	.00038	0.00068	0.0014	mg/kg		8260B	11/22/14	1
Bromochloromethane	74-97-5	U	.00053	0.00068	0.0014	mg/kg		8260B	11/22/14	1
Bromodichloromethane	75-27-4	U	.00034	0.00068	0.0014	mg/kg		8260B	11/22/14	1
Bromoform	75-25-2	U	.00057	0.00068	0.0014	mg/kg		8260B	11/22/14	1
Bromomethane	74-83-9	U	.0018	0.0034	0.0068	mg/kg		8260B	11/22/14	1
n-Butylbenzene	104-51-8	U	.00035	0.00068	0.0014	mg/kg		8260B	11/22/14	1
sec-Butylbenzene	135-98-8	U	.00027	0.00068	0.0014	mg/kg		8260B	11/22/14	1
tert-Butylbenzene	98-06-6	U	.00028	0.00068	0.0014	mg/kg		8260B	11/22/14	1
Carbon Disulfide	75-15-0	0.010	.00038	0.00068	0.0014	mg/kg		8260B	11/22/14	1
Carbon tetrachloride	56-23-5	U	.00045	0.00068	0.0014	mg/kg		8260B	11/22/14	1
Chlorobenzene	108-90-7	U	.00028	0.00068	0.0014	mg/kg		8260B	11/22/14	1
Chlorodibromomethane	124-48-1	U	.0005	0.00068	0.0014	mg/kg		8260B	11/22/14	1
Chloroethane	75-00-3	U	.0013	0.0034	0.0068	mg/kg		8260B	11/22/14	1
Chloroform	67-66-3	U	.00031	0.0034	0.0068	mg/kg		8260B	11/22/14	1
Chloromethane	74-87-3	U	.00052	0.00068	0.0034	mg/kg		8260B	11/22/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:00

L734231-05 (ICP METALS) - Diluted due to matrix interference.

L734231-05 (DRORLA) - Dilution due to matrix

L734231-05 (PH) - 6.1@21.9c

KA 2/13/15
BMS 2/19/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
 Description : HOLLOWMAN AFB
 Sample ID : TU518-SB02-NS02
 Collected By :
 Collection Date : 11/15/14 15:30

ESC Sample # : L734231-05
 Site ID :
 Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2-Chlorotoluene	95-49-8	U	.00041	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
4-Chlorotoluene	106-43-4	U	.00033	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0014	0.0034	0.0068	mg/kg	8260B	11/22/14	1	
1,2-Dibromoethane	106-93-4	U	.00046	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
Dibromomethane	74-95-3	U	.00052	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
1,2-Dichlorobenzene	95-50-1	U	.00041	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
1,3-Dichlorobenzene	541-73-1	U	.00033	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
1,4-Dichlorobenzene	106-46-7	U	.00031	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
Dichlorodifluoromethane	75-71-8	U	.00096	0.0034	0.0068	mg/kg	8260B	11/22/14	1	
1,1-Dichloroethane	75-34-3	U	.00027	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
1,2-Dichloroethane	107-06-2	U	.00035	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
1,1-Dichloroethene	75-35-4	U	.00041	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
cis-1,2-Dichloroethene	156-59-2	U	.00033	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
trans-1,2-Dichloroethene	156-60-5	U	.00035	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
1,2-Dichloropropane	78-87-5	U	.00049	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
1,1-Dichloropropene	563-58-6	U	.00043	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
1,3-Dichloropropane	142-28-9	U	.00028	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
cis-1,3-Dichloropropene	10061-01-5	U	.00035	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
trans-1,3-Dichloropropene	10061-02-6	U	.00037	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
2,2-Dichloropropane	594-20-7	U	.00038	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
Ethylbenzene	100-41-4	U	.00041	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
Hexachloro-1,3-butadiene	87-68-3	U	.00046	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
2-Hexanone	591-78-6	U	.0052	0.0068	0.014	mg/kg	8260B	11/22/14	1	
Isopropylbenzene	98-82-8	U	.00033	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
p-Isopropyltoluene	99-87-6	U	.00027	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
2-Butanone (MEK)	78-93-3	U	.0064	0.0068	0.014	mg/kg	8260B	11/22/14	1	
Methylene Chloride	75-09-2	U	.0014	0.0034	0.0068	mg/kg	8260B	11/22/14	1	
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0026	0.0068	0.014	mg/kg	8260B	11/22/14	1	
Methyl tert-butyl ether	1634-04-4	U	.00028	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
Naphthalene	91-20-3	U	.0014	0.0034	0.0068	mg/kg	8260B	11/22/14	1	
n-Propylbenzene	103-65-1	U	.00028	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
Styrene	100-42-5	U	.00031	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
1,1,1,2-Tetrachloroethane	630-20-6	U	.00035	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
1,1,2,2-Tetrachloroethane	79-34-5	U	.00049	0.0010	0.0014	mg/kg	8260B	11/22/14	1	
Tetrachloroethene	127-18-4	U	.00038	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
Toluene	108-88-3	U	.00058	0.0034	0.0068	mg/kg	8260B	11/22/14	1	
1,2,3-Trichlorobenzene	87-61-6	U	.00042	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
1,2,4-Trichlorobenzene	120-82-1	U	.00053	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
1,1,1-Trichloroethane	71-55-6	U	.00039	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
1,1,2-Trichloroethane	79-00-5	U	.00038	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
Trichloroethene	79-01-6	U	.00038	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
Trichlorofluoromethane	75-69-4	U	.00052	0.0034	0.0068	mg/kg	8260B	11/22/14	1	
1,2,3-Trichloropropane	96-18-4	U	.001	0.0014	0.0034	mg/kg	8260B	11/22/14	1	
1,2,4-Trimethylbenzene	95-63-6	U	.00028	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
o-Xylene	95-47-6	U	.00046	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
m&p-Xylene	1330-20-7	U	.00098	0.0014	0.0027	mg/kg	8260B	11/22/14	1	

Results listed are dry weight basis.
 U = Not Detected at the LOD
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 Reported: 12/03/14 10:11 Revised: 12/19/14 10:00
 L734231-05 (ICP METALS) - Diluted due to matrix interference.
 L734231-05 (DRORLA) - Dilution due to matrix
 L734231-05 (PH) - 6.1@21.9c

CA 2/13/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
Description : HOLLOWAN AFB
Sample ID : TU518-SB02-NS02
Collected By :
Collection Date : 11/15/14 15:30

ESC Sample # : L734231-05

Site ID :

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Vinyl chloride	75-01-4	U	.00039	0.00068	0.0014	mg/kg		8260B	11/22/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00037	0.00068	0.0014	mg/kg		8260B	11/22/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	98.6				% Rec.		8260B	11/22/14	1
Dibromofluoromethane	1868-53-7	88.0				% Rec.		8260B	11/22/14	1
4-Bromofluorobenzene	460-00-4	105.				% Rec.		8260B	11/22/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	11	14.	27.	mg/kg		8015	11/25/14	5
C28-C40 Oil Range		U	1.9	14.	27.	mg/kg		8015	11/25/14	5
Surrogate Recovery										
o-Terphenyl	84-15-1	63.0				% Rec.		8015	11/25/14	5
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/20/14	1
Acenaphthene	83-32-9	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/20/14	1
Acenaphthylene	208-96-8	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/20/14	1
Benzo(a)anthracene	56-55-3	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/20/14	1
Benzo(a)pyrene	50-32-8	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/20/14	1
Benzo(b)fluoranthene	205-99-2	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/20/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/20/14	1
Benzo(k)fluoranthene	207-08-9	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/20/14	1
Chrysene	218-01-9	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/20/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/20/14	1
Fluoranthene	206-44-0	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/20/14	1
Fluorene	86-73-7	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/20/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/20/14	1
Naphthalene	91-20-3	0.0026	.00082	0.0027	0.0082	mg/kg	J	8270C-SI	11/20/14	1
Phenanthrene	85-01-8	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/20/14	1
Pyrene	129-00-0	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/20/14	1
2-Methylnaphthalene	91-57-6	U	.00087	0.0081	0.027	mg/kg		8270C-SI	11/20/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	85.8				% Rec.		8270C-SI	11/20/14	1
Nitrobenzene-d5	4165-60-0	92.6				% Rec.		8270C-SI	11/20/14	1
2-Fluorobiphenyl	321-60-8	87.2				% Rec.		8270C-SI	11/20/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.052	1.1	2.3	mg/kg		8270C	11/24/14	5
Bis(2-chloroethyl)ether	111-44-4	U	.061	1.1	2.3	mg/kg		8270C	11/24/14	5
Bis(2-chloroisopropyl)ether	108-60-1	U	.052	1.1	2.3	mg/kg		8270C	11/24/14	5
Benzyl Alcohol	100-51-6	U	.052	1.1	2.3	mg/kg		8270C	11/24/14	5
Benzoic acid	65-85-0	U	.84	11.	23.	mg/kg	J3	8270C	11/24/14	5
Carbazole	86-74-8	U	.035	1.1	2.3	mg/kg		8270C	11/24/14	5
Dibenzofuran	132-64-9	U	.035	1.1	2.3	mg/kg		8270C	11/24/14	5
4-Bromophenyl-phenylether	101-55-3	U	.077	1.1	2.3	mg/kg		8270C	11/24/14	5
4-Chlorophenyl-phenylether	7005-72-3	U	.042	1.1	2.3	mg/kg		8270C	11/24/14	5

Results listed are dry weight basis.
U = Not Detected at the LOD

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:00

L734231-05 (ICP METALS) - Diluted due to matrix interference.

L734231-05 (DRORLA) - Dilution due to matrix

L734231-05 (PH) - 6.1@21.9c

KA 2/13/15

DNE: Do Not Report

BMS
9/2/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
Description : HOLLOWMAN AFB
Sample ID : TU518-SB02-NS02
Collected By :
Collection Date : 11/15/14 15:30

ESC Sample # : L734231-05

Site ID :

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2-Chloronaphthalene	91-58-7	U	.042	1.1	2.3	mg/kg		8270C	11/24/14	5
3,3-Dichlorobenzidine	91-94-1	U	.54	1.1	2.3	mg/kg		8270C	11/24/14	5
2,4-Dinitrotoluene	121-14-2	U	.041	1.1	2.3	mg/kg		8270C	11/24/14	5
2,6-Dinitrotoluene	606-20-2	U	.05	1.1	2.3	mg/kg		8270C	11/24/14	5
Hexachlorobenzene	118-74-1	U	.058	1.1	2.3	mg/kg		8270C	11/24/14	5
Hexachloro-1,3-butadiene	87-68-3	U	.068	1.1	2.3	mg/kg		8270C	11/24/14	5
Hexachloroethane	67-72-1	U	.091	1.1	2.3	mg/kg		8270C	11/24/14	5
Isophorone	78-59-1	U	.035	1.1	2.3	mg/kg		8270C	11/24/14	5
Nitrobenzene	98-95-3	U	.048	1.1	2.3	mg/kg		8270C	11/24/14	5
n-Nitrosodimethylamine	62-75-9	U	.43	1.1	2.3	mg/kg		8270C	11/24/14	5
n-Nitrosodiphenylamine	86-30-6	U	.041	1.1	2.3	mg/kg		8270C	11/24/14	5
n-Nitrosodi-n-propylamine	621-64-7	U	.061	1.1	2.3	mg/kg		8270C	11/24/14	5
Benzylbutyl phthalate	85-68-7	U	.071	1.1	2.3	mg/kg		8270C	11/24/14	5
Bis(2-ethylhexyl)phthalate	117-81-7	U	.082	1.1	2.3	mg/kg		8270C	11/24/14	5
Di-n-butyl phthalate	84-74-2	U	.073	1.1	2.3	mg/kg		8270C	11/24/14	5
Diethyl phthalate	84-66-2	U	.046	1.1	2.3	mg/kg		8270C	11/24/14	5
Dimethyl phthalate	131-11-3	U	.037	1.1	2.3	mg/kg		8270C	11/24/14	5
Di-n-octyl phthalate	117-84-0	U	.061	1.1	2.3	mg/kg		8270C	11/24/14	5
1,2,4-Trichlorobenzene	120-82-1	U	.06	1.1	2.3	mg/kg		8270C	11/24/14	5
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.033	1.1	2.3	mg/kg		8270C	11/24/14	5
2-Chlorophenol	95-57-8	U	.057	1.1	2.3	mg/kg		8270C	11/24/14	5
2,4-Dichlorophenol	120-83-2	U	.05	1.1	2.3	mg/kg		8270C	11/24/14	5
2,4-Dimethylphenol	105-67-9	U	.33	1.1	2.3	mg/kg		8270C	11/24/14	5
4,6-Dinitro-2-methylphenol	534-52-1	U	.84	1.1	2.3	mg/kg		8270C	11/24/14	5
2,4-Dinitrophenol	51-28-5	U	.66	1.1	2.3	mg/kg	J3	8270C	11/24/14	5
2-Methylphenol	95-48-7	U	.066	1.1	2.3	mg/kg		8270C	11/24/14	5
3&4-Methyl Phenol	3&4-Methyl	U	.053	1.1	2.3	mg/kg		8270C	11/24/14	5
2-Nitrophenol	88-75-5	U	.088	1.1	2.3	mg/kg		8270C	11/24/14	5
4-Nitrophenol	100-02-7	U	.35	1.1	2.3	mg/kg		8270C	11/24/14	5
4-Chloroaniline	106-47-8	U	.024	1.1	2.3	mg/kg		8270C	11/24/14	5
2-Nitroaniline	88-74-4	U	.052	1.1	2.3	mg/kg		8270C	11/24/14	5
1,2-Diphenylhydrazine	103-33-3	U	.0095	1.1	2.3	mg/kg		8270C	11/24/14	5
3-Nitroaniline	99-09-2	U	.057	1.1	2.3	mg/kg		8270C	11/24/14	5
4-Nitroaniline	100-01-6	U	.043	1.1	2.3	mg/kg		8270C	11/24/14	5
Pentachlorophenol	87-86-5	U	.33	1.1	2.3	mg/kg		8270C	11/24/14	5
Phenol	108-95-2	U	.048	1.1	2.3	mg/kg		8270C	11/24/14	5
2,4,5-Trichlorophenol	95-95-4	U	.071	1.1	2.3	mg/kg		8270C	11/24/14	5
2,4,6-Trichlorophenol	88-06-2	U	.053	1.1	2.3	mg/kg		8270C	11/24/14	5
Surrogate Recovery										
2-Fluorophenol	367-12-4	35.0				% Rec.		8270C	11/24/14	5
Phenol-d5	4165-62-2	39.5				% Rec.		8270C	11/24/14	5
Nitrobenzene-d5	4165-60-0	33.4				% Rec.		8270C	11/24/14	5
2-Fluorobiphenyl	321-60-8	48.0				% Rec.		8270C	11/24/14	5
2,4,6-Tribromophenol	118-79-6	41.8				% Rec.		8270C	11/24/14	5
p-Terphenyl-d14	1718-51-0	47.4				% Rec.		8270C	11/24/14	5

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:00

L734231-05 (ICP METALS) - Diluted due to matrix interference.

L734231-05 (DRORLA) - Dilution due to matrix

L734231-05 (PH) - 6.1@21.9c

KA 2/13/15

DNR: DO NOT REPORT



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
Description : HOLLoman AFB
Sample ID : TU518-SB02-NS01
Collected By :
Collection Date : 11/15/14 15:00

ESC Sample # : L734231-06

Site ID :

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.6				su		9045D	11/22/14	1
Total Solids	TSOLIDS	70.2	.0333			%		2540 G-2	11/21/14	1
Mercury	7439-97-6	U	.004	0.014	0.028	mg/kg		7471	11/19/14	1
Aluminum	7429-90-5	1400	26	36.	71.	mg/kg	B	6010B	11/26/14	5
Antimony	7440-36-0	U	5.4	7.1	14.	mg/kg	J3	6010B	11/26/14	5
Arsenic	7440-38-2	U	4.6	7.1	14.	mg/kg		6010B	11/26/14	5
Barium	7440-39-3	40.	1.2	1.8	3.6	mg/kg		6010B	11/26/14	5
Beryllium	7440-41-7	U	.5	0.71	1.4	mg/kg		6010B	11/26/14	5
Cadmium	7440-43-9	U	.5	1.8	3.6	mg/kg		6010B	11/26/14	5
Chromium	7440-47-3	2.0	1	3.6	7.1	mg/kg	J	6010B	11/26/14	5
Cobalt	7440-48-4	U	1.7	3.6	7.1	mg/kg		6010B	11/26/14	5
Copper	7440-50-8	U	3.7	7.1	14.	mg/kg		6010B	11/26/14	5
Lead	7439-92-1	U	1.4	1.8	3.6	mg/kg		6010B	11/28/14	5
Manganese	7439-96-5	20.	.85	3.6	7.1	mg/kg		6010B	11/26/14	5
Nickel	7440-02-0	U	3.4	7.1	14.	mg/kg		6010B	11/26/14	5
Selenium	7782-49-2	U	5.3	7.1	14.	mg/kg		6010B	11/26/14	5
Silver	7440-22-4	U	2	3.6	7.1	mg/kg		6010B	11/26/14	5
Thallium	7440-28-0	U	4.6	7.1	14.	mg/kg		6010B	11/26/14	5
Vanadium	7440-62-2	9.2	1.7	7.1	14.	mg/kg	J	6010B	11/26/14	5
Zinc	7440-66-6	4.6	4.3	18.	36.	mg/kg	J	6010B	11/26/14	5
TPH (GC/FID) Low Fraction	8006-61-9	1.2	.77	1.8	3.6	mg/kg	J	8015D/GR	11/22/14	25
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	111.				% Rec.		8015D/GR	11/22/14	25
Volatile Organics										
Acetone	67-64-1	0.021	.014	0.036	0.072	mg/kg	J	8260B	11/22/14	1.01
Benzene	71-43-2	U	.00038	0.00072	0.0014	mg/kg		8260B	11/22/14	1.01
Bromobenzene	108-86-1	U	.00041	0.00072	0.0014	mg/kg		8260B	11/22/14	1.01
Bromochloromethane	74-97-5	U	.00056	0.00072	0.0014	mg/kg		8260B	11/22/14	1.01
Bromodichloromethane	75-27-4	U	.00037	0.00072	0.0014	mg/kg		8260B	11/22/14	1.01
Bromoform	75-25-2	U	.00061	0.00072	0.0014	mg/kg		8260B	11/22/14	1.01
Bromomethane	74-83-9	U	.002	0.0036	0.0072	mg/kg		8260B	11/22/14	1.01
n-Butylbenzene	104-51-8	U	.00037	0.00072	0.0014	mg/kg		8260B	11/22/14	1.01
sec-Butylbenzene	135-98-8	U	.00028	0.00072	0.0014	mg/kg		8260B	11/22/14	1.01
tert-Butylbenzene	98-06-6	U	.0003	0.00072	0.0014	mg/kg		8260B	11/22/14	1.01
Carbon Disulfide	75-15-0	0.013	.0004	0.00072	0.0014	mg/kg		8260B	11/22/14	1.01
Carbon tetrachloride	56-23-5	U	.00047	0.00072	0.0014	mg/kg		8260B	11/22/14	1.01
Chlorobenzene	108-90-7	U	.0003	0.00072	0.0014	mg/kg		8260B	11/22/14	1.01
Chlorodibromomethane	124-48-1	U	.00054	0.00072	0.0014	mg/kg		8260B	11/22/14	1.01
Chloroethane	75-00-3	U	.0014	0.0036	0.0072	mg/kg		8260B	11/22/14	1.01
Chloroform	67-66-3	U	.00033	0.0036	0.0072	mg/kg		8260B	11/22/14	1.01
Chloromethane	74-87-3	U	.00054	0.00072	0.0036	mg/kg		8260B	11/22/14	1.01

Results listed are dry weight basis.

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:00

L734231-06 (PH) - 6.6@22.2c

L734231-06 (ICP METALS) - Diluted due to matrix interference.

L734231-06 (DRORLA) - Dilution due to matrix

Handwritten notes:
KAZ 1/13/15
BWS 2/19/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
Description : HOLLOWAN AFB
Sample ID : TU518-SB02-NS01
Collected By :
Collection Date : 11/15/14 15:00

ESC Sample # : L734231-06

Site ID :

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2-Chlorotoluene	95-49-8	U	.00043	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
4-Chlorotoluene	106-43-4	U	.00034	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0016	0.0036	0.0072	mg/kg	8260B	11/22/14	1.01	
1,2-Dibromoethane	106-93-4	U	.0005	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
Dibromomethane	74-95-3	U	.00054	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
1,2-Dichlorobenzene	95-50-1	U	.00044	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
1,3-Dichlorobenzene	541-73-1	U	.00034	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
1,4-Dichlorobenzene	106-46-7	U	.00033	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
Dichlorodifluoromethane	75-71-8	U	.001	0.0036	0.0072	mg/kg	8260B	11/22/14	1.01	
1,1-Dichloroethane	75-34-3	U	.00028	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
1,2-Dichloroethane	107-06-2	U	.00038	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
1,1-Dichloroethene	75-35-4	U	.00044	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
cis-1,2-Dichloroethene	156-59-2	U	.00034	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
trans-1,2-Dichloroethene	156-60-5	U	.00038	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
1,2-Dichloropropane	78-87-5	U	.00051	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
1,1-Dichloropropene	563-58-6	U	.00046	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
1,3-Dichloropropane	142-28-9	U	.0003	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
cis-1,3-Dichloropropene	10061-01-5	U	.00037	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
trans-1,3-Dichloropropene	10061-02-6	U	.00038	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
2,2-Dichloropropane	594-20-7	U	.0004	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
Ethylbenzene	100-41-4	U	.00043	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
Hexachloro-1,3-butadiene	87-68-3	U	.00048	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
2-Hexanone	591-78-6	U	.0054	0.0072	0.014	mg/kg	8260B	11/22/14	1.01	
Isopropylbenzene	98-82-8	U	.00034	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
p-Isopropyltoluene	99-87-6	U	.0003	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
2-Butanone (MEK)	78-93-3	U	.0067	0.0072	0.014	mg/kg	8260B	11/22/14	1.01	
Methylene Chloride	75-09-2	U	.0014	0.0036	0.0072	mg/kg	8260B	11/22/14	1.01	
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0027	0.0072	0.014	mg/kg	8260B	11/22/14	1.01	
Methyl tert-butyl ether	1634-04-4	U	.0003	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
Naphthalene	91-20-3	U	.0014	0.0036	0.0072	mg/kg	8260B	11/22/14	1.01	
n-Propylbenzene	103-65-1	U	.0003	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
Styrene	100-42-5	U	.00034	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
1,1,1,2-Tetrachloroethane	630-20-6	U	.00038	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
1,1,2,2-Tetrachloroethane	79-34-5	U	.00053	0.0011	0.0014	mg/kg	8260B	11/22/14	1.01	
Tetrachloroethene	127-18-4	U	.0004	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
Toluene	108-88-3	U	.00063	0.0036	0.0072	mg/kg	8260B	11/22/14	1.01	
1,2,3-Trichlorobenzene	87-61-6	U	.00044	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
1,2,4-Trichlorobenzene	120-82-1	U	.00056	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
1,1,1-Trichloroethane	71-55-6	U	.00041	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
1,1,2-Trichloroethane	79-00-5	U	.0004	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
Trichloroethene	79-01-6	U	.0004	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
Trichlorofluoromethane	75-69-4	U	.00054	0.0036	0.0072	mg/kg	8260B	11/22/14	1.01	
1,2,3-Trichloropropane	96-18-4	U	.0011	0.0014	0.0036	mg/kg	8260B	11/22/14	1.01	
1,2,4-Trimethylbenzene	95-63-6	U	.0003	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
o-Xylene	95-47-6	U	.00048	0.00072	0.0014	mg/kg	8260B	11/22/14	1.01	
m&p-Xylene	1330-20-7	U	.001	0.0014	0.0029	mg/kg	8260B	11/22/14	1.01	

Results listed are dry weight basis.

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:00

L734231-06 (PH) - 6.6@22.2c

L734231-06 (ICP METALS) - Diluted due to matrix interference.

L734231-06 (DRORLA) - Dilution due to matrix

KA 2/13/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
Description : HOLLOWAN AFB
Sample ID : TU518-SB02-NS01
Collected By :
Collection Date : 11/15/14 15:00

ESC Sample # : L734231-06
Site ID :
Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Vinyl chloride	75-01-4	U	.00041	0.00072	0.0014	mg/kg		8260B	11/22/14	1.01
1,3,5-Trimethylbenzene	108-67-8	U	.00038	0.00072	0.0014	mg/kg		8260B	11/22/14	1.01
Surrogate Recovery										
Toluene-d8	2037-26-5	96.8				% Rec.		8260B	11/22/14	1.01
Dibromofluoromethane	1868-53-7	88.3				% Rec.		8260B	11/22/14	1.01
4-Bromofluorobenzene	460-00-4	105.				% Rec.		8260B	11/22/14	1.01
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	11	14.	28.	mg/kg		8015	11/25/14	5
C28-C40 Oil Range		U	2	14.	28.	mg/kg		8015	11/25/14	5
Surrogate Recovery										
o-Terphenyl	84-15-1	62.6				% Rec.		8015	11/25/14	5
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	11/20/14	1
Acenaphthene	83-32-9	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	11/20/14	1
Acenaphthylene	208-96-8	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	11/20/14	1
Benzo(a)anthracene	56-55-3	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	11/20/14	1
Benzo(a)pyrene	50-32-8	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	11/20/14	1
Benzo(b)fluoranthene	205-99-2	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	11/20/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	11/20/14	1
Benzo(k)fluoranthene	207-08-9	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	11/20/14	1
Chrysene	218-01-9	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	11/20/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	11/20/14	1
Fluoranthene	206-44-0	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	11/20/14	1
Fluorene	86-73-7	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	11/20/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	11/20/14	1
Naphthalene	91-20-3	0.0014	.00085	0.0028	0.0085	mg/kg	J	8270C-SI	11/20/14	1
Phenanthrene	85-01-8	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	11/20/14	1
Pyrene	129-00-0	U	.00085	0.0028	0.0085	mg/kg		8270C-SI	11/20/14	1
2-Methylnaphthalene	91-57-6	U	.00091	0.0085	0.028	mg/kg		8270C-SI	11/20/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	90.5				% Rec.		8270C-SI	11/20/14	1
Nitrobenzene-d5	4165-60-0	95.8				% Rec.		8270C-SI	11/20/14	1
2-Fluorobiphenyl	321-60-8	88.9				% Rec.		8270C-SI	11/20/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	.011	0.24	0.47	mg/kg		8270C	11/24/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.013	0.24	0.47	mg/kg		8270C	11/24/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.011	0.24	0.47	mg/kg		8270C	11/24/14	1
Benzyl Alcohol	100-51-6	U	.011	0.24	0.47	mg/kg		8270C	11/24/14	1
Benzoic acid	65-85-0	U	.17	2.4	4.7	mg/kg	J3	8270C	11/24/14	1
Carbazole	86-74-8	U	.0074	0.24	0.47	mg/kg		8270C	11/24/14	1
Dibenzofuran	132-64-9	U	.0074	0.24	0.47	mg/kg		8270C	11/24/14	1
4-Bromophenyl-phenylether	101-55-3	U	.016	0.24	0.47	mg/kg		8270C	11/24/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.009	0.24	0.47	mg/kg		8270C	11/24/14	1

Results listed are dry weight basis.
U = Not Detected at the LOD

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:00

L734231-06 (PH) - 6.6@22.2c

L734231-06 (ICP METALS) - Diluted due to matrix interference.

L734231-06 (DRORLA) - Dilution due to matrix

RA-2/13/15

DNR: DO NOT REPORT

8MS 9/2/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
Description : HOLLOMAN AFB

ESC Sample # : L734231-06

Sample ID : TU518-SB02-NS01

Site ID :

Collected By :
Collection Date : 11/15/14 15:00

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2-Chloronaphthalene	91-58-7	U	.009	0.24	0.47	mg/kg		8270C	11/24/14	1
3,3-Dichlorobenzidine	91-94-1	U	.11	0.24	0.47	mg/kg		8270C	11/24/14	1
2,4-Dinitrotoluene	121-14-2	U	.0087	0.24	0.47	mg/kg		8270C	11/24/14	1
2,6-Dinitrotoluene	606-20-2	U	.01	0.24	0.47	mg/kg		8270C	11/24/14	1
Hexachlorobenzene	118-74-1	U	.012	0.24	0.47	mg/kg		8270C	11/24/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.014	0.24	0.47	mg/kg		8270C	11/24/14	1
Hexachloroethane	67-72-1	U	.018	0.24	0.47	mg/kg		8270C	11/24/14	1
Isophorone	78-59-1	U	.0074	0.24	0.47	mg/kg		8270C	11/24/14	1
Nitrobenzene	98-95-3	U	.01	0.24	0.47	mg/kg		8270C	11/24/14	1
n-Nitrosodimethylamine	62-75-9	U	.092	0.24	0.47	mg/kg		8270C	11/24/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0084	0.24	0.47	mg/kg		8270C	11/24/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.013	0.24	0.47	mg/kg		8270C	11/24/14	1
Benzylbutyl phthalate	85-68-7	U	.014	0.24	0.47	mg/kg		8270C	11/24/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.017	0.24	0.47	mg/kg		8270C	11/24/14	1
Di-n-butyl phthalate	84-74-2	U	.016	0.24	0.47	mg/kg		8270C	11/24/14	1
Diethyl phthalate	84-66-2	U	.0098	0.24	0.47	mg/kg		8270C	11/24/14	1
Dimethyl phthalate	131-11-3	U	.0077	0.24	0.47	mg/kg		8270C	11/24/14	1
Di-n-octyl phthalate	117-84-0	U	.013	0.24	0.47	mg/kg		8270C	11/24/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.012	0.24	0.47	mg/kg		8270C	11/24/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0068	0.24	0.47	mg/kg		8270C	11/24/14	1
2-Chlorophenol	95-57-8	U	.012	0.24	0.47	mg/kg		8270C	11/24/14	1
2,4-Dichlorophenol	120-83-2	U	.011	0.24	0.47	mg/kg		8270C	11/24/14	1
2,4-Dimethylphenol	105-67-9	U	.067	0.24	0.47	mg/kg		8270C	11/24/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.17	0.24	0.47	mg/kg		8270C	11/24/14	1
2,4-Dinitrophenol	51-28-5	U	.14	0.24	0.47	mg/kg	J3	8270C	11/24/14	1
2-Methylphenol	95-48-7	U	.014	0.24	0.47	mg/kg		8270C	11/24/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.011	0.24	0.47	mg/kg		8270C	11/24/14	1
2-Nitrophenol	88-75-5	U	.018	0.24	0.47	mg/kg		8270C	11/24/14	1
4-Nitrophenol	100-02-7	U	.074	0.24	0.47	mg/kg		8270C	11/24/14	1
4-Chloroaniline	106-47-8	U	.005	0.24	0.47	mg/kg		8270C	11/24/14	1
2-Nitroaniline	88-74-4	U	.011	0.24	0.47	mg/kg		8270C	11/24/14	1
1,2-Diphenylhydrazine	103-33-3	U	.002	0.24	0.47	mg/kg		8270C	11/24/14	1
3-Nitroaniline	99-09-2	U	.012	0.24	0.47	mg/kg		8270C	11/24/14	1
4-Nitroaniline	100-01-6	U	.0091	0.24	0.47	mg/kg		8270C	11/24/14	1
Pentachlorophenol	87-86-5	U	.068	0.24	0.47	mg/kg		8270C	11/24/14	1
Phenol	108-95-2	U	.01	0.24	0.47	mg/kg		8270C	11/24/14	1
2,4,5-Trichlorophenol	95-95-4	U	.014	0.24	0.47	mg/kg		8270C	11/24/14	1
2,4,6-Trichlorophenol	88-06-2	U	.011	0.24	0.47	mg/kg		8270C	11/24/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	45.8				% Rec.		8270C	11/24/14	1
Phenol-d5	4165-62-2	49.8				% Rec.		8270C	11/24/14	1
Nitrobenzene-d5	4165-60-0	46.0				% Rec.		8270C	11/24/14	1
2-Fluorobiphenyl	321-60-8	58.0				% Rec.		8270C	11/24/14	1
2,4,6-Tribromophenol	118-79-6	71.5				% Rec.		8270C	11/24/14	1
p-Terphenyl-d14	1718-51-0	64.6				% Rec.		8270C	11/24/14	1

Results listed are dry weight basis.
U = Not Detected at the LOD

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:00

L734231-06 (PH) - 6.6@22.2c

L734231-06 (ICP METALS) - Diluted due to matrix interference.

L734231-06 (DRORLA) - Dilution due to matrix

KAZ/13/15

DNR: DO NOT REPORT



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
Description : HOLLoman AFB

ESC Sample # : L734231-07

Sample ID : TU518-SB03-NS02

Site ID :

Collected By :
Collection Date : 11/15/14 16:22

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	6.6				su		9045D	11/22/14	1
Total Solids	TSOLIDS	73.4	.0333			%		2540 G-2	11/21/14	1
Mercury	7439-97-6	U	.0038	0.014	0.027	mg/kg		7471	11/19/14	1
Aluminum <i>J LCS KFD-L</i>	7429-90-5	820	.24	34.	68.	mg/kg	B	6010B	11/26/14	5
Antimony	7440-36-0	U	5.2	6.8	14.	mg/kg	J3	6010B	11/26/14	5
Arsenic	7440-38-2	U	4.4	6.8	14.	mg/kg		6010B	11/26/14	5
Barium <i>J FD-I</i>	7440-39-3	34.	1.2	1.7	3.4	mg/kg		6010B	11/26/14	5
Beryllium	7440-41-7	U	.48	0.68	1.4	mg/kg		6010B	11/26/14	5
Cadmium <i>U J ICS-L</i>	7440-43-9	U	.48	1.7	3.4	mg/kg		6010B	11/26/14	5
Chromium <i>F SOL-I</i>	7440-47-3	1.3	.95	3.4	6.8	mg/kg	J	6010B	11/26/14	5
Cobalt	7440-48-4	U	1.6	3.4	6.8	mg/kg		6010B	11/26/14	5
Copper	7440-50-8	U	3.5	6.8	14.	mg/kg		6010B	11/26/14	5
Lead <i>U J ICS-L</i>	7439-92-1	U	1.3	1.7	3.4	mg/kg		6010B	11/28/14	5
Manganese <i>J FD-I</i>	7439-96-5	27.	.82	3.4	6.8	mg/kg		6010B	11/26/14	5
Nickel <i>U J ICS-L</i>	7440-02-0	U	3.3	6.8	14.	mg/kg		6010B	11/26/14	5
Selenium	7782-49-2	U	5	6.8	14.	mg/kg		6010B	11/26/14	5
Silver <i>U J MS-L</i>	7440-22-4	U	1.9	3.4	6.8	mg/kg		6010B	11/26/14	5
Thallium	7440-28-0	U	4.4	6.8	14.	mg/kg		6010B	11/26/14	5
Vanadium <i>U CCB-I</i>	7440-62-2	4.668 <i>1.646</i>	6.8	14.	14.	mg/kg	J	6010B	11/26/14	5
Zinc	7440-66-6	U	4.1	17.	34.	mg/kg		6010B	11/26/14	5
TPH (GC/FID) Low Fraction	8006-61-9	0.99	.68	1.6	3.1	mg/kg	J	8015D/GR	11/24/14	23
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	99.2				% Rec.		8015D/GR	11/24/14	23
Volatile Organics										
Acetone <i>F3 SOL, CCA-L-L</i>	67-64-1	0.022	.014	0.034	0.068	mg/kg	J	8260B	11/22/14	1
Benzene	71-43-2	U	.00037	0.00068	0.0014	mg/kg		8260B	11/22/14	1
Bromobenzene	108-86-1	U	.00038	0.00068	0.0014	mg/kg		8260B	11/22/14	1
Bromochloromethane	74-97-5	U	.00053	0.00068	0.0014	mg/kg		8260B	11/22/14	1
Bromodichloromethane	75-27-4	U	.00034	0.00068	0.0014	mg/kg		8260B	11/22/14	1
Bromoform	75-25-2	U	.00057	0.00068	0.0014	mg/kg		8260B	11/22/14	1
Bromomethane <i>U J CCA-L-L</i>	74-83-9	U	.0018	0.0034	0.0068	mg/kg		8260B	11/22/14	1
n-Butylbenzene	104-51-8	U	.00035	0.00068	0.0014	mg/kg		8260B	11/22/14	1
sec-Butylbenzene	135-98-8	U	.00027	0.00068	0.0014	mg/kg		8260B	11/22/14	1
tert-Butylbenzene	98-06-6	U	.00029	0.00068	0.0014	mg/kg		8260B	11/22/14	1
Carbon Disulfide	75-15-0	0.0033	.00038	0.00068	0.0014	mg/kg		8260B	11/22/14	1
Carbon tetrachloride	56-23-5	U	.00045	0.00068	0.0014	mg/kg		8260B	11/22/14	1
Chlorobenzene	108-90-7	U	.00029	0.00068	0.0014	mg/kg		8260B	11/22/14	1
Chlorodibromomethane	124-48-1	U	.0005	0.00068	0.0014	mg/kg		8260B	11/22/14	1
Chloroethane	75-00-3	U	.0013	0.0034	0.0068	mg/kg		8260B	11/22/14	1
Chloroform	67-66-3	U	.00031	0.0034	0.0068	mg/kg		8260B	11/22/14	1
Chloromethane	74-87-3	U	.00052	0.00068	0.0034	mg/kg		8260B	11/22/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:01

L734231-07 (DRORLA) - Dilution due to matrix

L734231-07 (ICP METALS) - Diluted due to matrix interference.

L734231-07 (PH) - 6.6@22.0c

KA 2/13/15
BMS 2/19/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
Description : HOLLOWAN AFB
Sample ID : TU518-SB03-NS02
Collected By :
Collection Date : 11/15/14 16:22

ESC Sample # : L734231-07

Site ID :

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2-Chlorotoluene	95-49-8	U	.00041	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
4-Chlorotoluene	106-43-4	U	.00033	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0014	0.0034	0.0068	mg/kg	8260B	11/22/14	1	
1,2-Dibromoethane	106-93-4	U	.00046	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
Dibromomethane	74-95-3	U	.00052	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
1,2-Dichlorobenzene	95-50-1	U	.00041	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
1,3-Dichlorobenzene	541-73-1	U	.00033	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
1,4-Dichlorobenzene	106-46-7	U	.00031	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
Dichlorodifluoromethane	75-71-8	U	.00097	0.0034	0.0068	mg/kg	8260B	11/22/14	1	
1,1-Dichloroethane	75-34-3	U	.00027	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
1,2-Dichloroethane	107-06-2	U	.00035	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
1,1-Dichloroethene	75-35-4	U	.00041	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
cis-1,2-Dichloroethene	156-59-2	U	.00033	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
trans-1,2-Dichloroethene	156-60-5	U	.00035	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
1,2-Dichloropropane	78-87-5	U	.00049	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
1,1-Dichloropropene	563-58-6	U	.00044	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
1,3-Dichloropropane	142-28-9	U	.00029	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
cis-1,3-Dichloropropene	10061-01-5	U	.00035	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
trans-1,3-Dichloropropene	10061-02-6	U	.00037	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
2,2-Dichloropropane	594-20-7	U	.00038	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
Ethylbenzene	100-41-4	U	.00041	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
Hexachloro-1,3-butadiene	87-68-3	U	.00046	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
2-Hexanone	591-78-6	U	.0052	0.0068	0.014	mg/kg	8260B	11/22/14	1	
Isopropylbenzene	98-82-8	U	.00033	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
p-Isopropyltoluene	99-87-6	U	.00027	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
2-Butanone (MEK)	78-93-3	U	.0064	0.0068	0.014	mg/kg	8260B	11/22/14	1	
Methylene Chloride	75-09-2	U	.0014	0.0034	0.0068	mg/kg	8260B	11/22/14	1	
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0026	0.0068	0.014	mg/kg	8260B	11/22/14	1	
Methyl tert-butyl ether	1634-04-4	U	.00029	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
Naphthalene DNR	91-20-3	U	.0014	0.0034	0.0068	mg/kg	8260B	11/22/14	1	
n-Propylbenzene	103-65-1	U	.00029	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
Styrene	100-42-5	U	.00031	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
1,1,1,2-Tetrachloroethane	630-20-6	U	.00035	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
1,1,2,2-Tetrachloroethane	79-34-5	U	.00049	0.0010	0.0014	mg/kg	8260B	11/22/14	1	
Tetrachloroethene	127-18-4	U	.00038	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
Toluene	108-88-3	U	.00058	0.0034	0.0068	mg/kg	8260B	11/22/14	1	
1,2,3-Trichlorobenzene	87-61-6	U	.00042	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
1,2,4-Trichlorobenzene	120-82-1	U	.00053	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
1,1,1-Trichloroethane	71-55-6	U	.00039	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
1,1,2-Trichloroethane	79-00-5	U	.00038	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
Trichloroethene	79-01-6	U	.00038	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
Trichlorofluoromethane	75-69-4	U	.00052	0.0034	0.0068	mg/kg	8260B	11/22/14	1	
1,2,3-Trichloropropane	96-18-4	U	.001	0.0014	0.0034	mg/kg	8260B	11/22/14	1	
1,2,4-Trimethylbenzene	95-63-6	U	.00029	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
o-Xylene	95-47-6	U	.00046	0.00068	0.0014	mg/kg	8260B	11/22/14	1	
m&p-Xylene	1330-20-7	U	.00098	0.0014	0.0027	mg/kg	8260B	11/22/14	1	

Results listed are dry weight basis.

U = Not Detected at the LOD

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The reported analytical results relate only to the sample submitted

Reported: 12/03/14 10:11 Revised: 12/19/14 10:01

L734231-07 (DRORLA) - Dilution due to matrix

L734231-07 (ICP METALS) - Diluted due to matrix interference.

L734231-07 (PH) - 6.6@22.0c

RAZ/13/15

DNR: Do Not Report



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
Description : HOLLoman AFB
Sample ID : TU518-SB03-NS02
Collected By :
Collection Date : 11/15/14 16:22

ESC Sample # : L734231-07
Site ID :
Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Vinyl chloride	75-01-4	U	.0004	0.00068	0.0014	mg/kg		8260B	11/22/14	1
1,3,5-Trimethylbenzene	108-67-8	U	.00037	0.00068	0.0014	mg/kg		8260B	11/22/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	97.1				% Rec.		8260B	11/22/14	1
Dibromofluoromethane	1868-53-7	86.3				% Rec.		8260B	11/22/14	1
4-Bromofluorobenzene	460-00-4	104.				% Rec.		8260B	11/22/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	11	14.	27.	mg/kg		8015	11/25/14	5
C28-C40 Oil Range		U	1.9	14.	27.	mg/kg		8015	11/25/14	5
Surrogate Recovery										
o-Terphenyl	84-15-1	65.3				% Rec.		8015	11/25/14	5
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/21/14	1
Acenaphthene	83-32-9	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/21/14	1
Acenaphthylene	208-96-8	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/21/14	1
Benzo(a)anthracene	56-55-3	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/21/14	1
Benzo(a)pyrene	50-32-8	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/21/14	1
Benzo(b)fluoranthene	205-99-2	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/21/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/21/14	1
Benzo(k)fluoranthene	207-08-9	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/21/14	1
Chrysene	218-01-9	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/21/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/21/14	1
Fluoranthene	206-44-0	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/21/14	1
Fluorene	86-73-7	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/21/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/21/14	1
Naphthalene	91-20-3	0.018	.00082	0.0082	0.027	mg/kg	J	8270C-SI	11/21/14	1
Phenanthrene	85-01-8	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/21/14	1
Pyrene	129-00-0	U	.00082	0.0027	0.0082	mg/kg		8270C-SI	11/21/14	1
2-Methylnaphthalene	91-57-6	0.0023	.00087	0.0082	0.027	mg/kg	J	8270C-SI	11/21/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	83.5				% Rec.		8270C-SI	11/21/14	1
Nitrobenzene-d5	4165-60-0	87.6				% Rec.		8270C-SI	11/21/14	1
2-Fluorobiphenyl	321-60-8	84.6				% Rec.		8270C-SI	11/21/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.052	1.1	2.3	mg/kg		8270C	11/25/14	5
Bis(2-chloroethyl)ether	111-44-4	U	.061	1.1	2.3	mg/kg		8270C	11/25/14	5
Bis(2-chloroisopropyl)ether	108-60-1	U	.052	1.1	2.3	mg/kg		8270C	11/25/14	5
Benzyl Alcohol	100-51-6	U	.052	1.1	2.3	mg/kg		8270C	11/25/14	5
Benzoic acid	65-85-0	U	.84	11.	23.	mg/kg	J3	8270C	11/25/14	5
Carbazole	86-74-8	U	.035	1.1	2.3	mg/kg		8270C	11/25/14	5
Dibenzofuran	132-64-9	U	.035	1.1	2.3	mg/kg		8270C	11/25/14	5
4-Bromophenyl-phenylether	101-55-3	U	.078	1.1	2.3	mg/kg		8270C	11/25/14	5
4-Chlorophenyl-phenylether	7005-72-3	U	.042	1.1	2.3	mg/kg		8270C	11/25/14	5

Results listed are dry weight basis.
U = Not Detected at the LOD

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:01

L734231-07 (DRORLA) - Dilution due to matrix

L734231-07 (ICP METALS) - Diluted due to matrix interference.

L734231-07 (PH) - 6.6@22.0c

Handwritten notes:
KA 2/13/15
BMS
9/2/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
Description : HOLLOWAN AFB
Sample ID : TU518-SB03-NS02
Collected By :
Collection Date : 11/15/14 16:22

ESC Sample # : L734231-07

Site ID :

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2-Chloronaphthalene	91-58-7	U	.042	1.1	2.3	mg/kg		8270C	11/25/14	5
3,3-Dichlorobenzidine	91-94-1	U	.54	1.1	2.3	mg/kg		8270C	11/25/14	5
2,4-Dinitrotoluene	121-14-2	U	.041	1.1	2.3	mg/kg		8270C	11/25/14	5
2,6-Dinitrotoluene	606-20-2	U	.05	1.1	2.3	mg/kg		8270C	11/25/14	5
Hexachlorobenzene	118-74-1	U	.058	1.1	2.3	mg/kg		8270C	11/25/14	5
Hexachloro-1,3-butadiene	87-68-3	U	.068	1.1	2.3	mg/kg		8270C	11/25/14	5
Hexachloroethane	67-72-1	U	.091	1.1	2.3	mg/kg		8270C	11/25/14	5
Isophorone	78-59-1	U	.035	1.1	2.3	mg/kg		8270C	11/25/14	5
Nitrobenzene	98-95-3	U	.048	1.1	2.3	mg/kg		8270C	11/25/14	5
n-Nitrosodimethylamine	62-75-9	U	.44	1.1	2.3	mg/kg		8270C	11/25/14	5
n-Nitrosodiphenylamine	86-30-6	U	.041	1.1	2.3	mg/kg		8270C	11/25/14	5
n-Nitrosodi-n-propylamine	621-64-7	U	.061	1.1	2.3	mg/kg		8270C	11/25/14	5
Benzylbutyl phthalate	85-68-7	U	.071	1.1	2.3	mg/kg		8270C	11/25/14	5
Bis(2-ethylhexyl)phthalate	117-81-7	U	.082	1.1	2.3	mg/kg		8270C	11/25/14	5
Di-n-butyl phthalate	84-74-2	U	.074	1.1	2.3	mg/kg		8270C	11/25/14	5
Diethyl phthalate	84-66-2	U	.046	1.1	2.3	mg/kg		8270C	11/25/14	5
Dimethyl phthalate	131-11-3	U	.037	1.1	2.3	mg/kg		8270C	11/25/14	5
Di-n-octyl phthalate	117-84-0	U	.061	1.1	2.3	mg/kg		8270C	11/25/14	5
1,2,4-Trichlorobenzene	120-82-1	U	.06	1.1	2.3	mg/kg		8270C	11/25/14	5
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.033	1.1	2.3	mg/kg		8270C	11/25/14	5
2-Chlorophenol	95-57-8	U	.057	1.1	2.3	mg/kg		8270C	11/25/14	5
2,4-Dichlorophenol	120-83-2	U	.05	1.1	2.3	mg/kg		8270C	11/25/14	5
2,4-Dimethylphenol	105-67-9	U	.33	1.1	2.3	mg/kg		8270C	11/25/14	5
4,6-Dinitro-2-methylphenol	534-52-1	U	.84	1.1	2.3	mg/kg		8270C	11/25/14	5
2,4-Dinitrophenol	51-28-5	U	.67	1.1	2.3	mg/kg	J3	8270C	11/25/14	5
2-Methylphenol	95-48-7	U	.067	1.1	2.3	mg/kg		8270C	11/25/14	5
3&4-Methyl Phenol	3&4-Methyl	U	.053	1.1	2.3	mg/kg		8270C	11/25/14	5
2-Nitrophenol	88-75-5	U	.088	1.1	2.3	mg/kg		8270C	11/25/14	5
4-Nitrophenol	100-02-7	U	.35	1.1	2.3	mg/kg		8270C	11/25/14	5
4-Chloroaniline	106-47-8	U	.024	1.1	2.3	mg/kg		8270C	11/25/14	5
2-Nitroaniline	88-74-4	U	.052	1.1	2.3	mg/kg		8270C	11/25/14	5
1,2-Diphenylhydrazine	103-33-3	U	.0095	1.1	2.3	mg/kg		8270C	11/25/14	5
3-Nitroaniline	99-09-2	U	.057	1.1	2.3	mg/kg		8270C	11/25/14	5
4-Nitroaniline	100-01-6	U	.044	1.1	2.3	mg/kg		8270C	11/25/14	5
Pentachlorophenol	87-86-5	U	.33	1.1	2.3	mg/kg		8270C	11/25/14	5
Phenol	108-95-2	U	.048	1.1	2.3	mg/kg		8270C	11/25/14	5
2,4,5-Trichlorophenol	95-95-4	U	.071	1.1	2.3	mg/kg		8270C	11/25/14	5
2,4,6-Trichlorophenol	88-06-2	U	.053	1.1	2.3	mg/kg		8270C	11/25/14	5
Surrogate Recovery										
2-Fluorophenol	367-12-4	42.5				% Rec.		8270C	11/25/14	5
Phenol-d5	4165-62-2	45.9				% Rec.		8270C	11/25/14	5
Nitrobenzene-d5	4165-60-0	34.2				% Rec.		8270C	11/25/14	5
2-Fluorobiphenyl	321-60-8	46.0				% Rec.		8270C	11/25/14	5
2,4,6-Tribromophenol	118-79-6	33.6				% Rec.		8270C	11/25/14	5
p-Terphenyl-d14	1718-51-0	36.3				% Rec.		8270C	11/25/14	5

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:01

L734231-07 (DRORLA) - Dilution due to matrix

L734231-07 (ICP METALS) - Diluted due to matrix interference.

L734231-07 (PH) - 6.6@22.0c

KA 2/13/15

DNR: DO NOT REPORT



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
Description : HOLLOWAN AFB
Sample ID : TU518-SB03-NS01
Collected By :
Collection Date : 11/15/14 16:15

ESC Sample # : L734231-08

Site ID :

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	7.0				su		9045D	11/22/14	1
Total Solids	TSOLIDS	73.9	.0333			%		2540 G-2	11/21/14	1
Mercury <i>FSQL-I</i>	7439-97-6	0.0042	.0038	0.014	0.027	mg/kg	J	7471	11/19/14	1
Aluminum <i>J DL, LCS, K, PD-L</i>	7429-90-5	1600	24	34.	68.	mg/kg	BO1V	6010B	11/26/14	5
Antimony	7440-36-0	U	5.1	6.8	14.	mg/kg		6010B	11/26/14	5
Arsenic	7440-38-2	U	4.3	6.8	14.	mg/kg		6010B	11/26/14	5
Barium <i>J PD-I</i>	7440-39-3	51.	1.2	1.7	3.4	mg/kg		6010B	11/26/14	5
Beryllium	7440-41-7	U	.47	0.68	1.4	mg/kg		6010B	11/26/14	5
Cadmium <i>FSQL-I</i>	7440-43-9	0.53	.47	1.7	3.4	mg/kg	J	6010B	11/26/14	5
Chromium <i>FSQL-I</i>	7440-47-3	1.8	.95	3.4	6.8	mg/kg	J	6010B	11/26/14	5
Cobalt	7440-48-4	U	1.6	3.4	6.8	mg/kg		6010B	11/26/14	5
Copper	7440-50-8	U	3.5	6.8	14.	mg/kg		6010B	11/26/14	5
Lead <i>US ICS-L</i>	7439-92-1	U	1.3	1.7	3.4	mg/kg		6010B	11/28/14	5
Manganese <i>J PD-I</i>	7439-96-5	49.	.81	3.4	6.8	mg/kg		6010B	11/26/14	5
Nickel <i>US ICS-L</i>	7440-02-0	U	3.2	6.8	14.	mg/kg		6010B	11/26/14	5
Selenium	7782-49-2	U	5	6.8	14.	mg/kg		6010B	11/26/14	5
Silver <i>US MS-L</i>	7440-22-4	U	1.9	3.4	6.8	mg/kg	J6	6010B	11/26/14	5
Thallium	7440-28-0	U	4.3	6.8	14.	mg/kg		6010B	11/26/14	5
Vanadium <i>U CCB-I</i>	7440-62-2	11.	1.6	6.8	14.	mg/kg	J	6010B	11/26/14	5
Zinc <i>FSQL-I</i>	7440-66-6	5.5	4	17.	34.	mg/kg	J	6010B	11/26/14	5
TPH (GC/FID) Low Fraction	8006-61-9	0.84	.65	1.5	3.0	mg/kg	J	8015D/GR	11/25/14	22.25
Surrogate Recovery (70-130) a, a, a-Trifluorotoluene (FID)	98-08-8	98.9				% Rec.		8015D/GR	11/25/14	22.25
Volatile Organics										
Acetone <i>FSQL, CCAL-L</i>	67-64-1	0.023	.014	0.034	0.068	mg/kg	J	8260B	11/22/14	1.01
Benzene	71-43-2	U	.00036	0.00068	0.0014	mg/kg		8260B	11/22/14	1.01
Bromobenzene	108-86-1	U	.00039	0.00068	0.0014	mg/kg		8260B	11/22/14	1.01
Bromochloromethane	74-97-5	U	.00053	0.00068	0.0014	mg/kg		8260B	11/22/14	1.01
Bromodichloromethane	75-27-4	U	.00035	0.00068	0.0014	mg/kg		8260B	11/22/14	1.01
Bromoform	75-25-2	U	.00058	0.00068	0.0014	mg/kg		8260B	11/22/14	1.01
Bromomethane <i>US CCAL-L</i>	74-83-9	U	.0019	0.0034	0.0068	mg/kg		8260B	11/22/14	1.01
n-Butylbenzene	104-51-8	U	.00035	0.00068	0.0014	mg/kg		8260B	11/22/14	1.01
sec-Butylbenzene	135-98-8	U	.00027	0.00068	0.0014	mg/kg		8260B	11/22/14	1.01
tert-Butylbenzene	98-06-6	U	.00028	0.00068	0.0014	mg/kg		8260B	11/22/14	1.01
Carbon Disulfide	75-15-0	0.010	.00038	0.00068	0.0014	mg/kg		8260B	11/22/14	1.01
Carbon tetrachloride	56-23-5	U	.00045	0.00068	0.0014	mg/kg		8260B	11/22/14	1.01
Chlorobenzene	108-90-7	U	.00028	0.00068	0.0014	mg/kg		8260B	11/22/14	1.01
Chlorodibromomethane	124-48-1	U	.00051	0.00068	0.0014	mg/kg		8260B	11/22/14	1.01
Chloroethane	75-00-3	U	.0013	0.0034	0.0068	mg/kg		8260B	11/22/14	1.01
Chloroform	67-66-3	U	.00031	0.0034	0.0068	mg/kg		8260B	11/22/14	1.01
Chloromethane	74-87-3	U	.00051	0.00068	0.0034	mg/kg		8260B	11/22/14	1.01

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:01

L734231-08 (ICP METALS) - Diluted due to matrix interference.

L734231-08 (PH) - 7.0@21.9c

KA 2/13/15
BMS 2/19/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
 Description : HOLLOWMAN AFB
 Sample ID : TU518-SB03-NS01
 Collected By :
 Collection Date : 11/15/14 16:15

ESC Sample # : L734231-08

Site ID :

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2-Chlorotoluene	95-49-8	U	.0004	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
4-Chlorotoluene	106-43-4	U	.00032	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
1,2-Dibromo-3-Chloropropane	96-12-8	U	.0015	0.0034	0.0068	mg/kg	8260B	11/22/14	1.01	
1,2-Dibromoethane	106-93-4	U	.00047	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
Dibromomethane	74-95-3	U	.00051	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
1,2-Dichlorobenzene	95-50-1	U	.00042	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
1,3-Dichlorobenzene	541-73-1	U	.00032	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
1,4-Dichlorobenzene	106-46-7	U	.00031	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
Dichlorodifluoromethane	75-71-8	U	.00097	0.0034	0.0068	mg/kg	8260B	11/22/14	1.01	
1,1-Dichloroethane	75-34-3	U	.00027	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
1,2-Dichloroethane	107-06-2	U	.00036	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
1,1-Dichloroethene	75-35-4	U	.00042	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
cis-1,2-Dichloroethene	156-59-2	U	.00032	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
trans-1,2-Dichloroethene	156-60-5	U	.00036	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
1,2-Dichloropropane	78-87-5	U	.00049	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
1,1-Dichloropropene	563-58-6	U	.00043	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
1,3-Dichloropropane	142-28-9	U	.00028	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
cis-1,3-Dichloropropene	10061-01-5	U	.00035	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
trans-1,3-Dichloropropene	10061-02-6	U	.00036	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
2,2-Dichloropropane	594-20-7	U	.00038	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
Ethylbenzene	100-41-4	U	.0004	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
Hexachloro-1,3-butadiene	87-68-3	U	.00046	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
2-Hexanone	591-78-6	U	.0051	0.0068	0.014	mg/kg	8260B	11/22/14	1.01	
Isopropylbenzene	98-82-8	U	.00032	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
p-Isopropyltoluene	99-87-6	U	.00028	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
2-Butanone (MEK)	78-93-3	U	.0064	0.0068	0.014	mg/kg	8260B	11/22/14	1.01	
Methylene Chloride	75-09-2	U	.0014	0.0034	0.0068	mg/kg	8260B	11/22/14	1.01	
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.0026	0.0068	0.014	mg/kg	8260B	11/22/14	1.01	
Methyl tert-butyl ether	1634-04-4	U	.00028	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
Naphthalene	91-20-3	U	.0014	0.0034	0.0068	mg/kg	8260B	11/22/14	1.01	
n-Propylbenzene	103-65-1	U	.00028	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
Styrene	100-42-5	U	.00032	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
1,1,1,2-Tetrachloroethane	630-20-6	U	.00036	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
1,1,2,2-Tetrachloroethane	79-34-5	U	.0005	0.0010	0.0014	mg/kg	8260B	11/22/14	1.01	
Tetrachloroethene	127-18-4	U	.00038	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
Toluene	108-88-3	U	.0006	0.0034	0.0068	mg/kg	8260B	11/22/14	1.01	
1,2,3-Trichlorobenzene	87-61-6	U	.00042	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
1,2,4-Trichlorobenzene	120-82-1	U	.00053	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
1,1,1-Trichloroethane	71-55-6	U	.00039	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
1,1,2-Trichloroethane	79-00-5	U	.00038	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
Trichloroethene	79-01-6	U	.00038	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
Trichlorofluoromethane	75-69-4	U	.00051	0.0034	0.0068	mg/kg	8260B	11/22/14	1.01	
1,2,3-Trichloropropane	96-18-4	U	.001	0.0014	0.0034	mg/kg	8260B	11/22/14	1.01	
1,2,4-Trimethylbenzene	95-63-6	U	.00028	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
o-Xylene	95-47-6	U	.00046	0.00068	0.0014	mg/kg	8260B	11/22/14	1.01	
m&p-Xylene	1330-20-7	U	.00099	0.0014	0.0027	mg/kg	8260B	11/22/14	1.01	

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:01

L734231-08 (ICP METALS) - Diluted due to matrix interference.

L734231-08 (PH) - 7.0@21.9c

KAZ/11/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
Description : HOLLoman AFB
Sample ID : TU518-SB03-NS01
Collected By :
Collection Date : 11/15/14 16:15

ESC Sample # : L734231-08

Site ID :

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Vinyl chloride	75-01-4	U	.00039	0.00068	0.0014	mg/kg		8260B	11/22/14	1.01
1,3,5-Trimethylbenzene	108-67-8	U	.00036	0.00068	0.0014	mg/kg		8260B	11/22/14	1.01
Surrogate Recovery										
Toluene-d8	2037-26-5	98.3				% Rec.		8260B	11/22/14	1.01
Dibromofluoromethane	1868-53-7	88.2				% Rec.		8260B	11/22/14	1.01
4-Bromofluorobenzene	460-00-4	107.				% Rec.		8260B	11/22/14	1.01
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.2	2.7	5.4	mg/kg		8015	11/25/14	1
C28-C40 Oil Range		U	.36	2.7	5.4	mg/kg		8015	11/25/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	64.7				% Rec.		8015	11/25/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/20/14	1
Acenaphthene	83-32-9	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/20/14	1
Acenaphthylene	208-96-8	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/20/14	1
Benzo(a)anthracene	56-55-3	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/20/14	1
Benzo(a)pyrene	50-32-8	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/20/14	1
Benzo(b)fluoranthene	205-99-2	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/20/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/20/14	1
Benzo(k)fluoranthene	207-08-9	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/20/14	1
Chrysene	218-01-9	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/20/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/20/14	1
Fluoranthene	206-44-0	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/20/14	1
Fluorene	86-73-7	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/20/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/20/14	1
Naphthalene	91-20-3	0.0013	.00081	0.0027	0.0081	mg/kg	J	8270C-SI	11/20/14	1
Phenanthrene	85-01-8	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/20/14	1
Pyrene	129-00-0	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/20/14	1
2-Methylnaphthalene	91-57-6	U	.00087	0.0081	0.027	mg/kg		8270C-SI	11/20/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	82.9				% Rec.		8270C-SI	11/20/14	1
Nitrobenzene-d5	4165-60-0	86.8				% Rec.		8270C-SI	11/20/14	1
2-Fluorobiphenyl	321-60-8	84.0				% Rec.		8270C-SI	11/20/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.01	0.23	0.45	mg/kg		8270C	11/24/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.012	0.23	0.45	mg/kg		8270C	11/24/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.01	0.23	0.45	mg/kg		8270C	11/24/14	1
Benzyl Alcohol	100-51-6	U	.01	0.23	0.45	mg/kg		8270C	11/24/14	1
Benzoic acid	65-85-0	U	.16	2.3	4.5	mg/kg	J3	8270C	11/24/14	1
Carbazole	86-74-8	U	.007	0.23	0.45	mg/kg		8270C	11/24/14	1
Dibenzofuran	132-64-9	U	.007	0.23	0.45	mg/kg		8270C	11/24/14	1
4-Bromophenyl-phenylether	101-55-3	U	.015	0.23	0.45	mg/kg		8270C	11/24/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0085	0.23	0.45	mg/kg		8270C	11/24/14	1

Results listed are dry weight basis.
U = Not Detected at the LOD

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:01

L734231-08 (ICP METALS) - Diluted due to matrix interference.

L734231-08 (PH) - 7.0@21.9c

KA 2/13/15

DNR: DO NOT REPORT

URS 7/2/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
Description : HOLLOWMAN AFB

ESC Sample # : L734231-08

Sample ID : TU518-SB03-NS01

Site ID :

Collected By :
Collection Date : 11/15/14 16:15

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2-Chloronaphthalene	91-58-7	U	.0085	0.23	0.45	mg/kg		8270C	11/24/14	1
3,3-Dichlorobenzidine	91-94-1	U	.11	0.23	0.45	mg/kg		8270C	11/24/14	1
2,4-Dinitrotoluene	121-14-2	U	.0082	0.23	0.45	mg/kg		8270C	11/24/14	1
2,6-Dinitrotoluene	606-20-2	U	.01	0.23	0.45	mg/kg		8270C	11/24/14	1
Hexachlorobenzene	118-74-1	U	.012	0.23	0.45	mg/kg		8270C	11/24/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.014	0.23	0.45	mg/kg		8270C	11/24/14	1
Hexachloroethane	67-72-1	U	.018	0.23	0.45	mg/kg		8270C	11/24/14	1
Isophorone	78-59-1	U	.007	0.23	0.45	mg/kg		8270C	11/24/14	1
Nitrobenzene	98-95-3	U	.0095	0.23	0.45	mg/kg		8270C	11/24/14	1
n-Nitrosodimethylamine	62-75-9	U	.088	0.23	0.45	mg/kg		8270C	11/24/14	1
n-Nitrosodiphenylamine	86-30-6	U	.008	0.23	0.45	mg/kg		8270C	11/24/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.012	0.23	0.45	mg/kg		8270C	11/24/14	1
Benzylbutyl phthalate	85-68-7	U	.014	0.23	0.45	mg/kg		8270C	11/24/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.016	0.23	0.45	mg/kg		8270C	11/24/14	1
Di-n-butyl phthalate	84-74-2	U	.015	0.23	0.45	mg/kg		8270C	11/24/14	1
Diethyl phthalate	84-66-2	U	.0093	0.23	0.45	mg/kg		8270C	11/24/14	1
Dimethyl phthalate	131-11-3	U	.0073	0.23	0.45	mg/kg		8270C	11/24/14	1
Di-n-octyl phthalate	117-84-0	U	.012	0.23	0.45	mg/kg		8270C	11/24/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.012	0.23	0.45	mg/kg		8270C	11/24/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0065	0.23	0.45	mg/kg		8270C	11/24/14	1
2-Chlorophenol	95-57-8	U	.011	0.23	0.45	mg/kg		8270C	11/24/14	1
2,4-Dichlorophenol	120-83-2	U	.01	0.23	0.45	mg/kg		8270C	11/24/14	1
2,4-Dimethylphenol	105-67-9	U	.064	0.23	0.45	mg/kg		8270C	11/24/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.16	0.23	0.45	mg/kg		8270C	11/24/14	1
2,4-Dinitrophenol	51-28-5	U	.13	0.23	0.45	mg/kg	J3	8270C	11/24/14	1
2-Methylphenol	95-48-7	U	.013	0.23	0.45	mg/kg		8270C	11/24/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.01	0.23	0.45	mg/kg		8270C	11/24/14	1
2-Nitrophenol	88-75-5	U	.018	0.23	0.45	mg/kg		8270C	11/24/14	1
4-Nitrophenol	100-02-7	U	.07	0.23	0.45	mg/kg		8270C	11/24/14	1
4-Chloroaniline	106-47-8	U	.0047	0.23	0.45	mg/kg		8270C	11/24/14	1
2-Nitroaniline	88-74-4	U	.01	0.23	0.45	mg/kg		8270C	11/24/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0019	0.23	0.45	mg/kg		8270C	11/24/14	1
3-Nitroaniline	99-09-2	U	.012	0.23	0.45	mg/kg		8270C	11/24/14	1
4-Nitroaniline	100-01-6	U	.0087	0.23	0.45	mg/kg		8270C	11/24/14	1
Pentachlorophenol	87-86-5	U	.065	0.23	0.45	mg/kg		8270C	11/24/14	1
Phenol	108-95-2	U	.0095	0.23	0.45	mg/kg		8270C	11/24/14	1
2,4,5-Trichlorophenol	95-95-4	U	.014	0.23	0.45	mg/kg		8270C	11/24/14	1
2,4,6-Trichlorophenol	88-06-2	U	.01	0.23	0.45	mg/kg		8270C	11/24/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	43.6				% Rec.		8270C	11/24/14	1
Phenol-d5	4165-62-2	47.5				% Rec.		8270C	11/24/14	1
Nitrobenzene-d5	4165-60-0	40.4				% Rec.		8270C	11/24/14	1
2-Fluorobiphenyl	321-60-8	51.1				% Rec.		8270C	11/24/14	1
2,4,6-Tribromophenol	118-79-6	59.0				% Rec.		8270C	11/24/14	1
p-Terphenyl-d14	1718-51-0	50.9				% Rec.		8270C	11/24/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:01

L734231-08 (ICP METALS) - Diluted due to matrix interference.

L734231-08 (PH) - 7.0@21.9c

CA-213/15

DNR: DO NOT REPORT



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 19, 2014
Description : HOLLOMAN AFB
Sample ID : TU518-TRIPBLANK-TT01
Collected By :
Collection Date : 11/18/14 10:30

ESC Sample # : L734231-09
Site ID :
Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l	8015D/G	11/23/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98-08-8	98.5				% Rec.	8015D/G	11/23/14	1
Volatile Organics									
Acetone	67-64-1	U	10	25.	50	ug/l	8260B	11/22/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l	8260B	11/22/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l	8260B	11/22/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l	8260B	11/22/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l	J4 8260B	11/22/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l	8260B	11/22/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l	8260B	11/22/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l	8260B	11/22/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l	8260B	11/22/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l	8260B	11/22/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l	8260B	11/22/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l	8260B	11/22/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l	8260B	11/22/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l	8260B	11/22/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l	8260B	11/22/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l	8260B	11/22/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l	8260B	11/22/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l	8260B	11/22/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l	8260B	11/22/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l	8260B	11/22/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l	8260B	11/22/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l	8260B	11/22/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l	8260B	11/22/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l	8260B	11/22/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l	8260B	11/22/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l	8260B	11/22/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l	8260B	11/22/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l	8260B	11/22/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l	8260B	11/22/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l	8260B	11/22/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l	8260B	11/22/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l	8260B	11/22/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l	8260B	11/22/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l	8260B	11/22/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l	8260B	11/22/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l	8260B	11/22/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l	8260B	11/22/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l	8260B	11/22/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l	8260B	11/22/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l	8260B	11/22/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l	8260B	11/22/14	1

U = Not Detected at the LOD

Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 19, 2014
Description : HOLLoman AFB
Sample ID : TU518-TRIPBLANK-TT01
Collected By :
Collection Date : 11/18/14 10:30

ESC Sample # : L734231-09

Site ID :

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l	8260B	11/22/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l	8260B	11/22/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l	8260B	11/22/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l	8260B	11/22/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l	8260B	11/22/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l	8260B	11/22/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l	8260B	11/22/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l	8260B	11/22/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l	8260B	11/22/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l	8260B	11/22/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l	8260B	11/22/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l	8260B	11/22/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l	8260B	11/22/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l	8260B	11/22/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l	8260B	11/22/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l	8260B	11/22/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l	8260B	11/22/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l	8260B	11/22/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l	8260B	11/22/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l	8260B	11/22/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l	8260B	11/22/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l	8260B	11/22/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l	8260B	11/22/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l	8260B	11/22/14	1
Surrogate Recovery									
Toluene-d8	2037-26-5	105.				% Rec.	8260B	11/22/14	1
Dibromofluoromethane	1868-53-7	104.				% Rec.	8260B	11/22/14	1
4-Bromofluorobenzene	460-00-4	94.2				% Rec.	8260B	11/22/14	1

U = Not Detected at the LOD

Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

December 19, 2014

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

Date Received : November 19, 2014
 Description : HOLLOWAN AFB
 Sample ID : H-TU518-FIELDBLANK02-FT01
 Collected By :
 Collection Date : 11/18/14 13:00

ESC Sample # : L734231-10

Site ID :

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l	8015D/G	11/23/14	1
Surrogate Recovery-% a, a, a-Trifluorotoluene (FID)	98-08-8	114.				% Rec.	8015D/G	11/23/14	1
Volatile Organics									
Acetone	67-64-1	U	10	25.	50	ug/l	8260B	11/22/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l	8260B	11/22/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l	8260B	11/22/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l	8260B	11/22/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l	J4 8260B	11/22/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l	8260B	11/22/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l	8260B	11/22/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l	8260B	11/22/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l	8260B	11/22/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l	8260B	11/22/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l	8260B	11/22/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l	8260B	11/22/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l	8260B	11/22/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l	8260B	11/22/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l	8260B	11/22/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l	8260B	11/22/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l	8260B	11/22/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l	8260B	11/22/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l	8260B	11/22/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l	8260B	11/22/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l	8260B	11/22/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l	8260B	11/22/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l	8260B	11/22/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l	8260B	11/22/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l	8260B	11/22/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l	8260B	11/22/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l	8260B	11/22/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l	8260B	11/22/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l	8260B	11/22/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l	8260B	11/22/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l	8260B	11/22/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l	8260B	11/22/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l	8260B	11/22/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l	8260B	11/22/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l	8260B	11/22/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l	8260B	11/22/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l	8260B	11/22/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l	8260B	11/22/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l	8260B	11/22/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l	8260B	11/22/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l	8260B	11/22/14	1

U = Not Detected at the LOD

Note:

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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 19, 2014
Description : HOLLOWAN AFB
Sample ID : H-TU518-FIELDBLANK02-FT01
Collected By :
Collection Date : 11/18/14 13:00

ESC Sample # : L734231-10

Site ID :

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l	8260B	11/22/14	1	
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l	8260B	11/22/14	1	
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l	8260B	11/22/14	1	
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l	8260B	11/22/14	1	
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l	8260B	11/22/14	1	
Naphthalene	91-20-3	U	1	2.5	5	ug/l	8260B	11/22/14	1	
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l	8260B	11/22/14	1	
Styrene	100-42-5	U	0.31	0.50	1	ug/l	8260B	11/22/14	1	
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l	8260B	11/22/14	1	
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l	8260B	11/22/14	1	
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l	8260B	11/22/14	1	
Toluene	108-88-3	U	0.78	2.5	5	ug/l	8260B	11/22/14	1	
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l	8260B	11/22/14	1	
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l	8260B	11/22/14	1	
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l	8260B	11/22/14	1	
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l	8260B	11/22/14	1	
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l	8260B	11/22/14	1	
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l	8260B	11/22/14	1	
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l	8260B	11/22/14	1	
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l	8260B	11/22/14	1	
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l	8260B	11/22/14	1	
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l	8260B	11/22/14	1	
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l	8260B	11/22/14	1	
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l	8260B	11/22/14	1	
Surrogate Recovery										
Toluene-d8	2037-26-5	106.				% Rec.	8260B	11/22/14	1	
Dibromofluoromethane	1868-53-7	105.				% Rec.	8260B	11/22/14	1	
4-Bromofluorobenzene	460-00-4	94.3				% Rec.	8260B	11/22/14	1	

U = Not Detected at the LOD

Note:

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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

December 19, 2014

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

Date Received : November 19, 2014
Description : HOLLOWAN AFB

Sample ID : TU518-SB04-NS02

Collected By :
Collection Date : 11/17/14 13:00

ESC Sample # : L734231-11

Site ID :

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	7.0				su		9045D	11/22/14	1
Total Solids	TSOLIDS	73.7	.0333			%		2540 G-2	11/21/14	1
Mercury <i>UJ LCS-L</i>	7439-97-6	U	.0038	0.014	0.027	mg/kg		7471	11/20/14	1
Aluminum <i>J LCS & K FD-L</i>	7429-90-5	490	.24	34.	68.	mg/kg		6010B	11/28/14	5
Antimony	7440-36-0	U	5.2	6.8	14.	mg/kg		6010B	11/28/14	5
Arsenic <i>UJ ICS-L</i>	7440-38-2	U	4.3	6.8	14.	mg/kg		6010B	11/28/14	5
Barium <i>J FD-I</i>	7440-39-3	45.	1.2	1.7	3.4	mg/kg		6010B	11/28/14	5
Beryllium	7440-41-7	U	.47	0.68	1.4	mg/kg		6010B	11/28/14	5
Cadmium <i>UJ ICS-L</i>	7440-43-9	U	.47	1.7	3.4	mg/kg		6010B	11/28/14	5
Chromium <i>F SOL-I</i>	7440-47-3	1.0	.95	3.4	6.8	mg/kg	J	6010B	11/28/14	5
Cobalt	7440-48-4	U	1.6	3.4	6.8	mg/kg		6010B	11/28/14	5
Copper	7440-50-8	U	3.5	6.8	14.	mg/kg		6010B	11/28/14	5
Lead <i>FJ SOL ICS-H</i>	7439-92-1	1.4	1.3	1.7	3.4	mg/kg	J	6010B	11/28/14	5
Manganese <i>J FD-I</i>	7439-96-5	20.	.81	3.4	6.8	mg/kg		6010B	11/28/14	5
Nickel <i>UJ ICS-L</i>	7440-02-0	U	3.2	6.8	14.	mg/kg		6010B	11/28/14	5
Selenium	7782-49-2	U	5	6.8	14.	mg/kg		6010B	11/28/14	5
Silver <i>UJ MS-L</i>	7440-22-4	U	1.9	3.4	6.8	mg/kg		6010B	11/28/14	5
Thallium	7440-28-0	U	4.3	6.8	14.	mg/kg		6010B	11/28/14	5
Vanadium <i>U CCB-I</i>	7440-62-2	3.4 6.8	1.6 3.4	6.8	14.	mg/kg	J	6010B	11/28/14	5
Zinc <i>F SOL-I</i>	7440-66-6	5.8	4.1	17.	34.	mg/kg	J	6010B	11/28/14	5
TPH (GC/FID) Low Fraction <i>UJ MS-L</i>	8006-61-9	U	.72	1.6	3.3	mg/kg		8015D/GR	11/25/14	24.25
Surrogate Recovery (70-130) a, a, a-Trifluorotoluene (FID)	98-08-8	102.				% Rec.		8015D/GR	11/25/14	1
Volatile Organics										
Acetone <i>UJ CCAL-L</i>	67-64-1	U	.3	0.76	1.5	mg/kg	J4	8260B	11/25/14	22.5
Benzene	71-43-2	U	.0083	0.015	0.030	mg/kg		8260B	11/25/14	22.5
Bromobenzene	108-86-1	U	.0087	0.015	0.030	mg/kg		8260B	11/25/14	22.5
Bromochloromethane	74-97-5	U	.012	0.015	0.030	mg/kg		8260B	11/25/14	22.5
Bromodichloromethane	75-27-4	U	.0077	0.015	0.030	mg/kg		8260B	11/25/14	22.5
Bromoform	75-25-2	U	.013	0.015	0.030	mg/kg		8260B	11/25/14	22.5
Bromomethane	74-83-9	U	.041	0.076	0.15	mg/kg		8260B	11/25/14	22.5
n-Butylbenzene	104-51-8	U	.0079	0.015	0.030	mg/kg		8260B	11/25/14	22.5
sec-Butylbenzene	135-98-8	U	.0061	0.015	0.030	mg/kg		8260B	11/25/14	22.5
tert-Butylbenzene	98-06-6	U	.0062	0.015	0.030	mg/kg		8260B	11/25/14	22.5
Carbon Disulfide	75-15-0	U	.0085	0.015	0.030	mg/kg		8260B	11/25/14	22.5
Carbon tetrachloride	56-23-5	U	.01	0.015	0.030	mg/kg		8260B	11/25/14	22.5
Chlorobenzene	108-90-7	U	.0065	0.015	0.030	mg/kg		8260B	11/25/14	22.5
Chlorodibromomethane	124-48-1	U	.011	0.015	0.030	mg/kg		8260B	11/25/14	22.5
Chloroethane <i>UJ CCAL-L</i>	75-00-3	U	.028	0.076	0.15	mg/kg		8260B	11/25/14	22.5
Chloroform	67-66-3	U	.007	0.076	0.15	mg/kg		8260B	11/25/14	22.5
Chloromethane	74-87-3	U	.011	0.015	0.076	mg/kg		8260B	11/25/14	22.5

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:01

L734231-11 (PH) - 7.0@21.4c

L734231-11 (ICP METALS) - Diluted due to matrix interference.

KA 2/13/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 19, 2014
Description : HOLLOWMAN AFB
Sample ID : TU518-SB04-NS02
Collected By :
Collection Date : 11/17/14 13:00

ESC Sample # : L734231-11

Site ID :

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2-Chlorotoluene	95-49-8	U	.0092	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
4-Chlorotoluene	106-43-4	U	.0073	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
1,2-Dibromo-3-Chloropropane	96-12-8	U	.032	0.076	0.15	mg/kg	8260B	11/25/14	22.5	
1,2-Dibromoethane	106-93-4	U	.01	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
Dibromomethane	74-95-3	U	.012	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
1,2-Dichlorobenzene	95-50-1	U	.0094	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
1,3-Dichlorobenzene	541-73-1	U	.0073	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
1,4-Dichlorobenzene	106-46-7	U	.0069	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
Dichlorodifluoromethane	75-71-8	U	.022	0.076	0.15	mg/kg	8260B	11/25/14	22.5	
1,1-Dichloroethane	75-34-3	U	.0061	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
1,2-Dichloroethane	107-06-2	U	.0081	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
1,1-Dichloroethene	75-35-4	U	.0092	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
cis-1,2-Dichloroethene	156-59-2	U	.0072	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
trans-1,2-Dichloroethene	156-60-5	U	.008	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
1,2-Dichloropropane	78-87-5	U	.011	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
1,1-Dichloropropene	563-58-6	U	.0096	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
1,3-Dichloropropane	142-28-9	U	.0062	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
cis-1,3-Dichloropropene	10061-01-5	U	.008	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
trans-1,3-Dichloropropene	10061-02-6	U	.0081	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
2,2-Dichloropropane	594-20-7	U	.0085	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
Ethylbenzene	100-41-4	U	.0091	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
Hexachloro-1,3-butadiene	87-68-3	U	.01	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
2-Hexanone	591-78-6	U	.12	0.15	0.30	mg/kg	8260B	11/25/14	22.5	
Isopropylbenzene	98-82-8	U	.0075	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
p-Isopropyltoluene	99-87-6	U	.0062	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
2-Butanone (MEK)	78-93-3	U	.14	0.15	0.30	mg/kg	8260B	11/25/14	22.5	
Methylene Chloride	75-09-2	U	.03	0.076	0.15	mg/kg	8260B	11/25/14	22.5	
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.057	0.15	0.30	mg/kg	8260B	11/25/14	22.5	
Methyl tert-butyl ether	1634-04-4	U	.0065	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
Naphthalene DKR	91-20-3	U	.03	0.076	0.15	mg/kg	8260B	11/25/14	22.5	
n-Propylbenzene	103-65-1	U	.0062	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
Styrene	100-42-5	U	.0072	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
1,1,1,2-Tetrachloroethane	630-20-6	U	.008	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
1,1,2,2-Tetrachloroethane	79-34-5	U	.011	0.023	0.030	mg/kg	8260B	11/25/14	22.5	
Tetrachloroethene	127-18-4	U	.0084	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
Toluene	108-88-3	U	.013	0.076	0.15	mg/kg	8260B	11/25/14	22.5	
1,2,3-Trichlorobenzene	87-61-6	U	.0094	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
1,2,4-Trichlorobenzene	120-82-1	U	.012	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
1,1,1-Trichloroethane	71-55-6	U	.0087	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
1,1,2-Trichloroethane	79-00-5	U	.0084	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
Trichloroethene	79-01-6	U	.0085	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
Trichlorofluoromethane	75-69-4	U	.012	0.076	0.15	mg/kg	8260B	11/25/14	22.5	
1,2,3-Trichloropropane	96-18-4	U	.023	0.031	0.076	mg/kg	8260B	11/25/14	22.5	
1,2,4-Trimethylbenzene	95-63-6	U	.0064	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
o-Xylene	95-47-6	U	.01	0.015	0.030	mg/kg	8260B	11/25/14	22.5	
m&p-Xylene	1330-20-7	U	.022	0.031	0.061	mg/kg	8260B	11/25/14	22.5	

Results listed are dry weight basis.

U = Not Detected at the LOD

Note:

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The reported analytical results relate only to the sample submitted

Reported: 12/03/14 10:11 Revised: 12/19/14 10:01

L734231-11 (PH) - 7.0@21.4c

L734231-11 (ICP METALS) - Diluted due to matrix interference.

KA 2/13/15

DKR: Do Not Report



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 19, 2014
Description : HOLLOMAN AFB

ESC Sample # : L734231-11

Sample ID : TU518-SB04-NS02

Site ID :

Collected By :
Collection Date : 11/17/14 13:00

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Vinyl chloride	75-01-4	U	.0088	0.015	0.030	mg/kg		8260B	11/25/14	22.5
1,3,5-Trimethylbenzene	108-67-8	U	.0081	0.015	0.030	mg/kg		8260B	11/25/14	22.5
Surrogate Recovery										
Toluene-d8	2037-26-5	103.				% Rec.		8260B	11/25/14	22.5
Dibromofluoromethane	1868-53-7	92.2				% Rec.		8260B	11/25/14	22.5
4-Bromofluorobenzene	460-00-4	95.5				% Rec.		8260B	11/25/14	22.5
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.2	2.7	5.4	mg/kg		8015	11/25/14	1
C28-C40 Oil Range		0.56	.37	2.7	5.4	mg/kg		8015	11/25/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	71.9				% Rec.		8015	11/25/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/21/14	1
Acenaphthene	83-32-9	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/21/14	1
Acenaphthylene	208-96-8	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/21/14	1
Benzo (a) anthracene	56-55-3	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/21/14	1
Benzo (a) pyrene	50-32-8	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/21/14	1
Benzo (b) fluoranthene	205-99-2	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/21/14	1
Benzo (g, h, i) perylene	191-24-2	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/21/14	1
Benzo (k) fluoranthene	207-08-9	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/21/14	1
Chrysene	218-01-9	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/21/14	1
Dibenz (a, h) anthracene	53-70-3	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/21/14	1
Fluoranthene	206-44-0	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/21/14	1
Fluorene	86-73-7	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/21/14	1
Indeno (1, 2, 3-cd) pyrene	193-39-5	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/21/14	1
Naphthalene	91-20-3	0.0013	.00081	0.0081	0.027	mg/kg	J	8270C-SI	11/21/14	1
Phenanthrene	85-01-8	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/21/14	1
Pyrene	129-00-0	U	.00081	0.0027	0.0081	mg/kg		8270C-SI	11/21/14	1
2-Methylnaphthalene	91-57-6	U	.00087	0.0081	0.027	mg/kg		8270C-SI	11/21/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	71.2				% Rec.		8270C-SI	11/21/14	1
Nitrobenzene-d5	4165-60-0	82.1				% Rec.		8270C-SI	11/21/14	1
2-Fluorobiphenyl	321-60-8	73.1				% Rec.		8270C-SI	11/21/14	1
Base/Neutral Extractables										
Bis (2-chlorethoxy)methane	111-91-1	U	.01	0.23	0.45	mg/kg		8270C	11/24/14	1
Bis (2-chloroethyl) ether	111-44-4	U	.012	0.23	0.45	mg/kg		8270C	11/24/14	1
Bis (2-chloroisopropyl) ether	108-60-1	U	.01	0.23	0.45	mg/kg		8270C	11/24/14	1
Benzyl Alcohol	100-51-6	U	.01	0.23	0.45	mg/kg		8270C	11/24/14	1
Benzoic acid	65-85-0	U	.16	2.3	4.5	mg/kg	J3	8270C	11/24/14	1
Carbazole	86-74-8	U	.007	0.23	0.45	mg/kg		8270C	11/24/14	1
Dibenzofuran	132-64-9	U	.007	0.23	0.45	mg/kg		8270C	11/24/14	1
4-Bromophenyl-phenylether	101-55-3	U	.015	0.23	0.45	mg/kg		8270C	11/24/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0085	0.23	0.45	mg/kg		8270C	11/24/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:01

L734231-11 (PH) - 7.0@21.4c

L734231-11 (ICP METALS) - Diluted due to matrix interference.

KA 2/13/15
KA 8/26/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 19, 2014
Description : HOLLoman AFB

ESC Sample # : L734231-11

Sample ID : TU518-SB04-NS02

Site ID :

Collected By :
Collection Date : 11/17/14 13:00

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2-Chloronaphthalene	91-58-7	U	.0085	0.23	0.45	mg/kg		8270C	11/24/14	1
3,3-Dichlorobenzidine	91-94-1	U	.11	0.23	0.45	mg/kg		8270C	11/24/14	1
2,4-Dinitrotoluene	121-14-2	U	.0083	0.23	0.45	mg/kg		8270C	11/24/14	1
2,6-Dinitrotoluene	606-20-2	U	.01	0.23	0.45	mg/kg		8270C	11/24/14	1
Hexachlorobenzene	118-74-1	U	.012	0.23	0.45	mg/kg		8270C	11/24/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.014	0.23	0.45	mg/kg		8270C	11/24/14	1
Hexachloroethane	67-72-1	U	.018	0.23	0.45	mg/kg		8270C	11/24/14	1
Isophorone	78-59-1	U	.007	0.23	0.45	mg/kg		8270C	11/24/14	1
Nitrobenzene	98-95-3	U	.0095	0.23	0.45	mg/kg		8270C	11/24/14	1
n-Nitrosodimethylamine	62-75-9	U	.088	0.23	0.45	mg/kg		8270C	11/24/14	1
n-Nitrosodiphenylamine	86-30-6	U	.008	0.23	0.45	mg/kg		8270C	11/24/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.012	0.23	0.45	mg/kg		8270C	11/24/14	1
Benzylbutyl phthalate	85-68-7	U	.014	0.23	0.45	mg/kg		8270C	11/24/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.016	0.23	0.45	mg/kg		8270C	11/24/14	1
Di-n-butyl phthalate	84-74-2	U	.015	0.23	0.45	mg/kg		8270C	11/24/14	1
Diethyl phthalate	84-66-2	U	.0094	0.23	0.45	mg/kg		8270C	11/24/14	1
Dimethyl phthalate	131-11-3	U	.0073	0.23	0.45	mg/kg		8270C	11/24/14	1
Di-n-octyl phthalate	117-84-0	U	.012	0.23	0.45	mg/kg		8270C	11/24/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.012	0.23	0.45	mg/kg		8270C	11/24/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0065	0.23	0.45	mg/kg		8270C	11/24/14	1
2-Chlorophenol	95-57-8	U	.011	0.23	0.45	mg/kg		8270C	11/24/14	1
2,4-Dichlorophenol	120-83-2	U	.01	0.23	0.45	mg/kg		8270C	11/24/14	1
2,4-Dimethylphenol	105-67-9	U	.064	0.23	0.45	mg/kg		8270C	11/24/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.16	0.23	0.45	mg/kg		8270C	11/24/14	1
2,4-Dinitrophenol	51-28-5	U	.13	0.23	0.45	mg/kg	J3	8270C	11/24/14	1
2-Methylphenol	95-48-7	U	.013	0.23	0.45	mg/kg		8270C	11/24/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.01	0.23	0.45	mg/kg		8270C	11/24/14	1
2-Nitrophenol	88-75-5	U	.018	0.23	0.45	mg/kg		8270C	11/24/14	1
4-Nitrophenol	100-02-7	U	.07	0.23	0.45	mg/kg		8270C	11/24/14	1
4-Chloroaniline	106-47-8	U	.0047	0.23	0.45	mg/kg		8270C	11/24/14	1
2-Nitroaniline	88-74-4	U	.01	0.23	0.45	mg/kg		8270C	11/24/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0019	0.23	0.45	mg/kg		8270C	11/24/14	1
3-Nitroaniline	99-09-2	U	.012	0.23	0.45	mg/kg		8270C	11/24/14	1
4-Nitroaniline	100-01-6	U	.0087	0.23	0.45	mg/kg		8270C	11/24/14	1
Pentachlorophenol	87-86-5	U	.065	0.23	0.45	mg/kg		8270C	11/24/14	1
Phenol	108-95-2	U	.0095	0.23	0.45	mg/kg		8270C	11/24/14	1
2,4,5-Trichlorophenol	95-95-4	U	.014	0.23	0.45	mg/kg		8270C	11/24/14	1
2,4,6-Trichlorophenol	88-06-2	U	.01	0.23	0.45	mg/kg		8270C	11/24/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	57.4				% Rec.		8270C	11/24/14	1
Phenol-d5	4165-62-2	61.7				% Rec.		8270C	11/24/14	1
Nitrobenzene-d5	4165-60-0	56.0				% Rec.		8270C	11/24/14	1
2-Fluorobiphenyl	321-60-8	72.0				% Rec.		8270C	11/24/14	1
2,4,6-Tribromophenol	118-79-6	75.9				% Rec.		8270C	11/24/14	1
p-Terphenyl-d14	1718-51-0	68.7				% Rec.		8270C	11/24/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:01

L734231-11 (PH) - 7.0@21.4c

L734231-11 (ICP METALS) - Diluted due to matrix interference.

KAZ/13/15

DNR: DO NOT REPORT



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 19, 2014
Description : HOLLOWAN AFB

ESC Sample # : L734231-12

Sample ID : TU518-SB04-NS01

Site ID :

Collected By :
Collection Date : 11/17/14 12:45

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	7.2				su		9045D	11/22/14	1
Total Solids	TSOLIDS	67.8	.0333			%		2540 G-2	11/21/14	1
Mercury <i>US LCS-L</i>	7439-97-6	U	.0041	0.015	0.029	mg/kg		7471	11/20/14	1
Aluminum <i>J LCS & KFO-L</i>	7429-90-5	2400	26	37.	74.	mg/kg		6010B	11/28/14	5
Antimony	7440-36-0	U	5.6	7.4	15.	mg/kg		6010B	11/28/14	5
Arsenic <i>US ICS-L</i>	7440-38-2	U	4.7	7.4	15.	mg/kg		6010B	11/28/14	5
Barium <i>J FO-I</i>	7440-39-3	120	1.2	1.8	3.7	mg/kg		6010B	11/28/14	5
Beryllium	7440-41-7	U	.52	0.74	1.5	mg/kg		6010B	11/28/14	5
Cadmium <i>US ICS-L</i>	7440-43-9	U	.52	1.8	3.7	mg/kg		6010B	11/28/14	5
Chromium <i>F SOL-I</i>	7440-47-3	3.8	1	3.7	7.4	mg/kg	J	6010B	11/28/14	5
Cobalt	7440-48-4	U	1.8	3.7	7.4	mg/kg		6010B	11/28/14	5
Copper	7440-50-8	U	3.8	7.4	15.	mg/kg		6010B	11/28/14	5
Lead	7439-92-1	U	1.4	1.8	3.7	mg/kg		6010B	11/28/14	5
Manganese <i>J FO-I</i>	7439-96-5	82.	.88	3.7	7.4	mg/kg		6010B	11/28/14	5
Nickel <i>US ICS-L</i>	7440-02-0	U	3.5	7.4	15.	mg/kg		6010B	11/28/14	5
Selenium	7782-49-2	U	5.4	7.4	15.	mg/kg		6010B	11/28/14	5
Silver <i>US MS-L</i>	7440-22-4	U	2.1	3.7	7.4	mg/kg		6010B	11/28/14	5
Thallium	7440-28-0	U	4.7	7.4	15.	mg/kg		6010B	11/28/14	5
Vanadium <i>U CCB-I</i>	7440-62-2	16.	1.8 16	7.4 16	15 16	mg/kg		6010B	11/28/14	5
Zinc <i>F SOL-I</i>	7440-66-6	11.	4.4	18.	37.	mg/kg	J	6010B	11/28/14	5
TPH (GC/FID) Low Fraction <i>US MS-L</i>	8006-61-9	U	.71	1.6	3.3	mg/kg		8015D/GR	11/24/14	22.25
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	98-08-8	94.8				% Rec.		8015D/GR	11/24/14	22.25
Volatile Organics										
Acetone <i>US COAL-L</i>	67-64-1	U	.34	0.85	1.7	mg/kg	J4	8260B	11/25/14	23
Benzene	71-43-2	U	.0091	0.017	0.034	mg/kg		8260B	11/25/14	23
Bromobenzene	108-86-1	U	.0096	0.017	0.034	mg/kg		8260B	11/25/14	23
Bromochloromethane	74-97-5	U	.013	0.017	0.034	mg/kg		8260B	11/25/14	23
Bromodichloromethane	75-27-4	U	.0086	0.017	0.034	mg/kg		8260B	11/25/14	23
Bromoform	75-25-2	U	.014	0.017	0.034	mg/kg		8260B	11/25/14	23
Bromomethane	74-83-9	U	.046	0.085	0.17	mg/kg		8260B	11/25/14	23
n-Butylbenzene	104-51-8	U	.0087	0.017	0.034	mg/kg		8260B	11/25/14	23
sec-Butylbenzene	135-98-8	U	.0068	0.017	0.034	mg/kg		8260B	11/25/14	23
tert-Butylbenzene	98-06-6	U	.0069	0.017	0.034	mg/kg		8260B	11/25/14	23
Carbon Disulfide	75-15-0	U	.0094	0.017	0.034	mg/kg		8260B	11/25/14	23
Carbon tetrachloride	56-23-5	U	.011	0.017	0.034	mg/kg		8260B	11/25/14	23
Chlorobenzene	108-90-7	U	.0072	0.017	0.034	mg/kg		8260B	11/25/14	23
Chlorodibromomethane	124-48-1	U	.013	0.017	0.034	mg/kg		8260B	11/25/14	23
Chloroethane <i>US CCAL-L</i>	75-00-3	U	.032	0.085	0.17	mg/kg		8260B	11/25/14	23
Chloroform	67-66-3	U	.0078	0.085	0.17	mg/kg		8260B	11/25/14	23
Chloromethane	74-87-3	U	.013	0.017	0.085	mg/kg		8260B	11/25/14	23

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:01

L734231-12 (PH) - 7.2@21.2c

L734231-12 (ICP METALS) - Diluted due to matrix interference.

KA 2/13/15
BMS 2/19/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 19, 2014
Description : HOLLoman AFB

ESC Sample # : L734231-12

Sample ID : TU518-SB04-NS01

Site ID :

Collected By :
Collection Date : 11/17/14 12:45

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2-Chlorotoluene	95-49-8	U	.01	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
4-Chlorotoluene	106-43-4	U	.0081	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
1,2-Dibromo-3-Chloropropane	96-12-8	U	.035	0.085	0.17	mg/kg	8260B	8260B	11/25/14	23
1,2-Dibromoethane	106-93-4	U	.012	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
Dibromomethane	74-95-3	U	.013	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
1,2-Dichlorobenzene	95-50-1	U	.01	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
1,3-Dichlorobenzene	541-73-1	U	.0081	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
1,4-Dichlorobenzene	106-46-7	U	.0077	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
Dichlorodifluoromethane	75-71-8	U	.024	0.085	0.17	mg/kg	8260B	8260B	11/25/14	23
1,1-Dichloroethane	75-34-3	U	.0068	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
1,2-Dichloroethane	107-06-2	U	.009	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
1,1-Dichloroethene	75-35-4	U	.01	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
cis-1,2-Dichloroethene	156-59-2	U	.008	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
trans-1,2-Dichloroethene	156-60-5	U	.009	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
1,2-Dichloropropane	78-87-5	U	.012	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
1,1-Dichloropropene	563-58-6	U	.011	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
1,3-Dichloropropane	142-28-9	U	.0071	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
cis-1,3-Dichloropropene	10061-01-5	U	.0088	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
trans-1,3-Dichloropropene	10061-02-6	U	.009	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
2,2-Dichloropropane	594-20-7	U	.0094	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
Ethylbenzene	100-41-4	U	.01	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
Hexachloro-1,3-butadiene	87-68-3	U	.012	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
2-Hexanone	591-78-6	U	.13	0.17	0.34	mg/kg	8260B	8260B	11/25/14	23
Isopropylbenzene	98-82-8	U	.0082	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
p-Isopropyltoluene	99-87-6	U	.0069	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
2-Butanone (MEK)	78-93-3	U	.16	0.17	0.34	mg/kg	8260B	8260B	11/25/14	23
Methylene Chloride	75-09-2	U	.034	0.085	0.17	mg/kg	8260B	8260B	11/25/14	23
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.063	0.17	0.34	mg/kg	8260B	8260B	11/25/14	23
Methyl tert-butyl ether	1634-04-4	U	.0072	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
Naphthalene DNR	91-20-3	U	.034	0.085	0.17	mg/kg	8260B	8260B	11/25/14	23
n-Propylbenzene	103-65-1	U	.0069	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
Styrene	100-42-5	U	.008	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
1,1,1,2-Tetrachloroethane	630-20-6	U	.009	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
1,1,2,2-Tetrachloroethane	79-34-5	U	.012	0.025	0.034	mg/kg	8260B	8260B	11/25/14	23
Tetrachloroethene	127-18-4	U	.0093	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
Toluene	108-88-3	U	.015	0.085	0.17	mg/kg	8260B	8260B	11/25/14	23
1,2,3-Trichlorobenzene	87-61-6	U	.01	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
1,2,4-Trichlorobenzene	120-82-1	U	.013	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
1,1,1-Trichloroethane	71-55-6	U	.0097	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
1,1,2-Trichloroethane	79-00-5	U	.0094	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
Trichloroethene	79-01-6	U	.0094	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
Trichlorofluoromethane	75-69-4	U	.013	0.085	0.17	mg/kg	8260B	8260B	11/25/14	23
1,2,3-Trichloropropane	96-18-4	U	.025	0.034	0.085	mg/kg	8260B	8260B	11/25/14	23
1,2,4-Trimethylbenzene	95-63-6	U	.0071	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
o-Xylene	95-47-6	U	.012	0.017	0.034	mg/kg	8260B	8260B	11/25/14	23
m&p-Xylene	1330-20-7	U	.024	0.034	0.068	mg/kg	8260B	8260B	11/25/14	23

Results listed are dry weight basis.

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:01

L734231-12 (PH) - 7.2@21.2c

L734231-12 (ICP METALS) - Diluted due to matrix interference.

KA Ziskis

DNR: DO NOT REPORT



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 19, 2014
Description : HOLLOMAN AFB

ESC Sample # : L734231-12

Sample ID : TU518-SB04-NS01

Site ID :

Collected By :
Collection Date : 11/17/14 12:45

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Vinyl chloride	75-01-4	U	.0099	0.017	0.034	mg/kg		8260B	11/25/14	23
1,3,5-Trimethylbenzene	108-67-8	U	.009	0.017	0.034	mg/kg		8260B	11/25/14	23
Surrogate Recovery										
Toluene-d8	2037-26-5	99.6				% Rec.		8260B	11/25/14	23
Dibromofluoromethane	1868-53-7	97.0				% Rec.		8260B	11/25/14	23
4-Bromofluorobenzene	460-00-4	95.5				% Rec.		8260B	11/25/14	23
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.4	3.0	5.9	mg/kg		8015	11/26/14	1
C28-C40 Oil Range		U	.4	3.0	5.9	mg/kg		8015	11/26/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	56.5				% Rec.		8015	11/26/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00088	0.0030	0.0088	mg/kg		8270C-SI	11/21/14	1
Acenaphthene	83-32-9	U	.00088	0.0030	0.0088	mg/kg		8270C-SI	11/21/14	1
Acenaphthylene	208-96-8	U	.00088	0.0030	0.0088	mg/kg		8270C-SI	11/21/14	1
Benzo(a)anthracene	56-55-3	U	.00088	0.0030	0.0088	mg/kg		8270C-SI	11/21/14	1
Benzo(a)pyrene	50-32-8	U	.00088	0.0030	0.0088	mg/kg		8270C-SI	11/21/14	1
Benzo(b)fluoranthene	205-99-2	U	.00088	0.0030	0.0088	mg/kg		8270C-SI	11/21/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00088	0.0030	0.0088	mg/kg		8270C-SI	11/21/14	1
Benzo(k)fluoranthene	207-08-9	U	.00088	0.0030	0.0088	mg/kg		8270C-SI	11/21/14	1
Chrysene	218-01-9	U	.00088	0.0030	0.0088	mg/kg		8270C-SI	11/21/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00088	0.0030	0.0088	mg/kg		8270C-SI	11/21/14	1
Fluoranthene	206-44-0	U	.00088	0.0030	0.0088	mg/kg		8270C-SI	11/21/14	1
Fluorene	86-73-7	U	.00088	0.0030	0.0088	mg/kg		8270C-SI	11/21/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00088	0.0030	0.0088	mg/kg		8270C-SI	11/21/14	1
Naphthalene	91-20-3	U	.00088	0.0089	0.029	mg/kg		8270C-SI	11/21/14	1
Phenanthrene	85-01-8	U	.00088	0.0030	0.0088	mg/kg		8270C-SI	11/21/14	1
Pyrene	129-00-0	U	.00088	0.0030	0.0088	mg/kg		8270C-SI	11/21/14	1
2-Methylnaphthalene	91-57-6	U	.00094	0.0089	0.029	mg/kg		8270C-SI	11/21/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	68.2				% Rec.		8270C-SI	11/21/14	1
Nitrobenzene-d5	4165-60-0	81.7				% Rec.		8270C-SI	11/21/14	1
2-Fluorobiphenyl	321-60-8	71.3				% Rec.		8270C-SI	11/21/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	.011	0.25	0.49	mg/kg		8270C	11/24/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.013	0.25	0.49	mg/kg		8270C	11/24/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.011	0.25	0.49	mg/kg		8270C	11/24/14	1
Benzyl Alcohol	100-51-6	U	.011	0.25	0.49	mg/kg		8270C	11/24/14	1
Benzoic acid	65-85-0	U	.18	2.5	4.9	mg/kg	J3	8270C	11/24/14	1
Carbazole	86-74-8	U	.0077	0.25	0.49	mg/kg		8270C	11/24/14	1
Dibenzofuran	132-64-9	U	.0077	0.25	0.49	mg/kg		8270C	11/24/14	1
4-Bromophenyl-phenylether	101-55-3	U	.016	0.25	0.49	mg/kg		8270C	11/24/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0093	0.25	0.49	mg/kg		8270C	11/24/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:01

L734231-12 (PH) - 7.2@21.2c

L734231-12 (ICP METALS) - Diluted due to matrix interference.

Handwritten notes:
KA 2/13/15
KA 8/26/15
BNS 7/2/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 19, 2014
Description : HOLLOMAN AFB

ESC Sample # : L734231-12

Sample ID : TU518-SB04-NS01

Site ID :

Collected By :
Collection Date : 11/17/14 12:45

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2-Chloronaphthalene	91-58-7	U	.0093	0.25	0.49	mg/kg		8270C	11/24/14	1
3,3-Dichlorobenzidine	91-94-1	U	.12	0.25	0.49	mg/kg		8270C	11/24/14	1
2,4-Dinitrotoluene	121-14-2	U	.009	0.25	0.49	mg/kg		8270C	11/24/14	1
2,6-Dinitrotoluene	606-20-2	U	.011	0.25	0.49	mg/kg		8270C	11/24/14	1
Hexachlorobenzene	118-74-1	U	.013	0.25	0.49	mg/kg		8270C	11/24/14	1
Hexachloro-1,3-butadiene <i>DNR</i>	67-68-3	U	.015	0.25	0.49	mg/kg		8270C	11/24/14	1
Hexachloroethane	67-72-1	U	.019	0.25	0.49	mg/kg		8270C	11/24/14	1
Isophorone	78-59-1	U	.0077	0.25	0.49	mg/kg		8270C	11/24/14	1
Nitrobenzene	98-95-3	U	.01	0.25	0.49	mg/kg		8270C	11/24/14	1
n-Nitrosodimethylamine	62-75-9	U	.096	0.25	0.49	mg/kg		8270C	11/24/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0087	0.25	0.49	mg/kg		8270C	11/24/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.013	0.25	0.49	mg/kg		8270C	11/24/14	1
Benzylbutyl phthalate	85-68-7	U	.015	0.25	0.49	mg/kg		8270C	11/24/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.018	0.25	0.49	mg/kg		8270C	11/24/14	1
Di-n-butyl phthalate	84-74-2	U	.016	0.25	0.49	mg/kg		8270C	11/24/14	1
Diethyl phthalate	84-66-2	U	.01	0.25	0.49	mg/kg		8270C	11/24/14	1
Dimethyl phthalate	131-11-3	U	.008	0.25	0.49	mg/kg		8270C	11/24/14	1
Di-n-octyl phthalate	117-84-0	U	.013	0.25	0.49	mg/kg		8270C	11/24/14	1
1,2,4-Trichlorobenzene <i>DNR</i>	120-82-1	U	.013	0.25	0.49	mg/kg		8270C	11/24/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0071	0.25	0.49	mg/kg		8270C	11/24/14	1
2-Chlorophenol	95-57-8	U	.012	0.25	0.49	mg/kg		8270C	11/24/14	1
2,4-Dichlorophenol	120-83-2	U	.011	0.25	0.49	mg/kg		8270C	11/24/14	1
2,4-Dimethylphenol	105-67-9	U	.069	0.25	0.49	mg/kg		8270C	11/24/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.18	0.25	0.49	mg/kg		8270C	11/24/14	1
2,4-Dinitrophenol	51-28-5	U	.14	0.25	0.49	mg/kg	J3	8270C	11/24/14	1
2-Methylphenol	95-48-7	U	.015	0.25	0.49	mg/kg		8270C	11/24/14	1
3&4-Methyl Phenol <i>USCCAL-L</i>	3&4-Methyl	U	.012	0.25	0.49	mg/kg		8270C	11/24/14	1
2-Nitrophenol	88-75-5	U	.019	0.25	0.49	mg/kg		8270C	11/24/14	1
4-Nitrophenol	100-02-7	U	.077	0.25	0.49	mg/kg		8270C	11/24/14	1
4-Chloroaniline	106-47-8	U	.0052	0.25	0.49	mg/kg		8270C	11/24/14	1
2-Nitroaniline	88-74-4	U	.011	0.25	0.49	mg/kg		8270C	11/24/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0021	0.25	0.49	mg/kg		8270C	11/24/14	1
3-Nitroaniline	99-09-2	U	.012	0.25	0.49	mg/kg		8270C	11/24/14	1
4-Nitroaniline	100-01-6	U	.0094	0.25	0.49	mg/kg		8270C	11/24/14	1
Pentachlorophenol	87-86-5	U	.071	0.25	0.49	mg/kg		8270C	11/24/14	1
Phenol	108-95-2	U	.01	0.25	0.49	mg/kg		8270C	11/24/14	1
2,4,5-Trichlorophenol	95-95-4	U	.015	0.25	0.49	mg/kg		8270C	11/24/14	1
2,4,6-Trichlorophenol	88-06-2	U	.012	0.25	0.49	mg/kg		8270C	11/24/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	61.8				% Rec.		8270C	11/24/14	1
Phenol-d5	4165-62-2	63.4				% Rec.		8270C	11/24/14	1
Nitrobenzene-d5	4165-60-0	59.9				% Rec.		8270C	11/24/14	1
2-Fluorobiphenyl	321-60-8	70.4				% Rec.		8270C	11/24/14	1
2,4,6-Tribromophenol	118-79-6	73.2				% Rec.		8270C	11/24/14	1
p-Terphenyl-d14	1718-51-0	65.7				% Rec.		8270C	11/24/14	1

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L734231-12 (PH) - 7.2@21.2c

L734231-12 (ICP METALS) - Diluted due to matrix interference.

KA 2/13/15

DNR: DO NOT REPORT



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 22, 2014
Description : Holloman AFB
Sample ID : H-TU518-MW04-NT01
Collected By :
Collection Date : 11/20/14 15:20

ESC Sample # : L734231-14

Site ID :

Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	11/25/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	99.2				% Rec.		8015D/G	11/25/14	1
Volatile Organics										
Acetone	67-64-1	22.	10	25.	50	ug/l	J	8260B	11/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Carbon Disulfide	75-15-0	1.4	0.28	0.50	1	ug/l		8260B	11/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/26/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/26/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/26/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/26/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:01

KAZ/13/15



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Tax I.D. 62-0814289

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Denver, CO 80237

December 19, 2014

Date Received : November 22, 2014
Description : Holloman AFB
Sample ID : H-TU518-MW04-NT01
Collected By :
Collection Date : 11/20/14 15:20

ESC Sample # : L734231-14

Site ID :

Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/26/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/26/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
Naphthalene DMR	91-20-3	U	1	2.5	5	ug/l		8260B	11/26/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.38	0.75	1	ug/l		8260B	11/26/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/26/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/26/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/26/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	99.7				% Rec.		8260B	11/26/14	1
Dibromofluoromethane	1868-53-7	101.				% Rec.		8260B	11/26/14	1
4-Bromofluorobenzene	460-00-4	98.5				% Rec.		8260B	11/26/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		190	22	33.	100	ug/l		8015	11/26/14	1
C28-C40 Oil Range SQL-I		94.	12	33.	100	ug/l	J	8015	11/26/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	101.				% Rec.		8015	11/26/14	1

DMR Do NOT REPORT

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BMS 2/19/15*



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Denver, CO 80237

December 19, 2014

Date Received : November 22, 2014
Description : Holloman AFB

ESC Sample # : L734231-15

Sample ID : H-TU518-MW04-ND01

Site ID :

Collected By :
Collection Date : 11/20/14 15:20

Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved	FJ SOL ICS-H 7440-36-0	1.6	1	2.5	10	ug/l	J	6020	11/28/14	5
Arsenic, Dissolved	F SOL-I 7440-38-2	1.9	1.2	2.5	10	ug/l	J	6020	11/28/14	5
Cadmium, Dissolved	7440-43-9	U	0.8	2.5	5	ug/l		6020	11/28/14	5
Chromium, Dissolved	7440-47-3	U	2.7	7.5	10	ug/l		6020	11/28/14	5
Cobalt, Dissolved	F SOL-I 7440-48-4	1.6	1.3	2.5	10	ug/l	J	6020	11/28/14	5
Lead, Dissolved	7439-92-1	U	1.2	2.5	10	ug/l		6020	11/28/14	5
Nickel, Dissolved	WCCB, IMS, AD-I 7440-02-0	2.5 5.0	1.8 2.5	5.0	10	ug/l	J	6020	11/28/14	5
Selenium, Dissolved	7782-49-2	U	1.9	5.0	10	ug/l		6020	11/28/14	5
Silver, Dissolved	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/28/14	5
Thallium, Dissolved	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/28/14	5
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	11/25/14	1
Aluminum, Dissolved	U MB, ICCB-I 7429-90-5	710	180	250	500	ug/l		6010B	11/26/14	5
Barium, Dissolved	7440-39-3	55.	8.5	13.	25	ug/l		6010B	11/26/14	5
Beryllium, Dissolved	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/26/14	5
Copper, Dissolved	7440-50-8	U	26	50.	100	ug/l		6010B	11/26/14	5
Manganese, Dissolved	7439-96-5	340	6	25.	50	ug/l		6010B	11/26/14	5
Vanadium, Dissolved	U MB, ICCB-I 7440-62-2	33.50	12.33	50.	100	ug/l	J	6010B	11/26/14	5
Zinc, Dissolved	7440-66-6	U	30	130	250	ug/l		6010B	11/26/14	5

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L734231-15 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

L734231-15 (ICP METALS) - Diluted due to matrix interference.

KAZ/13/15



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December 19, 2014

Date Received : November 22, 2014
Description : Holloman AFB

ESC Sample # : L734231-16

Sample ID : H-TU518-MW04-NT01

Site ID :

Collected By :
Collection Date : 11/20/14 15:20

Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony <i>US CCB, MS-I</i>	7440-36-0	1.6	0.21 <i>1.6</i>	0.50 <i>1.6</i>	2	ug/l	J	6020	12/01/14	1
Arsenic <i>J FD-I</i>	7440-38-2	11.	1.2	2.5	10	ug/l		6020	11/28/14	5
Cadmium	7440-43-9	U	0.8	2.5	5	ug/l		6020	11/28/14	5
Chromium <i>J FD-I</i>	7440-47-3	25.	2.7	7.5	10	ug/l		6020	11/28/14	5
Cobalt <i>J FD-I</i>	7440-48-4	13.	1.3	2.5	10	ug/l		6020	11/28/14	5
Lead	7439-92-1	21.	1.2	2.5	10	ug/l		6020	12/02/14	5
Nickel <i>J FD-I</i>	7440-02-0	19.	0.35	1.0	2	ug/l		6020	12/01/14	1
Selenium <i>J MS-L</i>	7782-49-2	12.	1.9	5.0	10	ug/l		6020	11/28/14	5
Silver	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/28/14	5
Thallium	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/28/14	5
Mercury <i>F SOL-I</i>	7439-97-6	0.056	0.049	0.080	0.2	ug/l	J	7470A	11/26/14	1
Aluminum <i>J PDS, MS, FD-H</i>	7429-90-5	9700	180	250	500	ug/l	O1V	6010B	11/28/14	5
Barium <i>J FD-I</i>	7440-39-3	660	8.5	13.	25	ug/l		6010B	11/28/14	5
Beryllium	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/28/14	5
Copper	7440-50-8	U	26	50.	100	ug/l		6010B	11/28/14	5
Manganese	7439-96-5	900	6	25.	50	ug/l		6010B	11/28/14	5
Vanadium <i>F SOL-I</i>	7440-62-2	69.	12	50.	100	ug/l	J	6010B	11/28/14	5
Zinc <i>F SOL-I</i>	7440-66-6	54.	30	130	250	ug/l	J	6010B	11/28/14	5
Polynuclear Aromatic Hydrocarbons										
Anthracene <i>F SOL, MS-L-I</i>	120-12-7	0.025	0.013	0.025	0.05	ug/l	J	8270 C-	11/25/14	1
Acenaphthene <i>US LCS, MS-L</i>	83-32-9	U	0.0082	0.025	0.05	ug/l		8270 C-	11/25/14	1
Acenaphthylene <i>US LCS, MS-L, US MS-L</i>	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (a) anthracene <i>J MS-L</i>	56-55-3	0.15	0.012	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (a) pyrene <i>J MS-L</i>	50-32-8	0.20	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (b) fluoranthene <i>J MS-L</i>	205-99-2	0.057	0.019	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (g, h, i) perylene <i>J MS-L</i>	191-24-2	0.65	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (k) fluoranthene <i>J MS-L</i>	207-08-9	0.24	0.026	0.035	0.05	ug/l		8270 C-	11/25/14	1
Chrysene <i>J MS-L</i>	218-01-9	0.28	0.014	0.025	0.05	ug/l		8270 C-	11/25/14	1
Dibenz (a, h) anthracene <i>J MS-L</i>	53-70-3	0.42	0.0045	0.025	0.05	ug/l		8270 C-	11/25/14	1
Fluoranthene <i>US MS-L</i>	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
Fluorene <i>US LCS, MS-L, US MS-L</i>	86-73-7	U	0.009	0.025	0.05	ug/l		8270 C-	11/25/14	1
Indeno (1, 2, 3-cd) pyrene <i>J MS-L</i>	193-39-5	0.23	0.0074	0.025	0.05	ug/l		8270 C-	11/25/14	1
Naphthalene <i>US MS, MS-L, MS-D-I</i>	91-20-3	0.018	0.012	0.025	0.25	ug/l	J	8270 C-	11/25/14	1
Phenanthrene <i>US MS-L</i>	85-01-8	U	0.018	0.025	0.05	ug/l		8270 C-	11/25/14	1
Pyrene <i>F SOL, MS-L-I</i>	129-00-0	0.020	0.016	0.025	0.05	ug/l	J	8270 C-	11/25/14	1
2-Methylnaphthalene <i>US MS, MS-D-I</i>	91-57-6	U	0.016	0.025	0.25	ug/l		8270 C-	11/25/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	39.6				% Rec.		8270 C-	11/25/14	1
2-Fluorobiphenyl	321-60-8	38.7				% Rec.		8270 C-	11/25/14	1
p-Terphenyl-d14	1718-51-0	50.9				% Rec.		8270 C-	11/25/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	11/27/14	1

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:01
L734231-16 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.
L734231-16 (ICP METALS) - Diluted due to matrix interference.

KA 8/26/15

KA 2/13/15

BMS 9/4/15

BMS 2/19/15

BMS 2/19/15



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Collection Date : 11/20/14 15:20

ESC Sample # : L734231-16
Site ID :
Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Bis(2-chloroethyl)ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	11/27/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	11/27/14	1
Benzyl Alcohol	100-51-6	U	0.39	5.0	10	ug/l		8270C	11/27/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	11/27/14	1
Benzoic acid	65-85-0	U	0.44	5.0	10	ug/l		8270C	11/27/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	11/27/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	11/27/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	11/27/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	11/27/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	11/27/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	11/27/14	1
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	11/27/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	11/27/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.33	5.0	10	ug/l		8270C	11/27/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	11/27/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	11/27/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	11/27/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	11/27/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	11/27/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	11/27/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	11/27/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	0.71	1.0	3	ug/l		8270C	11/27/14	1
Di-n-butyl phthalate	84-74-2	U	0.27	1.0	3	ug/l		8270C	11/27/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	11/27/14	1
Dimethyl phthalate	131-11-3	0.59	0.28	1.0	3	ug/l	J	8270C	11/27/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	11/27/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.36	5.0	10	ug/l		8270C	11/27/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	11/27/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	11/27/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	11/27/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	11/27/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	11/27/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	11/27/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	11/27/14	1
3&4-Methyl Phenol	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	11/27/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	11/27/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	11/27/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	11/27/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	11/27/14	1
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	11/27/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	11/27/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	11/27/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	11/27/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	11/27/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	11/27/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:01
L734231-16 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.
L734231-16 (ICP METALS) - Diluted due to matrix interference.

DMR: DO NOT REPORT

KAZ/13/15



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 Fax (615) 758-5859
 Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 19, 2014

Date Received : November 22, 2014
 Description : Holloman AFB
 Sample ID : H-TU518-MW04-NT01
 Collected By :
 Collection Date : 11/20/14 15:20

ESC Sample # : L734231-16
 Site ID :
 Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual Method	Date	Dil.
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l	8270C	11/27/14	1
Surrogate Recovery									
2-Fluorophenol	367-12-4	44.1				% Rec.	8270C	11/27/14	1
Phenol-d5	4165-62-2	32.6				% Rec.	8270C	11/27/14	1
Nitrobenzene-d5	4165-60-0	62.4				% Rec.	8270C	11/27/14	1
2-Fluorobiphenyl	321-60-8	75.0				% Rec.	8270C	11/27/14	1
2,4,6-Tribromophenol	118-79-6	64.5				% Rec.	8270C	11/27/14	1
p-Terphenyl-d14	1718-51-0	72.0				% Rec.	8270C	11/27/14	1

U = Not Detected at the LOD
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 Reported: 12/03/14 10:11 Revised: 12/19/14 10:01
 L734231-16 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.
 L734231-16 (ICP METALS) - Diluted due to matrix interference.

RA 2/13/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 19, 2014

Date Received : November 22, 2014
 Description : Holloman AFB
 Sample ID : H-TU518-MW05-NT01
 Collected By :
 Collection Date : 11/20/14 13:20

ESC Sample # : L734231-17

Site ID :

Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	11/25/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	99.0				% Rec.		8015D/G	11/25/14	1
Volatile Organics										
Acetone	67-64-1	31.	10	25.	50	ug/l	J	8260B	11/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Carbon Disulfide	75-15-0	1.0	0.28	0.50	1	ug/l		8260B	11/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/26/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/26/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/26/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/26/14	1

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 22, 2014
Description : Holloman AFB
Sample ID : H-TU518-MW05-NT01
Collected By :
Collection Date : 11/20/14 13:20

ESC Sample # : L734231-17
Site ID :
Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
2-Butanone (MEK) <i>FSQ-I</i>	78-93-3	7.6	3.9	5.0	10	ug/l	J	8260B	11/26/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/26/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
Naphthalene <i>DNR</i>	91-20-3	U	1	2.5	5	ug/l		8260B	11/26/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	<i>0.13</i>	0.50	0.75	1		8260B	11/26/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/26/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/26/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/26/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	99.6				% Rec.		8260B	11/26/14	1
Dibromofluoromethane	1868-53-7	100.				% Rec.		8260B	11/26/14	1
4-Bromofluorobenzene	460-00-4	97.5				% Rec.		8260B	11/26/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		940	22	33.	100	ug/l		8015	11/26/14	1
C28-C40 Oil Range		280	12	33.	100	ug/l		8015	11/26/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	109.				% Rec.		8015	11/26/14	1

DNR: DO NOT REPORT

U = Not Detected at the LOD

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BMS 2/19/15



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Tax I.D. 62-0814289
Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 22, 2014
Description : Holloman AFB
Sample ID : H-TU518-MW05-ND01
Collected By :
Collection Date : 11/20/14 13:20

ESC Sample # : L734231-18
Site ID :
Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved	7440-36-0	1.4	1	2.5	10	ug/l	J	6020	11/28/14	5
Arsenic, Dissolved	7440-38-2	2.3	1.2	2.5	10	ug/l	J	6020	11/28/14	5
Cadmium, Dissolved	7440-43-9	U	0.8	2.5	5	ug/l		6020	11/28/14	5
Chromium, Dissolved	7440-47-3	U	2.7	7.5	10	ug/l		6020	11/28/14	5
Cobalt, Dissolved	7440-48-4	U	1.3	2.5	10	ug/l		6020	11/28/14	5
Lead, Dissolved	7439-92-1	U	1.2	2.5	10	ug/l		6020	11/28/14	5
Nickel, Dissolved	7440-02-0	3.6	5.0	1.0	3.6	5.0	J	6020	11/28/14	5
Selenium, Dissolved	7782-49-2	U	1.9	5.0	10	ug/l		6020	11/28/14	5
Silver, Dissolved	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/28/14	5
Thallium, Dissolved	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/28/14	5
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	11/25/14	1
Aluminum, Dissolved	7429-90-5	250	240	250	500	ug/l	J	6010B	11/26/14	5
Barium, Dissolved	7440-39-3	25.	8.5	13.	25	ug/l	J	6010B	11/26/14	5
Beryllium, Dissolved	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/26/14	5
Copper, Dissolved	7440-50-8	U	26	50.	100	ug/l		6010B	11/26/14	5
Manganese, Dissolved	7439-96-5	520	6	25.	50	ug/l		6010B	11/26/14	5
Vanadium, Dissolved	7440-62-2	13.50	12.13	50.	100	ug/l	J	6010B	11/26/14	5
Zinc, Dissolved	7440-66-6	U	30	130	250	ug/l		6010B	11/26/14	5

U = Not Detected at the LOD

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:01
L734231-18 (ICP METALS) - Diluted due to matrix interference.
L734231-18 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KAZ/13/15



YOUR LAB OF CHOICE

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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 22, 2014
Description : Holloman AFB
Sample ID : H-TU518-MW05-NT01
Collected By :
Collection Date : 11/20/14 13:20

ESC Sample # : L734231-19
Site ID :
Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony <i>UJ CCB, MS-L-I</i>	7440-36-0	1.4	1.4	1.4	2	ug/l	J	6020	12/01/14	1
Arsenic <i>UJ MB, FD-I</i>	7440-38-2	5.5	0.21	0.50	10	ug/l	J	6020	11/28/14	5
Cadmium	7440-43-9	U	0.8	2.5	5	ug/l		6020	11/28/14	5
Chromium <i>J FD-I</i>	7440-47-3	10.	2.7	7.5	10	ug/l		6020	11/28/14	5
Cobalt <i>F SOL-I FJ SOL, FD-I</i>	7440-48-4	5.8	1.3	2.5	10	ug/l	J	6020	11/28/14	5
Lead <i>F SOL-I</i>	7439-92-1	5.4	1.2	2.5	10	ug/l	J	6020	12/02/14	5
Nickel <i>J FD-I</i>	7440-02-0	9.6	0.35	1.0	2	ug/l		6020	12/01/14	1
Selenium <i>UJ MB, CCB, MS-I</i>	7782-49-2	8.0	1.9	8.0	10	ug/l	J	6020	11/28/14	5
Silver	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/28/14	5
Thallium	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/28/14	5
Mercury	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	11/26/14	1
Aluminum <i>J MS, FD-H</i>	7429-90-5	4000	180	250	500	ug/l		6010B	11/28/14	5
Barium <i>J FD-I</i>	7440-39-3	300	8.5	13.	25	ug/l		6010B	11/28/14	5
Beryllium	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/28/14	5
Copper	7440-50-8	U	26	50.	100	ug/l		6010B	11/28/14	5
Manganese	7439-96-5	870	6	25.	50	ug/l		6010B	11/28/14	5
Vanadium <i>F SOL-I</i>	7440-62-2	42.	12	50.	100	ug/l	J	6010B	11/28/14	5
Zinc	7440-66-6	U	30	130	250	ug/l		6010B	11/28/14	5
Polynuclear Aromatic Hydrocarbons										
Anthracene <i>UJ MS-L</i>	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	11/25/14	1
Acenaphthene <i>UJ CCB, MS-L</i>	83-32-9	U	0.0082	0.025	0.05	ug/l		8270 C-	11/25/14	1
Acenaphthylene <i>UJ CCB, MS-L UJ MS-L</i>	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (a) anthracene <i>UJ MS-L</i>	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (a) pyrene <i>UJ MS-L</i>	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (b) fluoranthene <i>UJ MS-L</i>	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (g, h, i) perylene <i>UJ MS-L</i>	191-24-2	U	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (k) fluoranthene <i>UJ MS-L</i>	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	11/25/14	1
Chrysene <i>UJ MS-L</i>	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	11/25/14	1
Dibenz (a, h) anthracene <i>UJ MS-L</i>	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	11/25/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
Fluorene <i>UJ CCB, MS-L UJ MS-L</i>	86-73-7	U	0.009	0.025	0.05	ug/l		8270 C-	11/25/14	1
Indeno (1,2,3-cd) pyrene <i>UJ MS-L</i>	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	11/25/14	1
Naphthalene <i>UJ MS, MS, MS, D-I</i>	91-20-3	0.036	0.012	0.025	0.25	ug/l	J	8270 C-	11/25/14	1
Phenanthrene <i>UJ MS-L</i>	85-01-8	U	0.018	0.025	0.05	ug/l		8270 C-	11/25/14	1
Pyrene <i>UJ MS-L</i>	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
2-Methylnaphthalene <i>FJ SOL, CCB, MS, D-I</i>	1-57-6	0.079	0.016	0.025	0.25	ug/l	J	8270 C-	11/25/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	40.1				% Rec.		8270 C-	11/25/14	1
2-Fluorobiphenyl	321-60-8	39.2				% Rec.		8270 C-	11/25/14	1
p-Terphenyl-d14	1718-51-0	52.1				% Rec.		8270 C-	11/25/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	11/27/14	1

U = Not Detected at the LOD
Note:

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:01
L734231-19 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.
L734231-19 (ICP METALS) - Diluted due to matrix interference.

*KA 8/26/15 KA 2/13/15
BMS 2/19/15
RMS 9/4/15*



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 22, 2014
Description : Holloman AFB
Sample ID : H-TU518-MW05-NT01
Collected By :
Collection Date : 11/20/14 13:20

ESC Sample # : L734231-19

Site ID :

Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Bis(2-chloroethyl)ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	11/27/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	11/27/14	1
Benzyl Alcohol <i>FSOL-I</i>	100-51-6	0.52	0.39	5.0	10	ug/l	J	8270C	11/27/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	11/27/14	1
Benzoic acid <i>FSOL-I</i>	65-85-0	2.6	0.44	5.0	10	ug/l	J	8270C	11/27/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	11/27/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	11/27/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	11/27/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	11/27/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	11/27/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	11/27/14	1
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	11/27/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	11/27/14	1
Hexachloro-1,3-butadiene <i>DNR</i>	87-68-3	U	0.33	5.0	10	ug/l		8270C	11/27/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	11/27/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	11/27/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	11/27/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	11/27/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	11/27/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	11/27/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	11/27/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	0.71	1.0	3	ug/l		8270C	11/27/14	1
Di-n-butyl phthalate	84-74-2	U	0.27	1.0	3	ug/l		8270C	11/27/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	11/27/14	1
Dimethyl phthalate <i>FSOL-I</i>	131-11-3	0.63	0.28	1.0	3	ug/l	J	8270C	11/27/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	11/27/14	1
1,2,4-Trichlorobenzene <i>DNR</i>	120-82-1	U	0.36	5.0	10	ug/l		8270C	11/27/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	11/27/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	11/27/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	11/27/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	11/27/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	11/27/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	11/27/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	11/27/14	1
3&4-Methyl Phenol <i>FSOL, CAL-L</i>	3&4-Methyl	0.41	0.27	5.0	10	ug/l	J	8270C	11/27/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	11/27/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	11/27/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	11/27/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	11/27/14	1
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	11/27/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	11/27/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	11/27/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	11/27/14	1
Phenol <i>FSOL-I</i>	108-95-2	0.38	0.33	5.0	10	ug/l	J	8270C	11/27/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	11/27/14	1

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:01
L734231-19 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.
L734231-19 (ICP METALS) - Diluted due to matrix interference.

DNR: DO NOT REPORT

KA 2/13/15



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 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 19, 2014

Date Received : November 22, 2014
 Description : Holloman AFB
 Sample ID : H-TU518-MW05-NT01
 Collected By :
 Collection Date : 11/20/14 13:20

ESC Sample # : L734231-19
 Site ID :
 Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	11/27/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	68.0				% Rec.		8270C	11/27/14	1
Phenol-d5	4165-62-2	53.2				% Rec.		8270C	11/27/14	1
Nitrobenzene-d5	4165-60-0	68.2				% Rec.		8270C	11/27/14	1
2-Fluorobiphenyl	321-60-8	70.9				% Rec.		8270C	11/27/14	1
2,4,6-Tribromophenol	118-79-6	78.8				% Rec.		8270C	11/27/14	1
p-Terphenyl-d14	1718-51-0	72.9				% Rec.		8270C	11/27/14	1

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 Reported: 12/03/14 10:11 Revised: 12/19/14 10:01
 L734231-19 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.
 L734231-19 (ICP METALS) - Diluted due to matrix interference.

KA 2/13/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 22, 2014
Description : Holloman AFB
Sample ID : H-TU518-MW06-NT01
Collected By :
Collection Date : 11/20/14 14:50

ESC Sample # : L734231-20
Site ID :
Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony <i>US CCB, MS-L-I</i>	7440-36-0	1.0	0.21	0.50	2	ug/l	J	6020	12/01/14	1
Arsenic <i>J FD-I</i>	7440-38-2	21.	1.2	2.5	10	ug/l		6020	11/28/14	5
Cadmium <i>FJ SOL, ICS-H</i>	7440-43-9	0.96	0.8	2.5	5	ug/l	J	6020	11/28/14	5
Chromium <i>J FD-I</i>	7440-47-3	59.	2.7	7.5	10	ug/l		6020	11/28/14	5
Cobalt <i>J FD-I</i>	7440-48-4	30.	1.3	2.5	10	ug/l		6020	11/28/14	5
Lead	7439-92-1	24.	1.2	2.5	10	ug/l		6020	12/02/14	5
Nickel <i>J FD-I</i>	7440-02-0	24.	0.35	1.0	2	ug/l		6020	12/01/14	1
Selenium <i>US MS-I</i>	7782-49-2	12.	1.9	5.0	10	ug/l		6020	11/28/14	5
Silver	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/28/14	5
Thallium <i>F SOL-I</i>	7440-28-0	1.1	0.95	2.5	10	ug/l	J	6020	11/28/14	5
Mercury <i>F SOL-I</i>	7439-97-6	0.069	0.049	0.080	0.2	ug/l	J	7470A	11/26/14	1
Aluminum <i>J MS, FD-H</i>	7429-90-5	21000	180	250	500	ug/l		6010B	11/28/14	5
Barium <i>J FD-I</i>	7440-39-3	1100	8.5	13.	25	ug/l		6010B	11/28/14	5
Beryllium	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/28/14	5
Copper <i>F SOL-I</i>	7440-50-8	32.	26	50.	100	ug/l	J	6010B	11/28/14	5
Manganese	7439-96-5	1900	6	25.	50	ug/l		6010B	11/28/14	5
Vanadium	7440-62-2	110	12	50.	100	ug/l		6010B	11/28/14	5
Zinc <i>F SOL-I</i>	7440-66-6	110	30	130	250	ug/l	J	6010B	11/28/14	5
Polynuclear Aromatic Hydrocarbons										
Anthracene <i>US MS-L</i>	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	11/25/14	1
Acenaphthene <i>US MS-L</i>	83-32-9	U	0.0082	0.025	0.05	ug/l		8270 C-	11/25/14	1
Acenaphthylene <i>US MS-L</i>	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (a) anthracene <i>US MS-L</i>	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (a) pyrene <i>US MS-L</i>	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (b) fluoranthene <i>US MS-L</i>	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (g, h, i) perylene <i>US MS-L</i>	191-24-2	U	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (k) fluoranthene <i>US MS-L</i>	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	11/25/14	1
Chrysene <i>US MS-L</i>	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	11/25/14	1
Dibenz (a, h) anthracene <i>US MS-L</i>	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	11/25/14	1
Fluoranthene <i>US MS-L</i>	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
Fluorene <i>US MS-L</i>	86-73-7	U	0.009	0.025	0.05	ug/l		8270 C-	11/25/14	1
Indeno (1, 2, 3-cd) pyrene <i>US MS-L</i>	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	11/25/14	1
Naphthalene <i>US MS-L</i>	91-20-3	0.024	0.012	0.025	0.25	ug/l	J	8270 C-	11/25/14	1
Phenanthrene <i>US MS-L</i>	85-01-8	U	0.018	0.025	0.05	ug/l		8270 C-	11/25/14	1
Pyrene <i>US MS-L</i>	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
2-Methylnaphthalene <i>FJ SOL, MS, MS, D-I</i>	91-57-6	0.017	0.016	0.025	0.25	ug/l	J	8270 C-	11/25/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	57.1				% Rec.		8270 C-	11/25/14	1
2-Fluorobiphenyl	321-60-8	57.0				% Rec.		8270 C-	11/25/14	1
p-Terphenyl-d14	1718-51-0	69.5				% Rec.		8270 C-	11/25/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	11/27/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:01

L734231-20 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.
L734231-20 (ICP METALS) - Diluted due to matrix interference.

KA 8/26/15 *KA 2/13/15*
BMS 2/19/15
BMS 2/19/15
AK 1/15
66 of 4355



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 22, 2014
Description : Holloman AFB
Sample ID : H-TU518-MW06-NT01
Collected By :
Collection Date : 11/20/14 14:50

ESC Sample # : L734231-20
Site ID :
Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Bis(2-chloroethyl)ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	11/27/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	11/27/14	1
Benzyl Alcohol	100-51-6	U	0.39	5.0	10	ug/l		8270C	11/27/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	11/27/14	1
Benzoic acid <i>FSOL-I</i>	65-85-0	1.5	0.44	5.0	10	ug/l	J	8270C	11/27/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	11/27/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	11/27/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	11/27/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	11/27/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	11/27/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	11/27/14	1
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	11/27/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	11/27/14	1
Hexachloro-1,3-butadiene <i>DNR</i>	87-68-3	U	0.33	5.0	10	ug/l		8270C	11/27/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	11/27/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	11/27/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	11/27/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	11/27/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	11/27/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	11/27/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	11/27/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	0.71	1.0	3	ug/l		8270C	11/27/14	1
Di-n-butyl phthalate	84-74-2	U	0.27	1.0	3	ug/l		8270C	11/27/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	11/27/14	1
Dimethyl phthalate <i>FSOL-I</i>	131-11-3	0.57	0.28	1.0	3	ug/l	J	8270C	11/27/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	11/27/14	1
1,2,4-Trichlorobenzene <i>DNR</i>	120-82-1	U	0.36	5.0	10	ug/l		8270C	11/27/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	11/27/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	11/27/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	11/27/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	11/27/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	11/27/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	11/27/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	11/27/14	1
3&4-Methyl Phenol <i>US CAL-L</i>	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	11/27/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	11/27/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	11/27/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	11/27/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	11/27/14	1
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	11/27/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	11/27/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	11/27/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	11/27/14	1
Phenol <i>FSOL-I</i>	108-95-2	0.35	0.33	5.0	10	ug/l	J	8270C	11/27/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	11/27/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:01

L734231-20 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

L734231-20 (ICP METALS) - Diluted due to matrix interference.

DNR: Do Not Report

KA 2/13/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 19, 2014

Date Received : November 22, 2014
 Description : Holloman AFB
 Sample ID : H-TU518-MW06-NT01
 Collected By :
 Collection Date : 11/20/14 14:50

ESC Sample # : L734231-20

Site ID :

Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	11/27/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	54.5				% Rec.		8270C	11/27/14	1
Phenol-d5	4165-62-2	43.7				% Rec.		8270C	11/27/14	1
Nitrobenzene-d5	4165-60-0	68.6				% Rec.		8270C	11/27/14	1
2-Fluorobiphenyl	321-60-8	74.2				% Rec.		8270C	11/27/14	1
2,4,6-Tribromophenol	118-79-6	72.2				% Rec.		8270C	11/27/14	1
p-Terphenyl-d14	1718-51-0	74.2				% Rec.		8270C	11/27/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:01

L734231-20 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

L734231-20 (ICP METALS) - Diluted due to matrix interference.

CA-2/13/15



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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 19, 2014

Date Received : November 22, 2014
 Description : Holloman AFB
 Sample ID : H-TU518-MW06-ND01
 Collected By :
 Collection Date : 11/20/14 14:50

ESC Sample # : L734231-21
 Site ID :
 Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved	7440-36-0	1.5	1	2.5	10	ug/l	J	6020	11/28/14	5
Arsenic, Dissolved	7440-38-2	2.3	1.2	2.5	10	ug/l	J	6020	11/28/14	5
Cadmium, Dissolved	7440-43-9	U	0.8	2.5	5	ug/l		6020	11/28/14	5
Chromium, Dissolved	7440-47-3	U	2.7	7.5	10	ug/l		6020	11/28/14	5
Cobalt, Dissolved	7440-48-4	U	1.3	2.5	10	ug/l		6020	11/28/14	5
Lead, Dissolved	7439-92-1	U	1.2	2.5	10	ug/l		6020	11/28/14	5
Nickel, Dissolved	7440-02-0	1.95.0	1.8	5.0	10	ug/l	J	6020	11/28/14	5
Selenium, Dissolved	7782-49-2	3.0	1.9	5.0	10	ug/l	J	6020	11/28/14	5
Silver, Dissolved	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/28/14	5
Thallium, Dissolved	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/28/14	5
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	11/25/14	1
Aluminum, Dissolved	7429-90-5	U	180	250	500	ug/l		6010B	11/26/14	5
Barium, Dissolved	7440-39-3	48.	8.5	13.	25	ug/l		6010B	11/26/14	5
Beryllium, Dissolved	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/26/14	5
Copper, Dissolved	7440-50-8	U	26	50.	100	ug/l		6010B	11/26/14	5
Manganese, Dissolved	7439-96-5	550	6	25.	50	ug/l		6010B	11/26/14	5
Vanadium, Dissolved	7440-62-2	17.50	12.17	50.	100	ug/l	J	6010B	11/26/14	5
Zinc, Dissolved	7440-66-6	U	30	130	250	ug/l		6010B	11/26/14	5

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:02

L734231-21 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

L734231-21 (ICP METALS) - Diluted due to matrix interference.

KA 2/13/15



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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 19, 2014

Date Received : November 22, 2014
 Description : Holloman AFB
 Sample ID : H-TU518-MW06-NT01
 Collected By :
 Collection Date : 11/20/14 14:50

ESC Sample # : L734231-22

Site ID :

Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	11/25/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	99.2				% Rec.		8015D/G	11/25/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Carbon Disulfide	75-15-0	0.60	0.28	0.50	1	ug/l	J	8260B	11/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/26/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/26/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/26/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/26/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:02

10/21/15



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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 19, 2014

Date Received : November 22, 2014
 Description : Holloman AFB
 Sample ID : H-TU518-MW06-NT01
 Collected By :
 Collection Date : 11/20/14 14:50

ESC Sample # : L734231-22
 Site ID :
 Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/26/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/26/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
Naphthalene DNR	91-20-3	U	1	2.5	5	ug/l		8260B	11/26/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.37	0.75	1	ug/l		8260B	11/26/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/26/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/26/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/26/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	100.				% Rec.		8260B	11/26/14	1
Dibromofluoromethane	1868-53-7	102.				% Rec.		8260B	11/26/14	1
4-Bromofluorobenzene	460-00-4	95.5				% Rec.		8260B	11/26/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		100	22	33.	100	ug/l		8015	11/26/14	1
C28-C40 Oil Range F SOL-I		64.	12	33.	100	ug/l	J	8015	11/26/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	106.				% Rec.		8015	11/26/14	1

DNR: DO NOT REPORT

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:02

KA 2/13/15
BMS 2/19/15
 71 of 4355



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 19, 2014

Date Received : November 22, 2014
 Description : Holloman AFB
 Sample ID : H-TU518-MW07-ND01
 Collected By :
 Collection Date : 11/20/14 14:20

ESC Sample # : L734231-23

Site ID :

Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved <i>FS SOL-I CS-H</i>	7440-36-0	1.0	1	2.5	10	ug/l	J	6020	11/28/14	5
Arsenic, Dissolved <i>FS SOL-I</i>	7440-38-2	3.4	1.2	2.5	10	ug/l	J	6020	11/28/14	5
Cadmium, Dissolved	7440-43-9	U	0.8	2.5	5	ug/l		6020	11/28/14	5
Chromium, Dissolved	7440-47-3	U	2.7	7.5	10	ug/l		6020	11/28/14	5
Cobalt, Dissolved	7440-48-4	U	1.3	2.5	10	ug/l		6020	11/28/14	5
Lead, Dissolved <i>FS SOL-I</i>	7439-92-1	3.4	1.2	2.5	10	ug/l	J	6020	11/28/14	5
Nickel, Dissolved <i>US MS, FD-I</i>	7440-02-0	U	1.8	5.0	10	ug/l		6020	11/28/14	5
Selenium, Dissolved <i>FS SOL-I</i>	7782-49-2	3.6	1.9	5.0	10	ug/l	J	6020	11/28/14	5
Silver, Dissolved	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/28/14	5
Thallium, Dissolved	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/28/14	5
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	11/25/14	1
Aluminum, Dissolved <i>U MB, ACCB-I</i>	7429-90-5	280	180	250	500	ug/l	J	6010B	11/26/14	5
Barium, Dissolved	7440-39-3	58.	8.5	13.	25	ug/l		6010B	11/26/14	5
Beryllium, Dissolved	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/26/14	5
Copper, Dissolved <i>FS SOL-I</i>	7440-50-8	29.	26	50.	100	ug/l	J	6010B	11/26/14	5
Manganese, Dissolved	7439-96-5	110	6	25.	50	ug/l		6010B	11/26/14	5
Vanadium, Dissolved <i>U MB, ACCB-I</i>	7440-62-2	53.	12.53	50.53	100	ug/l	J	6010B	11/26/14	5
Zinc, Dissolved <i>FS SOL-I</i>	7440-66-6	47.	30	130	250	ug/l	J	6010B	11/26/14	5

U = Not Detected at the LOD

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:02

L734231-23 (ICP METALS) - Diluted due to matrix interference.

L734231-23 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KA 2/13/15



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(615) 758-5858
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 19, 2014

Date Received : November 22, 2014
Description : Holloman AFB
Sample ID : H-TU518-MW07-NT01
Collected By :
Collection Date : 11/20/14 14:20

ESC Sample # : L734231-24
Site ID :
Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony <i>US CCB, MS-I</i>	7440-36-0	0.88	0.21	0.50	2	ug/l	J	6020	12/01/14	1
Arsenic <i>F SOL-I FJ SOL,FD-I</i>	7440-38-2	7.2	1.2	2.5	10	ug/l	J	6020	11/28/14	5
Cadmium	7440-43-9	U	0.8	2.5	5	ug/l		6020	11/28/14	5
Chromium <i>F SOL-I FJ SOL,FD-I</i>	7440-47-3	9.9	2.7	7.5	10	ug/l	J	6020	11/28/14	5
Cobalt <i>F SOL-I FJ SOL,FD-I</i>	7440-48-4	6.8	1.3	2.5	10	ug/l	J	6020	11/28/14	5
Lead <i>F SOL-I</i>	7439-92-1	7.3	1.2	2.5	10	ug/l	J	6020	12/02/14	5
Nickel <i>FD-I</i>	7440-02-0	7.1	0.35	1.0	2	ug/l		6020	12/01/14	1
Selenium <i>MS-I</i>	7782-49-2	14.	1.9	5.0	10	ug/l		6020	11/28/14	5
Silver	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/28/14	5
Thallium	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/28/14	5
Mercury	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	11/26/14	1
Aluminum <i>J MS, FD-H</i>	7429-90-5	4400	180	250	500	ug/l		6010B	11/28/14	5
Barium <i>J FD-I</i>	7440-39-3	350	8.5	13.	25	ug/l		6010B	11/28/14	5
Beryllium	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/28/14	5
Copper	7440-50-8	U	26	50.	100	ug/l		6010B	11/28/14	5
Manganese	7439-96-5	340	6	25.	50	ug/l		6010B	11/28/14	5
Vanadium <i>U CCB-I</i>	7440-62-2	32.50	12.50	50.	100	ug/l	J	6010B	11/28/14	5
Zinc	7440-66-6	U	30	130	250	ug/l		6010B	11/28/14	5
Polynuclear Aromatic Hydrocarbons										
Anthracene <i>F SOL, MS-I</i>	120-12-7	0.048	0.013	0.025	0.05	ug/l	J	8270 C-	11/25/14	1
Acenaphthene <i>US CCB, MS-I</i>	83-32-9	U	0.0082	0.025	0.05	ug/l		8270 C-	11/25/14	1
Acenaphthylene <i>US CCB, MS-I</i>	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (a) anthracene <i>MS-I</i>	56-55-3	0.44	0.012	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (a) pyrene <i>J MS-L</i>	50-32-8	0.56	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (b) fluoranthene <i>J MS-L</i>	205-99-2	0.32	0.019	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (g, h, i) perylene <i>J MS-L</i>	191-24-2	1.2	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (k) fluoranthene <i>J MS-L</i>	207-08-9	0.62	0.026	0.035	0.05	ug/l		8270 C-	11/25/14	1
Chrysene <i>J MS-L</i>	218-01-9	0.68	0.014	0.025	0.05	ug/l		8270 C-	11/25/14	1
Dibenz (a, h) anthracene <i>J MS-L</i>	53-70-3	1.0	0.0045	0.025	0.05	ug/l		8270 C-	11/25/14	1
Fluoranthene <i>F SOL, MS-I</i>	206-44-0	0.035	0.016	0.025	0.05	ug/l	J	8270 C-	11/25/14	1
Fluorene <i>US CCB, MS-L US MS-I</i>	86-73-7	U	0.009	0.025	0.05	ug/l		8270 C-	11/25/14	1
Indeno (1,2,3-cd) pyrene <i>J MS-L</i>	193-39-5	0.62	0.0074	0.025	0.05	ug/l		8270 C-	11/25/14	1
Naphthalene <i>US MB, MS, MS-I</i>	91-20-3	0.016	0.012	0.025	0.25	ug/l	J	8270 C-	11/25/14	1
Phenanthrene <i>US MS-L</i>	85-01-8	U	0.018	0.025	0.05	ug/l		8270 C-	11/25/14	1
Pyrene <i>J MS-L</i>	129-00-0	0.051	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
2-Methylnaphthalene <i>US CCB, MS, MS-I</i>	91-57-6	U	0.016	0.025	0.25	ug/l		8270 C-	11/25/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	53.2				% Rec.		8270 C-	11/25/14	1
2-Fluorobiphenyl	321-60-8	50.6				% Rec.		8270 C-	11/25/14	1
p-Terphenyl-d14	1718-51-0	63.0				% Rec.		8270 C-	11/25/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	11/27/14	1

U = Not Detected at the LOD

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:02

L734231-24 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

L734231-24 (ICP METALS) - Diluted due to matrix interference.

Handwritten: KAS/Kulis
BMS 9/4/15

Handwritten: KA 2/13/15
BMS 2/19/15
MS 2/19/15
73 of 4355



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URS
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Denver, CO 80237

December 19, 2014

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Description : Holloman AFB
Sample ID : H-TU518-MW07-NT01
Collected By :
Collection Date : 11/20/14 14:20

ESC Sample # : L734231-24
Site ID :
Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Bis(2-chloroethyl)ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	11/27/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	11/27/14	1
Benzyl Alcohol	100-51-6	U	0.39	5.0	10	ug/l		8270C	11/27/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	11/27/14	1
Benzoic acid	65-85-0	U	0.44	5.0	10	ug/l		8270C	11/27/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	11/27/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	11/27/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	11/27/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	11/27/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	11/27/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	11/27/14	1
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	11/27/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	11/27/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.33	5.0	10	ug/l		8270C	11/27/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	11/27/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	11/27/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	11/27/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	11/27/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	11/27/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	11/27/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	11/27/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	0.71	1.0	3	ug/l		8270C	11/27/14	1
Di-n-butyl phthalate	84-74-2	U	0.27	1.0	3	ug/l		8270C	11/27/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	11/27/14	1
Dimethyl phthalate	131-11-3	0.52	0.28	1.0	3	ug/l	J	8270C	11/27/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	11/27/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.36	5.0	10	ug/l		8270C	11/27/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	11/27/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	11/27/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	11/27/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	11/27/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	11/27/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	11/27/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	11/27/14	1
3&4-Methyl Phenol	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	11/27/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	11/27/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	11/27/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	11/27/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	11/27/14	1
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	11/27/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	11/27/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	11/27/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	11/27/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	11/27/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	11/27/14	1

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:02

L734231-24 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

L734231-24 (ICP METALS) - Diluted due to matrix interference.

PNR! DO NOT REPORT

KA 2/13/15



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 19, 2014

Date Received : November 22, 2014
 Description : Holloman AFB
 Sample ID : H-TU518-MW07-NT01
 Collected By :
 Collection Date : 11/20/14 14:20

ESC Sample # : L734231-24
 Site ID :
 Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	11/27/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	44.8				% Rec.		8270C	11/27/14	1
Phenol-d5	4165-62-2	36.5				% Rec.		8270C	11/27/14	1
Nitrobenzene-d5	4165-60-0	64.2				% Rec.		8270C	11/27/14	1
2-Fluorobiphenyl	321-60-8	72.4				% Rec.		8270C	11/27/14	1
2,4,6-Tribromophenol	118-79-6	61.0				% Rec.		8270C	11/27/14	1
p-Terphenyl-d14	1718-51-0	69.4				% Rec.		8270C	11/27/14	1

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 Reported: 12/03/14 10:11 Revised: 12/19/14 10:02
 L734231-24 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.
 L734231-24 (ICP METALS) - Diluted due to matrix interference.

KA-213115



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 Denver, CO 80237

December 19, 2014

Date Received : November 22, 2014
 Description : Holloman AFB
 Sample ID : H-TU518-MW07-NT01
 Collected By :
 Collection Date : 11/20/14 14:20

ESC Sample # : L734231-25
 Site ID :
 Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	11/25/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	98.6				% Rec.		8015D/G	11/25/14	1
Volatile Organics										
Acetone	67-64-1	10.	10	25.	50	ug/l	J	8260B	11/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Carbon Disulfide	75-15-0	0.66	0.28	0.50	1	ug/l	J	8260B	11/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/26/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/26/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/26/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/26/14	1

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December 19, 2014

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 Collection Date : 11/20/14 14:20

ESC Sample # : L734231-25
 Site ID :
 Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/26/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/26/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
Naphthalene DNR	91-20-3	U	1	2.5	5	ug/l		8260B	11/26/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.37	0.75	1	ug/l		8260B	11/26/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/26/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/26/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/26/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	99.3				% Rec.		8260B	11/26/14	1
Dibromofluoromethane	1868-53-7	103.				% Rec.		8260B	11/26/14	1
4-Bromofluorobenzene	460-00-4	97.6				% Rec.		8260B	11/26/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		310	22	33.	100	ug/l		8015	11/26/14	1
C28-C40 Oil Range		170	12	33.	100	ug/l		8015	11/26/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	93.5				% Rec.		8015	11/26/14	1

DNR: Do Not Report

U = Not Detected at the LOD

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:02

KA 2/13/15
BMS 2/19/15
 77 of 4355



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
 Description : HOLLOMAN AFB
 Sample ID : H-TU518-TRIPBLANK-TT01
 Collected By :
 Collection Date : 11/15/14 16:00

ESC Sample # : L734231-26

Site ID :

Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	11/25/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98-08-8	99.3				% Rec.		8015D/G	11/25/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l	J4	8260B	11/25/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/25/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/25/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/25/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/25/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/25/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/25/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/25/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/25/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/25/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/25/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/25/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/25/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/25/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/25/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/25/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/25/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/25/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/25/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/25/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/25/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/25/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/25/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/25/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/25/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/25/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/25/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/25/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/25/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/25/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/25/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/25/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/25/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/25/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/25/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/25/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/25/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/25/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/25/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/25/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/25/14	1

U = Not Detected at the LOD

Note:

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KA 2/13/15



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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 19, 2014

Date Received : November 18, 2014
 Description : HOLLOMAN AFB
 Sample ID : H-TU518-TRIPBLANK-TT01
 Collected By :
 Collection Date : 11/15/14 16:00

ESC Sample # : L734231-26
 Site ID :
 Project # : 23446543.0058AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/25/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/25/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/25/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/25/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/25/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	11/25/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/25/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/25/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/25/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.50	0.75	1	ug/l		8260B	11/25/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/25/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/25/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/25/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/25/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/25/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/25/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/25/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/25/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/25/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/25/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/25/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/25/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/25/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/25/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	100.				% Rec.		8260B	11/25/14	1
Dibromofluoromethane	1868-53-7	98.4				% Rec.		8260B	11/25/14	1
4-Bromofluorobenzene	460-00-4	100.				% Rec.		8260B	11/25/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:11 Revised: 12/19/14 10:02

CA 2/13/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 05, 2014

Date Received : November 19, 2014
 Description : HOLLOMAN AFB
 Sample ID : SS059-TRIPBLANK-TT01
 Collected By :
 Collection Date : 11/18/14 10:30

ESC Sample # : L734718-01

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	11/23/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	98.7				% Rec.		8015D/G	11/23/14	1
Volatile Organics										
Acetone <i>P SOL-I</i>	67-64-1	10.	10	25.	50	ug/l	J	8260B	11/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/26/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/26/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/26/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/26/14	1

U = Not Detected at the LOD

Note:

The reported analytical results relate only to the sample submitted.
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KA 2/20/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 05, 2014

Date Received : November 19, 2014
 Description : HOLLOMAN AFB
 Sample ID : SS059-TRIPBLANK-TT01
 Collected By :
 Collection Date : 11/18/14 10:30

ESC Sample # : L734718-01

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual Method	Date	Dil.	
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l	8260B	11/26/14	1	
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l	8260B	11/26/14	1	
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l	8260B	11/26/14	1	
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l	8260B	11/26/14	1	
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l	8260B	11/26/14	1	
Naphthalene	91-20-3	U	1	2.5	5	ug/l	8260B	11/26/14	1	
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l	8260B	11/26/14	1	
Styrene	100-42-5	U	0.31	0.50	1	ug/l	8260B	11/26/14	1	
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l	8260B	11/26/14	1	
1,1,2,2-Tetrachloroethane	79-34-5	U	0.13	0.50	0.75	1	ug/l	8260B	11/26/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l	8260B	11/26/14	1	
Toluene	108-88-3	U	0.78	2.5	5	ug/l	8260B	11/26/14	1	
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l	8260B	11/26/14	1	
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l	8260B	11/26/14	1	
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l	8260B	11/26/14	1	
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l	8260B	11/26/14	1	
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l	8260B	11/26/14	1	
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l	8260B	11/26/14	1	
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l	8260B	11/26/14	1	
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l	8260B	11/26/14	1	
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l	8260B	11/26/14	1	
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l	8260B	11/26/14	1	
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l	8260B	11/26/14	1	
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l	8260B	11/26/14	1	
Surrogate Recovery										
Toluene-d8	2037-26-5	99.4				% Rec.	8260B	11/26/14	1	
Dibromofluoromethane	1868-53-7	103.				% Rec.	8260B	11/26/14	1	
4-Bromofluorobenzene	460-00-4	96.7				% Rec.	8260B	11/26/14	1	

U = Not Detected at the LOD

Note:

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 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 05, 2014

Date Received : November 19, 2014
 Description : HOLLOWMAN AFB
 Sample ID : SS059-FIELDBLANK-01-FT-01
 Collected By :
 Collection Date : 11/17/14 14:00

ESC Sample # : L734718-02

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l	8015D/G	11/24/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	98.9				% Rec.	8015D/G	11/24/14	1
Volatile Organics									
Acetone	67-64-1	U	10	25.	50	ug/l	8260B	11/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l	8260B	11/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l	8260B	11/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l	8260B	11/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l	8260B	11/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l	8260B	11/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l	8260B	11/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l	8260B	11/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l	8260B	11/26/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l	8260B	11/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l	8260B	11/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l	8260B	11/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l	8260B	11/26/14	1
Chloroform FSQ-I	67-66-3	0.33	0.32	2.5	5	ug/l	J 8260B	11/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l	8260B	11/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l	8260B	11/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l	8260B	11/26/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l	8260B	11/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l	8260B	11/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l	8260B	11/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l	8260B	11/26/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l	8260B	11/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l	8260B	11/26/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l	8260B	11/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l	8260B	11/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l	8260B	11/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l	8260B	11/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l	8260B	11/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l	8260B	11/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l	8260B	11/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l	8260B	11/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l	8260B	11/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l	8260B	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l	8260B	11/26/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l	8260B	11/26/14	1

U = Not Detected at the LOD
 Note:

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KA 2/20/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 05, 2014

Date Received : November 19, 2014
 Description : HOLLoman AFB
 Sample ID : SS059-FIELDBLANK-01-FT-01
 Collected By :
 Collection Date : 11/17/14 14:00

ESC Sample # : L734718-02

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/26/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/26/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	11/26/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.13	0.50	0.75	1		8260B	11/26/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/26/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/26/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/26/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	99.4				% Rec.		8260B	11/26/14	1
Dibromofluoromethane	1868-53-7	103.				% Rec.		8260B	11/26/14	1
4-Bromofluorobenzene	460-00-4	96.4				% Rec.		8260B	11/26/14	1

U = Not Detected at the LOD

Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 19, 2014
Description : HOLLOWMAN AFB
Sample ID : SS059-FIELDBLANK-02-FT-01
Collected By :
Collection Date : 11/17/14 15:30

ESC Sample # : L734718-03

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	11/24/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	98.8				% Rec.		8015D/G	11/24/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/26/14	1
Chloroform FSQL-1	67-66-3	0.33	0.32	2.5	5	ug/l	J	8260B	11/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/26/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/26/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/26/14	1

U = Not Detected at the LOD

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 05, 2014

Date Received : November 19, 2014
 Description : HOLLoman AFB
 Sample ID : SS059-FIELD BLANK-02-FT-01
 Collected By :
 Collection Date : 11/17/14 15:30

ESC Sample # : L734718-03

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/26/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/26/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	11/26/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.13	0.50	0.75	1		8260B	11/26/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/26/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/26/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/26/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	99.2				% Rec.		8260B	11/26/14	1
Dibromofluoromethane	1868-53-7	103.				% Rec.		8260B	11/26/14	1
4-Bromofluorobenzene	460-00-4	97.1				% Rec.		8260B	11/26/14	1

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Reported: 12/04/14 15:44 Revised: 12/05/14 17:08

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 19, 2014
Description : HOLLOMAN AFB

ESC Sample # : L734718-04

Sample ID : SS059-XS56-NS01

Site ID :

Collected By :
Collection Date : 11/17/14 13:55

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Total Solids	TSOLIDS	73.5	.0333			%		2540 G-2	11/24/14	1
TPH (GC/FID) Low Fraction	8006-61-9	1.2	.65	1.5	3.0	mg/kg	J	8015D/GR	11/24/14	22.25
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	121.				% Rec.		8015D/GR	11/24/14	22.25
Volatile Organics										
Acetone	67-64-1	U	.3	0.73	1.5	mg/kg	J4	8260B	11/25/14	21.5
Benzene	71-43-2	U	.0079	0.015	0.029	mg/kg		8260B	11/25/14	21.5
Bromobenzene	108-86-1	U	.0083	0.015	0.029	mg/kg		8260B	11/25/14	21.5
Bromochloromethane	74-97-5	U	.011	0.015	0.029	mg/kg		8260B	11/25/14	21.5
Bromodichloromethane	75-27-4	U	.0075	0.015	0.029	mg/kg		8260B	11/25/14	21.5
Bromoform	75-25-2	U	.012	0.015	0.029	mg/kg		8260B	11/25/14	21.5
Bromomethane	74-83-9	U	.039	0.073	0.15	mg/kg		8260B	11/25/14	21.5
n-Butylbenzene	104-51-8	U	.0075	0.015	0.029	mg/kg		8260B	11/25/14	21.5
sec-Butylbenzene	135-98-8	U	.0058	0.015	0.029	mg/kg		8260B	11/25/14	21.5
tert-Butylbenzene	98-06-6	U	.006	0.015	0.029	mg/kg		8260B	11/25/14	21.5
Carbon Disulfide	75-15-0	U	.0082	0.015	0.029	mg/kg		8260B	11/25/14	21.5
Carbon tetrachloride	56-23-5	U	.0095	0.015	0.029	mg/kg		8260B	11/25/14	21.5
Chlorobenzene	108-90-7	U	.0062	0.015	0.029	mg/kg		8260B	11/25/14	21.5
Chlorodibromomethane	124-48-1	U	.011	0.015	0.029	mg/kg		8260B	11/25/14	21.5
Chloroethane	75-00-3	U	.027	0.073	0.15	mg/kg	J6	8260B	11/25/14	21.5
Chloroform	67-66-3	U	.0067	0.073	0.15	mg/kg		8260B	11/25/14	21.5
Chloromethane	74-87-3	U	.011	0.015	0.073	mg/kg		8260B	11/25/14	21.5
2-Chlorotoluene	95-49-8	U	.0088	0.015	0.029	mg/kg		8260B	11/25/14	21.5
4-Chlorotoluene	106-43-4	U	.0071	0.015	0.029	mg/kg		8260B	11/25/14	21.5
1,2-Dibromo-3-Chloropropane	96-12-8	U	.03	0.073	0.15	mg/kg		8260B	11/25/14	21.5
1,2-Dibromoethane	106-93-4	U	.01	0.015	0.029	mg/kg		8260B	11/25/14	21.5
Dibromomethane	74-95-3	U	.011	0.015	0.029	mg/kg		8260B	11/25/14	21.5
1,2-Dichlorobenzene	95-50-1	U	.009	0.015	0.029	mg/kg		8260B	11/25/14	21.5
1,3-Dichlorobenzene	541-73-1	U	.0069	0.015	0.029	mg/kg		8260B	11/25/14	21.5
1,4-Dichlorobenzene	106-46-7	U	.0065	0.015	0.029	mg/kg		8260B	11/25/14	21.5
Dichlorodifluoromethane	75-71-8	U	.02	0.073	0.15	mg/kg		8260B	11/25/14	21.5
1,1-Dichloroethane	75-34-3	U	.0058	0.015	0.029	mg/kg		8260B	11/25/14	21.5
1,2-Dichloroethane	107-06-2	U	.0078	0.015	0.029	mg/kg		8260B	11/25/14	21.5
1,1-Dichloroethene	75-35-4	U	.0088	0.015	0.029	mg/kg		8260B	11/25/14	21.5
cis-1,2-Dichloroethene	156-59-2	U	.0068	0.015	0.029	mg/kg		8260B	11/25/14	21.5
trans-1,2-Dichloroethene	156-60-5	U	.0078	0.015	0.029	mg/kg		8260B	11/25/14	21.5
1,2-Dichloropropane	78-87-5	U	.01	0.015	0.029	mg/kg		8260B	11/25/14	21.5
1,1-Dichloropropene	563-58-6	U	.0092	0.015	0.029	mg/kg		8260B	11/25/14	21.5
1,3-Dichloropropane	142-28-9	U	.006	0.015	0.029	mg/kg		8260B	11/25/14	21.5
cis-1,3-Dichloropropene	10061-01-5	U	.0076	0.015	0.029	mg/kg		8260B	11/25/14	21.5
trans-1,3-Dichloropropene	10061-02-6	U	.0078	0.015	0.029	mg/kg		8260B	11/25/14	21.5
2,2-Dichloropropane	594-20-7	U	.0082	0.015	0.029	mg/kg		8260B	11/25/14	21.5
Ethylbenzene	100-41-4	U	.0087	0.015	0.029	mg/kg		8260B	11/25/14	21.5
Hexachloro-1,3-butadiene	87-68-3	U	.01	0.015	0.029	mg/kg		8260B	11/25/14	21.5

Results listed are dry weight basis.

U = Not Detected at the LOD

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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 19, 2014
Description : HOLLOMAN AFB
Sample ID : SS059-XS56-NS01
Collected By :
Collection Date : 11/17/14 13:55

ESC Sample # : L734718-04

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2-Hexanone	591-78-6	U	.11	0.15	0.29	mg/kg		8260B	11/25/14	21.5
Isopropylbenzene	98-82-8	U	.0071	0.015	0.029	mg/kg		8260B	11/25/14	21.5
p-Isopropyltoluene	99-87-6	U	.006	0.015	0.029	mg/kg		8260B	11/25/14	21.5
2-Butanone (MEK)	78-93-3	U	.14	0.15	0.29	mg/kg		8260B	11/25/14	21.5
Methylene Chloride	75-09-2	U	.03	0.073	0.15	mg/kg		8260B	11/25/14	21.5
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.054	0.15	0.29	mg/kg		8260B	11/25/14	21.5
Methyl tert-butyl ether	1634-04-4	U	.0062	0.015	0.029	mg/kg		8260B	11/25/14	21.5
Naphthalene	91-20-3	U	.03	0.073	0.15	mg/kg		8260B	11/25/14	21.5
n-Propylbenzene	103-65-1	U	.006	0.015	0.029	mg/kg		8260B	11/25/14	21.5
Styrene	100-42-5	U	.0068	0.015	0.029	mg/kg		8260B	11/25/14	21.5
1,1,1,2-Tetrachloroethane	630-20-6	U	.0078	0.015	0.029	mg/kg		8260B	11/25/14	21.5
1,1,2,2-Tetrachloroethane	79-34-5	U	.011	0.022	0.029	mg/kg		8260B	11/25/14	21.5
Tetrachloroethene	127-18-4	U	.008	0.015	0.029	mg/kg		8260B	11/25/14	21.5
Toluene	108-88-3	U	.013	0.073	0.15	mg/kg		8260B	11/25/14	21.5
1,2,3-Trichlorobenzene	87-61-6	U	.009	0.015	0.029	mg/kg		8260B	11/25/14	21.5
1,2,4-Trichlorobenzene	120-82-1	U	.011	0.015	0.029	mg/kg		8260B	11/25/14	21.5
1,1,1-Trichloroethane	71-55-6	U	.0084	0.015	0.029	mg/kg		8260B	11/25/14	21.5
1,1,2-Trichloroethane	79-00-5	U	.0082	0.015	0.029	mg/kg		8260B	11/25/14	21.5
Trichloroethene	79-01-6	U	.0082	0.015	0.029	mg/kg		8260B	11/25/14	21.5
Trichlorofluoromethane	75-69-4	U	.011	0.073	0.15	mg/kg	J6	8260B	11/25/14	21.5
1,2,3-Trichloropropane	96-18-4	U	.022	0.029	0.073	mg/kg		8260B	11/25/14	21.5
1,2,4-Trimethylbenzene	95-63-6	U	.0061	0.015	0.029	mg/kg		8260B	11/25/14	21.5
o-Xylene	95-47-6	U	.0099	0.015	0.029	mg/kg		8260B	11/25/14	21.5
m&p-Xylene	1330-20-7	U	.02	0.029	0.058	mg/kg		8260B	11/25/14	21.5
Vinyl chloride	75-01-4	U	.0084	0.015	0.029	mg/kg		8260B	11/25/14	21.5
1,3,5-Trimethylbenzene	108-67-8	U	.0078	0.015	0.029	mg/kg		8260B	11/25/14	21.5
Surrogate Recovery										
Toluene-d8	2037-26-5	98.6				% Rec.		8260B	11/25/14	21.5
Dibromofluoromethane	1868-53-7	96.8				% Rec.		8260B	11/25/14	21.5
4-Bromofluorobenzene	460-00-4	102.				% Rec.		8260B	11/25/14	21.5

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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 19, 2014
Description : HOLLOMAN AFB
Sample ID : SS059-XS56-NS02-FD
Collected By :
Collection Date : 11/17/14 14:00

ESC Sample # : L734718-05

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Total Solids	TSOLIDS	79.3	.0333			%		2540 G-2	11/24/14	1
TPH (GC/FID) Low Fraction	8006-61-9	1.2	.55	1.3	2.6	mg/kg	J	8015D/GR	11/24/14	20.5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	123.				% Rec.		8015D/GR	11/24/14	20.5
Volatile Organics										
Acetone	67-64-1	U	.3	0.76	1.5	mg/kg	J4	8260B	11/25/14	24.25
Benzene	71-43-2	U	.0082	0.015	0.030	mg/kg		8260B	11/25/14	24.25
Bromobenzene	108-86-1	U	.0087	0.015	0.030	mg/kg		8260B	11/25/14	24.25
Bromochloromethane	74-97-5	U	.012	0.015	0.030	mg/kg		8260B	11/25/14	24.25
Bromodichloromethane	75-27-4	U	.0078	0.015	0.030	mg/kg		8260B	11/25/14	24.25
Bromoform	75-25-2	U	.013	0.015	0.030	mg/kg		8260B	11/25/14	24.25
Bromomethane	74-83-9	U	.04	0.076	0.15	mg/kg		8260B	11/25/14	24.25
n-Butylbenzene	104-51-8	U	.0078	0.015	0.030	mg/kg		8260B	11/25/14	24.25
sec-Butylbenzene	135-98-8	U	.0062	0.015	0.030	mg/kg		8260B	11/25/14	24.25
tert-Butylbenzene	98-06-6	U	.0063	0.015	0.030	mg/kg		8260B	11/25/14	24.25
Carbon Disulfide	75-15-0	U	.0086	0.015	0.030	mg/kg		8260B	11/25/14	24.25
Carbon tetrachloride	56-23-5	U	.01	0.015	0.030	mg/kg		8260B	11/25/14	24.25
Chlorobenzene	108-90-7	U	.0064	0.015	0.030	mg/kg		8260B	11/25/14	24.25
Chlorodibromomethane	124-48-1	U	.011	0.015	0.030	mg/kg		8260B	11/25/14	24.25
Chloroethane	75-00-3	U	.029	0.076	0.15	mg/kg		8260B	11/25/14	24.25
Chloroform	67-66-3	U	.0071	0.076	0.15	mg/kg		8260B	11/25/14	24.25
Chloromethane	74-87-3	U	.011	0.015	0.076	mg/kg		8260B	11/25/14	24.25
2-Chlorotoluene	95-49-8	U	.0092	0.015	0.030	mg/kg		8260B	11/25/14	24.25
4-Chlorotoluene	106-43-4	U	.0073	0.015	0.030	mg/kg		8260B	11/25/14	24.25
1,2-Dibromo-3-Chloropropane	96-12-8	U	.032	0.076	0.15	mg/kg		8260B	11/25/14	24.25
1,2-Dibromoethane	106-93-4	U	.01	0.015	0.030	mg/kg		8260B	11/25/14	24.25
Dibromomethane	74-95-3	U	.012	0.015	0.030	mg/kg		8260B	11/25/14	24.25
1,2-Dichlorobenzene	95-50-1	U	.0093	0.015	0.030	mg/kg		8260B	11/25/14	24.25
1,3-Dichlorobenzene	541-73-1	U	.0073	0.015	0.030	mg/kg		8260B	11/25/14	24.25
1,4-Dichlorobenzene	106-46-7	U	.0069	0.015	0.030	mg/kg		8260B	11/25/14	24.25
Dichlorodifluoromethane	75-71-8	U	.021	0.076	0.15	mg/kg		8260B	11/25/14	24.25
1,1-Dichloroethane	75-34-3	U	.006	0.015	0.030	mg/kg		8260B	11/25/14	24.25
1,2-Dichloroethane	107-06-2	U	.0081	0.015	0.030	mg/kg		8260B	11/25/14	24.25
1,1-Dichloroethene	75-35-4	U	.0092	0.015	0.030	mg/kg		8260B	11/25/14	24.25
cis-1,2-Dichloroethene	156-59-2	U	.0072	0.015	0.030	mg/kg		8260B	11/25/14	24.25
trans-1,2-Dichloroethene	156-60-5	U	.0081	0.015	0.030	mg/kg		8260B	11/25/14	24.25
1,2-Dichloropropane	78-87-5	U	.011	0.015	0.030	mg/kg		8260B	11/25/14	24.25
1,1-Dichloropropene	563-58-6	U	.0097	0.015	0.030	mg/kg		8260B	11/25/14	24.25
1,3-Dichloropropane	142-28-9	U	.0063	0.015	0.030	mg/kg		8260B	11/25/14	24.25
cis-1,3-Dichloropropene	10061-01-5	U	.0081	0.015	0.030	mg/kg		8260B	11/25/14	24.25
trans-1,3-Dichloropropene	10061-02-6	U	.0082	0.015	0.030	mg/kg		8260B	11/25/14	24.25
2,2-Dichloropropane	594-20-7	U	.0086	0.015	0.030	mg/kg		8260B	11/25/14	24.25
Ethylbenzene	100-41-4	U	.0091	0.015	0.030	mg/kg		8260B	11/25/14	24.25
Hexachloro-1,3-butadiene	87-68-3	U	.01	0.015	0.030	mg/kg		8260B	11/25/14	24.25

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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 19, 2014
Description : HOLLOMAN AFB
Sample ID : SS059-XS56-NS02-FD
Collected By :
Collection Date : 11/17/14 14:00

ESC Sample # : L734718-05

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2-Hexanone	591-78-6	U	.12	0.15	0.30	mg/kg		8260B	11/25/14	24.25
Isopropylbenzene	98-82-8	U	.0074	0.015	0.030	mg/kg		8260B	11/25/14	24.25
p-Isopropyltoluene	99-87-6	U	.0062	0.015	0.030	mg/kg		8260B	11/25/14	24.25
2-Butanone (MEK)	78-93-3	U	.14	0.15	0.30	mg/kg		8260B	11/25/14	24.25
Methylene Chloride	75-09-2	U	.03	0.076	0.15	mg/kg		8260B	11/25/14	24.25
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.058	0.15	0.30	mg/kg		8260B	11/25/14	24.25
Methyl tert-butyl ether	1634-04-4	U	.0064	0.015	0.030	mg/kg		8260B	11/25/14	24.25
Naphthalene	91-20-3	U	.03	0.076	0.15	mg/kg		8260B	11/25/14	24.25
n-Propylbenzene	103-65-1	U	.0063	0.015	0.030	mg/kg		8260B	11/25/14	24.25
Styrene	100-42-5	U	.0072	0.015	0.030	mg/kg		8260B	11/25/14	24.25
1,1,1,2-Tetrachloroethane	630-20-6	U	.0081	0.015	0.030	mg/kg		8260B	11/25/14	24.25
1,1,2,2-Tetrachloroethane	79-34-5	U	.011	0.023	0.030	mg/kg		8260B	11/25/14	24.25
Tetrachloroethene	127-18-4	U	.0084	0.015	0.030	mg/kg		8260B	11/25/14	24.25
Toluene	108-88-3	U	.013	0.076	0.15	mg/kg		8260B	11/25/14	24.25
1,2,3-Trichlorobenzene	87-61-6	U	.0093	0.015	0.030	mg/kg		8260B	11/25/14	24.25
1,2,4-Trichlorobenzene	120-82-1	U	.012	0.015	0.030	mg/kg		8260B	11/25/14	24.25
1,1,1-Trichloroethane	71-55-6	U	.0088	0.015	0.030	mg/kg		8260B	11/25/14	24.25
1,1,2-Trichloroethane	79-00-5	U	.0084	0.015	0.030	mg/kg		8260B	11/25/14	24.25
Trichloroethene	79-01-6	U	.0086	0.015	0.030	mg/kg		8260B	11/25/14	24.25
Trichlorofluoromethane	75-69-4	U	.012	0.076	0.15	mg/kg		8260B	11/25/14	24.25
1,2,3-Trichloropropane	96-18-4	U	.023	0.031	0.076	mg/kg		8260B	11/25/14	24.25
1,2,4-Trimethylbenzene	95-63-6	U	.0064	0.015	0.030	mg/kg		8260B	11/25/14	24.25
o-Xylene	95-47-6	U	.01	0.015	0.030	mg/kg		8260B	11/25/14	24.25
m&p-Xylene	1330-20-7	U	.021	0.031	0.061	mg/kg		8260B	11/25/14	24.25
Vinyl chloride	75-01-4	U	.0088	0.015	0.030	mg/kg		8260B	11/25/14	24.25
1,3,5-Trimethylbenzene	108-67-8	U	.0081	0.015	0.030	mg/kg		8260B	11/25/14	24.25
Surrogate Recovery										
Toluene-d8	2037-26-5	99.6				% Rec.		8260B	11/25/14	24.25
Dibromofluoromethane	1868-53-7	99.4				% Rec.		8260B	11/25/14	24.25
4-Bromofluorobenzene	460-00-4	99.2				% Rec.		8260B	11/25/14	24.25

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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 19, 2014
Description : HOLLOMAN AFB
Sample ID : SS059-XS56-NS02
Collected By :
Collection Date : 11/17/14 14:00

ESC Sample # : L734718-06

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Total Solids	TSOLIDS	77.1	.0333			%		2540 G-2	11/24/14	1
TPH (GC/FID) Low Fraction	8006-61-9	1.1	.58	1.3	2.7	mg/kg	J	8015D/GR	11/25/14	20.75
Surrogate Recovery (70-130) a, a, a-Trifluorotoluene (FID)	98-08-8	122.				% Rec.		8015D/GR	11/25/14	20.75
Volatile Organics										
Acetone	67-64-1	U	.26	0.66	1.3	mg/kg	J4	8260B	11/25/14	20.5
Benzene	71-43-2	U	.0071	0.013	0.026	mg/kg		8260B	11/25/14	20.5
Bromobenzene	108-86-1	U	.0075	0.013	0.026	mg/kg		8260B	11/25/14	20.5
Bromochloromethane	74-97-5	U	.01	0.013	0.026	mg/kg		8260B	11/25/14	20.5
Bromodichloromethane	75-27-4	U	.0067	0.013	0.026	mg/kg		8260B	11/25/14	20.5
Bromoform	75-25-2	U	.011	0.013	0.026	mg/kg		8260B	11/25/14	20.5
Bromomethane	74-83-9	U	.035	0.066	0.13	mg/kg		8260B	11/25/14	20.5
n-Butylbenzene	104-51-8	U	.0069	0.013	0.026	mg/kg		8260B	11/25/14	20.5
sec-Butylbenzene	135-98-8	U	.0053	0.013	0.026	mg/kg		8260B	11/25/14	20.5
tert-Butylbenzene	98-06-6	U	.0054	0.013	0.026	mg/kg		8260B	11/25/14	20.5
Carbon Disulfide	75-15-0	U	.0074	0.013	0.026	mg/kg		8260B	11/25/14	20.5
Carbon tetrachloride	56-23-5	U	.0087	0.013	0.026	mg/kg		8260B	11/25/14	20.5
Chlorobenzene	108-90-7	U	.0056	0.013	0.026	mg/kg		8260B	11/25/14	20.5
Chlorodibromomethane	124-48-1	U	.0098	0.013	0.026	mg/kg		8260B	11/25/14	20.5
Chloroethane	75-00-3	U	.025	0.066	0.13	mg/kg		8260B	11/25/14	20.5
Chloroform	67-66-3	U	.0061	0.066	0.13	mg/kg		8260B	11/25/14	20.5
Chloromethane	74-87-3	U	.01	0.013	0.066	mg/kg		8260B	11/25/14	20.5
2-Chlorotoluene	95-49-8	U	.008	0.013	0.026	mg/kg		8260B	11/25/14	20.5
4-Chlorotoluene	106-43-4	U	.0064	0.013	0.026	mg/kg		8260B	11/25/14	20.5
1,2-Dibromo-3-Chloropropane	96-12-8	U	.028	0.066	0.13	mg/kg		8260B	11/25/14	20.5
1,2-Dibromoethane	106-93-4	U	.0091	0.013	0.026	mg/kg		8260B	11/25/14	20.5
Dibromomethane	74-95-3	U	.01	0.013	0.026	mg/kg		8260B	11/25/14	20.5
1,2-Dichlorobenzene	95-50-1	U	.008	0.013	0.026	mg/kg		8260B	11/25/14	20.5
1,3-Dichlorobenzene	541-73-1	U	.0064	0.013	0.026	mg/kg		8260B	11/25/14	20.5
1,4-Dichlorobenzene	106-46-7	U	.006	0.013	0.026	mg/kg		8260B	11/25/14	20.5
Dichlorodifluoromethane	75-71-8	U	.019	0.066	0.13	mg/kg		8260B	11/25/14	20.5
1,1-Dichloroethane	75-34-3	U	.0053	0.013	0.026	mg/kg		8260B	11/25/14	20.5
1,2-Dichloroethane	107-06-2	U	.007	0.013	0.026	mg/kg		8260B	11/25/14	20.5
1,1-Dichloroethene	75-35-4	U	.008	0.013	0.026	mg/kg		8260B	11/25/14	20.5
cis-1,2-Dichloroethene	156-59-2	U	.0062	0.013	0.026	mg/kg		8260B	11/25/14	20.5
trans-1,2-Dichloroethene	156-60-5	U	.007	0.013	0.026	mg/kg		8260B	11/25/14	20.5
1,2-Dichloropropane	78-87-5	U	.0095	0.013	0.026	mg/kg		8260B	11/25/14	20.5
1,1-Dichloropropene	563-58-6	U	.0084	0.013	0.026	mg/kg		8260B	11/25/14	20.5
1,3-Dichloropropane	142-28-9	U	.0054	0.013	0.026	mg/kg		8260B	11/25/14	20.5
cis-1,3-Dichloropropene	10061-01-5	U	.007	0.013	0.026	mg/kg		8260B	11/25/14	20.5
trans-1,3-Dichloropropene	10061-02-6	U	.0071	0.013	0.026	mg/kg		8260B	11/25/14	20.5
2,2-Dichloropropane	594-20-7	U	.0074	0.013	0.026	mg/kg		8260B	11/25/14	20.5
Ethylbenzene	100-41-4	U	.0079	0.013	0.026	mg/kg		8260B	11/25/14	20.5
Hexachloro-1,3-butadiene	87-68-3	U	.0091	0.013	0.026	mg/kg		8260B	11/25/14	20.5

Results listed are dry weight basis.

U = Not Detected at the LOD

Note:

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Reported: 12/04/14 15:44 Revised: 12/05/14 17:08

KAZ/20/15



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 Mt. Juliet, TN 37122
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 05, 2014

Date Received : November 19, 2014
 Description : HOLLOMAN AFB
 Sample ID : SS059-XS56-NS02
 Collected By :
 Collection Date : 11/17/14 14:00

ESC Sample # : L734718-06

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2-Hexanone	591-78-6	U	.1	0.13	0.26	mg/kg	8260B	8260B	11/25/14	20.5
Isopropylbenzene	98-82-8	U	.0065	0.013	0.026	mg/kg	8260B	8260B	11/25/14	20.5
p-Isopropyltoluene	99-87-6	U	.0054	0.013	0.026	mg/kg	8260B	8260B	11/25/14	20.5
2-Butanone (MEK)	78-93-3	U	.12	0.13	0.26	mg/kg	8260B	8260B	11/25/14	20.5
Methylene Chloride	75-09-2	U	.026	0.066	0.13	mg/kg	8260B	8260B	11/25/14	20.5
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.049	0.13	0.26	mg/kg	8260B	8260B	11/25/14	20.5
Methyl tert-butyl ether	1634-04-4	U	.0056	0.013	0.026	mg/kg	8260B	8260B	11/25/14	20.5
Naphthalene	91-20-3	U	.026	0.066	0.13	mg/kg	8260B	8260B	11/25/14	20.5
n-Propylbenzene	103-65-1	U	.0054	0.013	0.026	mg/kg	8260B	8260B	11/25/14	20.5
Styrene	100-42-5	U	.0062	0.013	0.026	mg/kg	8260B	8260B	11/25/14	20.5
1,1,1,2-Tetrachloroethane	630-20-6	U	.007	0.013	0.026	mg/kg	8260B	8260B	11/25/14	20.5
1,1,2,2-Tetrachloroethane	79-34-5	U	.0097	0.020	0.026	mg/kg	8260B	8260B	11/25/14	20.5
Tetrachloroethene	127-18-4	U	.0073	0.013	0.026	mg/kg	8260B	8260B	11/25/14	20.5
Toluene	108-88-3	U	.012	0.066	0.13	mg/kg	8260B	8260B	11/25/14	20.5
1,2,3-Trichlorobenzene	87-61-6	U	.0082	0.013	0.026	mg/kg	8260B	8260B	11/25/14	20.5
1,2,4-Trichlorobenzene	120-82-1	U	.01	0.013	0.026	mg/kg	8260B	8260B	11/25/14	20.5
1,1,1-Trichloroethane	71-55-6	U	.0076	0.013	0.026	mg/kg	8260B	8260B	11/25/14	20.5
1,1,2-Trichloroethane	79-00-5	U	.0074	0.013	0.026	mg/kg	8260B	8260B	11/25/14	20.5
Trichloroethene	79-01-6	U	.0074	0.013	0.026	mg/kg	8260B	8260B	11/25/14	20.5
Trichlorofluoromethane	75-69-4	U	.01	0.066	0.13	mg/kg	8260B	8260B	11/25/14	20.5
1,2,3-Trichloropropane	96-18-4	U	.019	0.027	0.066	mg/kg	8260B	8260B	11/25/14	20.5
1,2,4-Trimethylbenzene	95-63-6	U	.0056	0.013	0.026	mg/kg	8260B	8260B	11/25/14	20.5
o-Xylene	95-47-6	U	.0091	0.013	0.026	mg/kg	8260B	8260B	11/25/14	20.5
m&p-Xylene	1330-20-7	U	.019	0.027	0.053	mg/kg	8260B	8260B	11/25/14	20.5
Vinyl chloride	75-01-4	U	.0078	0.013	0.026	mg/kg	8260B	8260B	11/25/14	20.5
1,3,5-Trimethylbenzene	108-67-8	U	.007	0.013	0.026	mg/kg	8260B	8260B	11/25/14	20.5
Surrogate Recovery										
Toluene-d8	2037-26-5	100.				% Rec.	8260B	8260B	11/25/14	20.5
Dibromofluoromethane	1868-53-7	98.3				% Rec.	8260B	8260B	11/25/14	20.5
4-Bromofluorobenzene	460-00-4	100.				% Rec.	8260B	8260B	11/25/14	20.5

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KA 2/20/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 19, 2014
Description : HOLLOWAN AFB
Sample ID : SS059-XS59-NS01
Collected By :
Collection Date : 11/17/14 12:00

ESC Sample # : L734718-07
Site ID :
Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	7.2				su		9045D	11/25/14	1
Total Solids	TSOLIDS	70.1	.0333			%	T8	2540 G-2	12/04/14	1
Mercury <i>VS LCS-L</i>	7439-97-6	U	.004	0.014	0.028	mg/kg		7471	11/22/14	1
Aluminum <i>J MS+K LCS-I</i>	7429-90-5	200	.26	36.	71.	mg/kg		6010B	11/28/14	5
Antimony	7440-36-0	U	5.4	7.1	14.	mg/kg		6010B	11/28/14	5
Arsenic	7440-38-2	U	4.6	7.1	14.	mg/kg		6010B	11/28/14	5
Barium	7440-39-3	11.	1.2	1.8	3.6	mg/kg		6010B	11/28/14	5
Beryllium	7440-41-7	U	.5	0.71	1.4	mg/kg		6010B	11/28/14	5
Cadmium	7440-43-9	U	.5	1.8	3.6	mg/kg		6010B	11/28/14	5
Chromium	7440-47-3	U	1	3.6	7.1	mg/kg		6010B	11/28/14	5
Cobalt	7440-48-4	U	1.7	3.6	7.1	mg/kg		6010B	11/28/14	5
Copper	7440-50-8	U	3.7	7.1	14.	mg/kg		6010B	11/28/14	5
Lead <i>VS ICS-L</i>	7439-92-1	U	1.4	1.8	3.6	mg/kg		6010B	11/28/14	5
Manganese <i>FSOL-I</i>	7439-96-5	5.0	.86	3.6	7.1	mg/kg	J	6010B	11/28/14	5
Nickel	7440-02-0	U	3.4	7.1	14.	mg/kg		6010B	11/28/14	5
Selenium	7782-49-2	U	5.3	7.1	14.	mg/kg		6010B	11/28/14	5
Silver <i>VS MS-L</i>	7440-22-4	U	2	3.6	7.1	mg/kg		6010B	11/28/14	5
Thallium	7440-28-0	U	4.6	7.1	14.	mg/kg		6010B	11/28/14	5
Vanadium	7440-62-2	U	1.7	7.1	14.	mg/kg		6010B	11/28/14	5
Zinc	7440-66-6	U	4.3	18.	36.	mg/kg		6010B	11/28/14	5
TPH (GC/FID) Low Fraction <i>FSOL-I</i>	8006-61-9	1.4	.77	1.8	3.6	mg/kg	J	8015D/GR	11/25/14	25
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	123.				% Rec.		8015D/GR	11/25/14	25
Volatile Organics										
Acetone	67-64-1	U	.37	0.92	1.8	mg/kg	J4	8260B	11/25/14	25.75
Benzene	71-43-2	U	.01	0.018	0.037	mg/kg		8260B	11/25/14	25.75
Bromobenzene	108-86-1	U	.01	0.018	0.037	mg/kg		8260B	11/25/14	25.75
Bromochloromethane	74-97-5	U	.014	0.018	0.037	mg/kg		8260B	11/25/14	25.75
Bromodichloromethane	75-27-4	U	.0093	0.018	0.037	mg/kg		8260B	11/25/14	25.75
Bromoform	75-25-2	U	.016	0.018	0.037	mg/kg		8260B	11/25/14	25.75
Bromomethane	74-83-9	U	.048	0.092	0.18	mg/kg		8260B	11/25/14	25.75
n-Butylbenzene	104-51-8	U	.0094	0.018	0.037	mg/kg		8260B	11/25/14	25.75
sec-Butylbenzene	135-98-8	U	.0074	0.018	0.037	mg/kg		8260B	11/25/14	25.75
tert-Butylbenzene	98-06-6	U	.0076	0.018	0.037	mg/kg		8260B	11/25/14	25.75
Carbon Disulfide	75-15-0	U	.01	0.018	0.037	mg/kg		8260B	11/25/14	25.75
Carbon tetrachloride	56-23-5	U	.012	0.018	0.037	mg/kg		8260B	11/25/14	25.75
Chlorobenzene	108-90-7	U	.0077	0.018	0.037	mg/kg		8260B	11/25/14	25.75
Chlorodibromomethane	124-48-1	U	.014	0.018	0.037	mg/kg		8260B	11/25/14	25.75
Chloroethane <i>VS CALXKMS-L</i>	75-00-3	U	.034	0.092	0.18	mg/kg		8260B	11/25/14	25.75
Chloroform	67-66-3	U	.0084	0.092	0.18	mg/kg		8260B	11/25/14	25.75
Chloromethane	74-87-3	U	.014	0.018	0.092	mg/kg		8260B	11/25/14	25.75

Results listed are dry weight basis.

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L734718-07 (PH) - 7.2@22.1c

L734718-07 (ICP METALS) - Diluted due to matrix interference.

KA-zhokis



YOUR LAB OF CHOICE

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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 19, 2014
Description : HOLLOMAN AFB

ESC Sample # : L734718-07

Sample ID : SS059-XS59-NS01

Site ID :

Collected By :
Collection Date : 11/17/14 12:00

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2-Chlorotoluene	95-49-8	U	.011	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
4-Chlorotoluene	106-43-4	U	.0088	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
1,2-Dibromo-3-Chloropropane	96-12-8	U	.038	0.092	0.18	mg/kg	8260B	11/25/14	25.75	
1,2-Dibromoethane	106-93-4	U	.012	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
Dibromomethane	74-95-3	U	.014	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
1,2-Dichlorobenzene	95-50-1	U	.011	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
1,3-Dichlorobenzene	541-73-1	U	.0088	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
1,4-Dichlorobenzene	106-46-7	U	.0083	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
Dichlorodifluoromethane	75-71-8	U	.026	0.092	0.18	mg/kg	8260B	11/25/14	25.75	
1,1-Dichloroethane	75-34-3	U	.0073	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
1,2-Dichloroethane	107-06-2	U	.0097	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
1,1-Dichloroethene <i>U3 MS-L</i>	75-35-4	U	.011	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
cis-1,2-Dichloroethene	156-59-2	U	.0086	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
trans-1,2-Dichloroethene	156-60-5	U	.0097	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
1,2-Dichloropropane	78-87-5	U	.013	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
1,1-Dichloropropene	563-58-6	U	.012	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
1,3-Dichloropropane	142-28-9	U	.0076	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
cis-1,3-Dichloropropene	10061-01-5	U	.0096	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
trans-1,3-Dichloropropene	10061-02-6	U	.0098	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
2,2-Dichloropropane	594-20-7	U	.01	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
Ethylbenzene	100-41-4	U	.011	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
Hexachloro-1,3-butadiene	87-68-3	U	.012	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
2-Hexanone	591-78-6	U	.14	0.18	0.37	mg/kg	8260B	11/25/14	25.75	
Isopropylbenzene	98-82-8	U	.0088	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
p-Isopropyltoluene	99-87-6	U	.0074	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
2-Butanone (MEK)	78-93-3	U	.17	0.18	0.37	mg/kg	8260B	11/25/14	25.75	
Methylene Chloride	75-09-2	U	.037	0.092	0.18	mg/kg	8260B	11/25/14	25.75	
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.068	0.18	0.37	mg/kg	8260B	11/25/14	25.75	
Methyl tert-butyl ether	1634-04-4	U	.0077	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
Naphthalene <i>DNR</i>	91-20-3	U	.037	0.092	0.18	mg/kg	8260B	11/25/14	25.75	
n-Propylbenzene	103-65-1	U	.0076	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
Styrene	100-42-5	U	.0086	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
1,1,1,2-Tetrachloroethane	630-20-6	U	.0097	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
1,1,2,2-Tetrachloroethane	79-34-5	U	.013	0.028	0.037	mg/kg	8260B	11/25/14	25.75	
Tetrachloroethene	127-18-4	U	.01	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
Toluene	108-88-3	U	.016	0.092	0.18	mg/kg	8260B	11/25/14	25.75	
1,2,3-Trichlorobenzene	87-61-6	U	.011	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
1,2,4-Trichlorobenzene <i>DNR</i>	120-82-1	U	.014	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
1,1,1-Trichloroethane	71-55-6	U	.01	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
1,1,2-Trichloroethane	79-00-5	U	.01	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
Trichloroethene	79-01-6	U	.01	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
Trichlorofluoromethane	75-69-4	U	.014	0.092	0.18	mg/kg	8260B	11/25/14	25.75	
1,2,3-Trichloropropane	96-18-4	U	.027	0.037	0.092	mg/kg	8260B	11/25/14	25.75	
1,2,4-Trimethylbenzene	95-63-6	U	.0077	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
o-Xylene	95-47-6	U	.012	0.018	0.037	mg/kg	8260B	11/25/14	25.75	
m&p-Xylene	1330-20-7	U	.026	0.037	0.073	mg/kg	8260B	11/25/14	25.75	

Results listed are dry weight basis.

U = Not Detected at the LOD

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The reported analytical results relate only to the sample submitted

Reported: 12/04/14 15:44 Revised: 12/05/14 17:08

L734718-07 (PH) - 7.2@22.1c

L734718-07 (ICP METALS) - Diluted due to matrix interference.

DNR-DO NOT REPORT

KAC/2015



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 05, 2014

Date Received : November 19, 2014
 Description : HOLLoman AFB
 Sample ID : SS059-XS59-NS01
 Collected By :
 Collection Date : 11/17/14 12:00

ESC Sample # : L734718-07

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Vinyl chloride	75-01-4	U	.011	0.018	0.037	mg/kg		8260B	11/25/14	25.75
1,3,5-Trimethylbenzene	108-67-8	U	.0097	0.018	0.037	mg/kg		8260B	11/25/14	25.75
Surrogate Recovery										
Toluene-d8	2037-26-5	101.				% Rec.		8260B	11/25/14	25.75
Dibromofluoromethane	1868-53-7	97.4				% Rec.		8260B	11/25/14	25.75
4-Bromofluorobenzene	460-00-4	101.				% Rec.		8260B	11/25/14	25.75
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	2.3	2.9	5.7	mg/kg		8015	11/25/14	1
C28-C40 Oil Range		U	.38	2.9	5.7	mg/kg		8015	11/25/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	70.2				% Rec.		8015	11/25/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	11/24/14	1
Acenaphthene	83-32-9	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	11/24/14	1
Acenaphthylene	208-96-8	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	11/24/14	1
Benzo(a)anthracene	56-55-3	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	11/24/14	1
Benzo(a)pyrene	50-32-8	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	11/24/14	1
Benzo(b)fluoranthene	205-99-2	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	11/24/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	11/24/14	1
Benzo(k)fluoranthene	207-08-9	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	11/24/14	1
Chrysene	218-01-9	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	11/24/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	11/24/14	1
Fluoranthene	206-44-0	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	11/24/14	1
Fluorene	86-73-7	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	11/24/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	11/24/14	1
Naphthalene	91-20-3	0.0040	.00086	0.0086	0.028	mg/kg	J	8270C-SI	11/24/14	1
Phenanthrene	85-01-8	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	11/24/14	1
Pyrene	129-00-0	U	.00086	0.0029	0.0086	mg/kg		8270C-SI	11/24/14	1
2-Methylnaphthalene	91-57-6	0.0012	.00091	0.0086	0.028	mg/kg	J	8270C-SI	11/24/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	78.7				% Rec.		8270C-SI	11/24/14	1
Nitrobenzene-d5	4165-60-0	88.2				% Rec.		8270C-SI	11/24/14	1
2-Fluorobiphenyl	321-60-8	80.8				% Rec.		8270C-SI	11/24/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	.011	0.24	0.48	mg/kg		8270C	11/26/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.013	0.24	0.48	mg/kg		8270C	11/26/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.011	0.24	0.48	mg/kg		8270C	11/26/14	1
Benzy Alcohol	100-51-6	U	.011	0.24	0.48	mg/kg		8270C	11/26/14	1
Benzoic acid	65-85-0	U	.17	2.4	4.8	mg/kg		8270C	11/26/14	1
Carbazole	86-74-8	U	.0074	0.24	0.48	mg/kg		8270C	11/26/14	1
Dibenzofuran	132-64-9	U	.0074	0.24	0.48	mg/kg		8270C	11/26/14	1
4-Bromophenyl-phenylether	101-55-3	U	.016	0.24	0.48	mg/kg		8270C	11/26/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.009	0.24	0.48	mg/kg		8270C	11/26/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 12/04/14 15:44 Revised: 12/05/14 17:08

L734718-07 (PH) - 7.2@22.1c

L734718-07 (ICP METALS) - Diluted due to matrix interference.

KAZHOLIS

BNS 9/4/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 19, 2014
Description : HOLLOWMAN AFB
Sample ID : SS059-XS59-NS01
Collected By :
Collection Date : 11/17/14 12:00

ESC Sample # : L734718-07
Site ID :
Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2-Chloronaphthalene	91-58-7	U	.009	0.24	0.48	mg/kg		8270C	11/26/14	1
3,3-Dichlorobenzidine	91-94-1	U	.11	0.24	0.48	mg/kg		8270C	11/26/14	1
2,4-Dinitrotoluene	121-14-2	U	.0087	0.24	0.48	mg/kg		8270C	11/26/14	1
2,6-Dinitrotoluene	606-20-2	U	.01	0.24	0.48	mg/kg		8270C	11/26/14	1
Hexachlorobenzene	118-74-1	U	.012	0.24	0.48	mg/kg		8270C	11/26/14	1
Hexachloro-1,3-butadiene	67-68-3	U	.014	0.24	0.48	mg/kg		8270C	11/26/14	1
Hexachloroethane	67-72-1	U	.018	0.24	0.48	mg/kg		8270C	11/26/14	1
Isophorone	78-59-1	U	.0074	0.24	0.48	mg/kg		8270C	11/26/14	1
Nitrobenzene	98-95-3	U	.01	0.24	0.48	mg/kg		8270C	11/26/14	1
n-Nitrosodimethylamine	62-75-9	U	.093	0.24	0.48	mg/kg		8270C	11/26/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0084	0.24	0.48	mg/kg		8270C	11/26/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.013	0.24	0.48	mg/kg		8270C	11/26/14	1
Benzylbutyl phthalate	85-68-7	U	.014	0.24	0.48	mg/kg		8270C	11/26/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.017	0.24	0.48	mg/kg		8270C	11/26/14	1
Di-n-butyl phthalate	84-74-2	U	.016	0.24	0.48	mg/kg		8270C	11/26/14	1
Diethyl phthalate	84-66-2	U	.0098	0.24	0.48	mg/kg		8270C	11/26/14	1
Dimethyl phthalate	131-11-3	U	.0077	0.24	0.48	mg/kg		8270C	11/26/14	1
Di-n-octyl phthalate	117-84-0	U	.013	0.24	0.48	mg/kg		8270C	11/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.012	0.24	0.48	mg/kg		8270C	11/26/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0068	0.24	0.48	mg/kg		8270C	11/26/14	1
2-Chlorophenol	95-57-8	U	.012	0.24	0.48	mg/kg		8270C	11/26/14	1
2,4-Dichlorophenol	120-83-2	U	.011	0.24	0.48	mg/kg		8270C	11/26/14	1
2,4-Dimethylphenol	105-67-9	U	.067	0.24	0.48	mg/kg		8270C	11/26/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.17	0.24	0.48	mg/kg		8270C	11/26/14	1
2,4-Dinitrophenol	51-28-5	U	.14	0.24	0.48	mg/kg		8270C	11/26/14	1
2-Methylphenol	95-48-7	U	.014	0.24	0.48	mg/kg		8270C	11/26/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.011	0.24	0.48	mg/kg		8270C	11/26/14	1
2-Nitrophenol	88-75-5	U	.018	0.24	0.48	mg/kg		8270C	11/26/14	1
4-Nitrophenol	100-02-7	U	.074	0.24	0.48	mg/kg		8270C	11/26/14	1
4-Chloroaniline	106-47-8	U	.005	0.24	0.48	mg/kg		8270C	11/26/14	1
2-Nitroaniline	88-74-4	U	.011	0.24	0.48	mg/kg		8270C	11/26/14	1
1,2-Diphenylhydrazine	103-33-3	U	.002	0.24	0.48	mg/kg		8270C	11/26/14	1
3-Nitroaniline	99-09-2	U	.012	0.24	0.48	mg/kg		8270C	11/26/14	1
4-Nitroaniline	100-01-6	U	.0091	0.24	0.48	mg/kg		8270C	11/26/14	1
Pentachlorophenol	87-86-5	U	.068	0.24	0.48	mg/kg		8270C	11/26/14	1
Phenol	108-95-2	U	.01	0.24	0.48	mg/kg		8270C	11/26/14	1
2,4,5-Trichlorophenol	95-95-4	U	.014	0.24	0.48	mg/kg		8270C	11/26/14	1
2,4,6-Trichlorophenol	88-06-2	U	.011	0.24	0.48	mg/kg		8270C	11/26/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	67.5				% Rec.		8270C	11/26/14	1
Phenol-d5	4165-62-2	66.8				% Rec.		8270C	11/26/14	1
Nitrobenzene-d5	4165-60-0	62.7				% Rec.		8270C	11/26/14	1
2-Fluorobiphenyl	321-60-8	67.7				% Rec.		8270C	11/26/14	1
2,4,6-Tribromophenol	118-79-6	68.9				% Rec.		8270C	11/26/14	1
p-Terphenyl-d14	1718-51-0	55.7				% Rec.		8270C	11/26/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 12/04/14 15:44 Revised: 12/05/14 17:08

L734718-07 (PH) - 7.2@22.1c

L734718-07 (ICP METALS) - Diluted due to matrix interference.

DNR: Do Not Report

CA 2/20/15



YOUR LAB OF CHOICE

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 19, 2014
Description : HOLLOMAN AFB
Sample ID : SS059-XS5⁹-NS02
Collected By :
Collection Date : 11/17/14 12:10

ESC Sample # : L734718-08

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	7.4				su		9045D	11/25/14	1
Total Solids	TSOLIDS	78.5	.0333			%	T8	2540 G-2	12/04/14	1
Mercury <i>US LCS-L</i>	7439-97-6	U	.0036	0.013	0.025	mg/kg		7471	11/22/14	1
Aluminum <i>J LCS + KMS-I</i>	7429-90-5	2200	.23	32.	64.	mg/kg		6010B	11/28/14	5
Antimony	7440-36-0	U	4.8	6.4	13.	mg/kg		6010B	11/28/14	5
Arsenic	7440-38-2	U	4.1	6.4	13.	mg/kg		6010B	11/28/14	5
Barium	7440-39-3	19.	1.1	1.6	3.2	mg/kg		6010B	11/28/14	5
Beryllium	7440-41-7	U	.44	0.64	1.3	mg/kg		6010B	11/28/14	5
Cadmium	7440-43-9	U	.44	1.6	3.2	mg/kg		6010B	11/28/14	5
Chromium <i>F SOL-I</i>	7440-47-3	3.2	.89	3.2	6.4	mg/kg	J	6010B	11/28/14	5
Cobalt	7440-48-4	U	1.5	3.2	6.4	mg/kg		6010B	11/28/14	5
Copper	7440-50-8	U	3.3	6.4	13.	mg/kg		6010B	11/28/14	5
Lead <i>US ICG-L</i>	7439-92-1	U	1.2	1.6	3.2	mg/kg		6010B	11/28/14	5
Manganese	7439-96-5	38.	.76	3.2	6.4	mg/kg		6010B	11/28/14	5
Nickel	7440-02-0	U	3	6.4	13.	mg/kg		6010B	11/28/14	5
Selenium	7782-49-2	U	4.7	6.4	13.	mg/kg		6010B	11/28/14	5
Silver <i>US MS-L</i>	7440-22-4	U	1.8	3.2	6.4	mg/kg		6010B	11/28/14	5
Thallium	7440-28-0	U	4.1	6.4	13.	mg/kg		6010B	11/28/14	5
Vanadium <i>F SOL-I</i>	7440-62-2	8.0	1.5	6.4	13.	mg/kg	J	6010B	11/28/14	5
Zinc <i>ASOLP MS-H</i>	7440-66-6	9.7	3.8	16.	32.	mg/kg	J	6010B	11/28/14	5
TPH (GC/FID) Low Fraction	8006-61-9	690	2.3	5.2	10.	mg/kg		8015D/GR	11/25/14	81
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	98-08-8	106.				% Rec.		8015D/GR	11/25/14	81
Volatile Organics										
Acetone	67-64-1	U	.3	0.75	1.5	mg/kg	J4	8260B	11/25/14	23.5
Benzene	71-43-2	0.18	.008	0.015	0.030	mg/kg		8260B	11/25/14	23.5
Bromobenzene	108-86-1	U	.0085	0.015	0.030	mg/kg		8260B	11/25/14	23.5
Bromochloromethane	74-97-5	U	.012	0.015	0.030	mg/kg		8260B	11/25/14	23.5
Bromodichloromethane	75-27-4	U	.0076	0.015	0.030	mg/kg		8260B	11/25/14	23.5
Bromoform	75-25-2	U	.013	0.015	0.030	mg/kg		8260B	11/25/14	23.5
Bromomethane	74-83-9	U	.039	0.075	0.15	mg/kg		8260B	11/25/14	23.5
n-Butylbenzene	104-51-8	0.42	.0078	0.015	0.030	mg/kg		8260B	11/25/14	23.5
sec-Butylbenzene	135-98-8	0.71	.006	0.015	0.030	mg/kg		8260B	11/25/14	23.5
tert-Butylbenzene <i>F SOL-I</i>	98-06-6	0.028	.0061	0.015	0.030	mg/kg	J	8260B	11/25/14	23.5
Carbon Disulfide	75-15-0	U	.0084	0.015	0.030	mg/kg		8260B	11/25/14	23.5
Carbon tetrachloride	56-23-5	U	.0098	0.015	0.030	mg/kg		8260B	11/25/14	23.5
Chlorobenzene	108-90-7	U	.0064	0.015	0.030	mg/kg		8260B	11/25/14	23.5
Chlorodibromomethane	124-48-1	U	.011	0.015	0.030	mg/kg		8260B	11/25/14	23.5
Chloroethane <i>US CCAL + KMS-L</i>	75-00-3	U	.028	0.075	0.15	mg/kg		8260B	11/25/14	23.5
Chloroform	67-66-3	U	.0069	0.075	0.15	mg/kg		8260B	11/25/14	23.5
Chloromethane	74-87-3	U	.011	0.015	0.075	mg/kg		8260B	11/25/14	23.5

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 12/04/14 15:44 Revised: 12/05/14 17:08

L734718-08 (PH) - 7.4@21.6c

L734718-08 (ICP METALS) - Diluted due to matrix interference.

KA 2/20/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 19, 2014
Description : HOLLOMAN AFB
Sample ID : SS059-XS56-NS02
Collected By :
Collection Date : 11/17/14 12:10

ESC Sample # : L734718-08

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2-Chlorotoluene	95-49-8	U	.009	0.015	0.030	mg/kg		8260B	11/25/14	23.5
4-Chlorotoluene	106-43-4	U	.0071	0.015	0.030	mg/kg		8260B	11/25/14	23.5
1,2-Dibromo-3-Chloropropane	96-12-8	U	.032	0.075	0.15	mg/kg		8260B	11/25/14	23.5
1,2-Dibromoethane	106-93-4	U	.01	0.015	0.030	mg/kg		8260B	11/25/14	23.5
Dibromomethane	74-95-3	U	.011	0.015	0.030	mg/kg		8260B	11/25/14	23.5
1,2-Dichlorobenzene	95-50-1	U	.0092	0.015	0.030	mg/kg		8260B	11/25/14	23.5
1,3-Dichlorobenzene	541-73-1	U	.0071	0.015	0.030	mg/kg		8260B	11/25/14	23.5
1,4-Dichlorobenzene	106-46-7	U	.0068	0.015	0.030	mg/kg		8260B	11/25/14	23.5
Dichlorodifluoromethane	75-71-8	U	.022	0.075	0.15	mg/kg		8260B	11/25/14	23.5
1,1-Dichloroethane	75-34-3	U	.006	0.015	0.030	mg/kg		8260B	11/25/14	23.5
1,2-Dichloroethane	107-06-2	U	.0079	0.015	0.030	mg/kg		8260B	11/25/14	23.5
1,1-Dichloroethene	75-35-4	U	.009	0.015	0.030	mg/kg		8260B	11/25/14	23.5
cis-1,2-Dichloroethene	156-59-2	U	.007	0.015	0.030	mg/kg		8260B	11/25/14	23.5
trans-1,2-Dichloroethene	156-60-5	U	.0079	0.015	0.030	mg/kg		8260B	11/25/14	23.5
1,2-Dichloropropane	78-87-5	U	.011	0.015	0.030	mg/kg		8260B	11/25/14	23.5
1,1-Dichloropropene	563-58-6	U	.0094	0.015	0.030	mg/kg		8260B	11/25/14	23.5
1,3-Dichloropropane	142-28-9	U	.0062	0.015	0.030	mg/kg		8260B	11/25/14	23.5
cis-1,3-Dichloropropene	10061-01-5	U	.0079	0.015	0.030	mg/kg		8260B	11/25/14	23.5
trans-1,3-Dichloropropene	10061-02-6	U	.008	0.015	0.030	mg/kg		8260B	11/25/14	23.5
2,2-Dichloropropane	594-20-7	U	.0084	0.015	0.030	mg/kg		8260B	11/25/14	23.5
Ethylbenzene	100-41-4	3.0	.0089	0.015	0.030	mg/kg		8260B	11/25/14	23.5
Hexachloro-1,3-butadiene	87-68-3	U	.01	0.015	0.030	mg/kg		8260B	11/25/14	23.5
2-Hexanone	591-78-6	U	.11	0.15	0.30	mg/kg		8260B	11/25/14	23.5
Isopropylbenzene	98-82-8	1.1	.0073	0.015	0.030	mg/kg		8260B	11/25/14	23.5
p-Isopropyltoluene	99-87-6	0.37	.0061	0.015	0.030	mg/kg		8260B	11/25/14	23.5
2-Butanone (MEK)	78-93-3	U	.14	0.15	0.30	mg/kg		8260B	11/25/14	23.5
Methylene Chloride	75-09-2	U	.03	0.075	0.15	mg/kg		8260B	11/25/14	23.5
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.056	0.15	0.30	mg/kg		8260B	11/25/14	23.5
Methyl tert-butyl ether	1634-04-4	U	.0064	0.015	0.030	mg/kg		8260B	11/25/14	23.5
Naphthalene DNR	91-20-3	0.58	.03	0.075	0.15	mg/kg		8260B	11/25/14	23.5
n-Propylbenzene	103-65-1	1.3	.0061	0.015	0.030	mg/kg		8260B	11/25/14	23.5
Styrene	100-42-5	U	.007	0.015	0.030	mg/kg		8260B	11/25/14	23.5
1,1,1,2-Tetrachloroethane	630-20-6	U	.0079	0.015	0.030	mg/kg		8260B	11/25/14	23.5
1,1,2,2-Tetrachloroethane	79-34-5	U	.011	0.022	0.030	mg/kg		8260B	11/25/14	23.5
Tetrachloroethene	127-18-4	U	.0083	0.015	0.030	mg/kg		8260B	11/25/14	23.5
Toluene FSQC-1	108-88-3	0.020	.013	0.075	0.15	mg/kg	J	8260B	11/25/14	23.5
1,2,3-Trichlorobenzene	87-61-6	U	.0092	0.015	0.030	mg/kg		8260B	11/25/14	23.5
1,2,4-Trichlorobenzene DNR	120-82-1	U	.012	0.015	0.030	mg/kg		8260B	11/25/14	23.5
1,1,1-Trichloroethane	71-55-6	U	.0086	0.015	0.030	mg/kg		8260B	11/25/14	23.5
1,1,2-Trichloroethane	79-00-5	U	.0083	0.015	0.030	mg/kg		8260B	11/25/14	23.5
Trichloroethene	79-01-6	U	.0084	0.015	0.030	mg/kg		8260B	11/25/14	23.5
Trichlorofluoromethane	75-69-4	U	.011	0.075	0.15	mg/kg		8260B	11/25/14	23.5
1,2,3-Trichloropropane	96-18-4	U	.022	0.030	0.075	mg/kg		8260B	11/25/14	23.5
1,2,4-Trimethylbenzene	95-63-6	4.4	.0064	0.015	0.030	mg/kg		8260B	11/25/14	23.5
o-Xylene	95-47-6	1.9	.01	0.015	0.030	mg/kg		8260B	11/25/14	23.5
m&p-Xylene	1330-20-7	2.5	.022	0.030	0.060	mg/kg		8260B	11/25/14	23.5

Results listed are dry weight basis.

U = Not Detected at the LOD

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The reported analytical results relate only to the sample submitted

Reported: 12/04/14 15:44 Revised: 12/05/14 17:08

L734718-08 (PH) - 7.4@21.6c

L734718-08 (ICP METALS) - Diluted due to matrix interference.

DNR: Do Not Report

KA Zholer



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 19, 2014
Description : HOLLOWMAN AFB
Sample ID : SS059-XS5⁹-NS02
Collected By :
Collection Date : 11/17/14 12:10

ESC Sample # : L734718-08

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Vinyl chloride	75-01-4	U	.0087	0.015	0.030	mg/kg		8260B	11/25/14	23.5
1,3,5-Trimethylbenzene	108-67-8	1.4	.0079	0.015	0.030	mg/kg		8260B	11/25/14	23.5
Surrogate Recovery										
Toluene-d8	2037-26-5	94.5				% Rec.		8260B	11/25/14	23.5
Dibromofluoromethane	1868-53-7	92.3				% Rec.		8260B	11/25/14	23.5
4-Bromofluorobenzene	460-00-4	114.				% Rec.		8260B	11/25/14	23.5
Diesel and Oil Ranges										
C10-C28 Diesel Range		1000	10	13.	25.	mg/kg		8015	11/25/14	5
C28-C40 Oil Range		U	.34	2.5	5.1	mg/kg		8015	11/25/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	69.8				% Rec.		8015	11/25/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene F SOL I	120-12-7	0.0010	.00076	0.0025	0.0076	mg/kg	J	8270C-SI	11/24/14	1
Acenaphthene	83-32-9	0.027	.00076	0.0025	0.0076	mg/kg		8270C-SI	11/24/14	1
Acenaphthylene	208-96-8	0.018	.00076	0.0025	0.0076	mg/kg		8270C-SI	11/24/14	1
Benzo(a)anthracene	56-55-3	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	11/24/14	1
Benzo(a)pyrene	50-32-8	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	11/24/14	1
Benzo(b)fluoranthene U3 U3 U3	205-99-2	U	.00076	0.0025	0.0076	mg/kg	J3	8270C-SI	11/24/14	1
Benzo(g,h,i)perylene	191-24-2	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	11/24/14	1
Benzo(k)fluoranthene	207-08-9	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	11/24/14	1
Chrysene	218-01-9	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	11/24/14	1
Dibenz(a,h)anthracene	53-70-3	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	11/24/14	1
Fluoranthene	206-44-0	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	11/24/14	1
Fluorene	86-73-7	0.034	.00076	0.0025	0.0076	mg/kg		8270C-SI	11/24/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	11/24/14	1
Naphthalene	91-20-3	0.93	.00076	0.0076	0.025	mg/kg		8270C-SI	11/24/14	1
Phenanthrene	85-01-8	0.0088	.00076	0.0025	0.0076	mg/kg		8270C-SI	11/24/14	1
Pyrene	129-00-0	U	.00076	0.0025	0.0076	mg/kg		8270C-SI	11/24/14	1
2-Methylnaphthalene	91-57-6	2.3	.00082	0.0076	0.025	mg/kg		8270C-SI	11/24/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	93.4				% Rec.		8270C-SI	11/24/14	1
Nitrobenzene-d5	4165-60-0	131.				% Rec.		8270C-SI	11/24/14	1
2-Fluorobiphenyl	321-60-8	89.7				% Rec.		8270C-SI	11/24/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	.0098	0.21	0.42	mg/kg		8270C	11/26/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.011	0.21	0.42	mg/kg		8270C	11/26/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.0097	0.21	0.42	mg/kg		8270C	11/26/14	1
Benzyl Alcohol	100-51-6	U	.0096	0.21	0.42	mg/kg		8270C	11/26/14	1
Benzoic acid	65-85-0	U	.15	2.1	4.2	mg/kg		8270C	11/26/14	1
Carbazole	86-74-8	U	.0066	0.21	0.42	mg/kg		8270C	11/26/14	1
Dibenzofuran F SOL I	132-64-9	0.043	.0066	0.21	0.42	mg/kg	J	8270C	11/26/14	1
4-Bromophenyl-phenylether	101-55-3	U	.014	0.21	0.42	mg/kg		8270C	11/26/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.008	0.21	0.42	mg/kg		8270C	11/26/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 12/04/14 15:44 Revised: 12/05/14 17:08

L734718-08 (PH) - 7.4@21.6c

L734718-08 (ICP METALS) - Diluted due to matrix interference.

KA-zholis

BMS 9/4/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 19, 2014
Description : HOLLOWAN AFB
Sample ID : SS059-XS56-NS02
Collected By :
Collection Date : 11/17/14 12:10

ESC Sample # : L734718-08

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2-Chloronaphthalene	91-58-7	U	.008	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
3,3-Dichlorobenzidine	91-94-1	U	.1	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
2,4-Dinitrotoluene	121-14-2	U	.0078	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
2,6-Dinitrotoluene	606-20-2	U	.0094	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
Hexachlorobenzene	118-74-1	U	.011	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.013	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
Hexachloroethane	67-72-1	U	.016	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
Isophorone	78-59-1	U	.0066	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
Nitrobenzene	98-95-3	U	.0089	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
n-Nitrosodimethylamine	62-75-9	U	.083	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0075	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.012	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
Benzylbutyl phthalate	85-68-7	U	.013	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.015	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
Di-n-butyl phthalate	84-74-2	U	.014	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
Diethyl phthalate	84-66-2	U	.0088	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
Dimethyl phthalate	131-11-3	U	.0069	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
Di-n-octyl phthalate	117-84-0	U	.012	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.011	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0061	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
2-Chlorophenol	95-57-8	U	.01	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
2,4-Dichlorophenol	120-83-2	U	.0096	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
2,4-Dimethylphenol	105-67-9	U	.06	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.15	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
2,4-Dinitrophenol	51-28-5	U	.12	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
2-Methylphenol	95-48-7	U	.013	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.0099	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
2-Nitrophenol	88-75-5	U	.016	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
4-Nitrophenol	100-02-7	U	.066	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
4-Chloroaniline	106-47-8	U	.0044	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
2-Nitroaniline	88-74-4	U	.0097	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0018	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
3-Nitroaniline	99-09-2	U	.011	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
4-Nitroaniline	100-01-6	U	.0082	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
Pentachlorophenol	87-86-5	U	.061	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
Phenol	108-95-2	U	.0089	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
2,4,5-Trichlorophenol	95-95-4	U	.013	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
2,4,6-Trichlorophenol	88-06-2	U	.0099	0.21	0.42	mg/kg	8270C	8270C	11/26/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	70.1				% Rec.	8270C	8270C	11/26/14	1
Phenol-d5	4165-62-2	65.0				% Rec.	8270C	8270C	11/26/14	1
Nitrobenzene-d5	4165-60-0	91.9				% Rec.	8270C	8270C	11/26/14	1
2-Fluorobiphenyl	321-60-8	73.5				% Rec.	8270C	8270C	11/26/14	1
2,4,6-Tribromophenol	118-79-6	73.8				% Rec.	8270C	8270C	11/26/14	1
p-Terphenyl-d14	1718-51-0	59.6				% Rec.	8270C	8270C	11/26/14	1

Results listed are dry weight basis.

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Reported: 12/04/14 15:44 Revised: 12/05/14 17:08

L734718-08 (PH) - 7.4@21.6c

L734718-08 (ICP METALS) - Diluted due to matrix interference.

DNR: DO NOT REPORT

KA zhalis



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

December 05, 2014

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

Date Received : November 19, 2014
Description : HOLLOMAN AFB

Sample ID : SS059-XS60-NS01

Collected By :
Collection Date : 11/17/14 10:30

ESC Sample # : L734718-09

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	7.8				su		9045D	11/25/14	1
Total Solids	TSOLIDS	85.8	.0333			%	T8	2540 G-2	12/04/14	1
Mercury <i>U3 LCS-L</i>	7439-97-6	U	.0033	0.012	0.023	mg/kg		7471	11/22/14	1
Aluminum <i>S LCS & KMS-I</i>	7429-90-5	1900	.21	29.	58.	mg/kg		6010B	11/28/14	5
Antimony	7440-36-0	U	4.4	5.8	12.	mg/kg		6010B	11/28/14	5
Arsenic	7440-38-2	U	3.7	5.8	12.	mg/kg		6010B	11/28/14	5
Barium	7440-39-3	21.	.99	1.5	2.9	mg/kg		6010B	11/28/14	5
Beryllium	7440-41-7	U	.41	0.58	1.2	mg/kg		6010B	11/28/14	5
Cadmium	7440-43-9	U	.41	1.5	2.9	mg/kg		6010B	11/28/14	5
Chromium <i>FSOL-I</i>	7440-47-3	2.9	.82	2.9	5.8	mg/kg	J	6010B	11/28/14	5
Cobalt	7440-48-4	U	1.4	2.9	5.8	mg/kg		6010B	11/28/14	5
Copper	7440-50-8	U	3	5.8	12.	mg/kg		6010B	11/28/14	5
Lead <i>FS SOL, ICS-L</i>	7439-92-1	1.4	1.1	1.5	2.9	mg/kg	J	6010B	11/28/14	5
Manganese	7439-96-5	36.	.7	2.9	5.8	mg/kg		6010B	11/28/14	5
Nickel	7440-02-0	U	2.8	5.8	12.	mg/kg		6010B	11/28/14	5
Selenium	7782-49-2	U	4.3	5.8	12.	mg/kg		6010B	11/28/14	5
Silver <i>U3 MS-L</i>	7440-22-4	U	1.6	2.9	5.8	mg/kg		6010B	11/28/14	5
Thallium	7440-28-0	U	3.7	5.8	12.	mg/kg		6010B	11/28/14	5
Vanadium <i>FSOL-I</i>	7440-62-2	6.4	1.4	5.8	12.	mg/kg	J	6010B	11/28/14	5
Zinc <i>FSOL & MS-H</i>	7440-66-6	7.1	3.5	15.	29.	mg/kg	J	6010B	11/28/14	5
TPH (GC/FID) Low Fraction <i>FSOL-I</i>	8006-61-9	1.9	.73	1.7	3.4	mg/kg	J	8015D/GR	11/25/14	29.25
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	123.				% Rec.		8015D/GR	11/25/14	29.25
Volatile Organics										
Acetone	67-64-1	U	.38	0.97	1.9	mg/kg	J4	8260B	11/25/14	33.25
Benzene	71-43-2	U	.01	0.019	0.039	mg/kg		8260B	11/25/14	33.25
Bromobenzene	108-86-1	U	.011	0.019	0.039	mg/kg		8260B	11/25/14	33.25
Bromochloromethane	74-97-5	U	.015	0.019	0.039	mg/kg		8260B	11/25/14	33.25
Bromodichloromethane	75-27-4	U	.0098	0.019	0.039	mg/kg		8260B	11/25/14	33.25
Bromoform	75-25-2	U	.016	0.019	0.039	mg/kg		8260B	11/25/14	33.25
Bromomethane	74-83-9	U	.051	0.097	0.19	mg/kg		8260B	11/25/14	33.25
n-Butylbenzene	104-51-8	U	.01	0.019	0.039	mg/kg		8260B	11/25/14	33.25
sec-Butylbenzene	135-98-8	U	.0078	0.019	0.039	mg/kg		8260B	11/25/14	33.25
tert-Butylbenzene	98-06-6	U	.0079	0.019	0.039	mg/kg		8260B	11/25/14	33.25
Carbon Disulfide	75-15-0	U	.011	0.019	0.039	mg/kg		8260B	11/25/14	33.25
Carbon tetrachloride	56-23-5	U	.013	0.019	0.039	mg/kg		8260B	11/25/14	33.25
Chlorobenzene	108-90-7	U	.0082	0.019	0.039	mg/kg		8260B	11/25/14	33.25
Chlorodibromomethane	124-48-1	U	.014	0.019	0.039	mg/kg		8260B	11/25/14	33.25
Chloroethane <i>U3 CAL & KMS-L</i>	75-00-3	U	.036	0.097	0.19	mg/kg		8260B	11/25/14	33.25
Chloroform	67-66-3	U	.0088	0.097	0.19	mg/kg		8260B	11/25/14	33.25
Chloromethane	74-87-3	U	.014	0.019	0.097	mg/kg		8260B	11/25/14	33.25

Results listed are dry weight basis.

U = Not Detected at the LOD

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Reported: 12/04/14 15:44 Revised: 12/05/14 17:08

L734718-09 (ICP METALS) - Diluted due to matrix interference.

L734718-09 (PH) - 7.8@22.0c



12065 Lebanon Rd.
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 19, 2014
Description : HOLLoman AFB
Sample ID : SS059-XS60-NS01
Collected By :
Collection Date : 11/17/14 10:30

ESC Sample # : L734718-09

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2-Chlorotoluene	95-49-8	U	.012	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
4-Chlorotoluene	106-43-4	U	.0093	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
1,2-Dibromo-3-Chloropropane	96-12-8	U	.041	0.097	0.19	mg/kg	8260B	11/25/14	33.25	
1,2-Dibromoethane	106-93-4	U	.013	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
Dibromomethane	74-95-3	U	.015	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
1,2-Dichlorobenzene	95-50-1	U	.012	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
1,3-Dichlorobenzene	541-73-1	U	.0092	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
1,4-Dichlorobenzene	106-46-7	U	.0087	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
Dichlorodifluoromethane	75-71-8	U	.028	0.097	0.19	mg/kg	8260B	11/25/14	33.25	
1,1-Dichloroethane	75-34-3	U	.0077	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
1,2-Dichloroethane	107-06-2	U	.01	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
1,1-Dichloroethene <i>US MS-L</i>	75-35-4	U	.012	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
cis-1,2-Dichloroethene	156-59-2	U	.0091	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
trans-1,2-Dichloroethene	156-60-5	U	.01	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
1,2-Dichloropropane	78-87-5	U	.014	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
1,1-Dichloropropene	563-58-6	U	.012	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
1,3-Dichloropropane	142-28-9	U	.008	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
cis-1,3-Dichloropropene	10061-01-5	U	.01	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
trans-1,3-Dichloropropene	10061-02-6	U	.01	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
2,2-Dichloropropane	594-20-7	U	.011	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
Ethylbenzene	100-41-4	U	.012	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
Hexachloro-1,3-butadiene <i>DNR</i>	87-68-3	U	.013	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
2-Hexanone	591-78-6	U	.15	0.19	0.39	mg/kg	8260B	11/25/14	33.25	
Isopropylbenzene	98-82-8	U	.0094	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
p-Isopropyltoluene	99-87-6	U	.0079	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
2-Butanone (MEK)	78-93-3	U	.19	0.19	0.39	mg/kg	8260B	11/25/14	33.25	
Methylene Chloride	75-09-2	U	.038	0.097	0.19	mg/kg	8260B	11/25/14	33.25	
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.072	0.19	0.39	mg/kg	8260B	11/25/14	33.25	
Methyl tert-butyl ether	1634-04-4	U	.0082	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
Napthalene <i>DNR</i>	91-20-3	U	.038	0.097	0.19	mg/kg	8260B	11/25/14	33.25	
n-Propylbenzene	103-65-1	U	.0079	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
Styrene	100-42-5	U	.0091	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
1,1,1,2-Tetrachloroethane	630-20-6	U	.01	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
1,1,2,2-Tetrachloroethane	79-34-5	U	.014	0.029	0.039	mg/kg	8260B	11/25/14	33.25	
Tetrachloroethene	127-18-4	U	.011	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
Toluene	108-88-3	U	.016	0.097	0.19	mg/kg	8260B	11/25/14	33.25	
1,2,3-Trichlorobenzene	87-61-6	U	.012	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
1,2,4-Trichlorobenzene <i>DNR</i>	120-82-1	U	.015	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
1,1,1-Trichloroethane	71-55-6	U	.011	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
1,1,2-Trichloroethane	79-00-5	U	.011	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
Trichloroethene	79-01-6	U	.011	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
Trichlorofluoromethane	75-69-4	U	.015	0.097	0.19	mg/kg	8260B	11/25/14	33.25	
1,2,3-Trichloropropane	96-18-4	U	.029	0.039	0.097	mg/kg	8260B	11/25/14	33.25	
1,2,4-Trimethylbenzene <i>FSOL-I</i>	95-63-6	0.013	.0082	0.019	0.039	mg/kg	J	8260B	11/25/14	33.25
o-Xylene	95-47-6	U	.013	0.019	0.039	mg/kg	8260B	11/25/14	33.25	
m&p-Xylene	1330-20-7	U	.028	0.039	0.078	mg/kg	8260B	11/25/14	33.25	

Results listed are dry weight basis.

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Reported: 12/04/14 15:44 Revised: 12/05/14 17:08

L734718-09 (ICP METALS) - Diluted due to matrix interference.

L734718-09 (PH) - 7.8@22.0c

DNR: Do Not Report



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 19, 2014
Description : HOLLOWAN AFB
Sample ID : SS059-XS60-NS01
Collected By :
Collection Date : 11/17/14 10:30

ESC Sample # : L734718-09

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Vinyl chloride	75-01-4	U	.011	0.019	0.039	mg/kg		8260B	11/25/14	33.25
1,3,5-Trimethylbenzene	108-67-8	U	.01	0.019	0.039	mg/kg		8260B	11/25/14	33.25
Surrogate Recovery										
Toluene-d8	2037-26-5	98.4				% Rec.		8260B	11/25/14	33.25
Dibromofluoromethane	1868-53-7	94.3				% Rec.		8260B	11/25/14	33.25
4-Bromofluorobenzene	460-00-4	101.				% Rec.		8260B	11/25/14	33.25
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	1.9	2.3	4.7	mg/kg		8015	11/25/14	1
C28-C40 Oil Range		U	.31	2.3	4.7	mg/kg		8015	11/25/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	66.4				% Rec.		8015	11/25/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.0007	0.0023	0.0070	mg/kg		8270C-SI	11/24/14	1
Acenaphthene	83-32-9	U	.0007	0.0023	0.0070	mg/kg		8270C-SI	11/24/14	1
Acenaphthylene	208-96-8	U	.0007	0.0023	0.0070	mg/kg		8270C-SI	11/24/14	1
Benzo (a) anthracene	56-55-3	U	.0007	0.0023	0.0070	mg/kg		8270C-SI	11/24/14	1
Benzo (a) pyrene	50-32-8	U	.0007	0.0023	0.0070	mg/kg		8270C-SI	11/24/14	1
Benzo (b) fluoranthene	205-99-2	U	.0007	0.0023	0.0070	mg/kg	J3	8270C-SI	11/24/14	1
Benzo (g, h, i) perylene	191-24-2	U	.0007	0.0023	0.0070	mg/kg		8270C-SI	11/24/14	1
Benzo (k) fluoranthene	207-08-9	U	.0007	0.0023	0.0070	mg/kg		8270C-SI	11/24/14	1
Chrysene	218-01-9	U	.0007	0.0023	0.0070	mg/kg		8270C-SI	11/24/14	1
Dibenz (a, h) anthracene	53-70-3	U	.0007	0.0023	0.0070	mg/kg		8270C-SI	11/24/14	1
Fluoranthene	206-44-0	U	.0007	0.0023	0.0070	mg/kg		8270C-SI	11/24/14	1
Fluorene	86-73-7	U	.0007	0.0023	0.0070	mg/kg		8270C-SI	11/24/14	1
Indeno (1, 2, 3-cd) pyrene	193-39-5	U	.0007	0.0023	0.0070	mg/kg		8270C-SI	11/24/14	1
Naphthalene	91-20-3	0.0071	.0007	0.0070	0.023	mg/kg	J	8270C-SI	11/24/14	1
Phenanthrene	85-01-8	U	.0007	0.0023	0.0070	mg/kg		8270C-SI	11/24/14	1
Pyrene	129-00-0	U	.0007	0.0023	0.0070	mg/kg		8270C-SI	11/24/14	1
2-Methylnaphthalene	91-57-6	0.014	.00074	0.0070	0.023	mg/kg	J	8270C-SI	11/24/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	76.9				% Rec.		8270C-SI	11/24/14	1
Nitrobenzene-d5	4165-60-0	75.2				% Rec.		8270C-SI	11/24/14	1
2-Fluorobiphenyl	321-60-8	73.0				% Rec.		8270C-SI	11/24/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	.009	0.19	0.39	mg/kg		8270C	11/26/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.01	0.19	0.39	mg/kg		8270C	11/26/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.0088	0.19	0.39	mg/kg		8270C	11/26/14	1
Benzyl Alcohol	100-51-6	U	.0087	0.19	0.39	mg/kg		8270C	11/26/14	1
Benzoic acid	65-85-0	U	.14	1.9	3.9	mg/kg		8270C	11/26/14	1
Carbazole	86-74-8	U	.0061	0.19	0.39	mg/kg		8270C	11/26/14	1
Dibenzofuran	132-64-9	U	.0061	0.19	0.39	mg/kg		8270C	11/26/14	1
4-Bromophenyl-phenylether	101-55-3	U	.013	0.19	0.39	mg/kg		8270C	11/26/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0073	0.19	0.39	mg/kg		8270C	11/26/14	1

Results listed are dry weight basis.

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Reported: 12/04/14 15:44 Revised: 12/05/14 17:08

L734718-09 (ICP METALS) - Diluted due to matrix interference.

L734718-09 (PH) - 7.8@22.0c



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 19, 2014
Description : HOLLOWAN AFB
Sample ID : SS059-XS60-NS01
Collected By :
Collection Date : 11/17/14 10:30

ESC Sample # : L734718-09

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2-Chloronaphthalene	91-58-7	U	.0073	0.19	0.39	mg/kg		8270C	11/26/14	1
3,3-Dichlorobenzidine	91-94-1	U	.092	0.19	0.39	mg/kg		8270C	11/26/14	1
2,4-Dinitrotoluene	121-14-2	U	.0071	0.19	0.39	mg/kg		8270C	11/26/14	1
2,6-Dinitrotoluene	606-20-2	U	.0086	0.19	0.39	mg/kg		8270C	11/26/14	1
Hexachlorobenzene	118-74-1	U	.01	0.19	0.39	mg/kg		8270C	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.012	0.19	0.39	mg/kg		8270C	11/26/14	1
Hexachloroethane	67-72-1	U	.015	0.19	0.39	mg/kg		8270C	11/26/14	1
Isophorone	78-59-1	U	.0061	0.19	0.39	mg/kg		8270C	11/26/14	1
Nitrobenzene	98-95-3	U	.0082	0.19	0.39	mg/kg		8270C	11/26/14	1
n-Nitrosodimethylamine	62-75-9	U	.076	0.19	0.39	mg/kg		8270C	11/26/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0069	0.19	0.39	mg/kg		8270C	11/26/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.011	0.19	0.39	mg/kg		8270C	11/26/14	1
Benzylbutyl phthalate	85-68-7	U	.012	0.19	0.39	mg/kg		8270C	11/26/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.014	0.19	0.39	mg/kg		8270C	11/26/14	1
Di-n-butyl phthalate	84-74-2	U	.013	0.19	0.39	mg/kg		8270C	11/26/14	1
Diethyl phthalate	84-66-2	U	.008	0.19	0.39	mg/kg		8270C	11/26/14	1
Dimethyl phthalate	131-11-3	U	.0063	0.19	0.39	mg/kg		8270C	11/26/14	1
Di-n-octyl phthalate	117-84-0	U	.011	0.19	0.39	mg/kg		8270C	11/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.01	0.19	0.39	mg/kg		8270C	11/26/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0056	0.19	0.39	mg/kg		8270C	11/26/14	1
2-Chlorophenol	95-57-8	U	.0097	0.19	0.39	mg/kg		8270C	11/26/14	1
2,4-Dichlorophenol	120-83-2	U	.0087	0.19	0.39	mg/kg		8270C	11/26/14	1
2,4-Dimethylphenol	105-67-9	U	.055	0.19	0.39	mg/kg		8270C	11/26/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.14	0.19	0.39	mg/kg		8270C	11/26/14	1
2,4-Dinitrophenol	51-28-5	U	.11	0.19	0.39	mg/kg		8270C	11/26/14	1
2-Methylphenol	95-48-7	U	.012	0.19	0.39	mg/kg		8270C	11/26/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.0091	0.19	0.39	mg/kg		8270C	11/26/14	1
2-Nitrophenol	88-75-5	U	.015	0.19	0.39	mg/kg		8270C	11/26/14	1
4-Nitrophenol	100-02-7	U	.061	0.19	0.39	mg/kg		8270C	11/26/14	1
4-Chloroaniline	106-47-8	U	.0041	0.19	0.39	mg/kg		8270C	11/26/14	1
2-Nitroaniline	88-74-4	U	.0088	0.19	0.39	mg/kg		8270C	11/26/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0016	0.19	0.39	mg/kg		8270C	11/26/14	1
3-Nitroaniline	99-09-2	U	.0099	0.19	0.39	mg/kg		8270C	11/26/14	1
4-Nitroaniline	100-01-6	U	.0074	0.19	0.39	mg/kg		8270C	11/26/14	1
Pentachlorophenol	87-86-5	U	.056	0.19	0.39	mg/kg		8270C	11/26/14	1
Phenol	108-95-2	U	.0082	0.19	0.39	mg/kg		8270C	11/26/14	1
2,4,5-Trichlorophenol	95-95-4	U	.012	0.19	0.39	mg/kg		8270C	11/26/14	1
2,4,6-Trichlorophenol	88-06-2	U	.0091	0.19	0.39	mg/kg		8270C	11/26/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	54.2				% Rec.		8270C	11/26/14	1
Phenol-d5	4165-62-2	53.2				% Rec.		8270C	11/26/14	1
Nitrobenzene-d5	4165-60-0	50.0				% Rec.		8270C	11/26/14	1
2-Fluorobiphenyl	321-60-8	58.8				% Rec.		8270C	11/26/14	1
2,4,6-Tribromophenol	118-79-6	56.0				% Rec.		8270C	11/26/14	1
p-Terphenyl-d14	1718-51-0	54.7				% Rec.		8270C	11/26/14	1

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L734718-09 (ICP METALS) - Diluted due to matrix interference.

L734718-09 (PH) - 7.8@22.0c

KA 2/20/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 19, 2014
Description : HOLLoman AFB
Sample ID : SS059-XS60-NS02
Collected By :
Collection Date : 11/17/14 10:34

ESC Sample # : L734718-10

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
pH	00010-29-7	7.8				su		9045D	11/25/14	1
Total Solids	TSOLIDS	85.1	.0333			%	T8	2540 G-2	12/04/14	1
Mercury <i>US MS-L</i>	7439-97-6	U	.0033	0.012	0.024	mg/kg		7471	11/22/14	1
Aluminum <i>FJ SOL, MS-I</i>	7429-90-5	3300	2100	29.	5900	mg/kg	J	6010B	12/02/14	5
Antimony	7440-36-0	U	4.5	5.9	12.	mg/kg		6010B	11/28/14	5
Arsenic	7440-38-2	U	3.8	5.9	12.	mg/kg		6010B	11/28/14	5
Barium	7440-39-3	35.	1	1.5	2.9	mg/kg		6010B	11/28/14	5
Beryllium	7440-41-7	U	.41	0.59	1.2	mg/kg		6010B	11/28/14	5
Cadmium	7440-43-9	U	.41	1.5	2.9	mg/kg		6010B	11/28/14	5
Chromium <i>F SOL-I</i>	7440-47-3	4.3	.82	2.9	5.9	mg/kg	J	6010B	11/28/14	5
Cobalt <i>F SOL-I</i>	7440-48-4	1.9	1.4	2.9	5.9	mg/kg	J	6010B	11/28/14	5
Copper	7440-50-8	U	3	5.9	12.	mg/kg		6010B	11/28/14	5
Lead <i>FJ SOL, ICS-L</i>	7439-92-1	2.1	1.1	1.5	2.9	mg/kg	J	6010B	11/28/14	5
Manganese	7439-96-5	68.	.7	2.9	5.9	mg/kg		6010B	11/28/14	5
Nickel <i>F SOL-I</i>	7440-02-0	3.2	2.8	5.9	12.	mg/kg	J	6010B	11/28/14	5
Selenium	7782-49-2	U	4.3	5.9	12.	mg/kg		6010B	11/28/14	5
Silver <i>US MS-L</i>	7440-22-4	U	1.6	2.9	5.9	mg/kg		6010B	11/28/14	5
Thallium	7440-28-0	U	3.8	5.9	12.	mg/kg		6010B	11/28/14	5
Vanadium <i>F SOL-I</i>	7440-62-2	10.	1.4	5.9	12.	mg/kg	J	6010B	11/28/14	5
Zinc <i>F SOL, MS-H</i>	7440-66-6	14.	3.5	15.	29.	mg/kg	J	6010B	11/28/14	5
TPH (GC/FID) Low Fraction <i>F SOL-I</i>	8006-61-9	1.5	.85	2.0	3.9	mg/kg	J	8015D/GR	11/25/14	33.25
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98-08-8	123.				% Rec.		8015D/GR	11/25/14	33.25
Volatile Organics										
Acetone	67-64-1	U	.3	0.76	1.5	mg/kg	J4	8260B	11/25/14	26
Benzene	71-43-2	U	.0082	0.015	0.030	mg/kg		8260B	11/25/14	26
Bromobenzene	108-86-1	U	.0087	0.015	0.030	mg/kg		8260B	11/25/14	26
Bromochloromethane	74-97-5	U	.012	0.015	0.030	mg/kg		8260B	11/25/14	26
Bromodichloromethane	75-27-4	U	.0078	0.015	0.030	mg/kg		8260B	11/25/14	26
Bromoform	75-25-2	U	.013	0.015	0.030	mg/kg		8260B	11/25/14	26
Bromomethane	74-83-9	U	.041	0.076	0.15	mg/kg		8260B	11/25/14	26
n-Butylbenzene	104-51-8	U	.0079	0.015	0.030	mg/kg		8260B	11/25/14	26
sec-Butylbenzene	135-98-8	U	.0061	0.015	0.030	mg/kg		8260B	11/25/14	26
tert-Butylbenzene	98-06-6	U	.0063	0.015	0.030	mg/kg		8260B	11/25/14	26
Carbon Disulfide	75-15-0	U	.0086	0.015	0.030	mg/kg		8260B	11/25/14	26
Carbon tetrachloride	56-23-5	U	.01	0.015	0.030	mg/kg		8260B	11/25/14	26
Chlorobenzene	108-90-7	U	.0065	0.015	0.030	mg/kg		8260B	11/25/14	26
Chlorodibromomethane	124-48-1	U	.011	0.015	0.030	mg/kg		8260B	11/25/14	26
Chloroethane <i>US CCALXMS-L</i>	75-00-3	U	.028	0.076	0.15	mg/kg		8260B	11/25/14	26
Chloroform	67-66-3	U	.007	0.076	0.15	mg/kg		8260B	11/25/14	26
Chloromethane	74-87-3	U	.012	0.015	0.076	mg/kg		8260B	11/25/14	26

Results listed are dry weight basis.

U = Not Detected at the LOD

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The reported analytical results relate only to the sample submitted

Reported: 12/04/14 15:44 Revised: 12/05/14 17:08

L734718-10 (PH) - 7.8@21.8c

L734718-10 (ICP METALS) - Diluted due to matrix interference.



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 05, 2014

Date Received : November 19, 2014
 Description : HOLLOMAN AFB
 Sample ID : SS059-XS60-NS02
 Collected By :
 Collection Date : 11/17/14 10:34

ESC Sample # : L734718-10

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2-Chlorotoluene	95-49-8	U	.0092	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
4-Chlorotoluene	106-43-4	U	.0073	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
1,2-Dibromo-3-Chloropropane	96-12-8	U	.032	0.076	0.15	mg/kg	8260B	8260B	11/25/14	26
1,2-Dibromoethane	106-93-4	U	.01	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
Dibromomethane	74-95-3	U	.012	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
1,2-Dichlorobenzene	95-50-1	U	.0093	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
1,3-Dichlorobenzene	541-73-1	U	.0073	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
1,4-Dichlorobenzene	106-46-7	U	.0069	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
Dichlorodifluoromethane	75-71-8	U	.021	0.076	0.15	mg/kg	8260B	8260B	11/25/14	26
1,1-Dichloroethane	75-34-3	U	.0061	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
1,2-Dichloroethane	107-06-2	U	.0081	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
1,1-Dichloroethene <i>US MS-L</i>	75-35-4	U	.0093	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
cis-1,2-Dichloroethene	156-59-2	U	.0072	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
trans-1,2-Dichloroethene	156-60-5	U	.0081	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
1,2-Dichloropropane	78-87-5	U	.011	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
1,1-Dichloropropene	563-58-6	U	.0096	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
1,3-Dichloropropane	142-28-9	U	.0063	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
cis-1,3-Dichloropropene	10061-01-5	U	.008	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
trans-1,3-Dichloropropene	10061-02-6	U	.0081	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
2,2-Dichloropropane	594-20-7	U	.0085	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
Ethylbenzene	100-41-4	U	.009	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
Hexachloro-1,3-butadiene	87-68-3	U	.01	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
2-Hexanone	591-78-6	U	.12	0.15	0.30	mg/kg	8260B	8260B	11/25/14	26
Isopropylbenzene	98-82-8	U	.0074	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
p-Isopropyltoluene	99-87-6	U	.0062	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
2-Butanone (MEK)	78-93-3	U	.14	0.15	0.30	mg/kg	8260B	8260B	11/25/14	26
Methylene Chloride	75-09-2	U	.03	0.076	0.15	mg/kg	8260B	8260B	11/25/14	26
4-Methyl-2-pentanone (MIBK)	108-10-1	U	.058	0.15	0.30	mg/kg	8260B	8260B	11/25/14	26
Methyl tert-butyl ether	1634-04-4	U	.0065	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
Naphthalene <i>DNR</i>	91-20-3	U	.03	0.076	0.15	mg/kg	8260B	8260B	11/25/14	26
n-Propylbenzene	103-65-1	U	.0063	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
Styrene	100-42-5	U	.0072	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
1,1,1,2-Tetrachloroethane	630-20-6	U	.0081	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
1,1,2,2-Tetrachloroethane	79-34-5	U	.011	0.023	0.030	mg/kg	8260B	8260B	11/25/14	26
Tetrachloroethene	127-18-4	U	.0085	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
Toluene	108-88-3	U	.013	0.076	0.15	mg/kg	8260B	8260B	11/25/14	26
1,2,3-Trichlorobenzene	87-61-6	U	.0094	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
1,2,4-Trichlorobenzene <i>DNR</i>	120-82-1	U	.012	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
1,1,1-Trichloroethane	71-55-6	U	.0087	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
1,1,2-Trichloroethane	79-00-5	U	.0085	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
Trichloroethene	79-01-6	U	.0085	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
Trichlorofluoromethane	75-69-4	U	.012	0.076	0.15	mg/kg	8260B	8260B	11/25/14	26
1,2,3-Trichloropropane	96-18-4	U	.022	0.031	0.076	mg/kg	8260B	8260B	11/25/14	26
1,2,4-Trimethylbenzene	95-63-6	U	.0065	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
o-Xylene	95-47-6	U	.01	0.015	0.030	mg/kg	8260B	8260B	11/25/14	26
m&p-Xylene	1330-20-7	U	.022	0.031	0.061	mg/kg	8260B	8260B	11/25/14	26

Results listed are dry weight basis.

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Reported: 12/04/14 15:44 Revised: 12/05/14 17:08

L734718-10 (PH) - 7.8@21.8c

L734718-10 (ICP METALS) - Diluted due to matrix interference.

DNR: Do Not Report

KA/z/colis



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 19, 2014
Description : HOLLOWAN AFB
Sample ID : SS059-XS60-NS02
Collected By :
Collection Date : 11/17/14 10:34

ESC Sample # : L734718-10

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Vinyl chloride	75-01-4	U	.0089	0.015	0.030	mg/kg		8260B	11/25/14	26
1,3,5-Trimethylbenzene	108-67-8	U	.0081	0.015	0.030	mg/kg		8260B	11/25/14	26
Surrogate Recovery										
Toluene-d8	2037-26-5	102.				% Rec.		8260B	11/25/14	26
Dibromofluoromethane	1868-53-7	93.1				% Rec.		8260B	11/25/14	26
4-Bromofluorobenzene	460-00-4	104.				% Rec.		8260B	11/25/14	26
Diesel and Oil Ranges										
C10-C28 Diesel Range		U	1.9	2.4	4.7	mg/kg		8015	11/25/14	1
C28-C40 Oil Range		U	.32	2.4	4.7	mg/kg		8015	11/25/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	73.1				% Rec.		8015	11/25/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	.0007	0.0024	0.0070	mg/kg		8270C-SI	11/24/14	1
Acenaphthene	83-32-9	U	.0007	0.0024	0.0070	mg/kg		8270C-SI	11/24/14	1
Acenaphthylene	208-96-8	U	.0007	0.0024	0.0070	mg/kg		8270C-SI	11/24/14	1
Benzo(a)anthracene	56-55-3	U	.0007	0.0024	0.0070	mg/kg		8270C-SI	11/24/14	1
Benzo(a)pyrene	50-32-8	U	.0007	0.0024	0.0070	mg/kg		8270C-SI	11/24/14	1
Benzo(b)fluoranthene	205-99-2	U	.0007	0.0024	0.0070	mg/kg	J3	8270C-SI	11/24/14	1
Benzo(g,h,i)perylene	191-24-2	U	.0007	0.0024	0.0070	mg/kg		8270C-SI	11/24/14	1
Benzo(k)fluoranthene	207-08-9	U	.0007	0.0024	0.0070	mg/kg		8270C-SI	11/24/14	1
Chrysene	218-01-9	U	.0007	0.0024	0.0070	mg/kg		8270C-SI	11/24/14	1
Dibenz(a,h)anthracene	53-70-3	U	.0007	0.0024	0.0070	mg/kg		8270C-SI	11/24/14	1
Fluoranthene	206-44-0	U	.0007	0.0024	0.0070	mg/kg		8270C-SI	11/24/14	1
Fluorene	86-73-7	U	.0007	0.0024	0.0070	mg/kg		8270C-SI	11/24/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	.0007	0.0024	0.0070	mg/kg		8270C-SI	11/24/14	1
Naphthalene	91-20-3	0.0039	.0007	0.0071	0.024	mg/kg	J	8270C-SI	11/24/14	1
Phenanthrene	85-01-8	U	.0007	0.0024	0.0070	mg/kg		8270C-SI	11/24/14	1
Pyrene	129-00-0	U	.0007	0.0024	0.0070	mg/kg		8270C-SI	11/24/14	1
2-Methylnaphthalene	91-57-6	U	.00075	0.0071	0.024	mg/kg		8270C-SI	11/24/14	1
Surrogate Recovery										
p-Terphenyl-d14	1718-51-0	70.8				% Rec.		8270C-SI	11/24/14	1
Nitrobenzene-d5	4165-60-0	72.3				% Rec.		8270C-SI	11/24/14	1
2-Fluorobiphenyl	321-60-8	68.6				% Rec.		8270C-SI	11/24/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	.009	0.20	0.39	mg/kg		8270C	11/26/14	1
Bis(2-chloroethyl)ether	111-44-4	U	.01	0.20	0.39	mg/kg		8270C	11/26/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	.0089	0.20	0.39	mg/kg		8270C	11/26/14	1
Benzyl Alcohol	100-51-6	U	.0088	0.20	0.39	mg/kg		8270C	11/26/14	1
Benzoic acid	65-85-0	U	.14	2.0	3.9	mg/kg		8270C	11/26/14	1
Carbazole	86-74-8	U	.0061	0.20	0.39	mg/kg		8270C	11/26/14	1
Dibenzofuran	132-64-9	U	.0061	0.20	0.39	mg/kg		8270C	11/26/14	1
4-Bromophenyl-phenylether	101-55-3	U	.013	0.20	0.39	mg/kg		8270C	11/26/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	.0074	0.20	0.39	mg/kg		8270C	11/26/14	1

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Reported: 12/04/14 15:44 Revised: 12/05/14 17:08

L734718-10 (PH) - 7.8@21.8c

L734718-10 (ICP METALS) - Diluted due to matrix interference.

KA 2/20/15

BNS 9/4/15



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 19, 2014
Description : HOLLOWAN AFB
Sample ID : SS059-XS60-NS02
Collected By :
Collection Date : 11/17/14 10:34

ESC Sample # : L734718-10

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2-Chloronaphthalene	91-58-7	U	.0074	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
3,3-Dichlorobenzidine	91-94-1	U	.093	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
2,4-Dinitrotoluene	121-14-2	U	.0072	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
2,6-Dinitrotoluene	606-20-2	U	.0087	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
Hexachlorobenzene	118-74-1	U	.01	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	.012	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
Hexachloroethane	67-72-1	U	.015	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
Isophorone	78-59-1	U	.0061	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
Nitrobenzene	98-95-3	U	.0082	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
n-Nitrosodimethylamine	62-75-9	U	.076	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
n-Nitrosodiphenylamine	86-30-6	U	.0069	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	.011	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
Benzylbutyl phthalate	85-68-7	U	.012	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	.014	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
Di-n-butyl phthalate	84-74-2	U	.013	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
Diethyl phthalate	84-66-2	U	.0081	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
Dimethyl phthalate	131-11-3	U	.0063	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
Di-n-octyl phthalate	117-84-0	U	.011	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	.01	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	.0056	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
2-Chlorophenol	95-57-8	U	.0098	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
2,4-Dichlorophenol	120-83-2	U	.0088	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
2,4-Dimethylphenol	105-67-9	U	.055	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	.14	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
2,4-Dinitrophenol	51-28-5	U	.12	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
2-Methylphenol	95-48-7	U	.012	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
3&4-Methyl Phenol	3&4-Methyl	U	.0092	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
2-Nitrophenol	88-75-5	U	.015	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
4-Nitrophenol	100-02-7	U	.061	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
4-Chloroaniline	106-47-8	U	.0041	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
2-Nitroaniline	88-74-4	U	.0089	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
1,2-Diphenylhydrazine	103-33-3	U	.0016	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
3-Nitroaniline	99-09-2	U	.01	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
4-Nitroaniline	100-01-6	U	.0075	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
Pentachlorophenol	87-86-5	U	.056	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
Phenol	108-95-2	U	.0082	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
2,4,5-Trichlorophenol	95-95-4	U	.012	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
2,4,6-Trichlorophenol	88-06-2	U	.0092	0.20	0.39	mg/kg	8270C	8270C	11/26/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	60.8				% Rec.	8270C	8270C	11/26/14	1
Phenol-d5	4165-62-2	59.5				% Rec.	8270C	8270C	11/26/14	1
Nitrobenzene-d5	4165-60-0	56.8				% Rec.	8270C	8270C	11/26/14	1
2-Fluorobiphenyl	321-60-8	67.2				% Rec.	8270C	8270C	11/26/14	1
2,4,6-Tribromophenol	118-79-6	64.0				% Rec.	8270C	8270C	11/26/14	1
p-Terphenyl-d14	1718-51-0	58.6				% Rec.	8270C	8270C	11/26/14	1

Results listed are dry weight basis.

U = Not Detected at the LOD

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L734718-10 (PH) - 7.8@21.8c

L734718-10 (ICP METALS) - Diluted due to matrix interference.

DNR: DO NOT REPORT



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 20, 2014
Description : HOLLoman AFB

ESC Sample # : L734718-11

Sample ID : H-SS059-MW-40-NT01

Site ID :

Collected By :
Collection Date : 11/18/14 13:50

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l	8015D/G	11/25/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	98.5				% Rec.	8015D/G	11/25/14	1
Volatile Organics									
Acetone	67-64-1	U	10	25.	50	ug/l	8260B	11/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l	8260B	11/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l	8260B	11/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l	8260B	11/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l	8260B	11/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l	8260B	11/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l	8260B	11/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l	8260B	11/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l	8260B	11/26/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l	8260B	11/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l	8260B	11/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l	8260B	11/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l	8260B	11/26/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l	8260B	11/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l	8260B	11/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l	8260B	11/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l	8260B	11/26/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l	8260B	11/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l	8260B	11/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l	8260B	11/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l	8260B	11/26/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l	8260B	11/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l	8260B	11/26/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l	8260B	11/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l	8260B	11/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l	8260B	11/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l	8260B	11/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l	8260B	11/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l	8260B	11/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l	8260B	11/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l	8260B	11/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l	8260B	11/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l	8260B	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l	8260B	11/26/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l	8260B	11/26/14	1

U = Not Detected at the LOD

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 20, 2014
Description : HOLLOMAN AFB
Sample ID : H-SS059-MW-40-NT01
Collected By :
Collection Date : 11/18/14 13:50

ESC Sample # : L734718-11

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/26/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/26/14	1
Methyl tert-butyl ether	1634-04-4	1.8	0.37	0.50	1	ug/l		8260B	11/26/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	11/26/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.30	0.75	1	ug/l		8260B	11/26/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/26/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/26/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/26/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	99.2				% Rec.		8260B	11/26/14	1
Dibromofluoromethane	1868-53-7	103.				% Rec.		8260B	11/26/14	1
4-Bromofluorobenzene	460-00-4	97.1				% Rec.		8260B	11/26/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		190	22	33.	100	ug/l		8015	12/02/14	1
C28-C40 Oil Range		74.	12	33.	100	ug/l	J	8015	12/02/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	95.6				% Rec.		8015	12/02/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	11/24/14	1
Acenaphthene	83-32-9	U	0.0082	0.025	0.05	ug/l		8270 C-	11/24/14	1
Acenaphthylene	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo(a)anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo(a)pyrene	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo(b)fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo(g,h,i)perylene	191-24-2	U	0.016	0.025	0.05	ug/l	J3	8270 C-	11/24/14	1
Benzo(k)fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	11/24/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	11/24/14	1
Dibenz(a,h)anthracene	53-70-3	U	0.0045	0.025	0.05	ug/l	J3	8270 C-	11/24/14	1

U = Not Detected at the LOD

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ICAZ 12/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 20, 2014
Description : HOLLOWAN AFB
Sample ID : H-SS059-MW-40-NT01
Collected By :
Collection Date : 11/18/14 13:50

ESC Sample # : L734718-11
Site ID :
Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Fluoranthene <i>US MS-L</i>	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/24/14	1
Fluorene	86-73-7	U	0.009	0.025	0.05	ug/l		8270 C-	11/24/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	11/24/14	1
Naphthalene <i>US MS-L</i>	91-20-3	U	0.015	0.012	0.025	ug/l	J	8270 C-	11/24/14	1
Phenanthrene <i>US MS-L</i>	85-01-8	U	0.018	0.025	0.05	ug/l		8270 C-	11/24/14	1
Pyrene <i>US MS-L</i>	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/24/14	1
2-Methylnaphthalene <i>US MS, FO-I</i>	91-57-6	U	0.016	0.025	0.25	ug/l		8270 C-	11/24/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	86.8				% Rec.		8270 C-	11/24/14	1
2-Fluorobiphenyl	321-60-8	87.6				% Rec.		8270 C-	11/24/14	1
p-Terphenyl-d14	1718-51-0	102.				% Rec.		8270 C-	11/24/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	0.36	5.6	11.1	ug/l		8270C	11/24/14	1.11
Bis(2-chloroethyl)ether	111-44-4	U	1.8	5.6	11.1	ug/l		8270C	11/24/14	1.11
Bis(2-chloroisopropyl)ether	108-60-1	U	0.49	5.6	11.1	ug/l		8270C	11/24/14	1.11
Benzyl Alcohol	100-51-6	U	0.44	5.6	11.1	ug/l		8270C	11/24/14	1.11
Carbazole	86-74-8	U	0.18	5.6	11.1	ug/l		8270C	11/24/14	1.11
Benzoic acid <i>FSQL-I</i>	65-85-0	1.6	0.49	5.6	11.1	ug/l	J	8270C	11/24/14	1.11
Dibenzofuran	132-64-9	U	0.38	5.6	11.1	ug/l		8270C	11/24/14	1.11
4-Bromophenyl-phenylether	101-55-3	U	0.39	5.6	11.1	ug/l		8270C	11/24/14	1.11
2-Chloronaphthalene	91-58-7	U	0.37	0.56	1.11	ug/l		8270C	11/24/14	1.11
4-Chlorophenyl-phenylether	7005-72-3	U	0.34	5.6	11.1	ug/l		8270C	11/24/14	1.11
3,3-Dichlorobenzidine	91-94-1	U	2.2	5.6	11.1	ug/l		8270C	11/24/14	1.11
2,4-Dinitrotoluene	121-14-2	U	1.8	5.6	11.1	ug/l		8270C	11/24/14	1.11
2,6-Dinitrotoluene	606-20-2	U	0.31	5.6	11.1	ug/l		8270C	11/24/14	1.11
Hexachlorobenzene	118-74-1	U	0.38	0.56	1.11	ug/l		8270C	11/24/14	1.11
Hexachloro-1,3-butadiene <i>DNR</i>	87-68-3	U	0.36	5.6	11.1	ug/l		8270C	11/24/14	1.11
Hexachloroethane	67-72-1	U	0.4	5.6	11.1	ug/l		8270C	11/24/14	1.11
Isophorone	78-59-1	U	0.3	5.6	11.1	ug/l		8270C	11/24/14	1.11
Nitrobenzene	98-95-3	U	0.41	5.6	11.1	ug/l		8270C	11/24/14	1.11
n-Nitrosodimethylamine	62-75-9	U	1.4	5.6	11.1	ug/l		8270C	11/24/14	1.11
n-Nitrosodiphenylamine	86-30-6	U	0.34	5.6	11.1	ug/l		8270C	11/24/14	1.11
n-Nitrosodi-n-propylamine	621-64-7	U	0.45	5.6	11.1	ug/l		8270C	11/24/14	1.11
Benzylbutyl phthalate	85-68-7	U	0.3	1.1	3.33	ug/l		8270C	11/24/14	1.11
Bis(2-ethylhexyl)phthalate <i>UMB-I</i>	117-81-7	U	0.99	1.1	0.99	ug/l	J	8270C	11/24/14	1.11
Di-n-butyl phthalate <i>FSQL-I</i>	84-74-2	0.52	0.3	1.1	3.33	ug/l	J	8270C	11/24/14	1.11
Diethyl phthalate	84-66-2	U	0.31	1.1	3.33	ug/l		8270C	11/24/14	1.11
Dimethyl phthalate	131-11-3	U	0.31	1.1	3.33	ug/l		8270C	11/24/14	1.11
Di-n-octyl phthalate	117-84-0	U	0.31	1.1	3.33	ug/l		8270C	11/24/14	1.11
1,2,4-Trichlorobenzene <i>DNR</i>	120-82-1	U	0.39	5.6	11.1	ug/l		8270C	11/24/14	1.11
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.29	5.6	11.1	ug/l		8270C	11/24/14	1.11
2-Chlorophenol	95-57-8	U	0.31	5.6	11.1	ug/l		8270C	11/24/14	1.11
2,4-Dichlorophenol	120-83-2	U	0.32	5.6	11.1	ug/l		8270C	11/24/14	1.11
2,4-Dimethylphenol	105-67-9	U	0.69	5.6	11.1	ug/l		8270C	11/24/14	1.11

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DNR: DO NOT REPORT

KA 8/26/15

KA 2/20/15



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Tax I.D. 62-0814289
Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 20, 2014
Description : HOLLOWAN AFB
Sample ID : H-SS059-MW-40-NT01
Collected By :
Collection Date : 11/18/14 13:50

ESC Sample # : L734718-11
Site ID :
Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
4,6-Dinitro-2-methylphenol	534-52-1	U	2.9	5.6	11.1	ug/l		8270C	11/24/14	1.11
2,4-Dinitrophenol	51-28-5	U	3.6	5.6	11.1	ug/l		8270C	11/24/14	1.11
2-Methylphenol	95-48-7	U	0.35	5.6	11.1	ug/l		8270C	11/24/14	1.11
3&4-Methyl Phenol	3&4-Methyl	U	0.3	5.6	11.1	ug/l		8270C	11/24/14	1.11
2-Nitrophenol	88-75-5	U	0.36	5.6	11.1	ug/l		8270C	11/24/14	1.11
4-Nitrophenol	100-02-7	U	2.2	5.6	11.1	ug/l		8270C	11/24/14	1.11
4-Chloroaniline	106-47-8	U	0.42	5.6	11.1	ug/l		8270C	11/24/14	1.11
2-Nitroaniline	88-74-4	U	2.1	5.6	11.1	ug/l		8270C	11/24/14	1.11
3-Nitroaniline	99-09-2	U	0.34	5.6	11.1	ug/l		8270C	11/24/14	1.11
1,2-Diphenylhydrazine	103-33-3	U	0.35	5.6	11.1	ug/l		8270C	11/24/14	1.11
4-Nitroaniline	100-01-6	U	0.39	5.6	11.1	ug/l		8270C	11/24/14	1.11
Pentachlorophenol	87-86-5	U	0.35	5.6	11.1	ug/l		8270C	11/24/14	1.11
Phenol	108-95-2	U	0.37	5.6	11.1	ug/l		8270C	11/24/14	1.11
2,4,5-Trichlorophenol	95-95-4	U	0.26	5.6	11.1	ug/l		8270C	11/24/14	1.11
2,4,6-Trichlorophenol	88-06-2	U	0.33	5.6	11.1	ug/l		8270C	11/24/14	1.11
Surrogate Recovery										
2-Fluorophenol	367-12-4	46.0				% Rec.		8270C	11/24/14	1.11
Phenol-d5	4165-62-2	37.0				% Rec.		8270C	11/24/14	1.11
Nitrobenzene-d5	4165-60-0	75.0				% Rec.		8270C	11/24/14	1.11
2-Fluorobiphenyl	321-60-8	82.0				% Rec.		8270C	11/24/14	1.11
2,4,6-Tribromophenol	118-79-6	64.0				% Rec.		8270C	11/24/14	1.11
p-Terphenyl-d14	1718-51-0	80.0				% Rec.		8270C	11/24/14	1.11

U = Not Detected at the LOD

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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 05, 2014

Date Received : November 20, 2014
 Description : HOLLOMAN AFB
 Sample ID : H-SS059-MW-40-DT01
 Collected By :
 Collection Date : 11/18/14 13:50

ESC Sample # : L734718-12
 Site ID :
 Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	11/25/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	99.1				% Rec.		8015D/G	11/25/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/26/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/26/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/26/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/26/14	1

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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 05, 2014

Date Received : November 20, 2014
 Description : HOLLoman AFB
 Sample ID : H-SS059-MW-40-DT01
 Collected By :
 Collection Date : 11/18/14 13:50

ESC Sample # : L734718-12
 Site ID :
 Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/26/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/26/14	1
Methyl tert-butyl ether <i>MS-H</i>	1634-04-4	1.9	0.37	0.50	1	ug/l		8260B	11/26/14	1
Naphthalene <i>DNR</i>	91-20-3	U	1	2.5	5	ug/l		8260B	11/26/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.13	0.58	0.75	1	ug/l	8260B	11/26/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/26/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/26/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/26/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	100.				% Rec.		8260B	11/26/14	1
Dibromofluoromethane	1868-53-7	104.				% Rec.		8260B	11/26/14	1
4-Bromofluorobenzene	460-00-4	96.6				% Rec.		8260B	11/26/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		200	22	33.	100	ug/l		8015	12/02/14	1
C28-C40 Oil Range <i>F SOL-2</i>		80.	12	33.	100	ug/l	J	8015	12/02/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	92.0				% Rec.		8015	12/02/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene <i>MS-D-L</i>	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	11/24/14	1
Acenaphthene	83-32-9	U	0.0082	0.025	0.05	ug/l		8270 C-	11/24/14	1
Acenaphthylene	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo(a)anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo(a)pyrene	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo(b)fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo(g,h,i)perylene	191-24-2	U	0.016	0.025	0.05	ug/l	J3	8270 C-	11/24/14	1
Benzo(k)fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	11/24/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	11/24/14	1
Dibenz(a,h)anthracene <i>MS-L</i>	53-70-3	U	0.0045	0.025	0.05	ug/l	J3	8270 C-	11/24/14	1

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Tax I.D. 62-0814289
Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 20, 2014
Description : HOLLOMAN AFB
Sample ID : H-SS059-MW-40-DT01
Collected By :
Collection Date : 11/18/14 13:50

ESC Sample # : L734718-12
Site ID :
Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Fluoranthene <i>US MS-C</i>	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/24/14	1
Fluorene	86-73-7	U	0.009	0.025	0.05	ug/l		8270 C-	11/24/14	1
Indeno (1,2,3-cd)pyrene	193-39-5	U	0.009	0.025	0.05	ug/l		8270 C-	11/24/14	1
Naphthalene <i>US MB, I, EC, KMS-L</i>	91-20-3	0.015	0.012	0.025	0.25	ug/l	J	8270 C-	11/24/14	1
Phenanthrene <i>US MS-C</i>	85-01-8	U	0.018	0.025	0.05	ug/l		8270 C-	11/24/14	1
Pyrene	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/24/14	1
2-Methylnaphthalene <i>US MS, FD-L</i>	91-57-6	U	0.016	0.025	0.25	ug/l		8270 C-	11/24/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	85.6				% Rec.		8270 C-	11/24/14	1
2-Fluorobiphenyl	321-60-8	86.4				% Rec.		8270 C-	11/24/14	1
p-Terphenyl-d14	1718-51-0	99.8				% Rec.		8270 C-	11/24/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	0.36	5.6	11.1	ug/l		8270C	11/24/14	1.11
Bis(2-chloroethyl) ether	111-44-4	U	1.8	5.6	11.1	ug/l		8270C	11/24/14	1.11
Bis(2-chloroisopropyl) ether	108-60-1	U	0.49	5.6	11.1	ug/l		8270C	11/24/14	1.11
Benzyl Alcohol	100-51-6	U	0.44	5.6	11.1	ug/l		8270C	11/24/14	1.11
Carbazole	86-74-8	U	0.18	5.6	11.1	ug/l		8270C	11/24/14	1.11
Benzoic acid <i>FSOL-I</i>	65-85-0	3.1	0.49	5.6	11.1	ug/l	J	8270C	11/24/14	1.11
Dibenzofuran	132-64-9	U	0.38	5.6	11.1	ug/l		8270C	11/24/14	1.11
4-Bromophenyl-phenylether	101-55-3	U	0.39	5.6	11.1	ug/l		8270C	11/24/14	1.11
2-Chloronaphthalene	91-58-7	U	0.37	0.56	1.11	ug/l		8270C	11/24/14	1.11
4-Chlorophenyl-phenylether	7005-72-3	U	0.34	5.6	11.1	ug/l		8270C	11/24/14	1.11
3,3-Dichlorobenzidine	91-94-1	U	2.2	5.6	11.1	ug/l		8270C	11/24/14	1.11
2,4-Dinitrotoluene	121-14-2	U	1.8	5.6	11.1	ug/l		8270C	11/24/14	1.11
2,6-Dinitrotoluene	606-20-2	U	0.31	5.6	11.1	ug/l		8270C	11/24/14	1.11
Hexachlorobenzene	118-74-1	U	0.38	0.56	1.11	ug/l		8270C	11/24/14	1.11
Hexachloro-1,3-butadiene <i>DNR</i>	87-68-3	U	0.36	5.6	11.1	ug/l		8270C	11/24/14	1.11
Hexachloroethane	67-72-1	U	0.4	5.6	11.1	ug/l		8270C	11/24/14	1.11
Isophorone	78-59-1	U	0.3	5.6	11.1	ug/l		8270C	11/24/14	1.11
Nitrobenzene	98-95-3	U	0.41	5.6	11.1	ug/l		8270C	11/24/14	1.11
n-Nitrosodimethylamine	62-75-9	U	1.4	5.6	11.1	ug/l		8270C	11/24/14	1.11
n-Nitrosodiphenylamine	86-30-6	U	0.34	5.6	11.1	ug/l		8270C	11/24/14	1.11
n-Nitrosodi-n-propylamine	621-64-7	U	0.45	5.6	11.1	ug/l		8270C	11/24/14	1.11
Benzylbutyl phthalate	85-68-7	U	0.3	1.1	3.33	ug/l		8270C	11/24/14	1.11
Bis(2-ethylhexyl)phthalate <i>US MB-I</i>	117-81-7	1.1	0.79	1.1	3.33	ug/l	J	8270C	11/24/14	1.11
Di-n-butyl phthalate <i>FSOL-I</i>	84-74-2	0.82	0.3	1.1	3.33	ug/l	J	8270C	11/24/14	1.11
Diethyl phthalate	84-66-2	U	0.31	1.1	3.33	ug/l		8270C	11/24/14	1.11
Dimethyl phthalate	131-11-3	U	0.31	1.1	3.33	ug/l		8270C	11/24/14	1.11
Di-n-octyl phthalate	117-84-0	U	0.31	1.1	3.33	ug/l		8270C	11/24/14	1.11
1,2,4-Trichlorobenzene <i>DNR</i>	120-82-1	U	0.39	5.6	11.1	ug/l		8270C	11/24/14	1.11
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.29	5.6	11.1	ug/l		8270C	11/24/14	1.11
2-Chlorophenol	95-57-8	U	0.31	5.6	11.1	ug/l		8270C	11/24/14	1.11
2,4-Dichlorophenol	120-83-2	U	0.32	5.6	11.1	ug/l		8270C	11/24/14	1.11
2,4-Dimethylphenol	105-67-9	U	0.69	5.6	11.1	ug/l		8270C	11/24/14	1.11

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KA 8/20/15

KA 2/20/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 05, 2014

Date Received : November 20, 2014
 Description : HOLLOWAN AFB
 Sample ID : H-SS059-MW-40-DT01
 Collected By :
 Collection Date : 11/18/14 13:50

ESC Sample # : L734718-12
 Site ID :
 Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
4,6-Dinitro-2-methylphenol	534-52-1	U	2.9	5.6	11.1	ug/l		8270C	11/24/14	1.11
2,4-Dinitrophenol	51-28-5	U	3.6	5.6	11.1	ug/l		8270C	11/24/14	1.11
2-Methylphenol	95-48-7	U	0.35	5.6	11.1	ug/l		8270C	11/24/14	1.11
3&4-Methyl Phenol	3&4-Methyl	U	0.3	5.6	11.1	ug/l		8270C	11/24/14	1.11
2-Nitrophenol	88-75-5	U	0.36	5.6	11.1	ug/l		8270C	11/24/14	1.11
4-Nitrophenol	100-02-7	U	2.2	5.6	11.1	ug/l		8270C	11/24/14	1.11
4-Chloroaniline	106-47-8	U	0.42	5.6	11.1	ug/l		8270C	11/24/14	1.11
2-Nitroaniline	88-74-4	U	2.1	5.6	11.1	ug/l		8270C	11/24/14	1.11
3-Nitroaniline	99-09-2	U	0.34	5.6	11.1	ug/l		8270C	11/24/14	1.11
1,2-Diphenylhydrazine	103-33-3	U	0.35	5.6	11.1	ug/l		8270C	11/24/14	1.11
4-Nitroaniline	100-01-6	U	0.39	5.6	11.1	ug/l		8270C	11/24/14	1.11
Pentachlorophenol	87-86-5	U	0.35	5.6	11.1	ug/l		8270C	11/24/14	1.11
Phenol	108-95-2	U	0.37	5.6	11.1	ug/l		8270C	11/24/14	1.11
2,4,5-Trichlorophenol	95-95-4	U	0.26	5.6	11.1	ug/l		8270C	11/24/14	1.11
2,4,6-Trichlorophenol	88-06-2	U	0.33	5.6	11.1	ug/l		8270C	11/24/14	1.11
Surrogate Recovery										
2-Fluorophenol	367-12-4	49.0				% Rec.		8270C	11/24/14	1.11
Phenol-d5	4165-62-2	40.0				% Rec.		8270C	11/24/14	1.11
Nitrobenzene-d5	4165-60-0	73.0				% Rec.		8270C	11/24/14	1.11
2-Fluorobiphenyl	321-60-8	81.0				% Rec.		8270C	11/24/14	1.11
2,4,6-Tribromophenol	118-79-6	68.0				% Rec.		8270C	11/24/14	1.11
p-Terphenyl-d14	1718-51-0	81.0				% Rec.		8270C	11/24/14	1.11

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 05, 2014

Date Received : November 20, 2014
 Description : HOLLoman AFB

ESC Sample # : L734718-13

Sample ID : SS059-XG59-20

Site ID :

Collected By :
 Collection Date : 11/18/14 12:30

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	1500	31	50.	100	ug/l		8015D/G	11/25/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	99.0				% Rec.		8015D/G	11/25/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/26/14	1
Benzene	71-43-2	42.	0.33	0.50	1	ug/l		8260B	11/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/26/14	1
n-Butylbenzene	104-51-8	2.7	0.36	0.50	1	ug/l		8260B	11/26/14	1
sec-Butylbenzene	135-98-8	9.1	0.36	0.50	1	ug/l		8260B	11/26/14	1
tert-Butylbenzene	98-06-6	0.62	0.4	0.50	1	ug/l	J	8260B	11/26/14	1
Carbon Disulfide	75-15-0	0.35	0.28	0.50	1	ug/l	J	8260B	11/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/26/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/26/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/26/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/26/14	1
Ethylbenzene	100-41-4	87.	0.38	0.50	1	ug/l		8260B	11/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Isopropylbenzene	98-82-8	22.	0.33	0.50	1	ug/l		8260B	11/26/14	1

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 20, 2014
Description : HOLLOWMAN AFB
Sample ID : SS059-XG59-20
Collected By :
Collection Date : 11/18/14 12:30

ESC Sample # : L734718-13

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	5.3	0.35	0.50	1	ug/l		8260B	11/26/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/26/14	1
Methylene Chloride <i>F SOL-I</i>	75-09-2	2.8	1	2.5	5	ug/l	J	8260B	11/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/26/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
Naphthalene	91-20-3	36.	1	2.5	5	ug/l		8260B	11/26/14	1
n-Propylbenzene	103-65-1	21.	0.35	0.50	1	ug/l		8260B	11/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.50 <i>0.13</i>	0.75	1	ug/l		8260B	11/26/14	1
Tetrachloroethane	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
Toluene <i>F SOL-I</i>	108-88-3	1.2	0.78	2.5	5	ug/l	J	8260B	11/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/26/14	1
1,2,4-Trimethylbenzene	95-63-6	100	0.37	0.50	1	ug/l		8260B	11/26/14	1
1,3,5-Trimethylbenzene	108-67-8	31.	0.39	0.50	1	ug/l		8260B	11/26/14	1
o-Xylene	95-47-6	62.	0.34	0.50	1	ug/l		8260B	11/26/14	1
m&p-Xylene	1330-20-7	81.	0.72	1.0	2	ug/l		8260B	11/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	102.				% Rec.		8260B	11/26/14	1
Dibromofluoromethane	1868-53-7	98.8				% Rec.		8260B	11/26/14	1
4-Bromofluorobenzene	460-00-4	101.				% Rec.		8260B	11/26/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		3300	22	33.	100	ug/l		8015	12/02/14	1
C28-C40 Oil Range		140	12	33.	100	ug/l		8015	12/02/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	105.				% Rec.		8015	12/02/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene <i>US MS+D-L</i>	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	11/24/14	1
Acenaphthene <i>J MS+D-L</i>	83-32-9	0.14	0.0082	0.025	0.05	ug/l		8270 C-	11/24/14	1
Acenaphthylene <i>S MS+D-L</i>	208-96-8	0.058	0.011	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo(a)anthracene <i>US MS+D-L</i>	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo(a)pyrene	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo(b)fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo(g,h,i)perylene <i>US MS+D-L</i>	191-24-2	U	0.016	0.025	0.05	ug/l	J3	8270 C-	11/24/14	1
Benzo(k)fluoranthene <i>US MS+D-L</i>	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	11/24/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	11/24/14	1
Dibenz(a,h)anthracene <i>US MS+D-L</i>	53-70-3	U	0.0045	0.025	0.05	ug/l	J3	8270 C-	11/24/14	1

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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 20, 2014
Description : HOLLOWAN AFB

ESC Sample # : L734718-13

Sample ID : SS059-XG59-20

Site ID :

Collected By :
Collection Date : 11/18/14 12:30

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Fluoranthene <i>UJ MS+D-L</i>	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/24/14	1
Fluorene <i>J MS+D-L</i>	86-73-7	0.12	0.009	0.025	0.05	ug/l		8270 C-	11/24/14	1
Indeno (1,2,3-cd) pyrene <i>UJ MS+D-L</i>	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	11/24/14	1
Naphthalene <i>91-26-3 DNR</i>	91-26-3	20.	0.012	0.025	0.25	ug/l		8270 C-	11/24/14	1
Phenanthrene <i>F SOL -1 FS SOL MS+D-L</i>	85-01-8	0.022	0.018	0.025	0.05	ug/l	J	8270 C-	11/24/14	1
Pyrene <i>UJ MS+D-L</i>	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/24/14	1
2-Methylnaphthalene <i>J MS+FO+D-L</i>	91-57-6	24.	0.016	0.025	0.25	ug/l		8270 C-	11/24/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	84.3				% Rec.		8270 C-	11/24/14	1
2-Fluorobiphenyl	321-60-8	58.4				% Rec.		8270 C-	11/24/14	1
p-Terphenyl-d14	1718-51-0	83.8				% Rec.		8270 C-	11/24/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	1.8	28.	55.5	ug/l		8270C	11/24/14	5.55
Bis(2-chloroethyl) ether	111-44-4	U	9	28.	55.5	ug/l		8270C	11/24/14	5.55
Bis(2-chloroisopropyl) ether	108-60-1	U	2.5	28.	55.5	ug/l		8270C	11/24/14	5.55
Benzyl Alcohol	100-51-6	U	2.2	28.	55.5	ug/l		8270C	11/24/14	5.55
Carbazole	86-74-8	U	0.9	28.	55.5	ug/l		8270C	11/24/14	5.55
Benzoic acid	65-85-0	U	2.4	28.	55.5	ug/l		8270C	11/24/14	5.55
Dibenzofuran	132-64-9	U	1.9	28.	55.5	ug/l		8270C	11/24/14	5.55
4-Bromophenyl-phenylether	101-55-3	U	2	28.	55.5	ug/l		8270C	11/24/14	5.55
2-Chloronaphthalene	91-58-7	U	1.8	2.8	5.55	ug/l		8270C	11/24/14	5.55
4-Chlorophenyl-phenylether	7005-72-3	U	1.7	28.	55.5	ug/l		8270C	11/24/14	5.55
3,3-Dichlorobenzidine	91-94-1	U	11	28.	55.5	ug/l		8270C	11/24/14	5.55
2,4-Dinitrotoluene	121-14-2	U	9.2	28.	55.5	ug/l		8270C	11/24/14	5.55
2,6-Dinitrotoluene	606-20-2	U	1.5	28.	55.5	ug/l		8270C	11/24/14	5.55
Hexachlorobenzene	118-74-1	U	1.9	2.8	5.55	ug/l		8270C	11/24/14	5.55
Hexachloro-1,3-butadiene <i>DNR</i>	87-68-3	U	1.8	28.	55.5	ug/l		8270C	11/24/14	5.55
Hexachloroethane	67-72-1	U	2	28.	55.5	ug/l		8270C	11/24/14	5.55
Isophorone	78-59-1	U	1.5	28.	55.5	ug/l		8270C	11/24/14	5.55
Nitrobenzene	98-95-3	U	2	28.	55.5	ug/l		8270C	11/24/14	5.55
n-Nitrosodimethylamine	62-75-9	U	7	28.	55.5	ug/l		8270C	11/24/14	5.55
n-Nitrosodiphenylamine	86-30-6	U	1.7	28.	55.5	ug/l		8270C	11/24/14	5.55
n-Nitrosodi-n-propylamine	621-64-7	U	2.2	28.	55.5	ug/l		8270C	11/24/14	5.55
Benzylbutyl phthalate	85-68-7	U	1.5	5.6	16.65	ug/l		8270C	11/24/14	5.55
Bis(2-ethylhexyl)phthalate <i>U MB-I</i>	117-81-7	4.35.6	5.94.3	5.6	16.65	ug/l	J	8270C	11/24/14	5.55
Di-n-butyl phthalate	84-74-2	U	1.5	5.6	16.65	ug/l		8270C	11/24/14	5.55
Diethyl phthalate	84-66-2	U	1.6	5.6	16.65	ug/l		8270C	11/24/14	5.55
Dimethyl phthalate	131-11-3	U	1.6	5.6	16.65	ug/l		8270C	11/24/14	5.55
Di-n-octyl phthalate	117-84-0	U	1.5	5.6	16.65	ug/l		8270C	11/24/14	5.55
1,2,4-Trichlorobenzene <i>DNR</i>	120-82-1	U	2	28.	55.5	ug/l		8270C	11/24/14	5.55
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	1.4	28.	55.5	ug/l		8270C	11/24/14	5.55
2-Chlorophenol	95-57-8	U	1.6	28.	55.5	ug/l		8270C	11/24/14	5.55
2,4-Dichlorophenol	120-83-2	U	1.6	28.	55.5	ug/l		8270C	11/24/14	5.55
2,4-Dimethylphenol	105-67-9	U	3.5	28.	55.5	ug/l		8270C	11/24/14	5.55

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DNR: DO NOT REPORT

CA 2/20/15



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Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 05, 2014

Date Received : November 20, 2014
 Description : HOLLoman AFB
 Sample ID : SS059-XG59-20
 Collected By :
 Collection Date : 11/18/14 12:30

ESC Sample # : L734718-13
 Site ID :
 Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
4,6-Dinitro-2-methylphenol <i>USMS-L</i>	534-52-1	U	14	28.	55.5	ug/l		8270C	11/24/14	5.55
2,4-Dinitrophenol <i>US D-I</i>	51-28-5	U	18	28.	55.5	ug/l		8270C	11/24/14	5.55
2-Methylphenol	95-48-7	U	1.7	28.	55.5	ug/l		8270C	11/24/14	5.55
3&4-Methyl Phenol <i>USCCAL-L</i>	3&4-Methyl	U	1.5	28.	55.5	ug/l		8270C	11/24/14	5.55
2-Nitrophenol	88-75-5	U	1.8	28.	55.5	ug/l		8270C	11/24/14	5.55
4-Nitrophenol	100-02-7	U	11	28.	55.5	ug/l		8270C	11/24/14	5.55
4-Chloroaniline	106-47-8	U	2.1	28.	55.5	ug/l		8270C	11/24/14	5.55
2-Nitroaniline	88-74-4	U	10	28.	55.5	ug/l		8270C	11/24/14	5.55
3-Nitroaniline	99-09-2	U	1.7	28.	55.5	ug/l		8270C	11/24/14	5.55
1,2-Diphenylhydrazine	103-33-3	U	1.8	28.	55.5	ug/l		8270C	11/24/14	5.55
4-Nitroaniline	100-01-6	U	1.9	28.	55.5	ug/l		8270C	11/24/14	5.55
Pentachlorophenol	87-86-5	U	1.7	28.	55.5	ug/l		8270C	11/24/14	5.55
Phenol	108-95-2	U	1.8	28.	55.5	ug/l		8270C	11/24/14	5.55
2,4,5-Trichlorophenol	95-95-4	U	1.3	28.	55.5	ug/l		8270C	11/24/14	5.55
2,4,6-Trichlorophenol	88-06-2	U	1.6	28.	55.5	ug/l		8270C	11/24/14	5.55
Surrogate Recovery										
2-Fluorophenol	367-12-4	56.3				% Rec.		8270C	11/24/14	5.55
Phenol-d5	4165-62-2	51.3				% Rec.		8270C	11/24/14	5.55
Nitrobenzene-d5	4165-60-0	74.0				% Rec.		8270C	11/24/14	5.55
2-Fluorobiphenyl	321-60-8	71.5				% Rec.		8270C	11/24/14	5.55
2,4,6-Tribromophenol	118-79-6	80.6				% Rec.		8270C	11/24/14	5.55
p-Terphenyl-d14	1718-51-0	73.5				% Rec.		8270C	11/24/14	5.55

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 20, 2014
Description : HOLLOMAN AFB
Sample ID : SS059-XG60-22.5
Collected By :
Collection Date : 11/18/14 13:20

ESC Sample # : L734718-14

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	3600	31	50.	100	ug/l		8015D/G	11/25/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	91.1				% Rec.		8015D/G	11/25/14	1
Volatile Organics										
Acetone	67-64-1	20	10	25.	50	ug/l	J	8260B	11/26/14	1
Benzene	71-43-2	350	6.6	10.	20	ug/l		8260B	11/29/14	20
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
sec-Butylbenzene	135-98-8	28.	0.36	0.50	1	ug/l		8260B	11/26/14	1
tert-Butylbenzene	98-06-6	1.6	0.4	0.50	1	ug/l		8260B	11/26/14	1
Carbon Disulfide	75-15-0	0.33	0.28	0.50	1	ug/l	J	8260B	11/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/26/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/26/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/26/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/26/14	1
Ethylbenzene	100-41-4	500	7.7	10.	20	ug/l		8260B	11/29/14	20
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Isopropylbenzene	98-82-8	100	0.33	0.50	1	ug/l		8260B	11/26/14	1

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 20, 2014
Description : HOLLOWAN AFB
Sample ID : SS059-XG60-22.5
Collected By :
Collection Date : 11/18/14 13:20

ESC Sample # : L734718-14

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	16.	0.35	0.50	1	ug/l		8260B	11/26/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/26/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/26/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
Naphthalene	91-20-3	150	1	2.5	5	ug/l		8260B	11/26/14	1
n-Propylbenzene	103-65-1	87.	0.35	0.50	1	ug/l		8260B	11/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.50	0.75	1	ug/l		8260B	11/26/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/26/14	1
1,2,4-Trimethylbenzene	95-63-6	270	7.5	10.	20	ug/l		8260B	11/29/14	20
1,3,5-Trimethylbenzene	108-67-8	91.	0.39	0.50	1	ug/l		8260B	11/26/14	1
o-Xylene <i>F SOL-1</i>	95-47-6	0.42	0.34	0.50	1	ug/l	J	8260B	11/26/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	101.				% Rec.		8260B	11/26/14	1
Dibromofluoromethane	1868-53-7	95.1				% Rec.		8260B	11/26/14	1
4-Bromofluorobenzene	460-00-4	105.				% Rec.		8260B	11/26/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		4200	22	33.	100	ug/l		8015	12/02/14	1
C28-C40 Oil Range		150	12	33.	100	ug/l		8015	12/02/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	101.				% Rec.		8015	12/02/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene <i>US MS-D-L</i>	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	11/24/14	1
Acenaphthene <i>US MS-D-L</i>	83-32-9	0.10	0.0082	0.025	0.05	ug/l		8270 C-	11/24/14	1
Acenaphthylene <i>US MS-D-L</i>	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo (a) anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo (a) pyrene	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo (b) fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo (g, h, i) perylene <i>US MS-D-L</i>	191-24-2	U	0.016	0.025	0.05	ug/l	J3	8270 C-	11/24/14	1
Benzo (k) fluoranthene <i>US MS-D-L</i>	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	11/24/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	11/24/14	1
Dibenz (a, h) anthracene <i>US MS-D-L</i>	53-70-3	U	0.0045	0.025	0.05	ug/l	J3	8270 C-	11/24/14	1

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 20, 2014
Description : HOLLOMAN AFB
Sample ID : SS059-XG60-22.5
Collected By :
Collection Date : 11/18/14 13:20

ESC Sample # : L734718-14

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Fluoranthene <i>US MS-L</i>	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/24/14	1
Fluorene <i>MS-L</i>	86-73-7	0.096	0.009	0.025	0.05	ug/l		8270 C-	11/24/14	1
Indeno (1,2,3-cd) pyrene	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	11/24/14	1
Naphthalene <i>MS-L</i>	51-20-3	40.	0.012	0.025	0.25	ug/l		8270 C-	11/24/14	1
Phenanthrene <i>MS-L</i>	85-01-8	0.022	0.018	0.025	0.05	ug/l	J	8270 C-	11/24/14	1
Pyrene <i>US MS-L</i>	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/24/14	1
2-Methylnaphthalene <i>MS,FO-I</i>	91-57-6	26.	0.016	0.025	0.25	ug/l		8270 C-	11/24/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	66.2				% Rec.		8270 C-	11/24/14	1
2-Fluorobiphenyl	321-60-8	68.0				% Rec.		8270 C-	11/24/14	1
p-Terphenyl-d14	1718-51-0	87.5				% Rec.		8270 C-	11/24/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	11/24/14	1
Bis(2-chloroethyl) ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	11/24/14	1
Bis(2-chloroisopropyl) ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	11/24/14	1
Benzyl Alcohol <i>F SOL-I</i>	100-51-6	0.71	0.39	5.0	10	ug/l	J	8270C	11/24/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	11/24/14	1
Benzoic acid <i>F SOL-I</i>	65-85-0	9.0	0.44	5.0	10	ug/l	J	8270C	11/24/14	1
Dibenzofuran <i>F SOL-I</i>	132-64-9	0.50	0.34	5.0	10	ug/l	J	8270C	11/24/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	11/24/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	11/24/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	11/24/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	11/24/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	11/24/14	1
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	11/24/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	11/24/14	1
Hexachloro-1,3-butadiene <i>DNR</i>	87-68-3	U	0.33	5.0	10	ug/l		8270C	11/24/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	11/24/14	1
Isophorone <i>F SOL-I</i>	78-59-1	0.38	0.27	5.0	10	ug/l	J	8270C	11/24/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	11/24/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	11/24/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	11/24/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	11/24/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	11/24/14	1
Bis(2-ethylhexyl)phthalate <i>U MB-I</i>	117-81-7	1.4	0.71	1.0	1.4	3	J	8270C	11/24/14	1
Di-n-butyl phthalate <i>F SOL-I</i>	84-74-2	0.66	0.27	1.0	3	ug/l	J	8270C	11/24/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	11/24/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	11/24/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	11/24/14	1
1,2,4-Trichlorobenzene <i>DNR</i>	120-82-1	U	0.36	5.0	10	ug/l		8270C	11/24/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	11/24/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	11/24/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	11/24/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	11/24/14	1

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DNR: Do Not Report

Carbazole



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 20, 2014
Description : HOLLOMAN AFB
Sample ID : SS059-XG60-22.5
Collected By :
Collection Date : 11/18/14 13:20

ESC Sample # : L734718-14

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
4,6-Dinitro-2-methylphenol <i>US MS-L</i>	534-52-1	U	2.6	5.0	10	ug/l		8270C	11/24/14	1
2,4-Dinitrophenol <i>S D-I</i>	51-28-5	U	3.2	5.0	10	ug/l		8270C	11/24/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	11/24/14	1
3&4-Methyl Phenol <i>FJ SOL, CCAL-L</i>	3&4-Methyl	0.81	0.27	5.0	10	ug/l	J	8270C	11/24/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	11/24/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	11/24/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	11/24/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	11/24/14	1
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	11/24/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	11/24/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	11/24/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	11/24/14	1
Phenol <i>F SOL-I</i>	108-95-2	5.3	0.33	5.0	10	ug/l	J	8270C	11/24/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	11/24/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	11/24/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	54.7				% Rec.		8270C	11/24/14	1
Phenol-d5	4165-62-2	47.1				% Rec.		8270C	11/24/14	1
Nitrobenzene-d5	4165-60-0	73.8				% Rec.		8270C	11/24/14	1
2-Fluorobiphenyl	321-60-8	75.0				% Rec.		8270C	11/24/14	1
2,4,6-Tribromophenol	118-79-6	93.0				% Rec.		8270C	11/24/14	1
p-Terphenyl-d14	1718-51-0	74.8				% Rec.		8270C	11/24/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/04/14 15:44 Revised: 12/05/14 17:09

WA 2/20/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 05, 2014

Date Received : November 20, 2014
Description : HOLLOWMAN AFB
Sample ID : H-SS059-TRIPBLANK-TT01
Collected By :
Collection Date : 11/18/14 12:30

ESC Sample # : L734718-15

Site ID :

Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l	8015D/G	11/25/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	99.5				% Rec.	8015D/G	11/25/14	1
Volatile Organics									
Acetone	67-64-1	U	10	25.	50	ug/l	8260B	11/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l	8260B	11/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l	8260B	11/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l	8260B	11/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l	8260B	11/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l	8260B	11/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l	8260B	11/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l	8260B	11/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l	8260B	11/26/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l	8260B	11/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l	8260B	11/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l	8260B	11/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l	8260B	11/26/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l	8260B	11/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l	8260B	11/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l	8260B	11/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l	8260B	11/26/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l	8260B	11/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l	8260B	11/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l	8260B	11/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l	8260B	11/26/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l	8260B	11/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l	8260B	11/26/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l	8260B	11/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l	8260B	11/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l	8260B	11/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l	8260B	11/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l	8260B	11/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l	8260B	11/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l	8260B	11/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l	8260B	11/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l	8260B	11/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l	8260B	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l	8260B	11/26/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l	8260B	11/26/14	1

U = Not Detected at the LOD

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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 05, 2014

Date Received : November 20, 2014
 Description : HOLLOMAN AFB
 Sample ID : H-SS059-TRIPBLANK-TT01
 Collected By :
 Collection Date : 11/18/14 12:30

ESC Sample # : L734718-15
 Site ID :
 Project # : 23446543.0054AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l	8260B	11/26/14	1	
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l	8260B	11/26/14	1	
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l	8260B	11/26/14	1	
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l	8260B	11/26/14	1	
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l	8260B	11/26/14	1	
Naphthalene	91-20-3	U	1	2.5	5	ug/l	8260B	11/26/14	1	
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l	8260B	11/26/14	1	
Styrene	100-42-5	U	0.31	0.50	1	ug/l	8260B	11/26/14	1	
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l	8260B	11/26/14	1	
1,1,2,2-Tetrachloroethane	79-34-5	U	0.13 0.50	0.75	1	ug/l	8260B	11/26/14	1	
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l	8260B	11/26/14	1	
Toluene	108-88-3	U	0.78	2.5	5	ug/l	8260B	11/26/14	1	
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l	8260B	11/26/14	1	
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l	8260B	11/26/14	1	
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l	8260B	11/26/14	1	
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l	8260B	11/26/14	1	
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l	8260B	11/26/14	1	
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l	8260B	11/26/14	1	
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l	8260B	11/26/14	1	
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l	8260B	11/26/14	1	
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l	8260B	11/26/14	1	
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l	8260B	11/26/14	1	
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l	8260B	11/26/14	1	
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l	8260B	11/26/14	1	
Surrogate Recovery										
Toluene-d8	2037-26-5	99.6				% Rec.	8260B	11/26/14	1	
Dibromofluoromethane	1868-53-7	100.				% Rec.	8260B	11/26/14	1	
4-Bromofluorobenzene	460-00-4	99.4				% Rec.	8260B	11/26/14	1	

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Reported: 12/04/14 15:44 Revised: 12/05/14 17:09

CA 2/20/15

**Holloman AFB
Groundwater Monitoring
Data Review Summary**

Data Package Number: L734810
 Sampling Event Dates: November 19, 2014
 Sample-specific Parameter Review/Laboratory Performance Parameters: Yes
 Full Validation (e.g. result recalculation): No
 Data Reviewer: Katie Abbott, URS Project Chemist
 Date Completed: February 20, 2015
 Peer Reviewer: Sheri Fling, URS Project Quality Assurance Manager (QAM)

The table below summarizes the data package and sample identifications discussed in this data review.

Field Identification	Sample Type	Lab Identification	Matrix	Analyses						
				GRO	DRO/ORO	VOCs	PAHs	SVOCs	Dissolved Metals	Total Metals
L734810										
H-TU904-FIELDBLANK-FT02	FB	L734810-01	Water	X	---	X	---	---	---	---
H-TU904-MW14-ND01	SA	L734810-02	Water	---	---	---	---	---	X	---
H-TU904-MW14-NT01	SA	L734810-03	Water	X	X	X	X	X	---	X
H-TU904-MW16-ND01	SA	L734810-04	Water	---	---	---	---	---	X	---
H-TU904-MW16-NT01	SA	L734810-05	Water	X	X	X	X	X	---	X
H-TU904-MW15-ND01	SA	L734810-06	Water	---	---	---	---	---	X	---
H-TU904-MW15-NT01	SA	L734810-07	Water	X	X	X	X	X	---	X
H-TU904-MW13-ND01	SA	L734810-08	Water	---	---	---	---	---	X	---
H-TU904-MW13-NT01	SA	L734810-09	Water	X	X	X	X	X	---	X

Sample Type: SA – Sample FB - Field Blank
 X^m - Matrix Spike/Matrix Spike Duplicate

Analyses:
 DRO/ORO - Diesel and Oil Range Organics (8015D)
 GRO – Gasoline Range Organics (8015D)
 Total/Dissolved Metals – Antimony, Arsenic, Cadmium, Chromium, Cobalt, Lead, Nickel, Selenium, Silver, Thallium, Mercury, Aluminum, Barium, Beryllium, Copper, Manganese, Vanadium, Zinc (6010B/6020/7470A)
 PAHs – Polynuclear Aromatic Hydrocarbons (8270C SIM)
 SIM – Selective Ion Monitoring
 SVOCs – Semivolatile Organic Compounds (8270C)
 VOCs – Volatile Organic Compounds (8260B)

The data review was conducted in accordance with the Final Interim Measures Work Plan – Appendix A, Sampling and Analysis Plan/Quality Assurance Project Plan: Former Septic System Site TU904 (URS, September 2014); Group 2 Former Underground Storage Sites: AOC-UST-889 (TU515) (URS, September 2014); and Group 3 Former Underground Storage Tank Sites: AOC-UST-221 (TU503), AOC-UST-298 (TU508), AOC-UST-901 (TU506) and AOC-UST-

7003 (TU518) (URS, August 2014); data validation standard operating procedure (SOP) 14; Department of Defense (DoD) Quality Systems Manual version 4.2 (DoD, 2010); and method requirements.

General Overall Assessment:

- Data are usable without qualification.
- Data are usable with qualification (noted below).
- Some or all data are unusable for any purpose (detailed below).

Case Narrative Comments: Any laboratory case narrative comments concerning data qualification were addressed in the table below.

Trace level detects, reported between the method detection limit (MDL) and the reporting limit (LOQ), have been qualified as estimated (F SQL-I). All other occurrences of data qualification are covered in the following table.

Review Parameter	Criteria Met?	Comment
Chain of Custody & Sample Receipt	Yes	The samples were received by ESC Lab Sciences in good condition and were consistent with the accompanying chain of custody (COC). The cooler temperatures upon receipt were within the recommended ≤6 degrees Celsius (°C) temperature range.
Reporting	Yes	<p>During review of a representative data package selected for full validation, it was noted that improper reference spectra were displayed in the printed version of the data package for Method 8260B. Due to a LIMS limitation, the data package reference spectra were not consistently representative of the actual spectra for the analytes detected. Because the laboratory data review involves the use of NBS reference spectra and not the reference spectra taken from the instrument calibration, the analyst was not seeing the improper alignment of spectra noted in the data package during his/her review at the instrument. The laboratory revised and reissued the data package with correct reference spectral data, consistent with method requirements, and no results were changed. Therefore, no further action is necessary as a result of this validation finding.</p> <p>Method 8270C Semivolatile Organic Compounds (SVOCs)</p> <p>The results for 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene are not reported by Method 8270C SVOCs but are reported by Method 8260B volatile organic compounds (VOCs). As the detection limits (DLs), limits of detection (LODs), and limits of quantitation (LOQs) are lower by Method 8260B, further action was not necessary.</p> <p>The laboratory noted 4-methylphenol cannot be reported as 3 & 4-methylphenol coelute during the analysis; therefore, the analytes are reported together and 3&4-methylphenol on the data sheets and in the electronic database.</p>
Holding Times	Yes	All samples were analyzed within the method required holding time.
Laboratory Blanks <ul style="list-style-type: none"> • Method Blank • Continuing Calibration Blank 	No	With the exceptions listed in Table 1, target analytes were not detected within the method or calibration blanks.

Review Parameter	Criteria Met?	Comment
<p>Matrix Quality Control</p> <ul style="list-style-type: none"> Matrix Spike/ Matrix Spike Duplicate None in this package Total vs. Partial Analyses (Metals) 	Yes	<p>Matrix Spike/ Matrix Spike Duplicate (MS/MSD)</p> <p>The frequency of MS/MSDs met the QAPP requirement of one per twenty samples.</p> <p>An MS/MSD was not performed on a sample from this data package.</p> <p>Consistent with standard operating procedure (SOP) 14, when MS/MSD issues accounted for less than 35% of the MS/MSD analyses conducted, applicable data qualification was limited to qualification of the parent sample of the affected analyte. When >35% of the MS/MSD results did not meet criteria, evaluation was extended to all associated samples. See Section 4.1 of the data validation report for overall qualifiers resulting from the MS/MSD evaluation.</p> <p>Total vs. Partial Analyses (Metals)</p> <p>Consistent with SOP 14, results for the total analysis of a particular analyte should be greater than the results for a partial analyte of that analyte. The following criteria were used to evaluate the total versus dissolved results:</p> <ul style="list-style-type: none"> In instances where the value for a partial analysis exceed that for a total analysis and both of the results are >5xLOQ, the criterion utilized is that the two values should agree within $\pm 30\%$. In instances where the value for a partial analysis exceeds that for a total analysis and either of the results is 5x the LOQ, the absolute difference between the results is compared against an evaluation criterion of 2xLOQ. <p>The total metal sample results were compared with the associated dissolved sample results against the concentration-dependent criteria set forth in SOP 14.</p>
<p>Metals Only</p> <ul style="list-style-type: none"> Serial Dilution None in this package Post Digestion Spike None in this package 	NA	<p>Serial Dilution (Metals Only)</p> <p>A serial dilution was not reported in association with the sample in this data package.</p> <p>Post Digestion Spike (PDS) (Metals Only)</p> <p>A post digestion spike was not reported in association with the sample in this data package.</p>
<p>Method Quality Control</p> <ul style="list-style-type: none"> Surrogates (VOCs, PAHs, SVOCs, GRO, DRO/ORO) 	Yes	<p>The surrogate recoveries were within the laboratory specified acceptance criteria.</p>
<p>Field Quality Control</p> <ul style="list-style-type: none"> Trip Blank None in this package Field Duplicate None in this package Equipment Blank None in this package Field Blank H-TU904-FIELDBLANK-FT02 	No	<p>Trip Blank</p> <p>A trip blank was not submitted with the samples in this data package; therefore, contamination introduced during shipment could not be assessed.</p> <p>Field Duplicate</p> <p>The frequency of field duplicates met the QAPP requirement of one per twenty samples.</p> <p>A field duplicate was not submitted with the data package.</p> <p>Consistent with SOP 14, when field duplicate issues accounted for less than 35% of the field duplicate analyses conducted, applicable data qualification was limited to qualification of the parent sample for the affected analyte.</p>

Review Parameter	Criteria Met?	Comment
		<p>When >35% of the field duplicate results did not meet criteria, evaluation was extended to all associated samples. See Section 4.3 of the data validation report for overall qualifiers resulting from the field duplicate evaluation.</p> <p>Equipment Blank</p> <p>As dedicated equipment was used to collect these samples, an equipment blank was not submitted for this sampling event. Further action was not necessary.</p> <p>Field Blank</p> <p>The frequency of field blanks met the QAPP requirement of one per twenty samples.</p> <p>Chloroform was detected in the field blank sample. See Section 4.4 of the data validation report for overall qualifiers resulting from the field blank evaluation.</p>
LODs met?	No	Due to dilutions, several of the total and dissolved metals results for all samples were reported as non-detect at elevated LODs. See Section 3.7 of the validation report for further discussion.
Other Parameters	Yes	<p>Naphthalene (8260B and 8270C-PAHs) and hexachloro-1,3-butadiene and 1,2,4-trichlorobenzene (8260B and 8270C) were analyzed by multiple methods. Results were selected for reporting using the following criteria:</p> <ul style="list-style-type: none"> • If both results were non-detect, the non-detect result with the lower DL was selected. • If both results were reported as detected, the higher detected result was selected for reporting. • If one result was reported as non-detect and the other result was reported as detected, the detected result was selected for reporting.
Initial Calibration	Yes	<p>Methods 8260B VOCs & 8270C SVOCs</p> <p>A minimum relative response factor (RRF) of 0.05 was used for the system performance check compounds (SPCCs) and all SPCCs met this criterion. The percent relative standard deviations (%RSDs) over the initial calibration RRFs for all calibration check compounds (CCCs) satisfied the method requirement of <30%. For all other target compounds, a requirement of 15% was used. The %RSD values for all target analytes in the calibration were less than 15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)</p> <p>The %RSD values for all target analytes in the calibration were less than 20%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Methods 8270C PAHs & 8270C SVOCs</p> <p>The %RSD values for all target analytes in the calibration were less than 20%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8015D Gasoline Range Organics (GRO)/DRO/ORO</p> <p>The relationship between instrument response and concentration was established with a blank and at least five standards for each analyte. The</p>

Review Parameter	Criteria Met?	Comment
		<p>%RSD over the initial calibrations curve satisfied the method requirement of <15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Methods 6010B (Inductively Coupled Plasma [ICP] Metals) and 6020 (ICPMS Metals)</p> <p>The initial calibrations (ICALs) were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with a blank and at least five standards. The calibrations were verified with the analysis of an initial calibration verification (ICV) standard. All metals were recovered within the method acceptance range of 90-110%.</p> <p>7470A (Mercury)</p> <p>The ICALs were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with five standards. The correlation coefficient was >0.995. The calibration was verified with the analysis of an ICV standard. The analytes were recovered within the acceptance range of 90-110%. Response and linearity criteria were met and data qualification on the basis of initial calibration was not necessary.</p>
Initial Calibration Verification/Continuing Calibration Verification	No	<p>Method 8260B VOCs</p> <p>The percent differences (%Ds) for all CCCs in the ICVs and continuing calibrations (CCALs) were less than 20%, satisfying method requirements, and other target analytes satisfied the %D criterion of 20%.</p> <p>Methods 8270C PAHs/SVOCs</p> <p>With the exceptions listed in Table 2, the %D values for all target analytes in the calibration were less than 20%.</p> <p>Method 8015D GRO/Method 8015 DRO/ORO</p> <p>The %Ds for GRO and DRO/ORO (C10-C40) in the ICVs and CCALs were less than 15%. Data qualification was not necessary.</p> <p>Methods 6010B (ICP Metals), 6020 (ICPMS Metals), and 7470A (Mercury)</p> <p>Calibration verification analyses were conducted at the proper frequency. All metals were recovered within the DOD QSM 4.2 low level acceptance range of 80-120% and the method medium/high acceptance range of 90-110%.</p>
Interference Check Standard (Metals Only)	No	<p>The interference check standard (ICS) AB solutions were analyzed at the proper frequency. The target analytes were recovered within the acceptance range of 80-120% in the ICS AB solution. With the exceptions listed in Table 3, interferent elements were not present in the samples at concentrations greater than those in the ICSs.</p> <p>The interferent elements aluminum, calcium, iron, and magnesium were present in most samples in this data package at concentrations greater than or equal to those in the ICSs. As such, these samples were evaluated for positive and negative biases suggested by the ICS A. Data qualification was issued if the absolute value of the ICS A result was greater than the DL and it suggested a positive or negative bias which accounted for more than 25% of associated sample results or LODs. (Note: The ICS A solution</p>

Review Parameter	Criteria Met?	Comment
		only contains the interferent elements aluminum, calcium, iron, and magnesium so any positive or negative result for other analytes is inferred to be a bias potentially caused by one or more of the interferent elements present). Table 3 summarizes the resultant data qualification on the basis of the ICS results.
Internal Standard (VOCs/SVOCs/PAHs/Metals (6020))	Yes	Recoveries for the internal standards in field samples were within the applicable acceptance limits. Therefore, data qualification based on internal standards was not necessary.
Laboratory Control Sample/ Laboratory Control Sample Duplicate	No	One laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) per method per analytical batch was prepared and analyzed. With the exceptions listed in Table 4, all of the LCS recoveries and LCS/LCSD RPDs were within the QAPP acceptance limits. These results are indicative of an acceptable level of accuracy and precision with respect to the analytical method. Method 8015 DRO/ORO The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the method could not be assessed for ORO.
Package Completeness	No	With the exception of the benzoic acid results for all samples, which was qualified as unusable due to LCS/LCSD recoveries <10%, the results are usable as qualified for the project objective. The data are 99% complete.

> - Greater Than

< - Less Than

≤ - Less Than or Equal to

± - Plus or Minus

°C – Degrees Celsius

% - Percent

%Ds – Percent Differences

%RSD – Percent Relative Standard Deviation

CCALs – Continuing Calibrations

CCBs – Continuing Calibration Blanks

CCCs – Calibration Check Compounds

COC – Chain of Custody

COD – Coefficient of Determination

DLs – Detection Limits

DRO – Diesel Range Organics

GRO – Gasoline Range Organics

ICAL – Initial Calibration

ICB – Initial Calibration Blank

ICP – Inductively Coupled Plasma

ICPMS - Inductively Coupled Plasma Mass Spectrometry

ICS – Interference Check Standard

ICV – Initial Calibration Verification

LCS – Laboratory Control Sample

LCSD – Laboratory Control Sample Duplicate

LOD – Limit of Detection

LOQ – Limit of Quantitation

MS/MSD – Matrix Spike/ Matrix Spike Duplicate

ORO – Oil Range Organics

PAHs – Polynuclear Aromatic Hydrocarbons

PDS – Post Digestion Spike

QAPP – Quality Assurance Project Plan

RPDs – Relative Percent Differences

RRF – Relative Response Factor

SOP – Standard Operating Procedure

SPCCs – System Performance Check Compounds

VOCs – Volatile Organic Compounds

Table 1: Blank Outliers and Resultant Data Qualification

Associated Samples	Analyte	Concentration	Qualification
Total Metals			
MB Batch WG756921 H-TU904-MW14-NT01 H-TU904-MW16-NT01 H-TU904-MW15-NT01 H-TU904-MW13-NT01	Arsenic	0.268 µg/L	The associated arsenic result for sample H-TU904-MW14-NT01 was reported at a concentration <5x the concentration of the blank contamination and was qualified as non-detect (U MB-I).
	Selenium	0.431 µg/L	None. The associated results were reported at concentrations >5x the concentration of the blank contamination.
CCB 11/28/2014 5:08PM H-TU904-MW14-NT01	Vanadium	0.306 µg/L	

Associated Samples	Analyte	Concentration	Qualification
H-TU904-MW16-NT01 H-TU904-MW15-NT01 H-TU904-MW13-NT01			
CCB 12/2/2014 5:14PM H-TU904-MW14-NT01 H-TU904-MW16-NT01 H-TU904-MW15-NT01 H-TU904-MW13-NT01	Antimony	0.347 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U CCB-I).
	Selenium	0.440 µg/L	None. The associated results were reported at concentrations >5x the concentration of the blank contamination.
Dissolved Metals			
MB Batch WG756740 H-TU904-MW14-ND01 H-TU904-MW16-ND01 H-TU904-MW15-ND01 H-TU904-MW13-ND01	Aluminum	43.4 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).
	Vanadium	3.51 µg/L	
CCB 11/26/2014 4:08PM H-TU904-MW14-ND01 H-TU904-MW16-ND01 H-TU904-MW15-ND01 H-TU904-MW13-ND01	Aluminum	48.5 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U CCB-I).
	Vanadium	3.25 µg/L	
CCB 11/26/2014 5:22PM H-TU904-MW14-ND01 H-TU904-MW16-ND01 H-TU904-MW15-ND01 H-TU904-MW13-ND01	Vanadium	5.48 µg/L	
	CCB 11/28/2014 2:55PM H-TU904-MW14-ND01 H-TU904-MW16-ND01 H-TU904-MW15-ND01 H-TU904-MW13-ND01	Nickel	
VOCs			
MB Batch WG756025 H-TU904-FIELDBLANK-FT02 H-TU904-MW14-NT01 H-TU904-MW16-NT01 H-TU904-MW15-NT01 H-TU904-MW13-NT01	1,2,3-Trichlorobenzene	00.329 µg/L	None. The associated results were reported as non-detect.
	1,2,4-Trichlorobenzene	0.324 µg/L	
SVOCs			
MB Batch WG755906 H-TU904-MW14-NT01 H-TU904-MW16-NT01	Bis(2-ethylhexyl) phthalate	1.16 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).
		MB Batch WG756403 H-TU904-MW15-NT01 H-TU904-MW13-NT01	

Associated Samples	Analyte	Concentration	Qualification
PAHs			
MB Batch WG755913 H-TU904-MW14-NT01 H-TU904-MW16-NT01 H-TU904-MW15-NT01 H-TU904-MW13-NT01	Naphthalene	0.0146 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).

> - Greater Than

CCB – Continuing Calibration Blank

PAHs – Polynuclear Aromatic Hydrocarbons

VOCs – Volatile Organic Compounds

< - Less Than

I – Indeterminate Bias

SVOCs – Semivolatile Organic Compounds

µg/L – Micrograms per Liter

MB – Method Blank

U – Non-detect

Table 2: Initial/Continuing Calibration Verification Outliers and Resultant Data Qualification

Associated Samples	Analyte	%D (Limit)	Data Qualification
SVOCs			
H-TU904-MW14-NT01 H-TU904-MW16-NT01 H-TU904-MW15-NT01 H-TU904-MW13-NT01	3&4-Methyl Phenol	-49.2 (±20)	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ CCAL-L).

± - Plus or minus

L – Low Bias

%D – Percent Difference

SVOCs – Semivolatile Organic Compounds

CCAL – Continuing Calibration

UJ - Estimated

Table 3: ICS Outliers and Resultant Data Qualification

Interferent Element	Analyte	ICS A (µg/L)	MDL (µg/L)	Qualified Samples	Qualification
Calcium	Lead	0.4	0.18	H-TU904-MW15-ND01	As the potential bias was considered to be high, the associated detected results were qualified as estimated (J ICS-H).
	Cadmium	0.6	0.1	H-TU904-MW15-NT01	
	Thallium	0.1	0.05	H-TU904-MW13-NT01	

µg/L – Micrograms per Liter

J – Estimated

H – High Bias

MDL – Method Detection Limit

ICS – Interference Check Standard

Table 4: LCS Recovery Outliers and Resultant Data Qualification

Associated Samples	Analyte	%R (Limits)	RPD (Limits)	Qualification
SVOCs				
LCS WG755906 H-TU904-MW14-NT01 H-TU904-MW16-NT01	Benzoic Acid	9.37/9.25 (10-125)	1.34 (30)	As the potential bias was considered to be low, and the percent recovery <10%, the associated non-detect benzoic acid results were qualified as useable (R).
LCS WG756403 H-TU904-MW15-NT01 H-TU904-MW13-NT01		7.3/9.12 (10-125)	22.2 (30)	
PAHs				
LCS WG755906 H-TU904-MW14-NT01 H-TU904-MW16-NT01 H-TU904-MW15-NT01 H-TU904-MW13-NT01	Benzo(a)anthracene	99.2/ 115 (55-110)	14.4 (20)	As the potential bias was considered to be high, and the associated results were reported as non-detect, data qualification was not considered necessary.
	Benzo(a)pyrene	95.9/ 112 (55-110)	15.9 (20)	
	Chrysene	96.8/ 114 (55-110)	16.3 (20)	
	Fluoranthene	106/ 120 (55-115)	12.6 (20)	

Associated Samples	Analyte	%R (Limits)	RPD (Limits)	Qualification
	Benzo(g,h,i)perylene	69.8/85.8 (62.8-146)	20.6 (20)	As the RPD was outside of control limits, the associated results were qualified as estimated (UJ D-I).
	Dibenz(a,h)anthracene	70.8/87.1 (56.1-147)	20.6 (20)	

%R – Percent Recoveries

I – Indeterminate Bias

R – Unusable

Bold indicates a recovery outside of acceptance limits.

D – Duplicate or spike duplicate precision evaluation criteria not met

LCS – Laboratory Control Sample

SVOCs – Semivolatile Organic Compounds

PAHs – Polynuclear Aromatic Hydrocarbons



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 08, 2014

Date Received : November 20, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-FIELDBLANK-FT02
 Collected By :
 Collection Date : 11/19/14 10:00

ESC Sample # : L734810-01
 Site ID :
 Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	11/23/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	98.3				% Rec.		8015D/G	11/23/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/26/14	1
Chloroform F SQL-I	67-66-3	0.42	0.32	2.5	5	ug/l	J	8260B	11/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/26/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/26/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/26/14	1

U = Not Detected at the LOD

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 12/03/14 15:50 Revised: 12/08/14 16:53

KA 2/20/15



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 08, 2014

Date Received : November 20, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-FIELDBLANK-FT02
 Collected By :
 Collection Date : 11/19/14 10:00

ESC Sample # : L734810-01
 Site ID :
 Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l	8260B	11/26/14	1	
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l	8260B	11/26/14	1	
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l	8260B	11/26/14	1	
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l	8260B	11/26/14	1	
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l	8260B	11/26/14	1	
Napthalene	91-20-3	U	1	2.5	5	ug/l	8260B	11/26/14	1	
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l	8260B	11/26/14	1	
Styrene	100-42-5	U	0.31	0.50	1	ug/l	8260B	11/26/14	1	
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l	8260B	11/26/14	1	
1,1,2,2-Tetrachloroethane	79-34-5	U	0.13	0.50	1	ug/l	8260B	11/26/14	1	
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l	8260B	11/26/14	1	
Toluene	108-88-3	U	0.78	2.5	5	ug/l	8260B	11/26/14	1	
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l	8260B	11/26/14	1	
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l	8260B	11/26/14	1	
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l	8260B	11/26/14	1	
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l	8260B	11/26/14	1	
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l	8260B	11/26/14	1	
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l	8260B	11/26/14	1	
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l	8260B	11/26/14	1	
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l	8260B	11/26/14	1	
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l	8260B	11/26/14	1	
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l	8260B	11/26/14	1	
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l	8260B	11/26/14	1	
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l	8260B	11/26/14	1	
Surrogate Recovery										
Toluene-d8	2037-26-5	101.				% Rec.	8260B	11/26/14	1	
Dibromofluoromethane	1868-53-7	100.				% Rec.	8260B	11/26/14	1	
4-Bromofluorobenzene	460-00-4	102.				% Rec.	8260B	11/26/14	1	

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 15:50 Revised: 12/08/14 16:53

KA2/2015



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 08, 2014

Date Received : November 20, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-MW14-ND01
 Collected By :
 Collection Date : 11/19/14 09:35

ESC Sample # : L734810-02
 Site ID :
 Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved	7440-36-0	U	1	2.5	10	ug/l		6020	11/28/14	5
Arsenic, Dissolved	7440-38-2	U	1.2	2.5	10	ug/l		6020	11/28/14	5
Cadmium, Dissolved	7440-43-9	U	0.8	2.5	5	ug/l		6020	11/28/14	5
Chromium, Dissolved	7440-47-3	U	2.7	7.5	10	ug/l		6020	11/28/14	5
Cobalt, Dissolved	7440-48-4	3.2	1.3	2.5	10	ug/l	J	6020	11/28/14	5
Lead, Dissolved	7439-92-1	U	1.2	2.5	10	ug/l		6020	11/28/14	5
Nickel, Dissolved	7440-02-0	5.5	1.8	5.5	5.5	ug/l	J	6020	11/28/14	5
Selenium, Dissolved	7782-49-2	10.	1.9	5.0	10	ug/l		6020	11/28/14	5
Silver, Dissolved	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/28/14	5
Thallium, Dissolved	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/28/14	5
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	11/24/14	1
Aluminum, Dissolved	7429-90-5	640	180	250	500	ug/l		6010B	11/26/14	5
Barium, Dissolved	7440-39-3	70.	8.5	13.	25	ug/l		6010B	11/26/14	5
Beryllium, Dissolved	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/26/14	5
Copper, Dissolved	7440-50-8	U	26	50.	100	ug/l		6010B	11/26/14	5
Manganese, Dissolved	7439-96-5	310	6	25.	50	ug/l		6010B	11/26/14	5
Vanadium, Dissolved	7440-62-2	28.50	12.28	50.	100	ug/l	J	6010B	11/26/14	5
Zinc, Dissolved	7440-66-6	U	30	130	250	ug/l		6010B	11/26/14	5

U = Not Detected at the LOD

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 Reported: 12/03/14 15:50 Revised: 12/08/14 16:53
 L734810-02 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.
 L734810-02 (ICP METALS) - Diluted due to matrix interference.

KAZKOLIS
BMS 2/20/15
 11 of 1876



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 20, 2014
Description : Holloman AFB
Sample ID : H-TU904-MW14-NT01
Collected By :
Collection Date : 11/19/14 09:35

ESC Sample # : L734810-03
Site ID :
Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony <i>U CCB-I</i>	7440-36-0	0.36 <i>0.50</i>	0.21 <i>0.36</i>	0.50	2	ug/l	J	6020	12/01/14	1
Arsenic <i>U MB, PD-I</i>	7440-38-2	5.9	1.2 <i>5.9</i>	2.5 <i>5.9</i>	10	ug/l	J	6020	11/28/14	5
Cadmium	7440-43-9	U	0.8	2.5	5	ug/l		6020	11/28/14	5
Chromium <i>J PD-I</i>	7440-47-3	24.	2.7	7.5	10	ug/l		6020	11/28/14	5
Cobalt <i>FJ SQL, PD-I</i>	7440-48-4	9.5	1.3	2.5	10	ug/l	J	6020	11/28/14	5
Lead <i>F SQL-I</i>	7439-92-1	8.0	1.2	2.5	10	ug/l	J	6020	12/02/14	5
Nickel <i>J PD-I</i>	7440-02-0	17.	0.35	1.0	2	ug/l		6020	12/01/14	1
Selenium	7782-49-2	14.	1.9	5.0	10	ug/l		6020	11/28/14	5
Silver	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/28/14	5
Thallium	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/28/14	5
Mercury	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	11/22/14	1
Aluminum <i>J MS, PD-H</i>	7429-90-5	6600	180	250	500	ug/l		6010B	11/28/14	5
Barium <i>J PD-I</i>	7440-39-3	250	8.5	13.	25	ug/l		6010B	11/28/14	5
Beryllium	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/28/14	5
Copper	7440-50-8	U	26	50.	100	ug/l		6010B	11/28/14	5
Manganese	7439-96-5	580	6	25.	50	ug/l		6010B	11/28/14	5
Vanadium <i>F SQL-I</i>	7440-62-2	58.	12	50.	100	ug/l	J	6010B	11/28/14	5
Zinc <i>F SQL-I</i>	7440-66-6	61.	30	130	250	ug/l	J	6010B	11/28/14	5
TPH (GC/FID) Low Fraction <i>F SQL-I</i>	8006-61-9	47.	31	50.	100	ug/l	J	8015D/G	11/23/14	1
Surrogate Recovery - % <i>F</i> a, a, a-Trifluorotoluene (FID)	98-08-8	98.8				% Rec.		8015D/G	11/23/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/26/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/26/14	1

U = Not Detected at the LOD

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Reported: 12/03/14 15:50 Revised: 12/08/14 16:53
L734810-03 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.
L734810-03 (ICP METALS) - Diluted due to matrix interference.
L734810-03 (8270) - Dilution due to sample volume

Kazhokis
12 of 1876
BW 2/20/15



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Tax I.D. 62-0814289
Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 20, 2014
Description : Holloman AFB
Sample ID : H-TU904-MW14-NT01
Collected By :
Collection Date : 11/19/14 09:35

ESC Sample # : L734810-03
Site ID :
Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual Method	Date	Dil.
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l	8260B	11/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l	8260B	11/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l	8260B	11/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l	8260B	11/26/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l	8260B	11/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l	8260B	11/26/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l	8260B	11/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l	8260B	11/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l	8260B	11/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l	8260B	11/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l	8260B	11/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l	8260B	11/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l	8260B	11/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l	8260B	11/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l	8260B	11/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l	8260B	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l	8260B	11/26/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l	8260B	11/26/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l	8260B	11/26/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l	8260B	11/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l	8260B	11/26/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l	8260B	11/26/14	1
Naphthalene <i>DUR</i>	91-20-3	U	1	2.5	5	ug/l	8260B	11/26/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l	8260B	11/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l	8260B	11/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.13 0.58	0.75	1	ug/l	8260B	11/26/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l	8260B	11/26/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l	8260B	11/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l	8260B	11/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l	8260B	11/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l	8260B	11/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l	8260B	11/26/14	1
Trichloroethene	79-01-6	3.6	0.4	0.50	1	ug/l	8260B	11/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l	8260B	11/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l	8260B	11/26/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l	8260B	11/26/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l	8260B	11/26/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l	8260B	11/26/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l	8260B	11/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l	8260B	11/26/14	1
Surrogate Recovery									

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Reported: 12/03/14 15:50 Revised: 12/08/14 16:53
L734810-03 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.
L734810-03 (ICP METALS) - Diluted due to matrix interference.
L734810-03 (8270) - Dilution due to sample volume

DUR. Do Not Report

*KA 2/20/15
BMS 2/24/15
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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 20, 2014
Description : Holloman AFB
Sample ID : H-TU904-MW14-NT01
Collected By :
Collection Date : 11/19/14 09:35

ESC Sample # : L734810-03
Site ID :
Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Toluene-d8	2037-26-5	99.6				% Rec.		8260B	11/26/14	1
Dibromofluoromethane	1868-53-7	99.4				% Rec.		8260B	11/26/14	1
4-Bromofluorobenzene	460-00-4	99.1				% Rec.		8260B	11/26/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		140	22	33.	100	ug/l		8015	12/02/14	1
C28-C40 Oil Range		31.	12	33.	100	ug/l	J	8015	12/02/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	104.				% Rec.		8015	12/02/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	11/24/14	1
Acenaphthene	83-32-9	U	0.0082	0.025	0.05	ug/l		8270 C-	11/24/14	1
Acenaphthylene	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo(a)anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo(a)pyrene	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo(b)fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo(g,h,i)perylene	191-24-2	U	0.016	0.025	0.05	ug/l	J3	8270 C-	11/24/14	1
Benzo(k)fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	11/24/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	11/24/14	1
Dibenz(a,h)anthracene	53-70-3	U	0.0045	0.025	0.05	ug/l	J3	8270 C-	11/24/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/24/14	1
Fluorene	86-73-7	U	0.009	0.025	0.05	ug/l		8270 C-	11/24/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	11/24/14	1
Naphthalene	91-20-3	0.025	0.012	0.025	0.25	ug/l	J	8270 C-	11/24/14	1
Phenanthrene	85-01-8	0.018	0.018	0.025	0.05	ug/l	J	8270 C-	11/24/14	1
Pyrene	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/24/14	1
2-Methylnaphthalene	91-57-6	U	0.016	0.025	0.25	ug/l		8270 C-	11/24/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	80.2				% Rec.		8270 C-	11/24/14	1
2-Fluorobiphenyl	321-60-8	78.7				% Rec.		8270 C-	11/24/14	1
p-Terphenyl-d14	1718-51-0	92.9				% Rec.		8270 C-	11/24/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	0.55	8.4	16.7	ug/l		8270C	11/25/14	1.67
Bis(2-chloroethyl)ether	111-44-4	U	2.7	8.4	16.7	ug/l		8270C	11/25/14	1.67
Bis(2-chloroisopropyl)ether	108-60-1	U	0.74	8.4	16.7	ug/l		8270C	11/25/14	1.67
Benzyl Alcohol	100-51-6	U	0.66	8.4	16.7	ug/l		8270C	11/25/14	1.67
Carbazole	86-74-8	U	0.27	8.4	16.7	ug/l		8270C	11/25/14	1.67
Benzoic acid	65-05-0	U	0.73	8.4	16.7	ug/l		8270C	11/25/14	1.67
Dibenzofuran	132-64-9	U	0.56	8.4	16.7	ug/l		8270C	11/25/14	1.67
4-Bromophenyl-phenylether	101-55-3	U	0.59	8.4	16.7	ug/l		8270C	11/25/14	1.67
2-Chloronaphthalene	91-58-7	U	0.55	0.84	1.67	ug/l		8270C	11/25/14	1.67
4-Chlorophenyl-phenylether	7005-72-3	U	0.51	8.4	16.7	ug/l		8270C	11/25/14	1.67
3,3-Dichlorobenzidine	91-94-1	U	3.4	8.4	16.7	ug/l		8270C	11/25/14	1.67
2,4-Dinitrotoluene	121-14-2	U	2.8	8.4	16.7	ug/l		8270C	11/25/14	1.67

U = Not Detected at the LOD

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Reported: 12/03/14 15:50 Revised: 12/08/14 16:53
L734810-03 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.
L734810-03 (ICP METALS) - Diluted due to matrix interference.
L734810-03 (8270) - Dilution due to sample volume

KA 8/26/15
BMS 9/4/15
KA 2/20/15
BMS 2/20/15
14 of 1876



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 20, 2014
Description : Holloman AFB
Sample ID : H-TU904-MW14-NT01
Collected By :
Collection Date : 11/19/14 09:35

ESC Sample # : L734810-03
Site ID :
Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2,6-Dinitrotoluene	606-20-2	U	0.46	8.4	16.7	ug/l		8270C	11/25/14	1.67
Hexachlorobenzene	118-74-1	U	0.57	0.84	1.67	ug/l		8270C	11/25/14	1.67
Hexachloro-1,3-butadiene	67-68-3	U	0.55	8.4	16.7	ug/l		8270C	11/25/14	1.67
Hexachloroethane	67-72-1	U	0.61	8.4	16.7	ug/l		8270C	11/25/14	1.67
Isophorone	78-59-1	U	0.45	8.4	16.7	ug/l		8270C	11/25/14	1.67
Nitrobenzene	98-95-3	U	0.61	8.4	16.7	ug/l		8270C	11/25/14	1.67
n-Nitrosodimethylamine	62-75-9	U	2.1	8.4	16.7	ug/l		8270C	11/25/14	1.67
n-Nitrosodiphenylamine	86-30-6	U	0.51	8.4	16.7	ug/l		8270C	11/25/14	1.67
n-Nitrosodi-n-propylamine	621-64-7	U	0.67	8.4	16.7	ug/l		8270C	11/25/14	1.67
Benzylbutyl phthalate	85-68-7	U	0.46	1.7	5.01	ug/l		8270C	11/25/14	1.67
Bis(2-ethylhexyl)phthalate	117-81-7	1.17	1.214	1.7	5.01	ug/l	J	8270C	11/25/14	1.67
Di-n-butyl phthalate	84-74-2	U	0.44	1.7	5.01	ug/l		8270C	11/25/14	1.67
Diethyl phthalate	84-66-2	U	0.47	1.7	5.01	ug/l		8270C	11/25/14	1.67
Dimethyl phthalate	131-11-3	U	0.47	1.7	5.01	ug/l		8270C	11/25/14	1.67
Di-n-octyl phthalate	117-84-0	U	0.46	1.7	5.01	ug/l		8270C	11/25/14	1.67
1,2,4-Trichlorobenzene	120-82-1	U	0.59	8.4	16.7	ug/l		8270C	11/25/14	1.67
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.44	8.4	16.7	ug/l		8270C	11/25/14	1.67
2-Chlorophenol	95-57-8	U	0.47	8.4	16.7	ug/l		8270C	11/25/14	1.67
2,4-Dichlorophenol	120-83-2	U	0.47	8.4	16.7	ug/l		8270C	11/25/14	1.67
2,4-Dimethylphenol	105-67-9	U	1	8.4	16.7	ug/l		8270C	11/25/14	1.67
4,6-Dinitro-2-methylphenol	534-52-1	U	4.4	8.4	16.7	ug/l		8270C	11/25/14	1.67
2,4-Dinitrophenol	51-28-5	U	5.4	8.4	16.7	ug/l		8270C	11/25/14	1.67
2-Methylphenol	95-48-7	U	0.52	8.4	16.7	ug/l		8270C	11/25/14	1.67
3&4-Methyl Phenol	3&4-Methyl	U	0.44	8.4	16.7	ug/l		8270C	11/25/14	1.67
2-Nitrophenol	88-75-5	U	0.53	8.4	16.7	ug/l		8270C	11/25/14	1.67
4-Nitrophenol	100-02-7	U	3.4	8.4	16.7	ug/l		8270C	11/25/14	1.67
4-Chloroaniline	106-47-8	U	0.64	8.4	16.7	ug/l		8270C	11/25/14	1.67
2-Nitroaniline	88-74-4	U	3.2	8.4	16.7	ug/l		8270C	11/25/14	1.67
3-Nitroaniline	99-09-2	U	0.51	8.4	16.7	ug/l		8270C	11/25/14	1.67
1,2-Diphenylhydrazine	103-33-3	U	0.53	8.4	16.7	ug/l		8270C	11/25/14	1.67
4-Nitroaniline	100-01-6	U	0.58	8.4	16.7	ug/l		8270C	11/25/14	1.67
Pentachlorophenol	87-86-5	U	0.52	8.4	16.7	ug/l		8270C	11/25/14	1.67
Phenol	108-95-2	U	0.56	8.4	16.7	ug/l		8270C	11/25/14	1.67
2,4,5-Trichlorophenol	95-95-4	U	0.39	8.4	16.7	ug/l		8270C	11/25/14	1.67
2,4,6-Trichlorophenol	88-06-2	U	0.5	8.4	16.7	ug/l		8270C	11/25/14	1.67
Surrogate Recovery										
2-Fluorophenol	367-12-4	34.1				% Rec.		8270C	11/25/14	1.67
Phenol-d5	4165-62-2	24.4				% Rec.		8270C	11/25/14	1.67
Nitrobenzene-d5	4165-60-0	64.7				% Rec.		8270C	11/25/14	1.67
2-Fluorobiphenyl	321-60-8	73.7				% Rec.		8270C	11/25/14	1.67
2,4,6-Tribromophenol	118-79-6	58.1				% Rec.		8270C	11/25/14	1.67
p-Terphenyl-d14	1718-51-0	67.1				% Rec.		8270C	11/25/14	1.67

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Reported: 12/03/14 15:50 Revised: 12/08/14 16:53
L734810-03 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.
L734810-03 (ICP METALS) - Diluted due to matrix interference.
L734810-03 (8270) - Dilution due to sample volume

DNR - Do Not Report



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 08, 2014

Date Received : November 20, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-MW16-ND01
 Collected By :
 Collection Date : 11/19/14 10:45

ESC Sample # : L734810-04
 Site ID :
 Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved	7440-36-0	U	1	2.5	10	ug/l		6020	11/28/14	5
Arsenic, Dissolved	7440-38-2	U	1.2	2.5	10	ug/l		6020	11/28/14	5
Cadmium, Dissolved	7440-43-9	U	0.8	2.5	5	ug/l		6020	11/28/14	5
Chromium, Dissolved	7440-47-3	U	2.7	7.5	10	ug/l		6020	11/28/14	5
Cobalt, Dissolved	7440-48-4	1.5	1.3	2.5	10	ug/l	J	6020	11/28/14	5
Lead, Dissolved	7439-92-1	U	1.2	2.5	10	ug/l		6020	11/28/14	5
Nickel, Dissolved	7440-02-0	2.1	1.8	5.0	10	ug/l	J	6020	11/28/14	5
Selenium, Dissolved	7782-49-2	15.	1.9	5.0	10	ug/l		6020	11/28/14	5
Silver, Dissolved	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/28/14	5
Thallium, Dissolved	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/28/14	5
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	11/24/14	1
Aluminum, Dissolved	7429-90-5	690	180	250	500	ug/l		6010B	11/26/14	5
Barium, Dissolved	7440-39-3	55.	8.5	13.	25	ug/l		6010B	11/26/14	5
Beryllium, Dissolved	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/26/14	5
Copper, Dissolved	7440-50-8	U	26	50.	100	ug/l		6010B	11/26/14	5
Manganese, Dissolved	7439-96-5	110	6	25.	50	ug/l		6010B	11/26/14	5
Vanadium, Dissolved	7440-62-2	43 50	12 43	50.	100	ug/l	J	6010B	11/26/14	5
Zinc, Dissolved	7440-66-6	U	30	130	250	ug/l		6010B	11/26/14	5

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 Reported: 12/03/14 15:50 Revised: 12/08/14 16:53
 L734810-04 (ICP METALS) - Diluted due to matrix interference.
 L734810-04 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

kazhokis



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 20, 2014
Description : Holloman AFB
Sample ID : H-TU904-MW16-NT01
Collected By :
Collection Date : 11/19/14 10:45

ESC Sample # : L734810-05
Site ID :
Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony	7440-36-0	U	1	2.5	10	ug/l		6020	12/01/14	5
Arsenic <i>J PD-I</i>	7440-38-2	10.	1.2	2.5	10	ug/l		6020	11/28/14	5
Cadmium	7440-43-9	U	0.8	2.5	5	ug/l		6020	11/28/14	5
Chromium <i>J PD-I</i>	7440-47-3	64.	2.7	7.5	10	ug/l		6020	11/28/14	5
Cobalt <i>J PD-I</i>	7440-48-4	17.	1.3	2.5	10	ug/l		6020	11/28/14	5
Lead	7439-92-1	20.	1.2	2.5	10	ug/l		6020	12/02/14	5
Nickel <i>J PD-I</i>	7440-02-0	30.	1.8	5.0	10	ug/l		6020	12/01/14	5
Selenium	7782-49-2	26.	1.9	5.0	10	ug/l		6020	11/28/14	5
Silver	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/28/14	5
Thallium	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/28/14	5
Mercury	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	11/22/14	1
Aluminum <i>J MS, PD-H</i>	7429-90-5	11000	180	250	500	ug/l		6010B	11/28/14	5
Barium <i>J PD-I</i>	7440-39-3	350	8.5	13.	25	ug/l		6010B	11/28/14	5
Beryllium	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/28/14	5
Copper	7440-50-8	U	26	50.	100	ug/l		6010B	11/28/14	5
Manganese	7439-96-5	590	6	25.	50	ug/l		6010B	11/28/14	5
Vanadium <i>F SQL-I</i>	7440-62-2	68.	12	50.	100	ug/l	J	6010B	11/28/14	5
Zinc <i>F SQL-I</i>	7440-66-6	69.	30	130	250	ug/l	J	6010B	11/28/14	5
TPH (GC/FID) Low Fraction <i>US MS-I</i>	8006-61-9	U	31	50.	100	ug/l		8015D/G	11/23/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	98.2				% Rec.		8015D/G	11/23/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/26/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/26/14	1

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L734810-05 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.
L734810-05 (GFAA METALS) - IS/SURR failed on lower dilution.
L734810-05 (ICP METALS) - Diluted due to matrix interference.
L734810-05 (8270) - Dilution due to sample volume



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 20, 2014
Description : Holloman AFB
Sample ID : H-TU904-MW16-NT01
Collected By :
Collection Date : 11/19/14 10:45

ESC Sample # : L734810-05
Site ID :
Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l	8260B	11/26/14	1	
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l	8260B	11/26/14	1	
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l	8260B	11/26/14	1	
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l	8260B	11/26/14	1	
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l	8260B	11/26/14	1	
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l	8260B	11/26/14	1	
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l	8260B	11/26/14	1	
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l	8260B	11/26/14	1	
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l	8260B	11/26/14	1	
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l	8260B	11/26/14	1	
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l	8260B	11/26/14	1	
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l	8260B	11/26/14	1	
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l	8260B	11/26/14	1	
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l	8260B	11/26/14	1	
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l	8260B	11/26/14	1	
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l	8260B	11/26/14	1	
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l	8260B	11/26/14	1	
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l	8260B	11/26/14	1	
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l	8260B	11/26/14	1	
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l	8260B	11/26/14	1	
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l	8260B	11/26/14	1	
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l	8260B	11/26/14	1	
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l	8260B	11/26/14	1	
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l	8260B	11/26/14	1	
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l	8260B	11/26/14	1	
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l	8260B	11/26/14	1	
Naphthalene DNR	91-20-3	U	1	2.5	5	ug/l	8260B	11/26/14	1	
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l	8260B	11/26/14	1	
Styrene	100-42-5	U	0.31	0.50	1	ug/l	8260B	11/26/14	1	
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l	8260B	11/26/14	1	
1,1,2,2-Tetrachloroethane	79-34-5	U	0.38	0.75	1	ug/l	8260B	11/26/14	1	
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l	8260B	11/26/14	1	
Toluene	108-88-3	U	0.78	2.5	5	ug/l	8260B	11/26/14	1	
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l	8260B	11/26/14	1	
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l	8260B	11/26/14	1	
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l	8260B	11/26/14	1	
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l	8260B	11/26/14	1	
Trichloroethene	79-01-6	2.2	0.4	0.50	1	ug/l	8260B	11/26/14	1	
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l	8260B	11/26/14	1	
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l	8260B	11/26/14	1	
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l	8260B	11/26/14	1	
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l	8260B	11/26/14	1	
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l	8260B	11/26/14	1	
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l	8260B	11/26/14	1	
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l	8260B	11/26/14	1	
Surrogate Recovery										

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L734810-05 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.
L734810-05 (GFAA METALS) - IS/SURR failed on lower dilution.
L734810-05 (ICP METALS) - Diluted due to matrix interference.
L734810-05 (8270) - Dilution due to sample volume

DNR - Do Not Report



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REPORT OF ANALYSIS

Sheri Fling
 URS
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 Denver, CO 80237

December 08, 2014

Date Received : November 20, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-MW16-NT01
 Collected By :
 Collection Date : 11/19/14 10:45

ESC Sample # : L734810-05
 Site ID :
 Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Toluene-d8	2037-26-5	100.				% Rec.		8260B	11/26/14	1
Dibromofluoromethane	1868-53-7	99.5				% Rec.		8260B	11/26/14	1
4-Bromofluorobenzene	460-00-4	99.6				% Rec.		8260B	11/26/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		72.	22	33.	100	ug/l	J	8015	11/27/14	1
C28-C40 Oil Range		20.	12	33.	100	ug/l	J	8015	11/27/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	104.				% Rec.		8015	11/27/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	11/24/14	1
Acenaphthene	83-32-9	U	0.0082	0.025	0.05	ug/l		8270 C-	11/24/14	1
Acenaphthylene	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo (a) anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo (a) pyrene	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo (b) fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo (g, h, i) perylene	191-24-2	U	0.016	0.025	0.05	ug/l	J3	8270 C-	11/24/14	1
Benzo (k) fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	11/24/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	11/24/14	1
Dibenz (a, h) anthracene	53-70-3	U	0.0045	0.025	0.05	ug/l	J3	8270 C-	11/24/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/24/14	1
Fluorene	86-73-7	U	0.009	0.025	0.05	ug/l		8270 C-	11/24/14	1
Indeno (1, 2, 3-cd) pyrene	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	11/24/14	1
Naphthalene	91-20-3	0.014	0.012	0.025	0.25	ug/l	J	8270 C-	11/24/14	1
Phenanthrene	85-01-8	U	0.018	0.025	0.05	ug/l		8270 C-	11/24/14	1
Pyrene	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/24/14	1
2-Methylnaphthalene	91-57-6	U	0.016	0.025	0.25	ug/l		8270 C-	11/24/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	39.2				% Rec.		8270 C-	11/24/14	1
2-Fluorobiphenyl	321-60-8	38.3				% Rec.		8270 C-	11/24/14	1
p-Terphenyl-d14	1718-51-0	43.2				% Rec.		8270 C-	11/24/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	0.55	8.4	16.7	ug/l		8270C	11/25/14	1.67
Bis(2-chloroethyl) ether	111-44-4	U	2.7	8.4	16.7	ug/l		8270C	11/25/14	1.67
Bis(2-chloroisopropyl) ether	108-60-1	U	0.74	8.4	16.7	ug/l		8270C	11/25/14	1.67
Benzyl Alcohol	100-51-6	U	0.66	8.4	16.7	ug/l		8270C	11/25/14	1.67
Carbazole	86-74-8	U	0.27	8.4	16.7	ug/l		8270C	11/25/14	1.67
Benzoic acid	65-85-0	U	0.73	8.4	16.7	ug/l		8270C	11/25/14	1.67
Dibenzofuran	132-64-9	U	0.56	8.4	16.7	ug/l		8270C	11/25/14	1.67
4-Bromophenyl-phenylether	101-55-3	U	0.59	8.4	16.7	ug/l		8270C	11/25/14	1.67
2-Chloronaphthalene	91-58-7	U	0.55	0.84	1.67	ug/l		8270C	11/25/14	1.67
4-Chlorophenyl-phenylether	7005-72-3	U	0.51	8.4	16.7	ug/l		8270C	11/25/14	1.67
3,3-Dichlorobenzidine	91-94-1	U	3.4	8.4	16.7	ug/l		8270C	11/25/14	1.67
2,4-Dinitrotoluene	121-14-2	U	2.8	8.4	16.7	ug/l		8270C	11/25/14	1.67

U = Not Detected at the LOD

Note:

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 Reported: 12/03/14 15:50 Revised: 12/08/14 16:53
 L734810-05 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.
 L734810-05 (GFAA METALS) - IS/SURR failed on lower dilution.
 L734810-05 (ICP METALS) - Diluted due to matrix interference.
 L734810-05 (8270) - Dilution due to sample volume

KA 8/20/15

KA 2/20/15

BMS 9/4/15



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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 20, 2014
Description : Holloman AFB
Sample ID : H-TU904-MW16-NT01
Collected By :
Collection Date : 11/19/14 10:45

ESC Sample # : L734810-05

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2,6-Dinitrotoluene	606-20-2	U	0.46	8.4	16.7	ug/l		8270C	11/25/14	1.67
Hexachlorobenzene	118-74-1	U	0.57	0.84	1.67	ug/l		8270C	11/25/14	1.67
Hexachloro-1,3-butadiene	87-68-2	U	0.55	8.4	16.7	ug/l		8270C	11/25/14	1.67
Hexachloroethane	67-72-1	U	0.61	8.4	16.7	ug/l		8270C	11/25/14	1.67
Isophorone	78-59-1	U	0.45	8.4	16.7	ug/l		8270C	11/25/14	1.67
Nitrobenzene	98-95-3	U	0.61	8.4	16.7	ug/l		8270C	11/25/14	1.67
n-Nitrosodimethylamine	62-75-9	U	2.1	8.4	16.7	ug/l		8270C	11/25/14	1.67
n-Nitrosodiphenylamine	86-30-6	U	0.51	8.4	16.7	ug/l		8270C	11/25/14	1.67
n-Nitrosodi-n-propylamine	621-64-7	U	0.67	8.4	16.7	ug/l		8270C	11/25/14	1.67
Benzylbutyl phthalate	85-68-7	U	0.46	1.7	5.01	ug/l		8270C	11/25/14	1.67
Bis(2-ethylhexyl)phthalate	117-81-7	U	1.2	1.7	5.01	ug/l		8270C	11/25/14	1.67
Di-n-butyl phthalate	84-74-2	U	0.44	1.7	5.01	ug/l		8270C	11/25/14	1.67
Diethyl phthalate	84-66-2	U	0.47	1.7	5.01	ug/l		8270C	11/25/14	1.67
Dimethyl phthalate	131-11-3	U	0.47	1.7	5.01	ug/l		8270C	11/25/14	1.67
Di-n-octyl phthalate	117-84-0	U	0.46	1.7	5.01	ug/l		8270C	11/25/14	1.67
1,2,4-Trichlorobenzene	120-82-1	U	0.59	8.4	16.7	ug/l		8270C	11/25/14	1.67
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.44	8.4	16.7	ug/l		8270C	11/25/14	1.67
2-Chlorophenol	95-57-8	U	0.47	8.4	16.7	ug/l		8270C	11/25/14	1.67
2,4-Dichlorophenol	120-83-2	U	0.47	8.4	16.7	ug/l		8270C	11/25/14	1.67
2,4-Dimethylphenol	105-67-9	U	1	8.4	16.7	ug/l		8270C	11/25/14	1.67
4,6-Dinitro-2-methylphenol	534-52-1	U	4.4	8.4	16.7	ug/l		8270C	11/25/14	1.67
2,4-Dinitrophenol	51-28-5	U	5.4	8.4	16.7	ug/l		8270C	11/25/14	1.67
2-Methylphenol	95-48-7	U	0.52	8.4	16.7	ug/l		8270C	11/25/14	1.67
3&4-Methyl Phenol	3&4-Methyl	U	0.44	8.4	16.7	ug/l		8270C	11/25/14	1.67
2-Nitrophenol	88-75-5	U	0.53	8.4	16.7	ug/l		8270C	11/25/14	1.67
4-Nitrophenol	100-02-7	U	3.4	8.4	16.7	ug/l		8270C	11/25/14	1.67
4-Chloroaniline	106-47-8	U	0.64	8.4	16.7	ug/l		8270C	11/25/14	1.67
2-Nitroaniline	88-74-4	U	3.2	8.4	16.7	ug/l		8270C	11/25/14	1.67
3-Nitroaniline	99-09-2	U	0.51	8.4	16.7	ug/l		8270C	11/25/14	1.67
1,2-Diphenylhydrazine	103-33-3	U	0.53	8.4	16.7	ug/l		8270C	11/25/14	1.67
4-Nitroaniline	100-01-6	U	0.58	8.4	16.7	ug/l		8270C	11/25/14	1.67
Pentachlorophenol	87-86-5	U	0.52	8.4	16.7	ug/l		8270C	11/25/14	1.67
Phenol	108-95-2	U	0.56	8.4	16.7	ug/l		8270C	11/25/14	1.67
2,4,5-Trichlorophenol	95-95-4	U	0.39	8.4	16.7	ug/l		8270C	11/25/14	1.67
2,4,6-Trichlorophenol	88-06-2	U	0.5	8.4	16.7	ug/l		8270C	11/25/14	1.67
Surrogate Recovery										
2-Fluorophenol	367-12-4	41.6				% Rec.		8270C	11/25/14	1.67
Phenol-d5	4165-62-2	30.8				% Rec.		8270C	11/25/14	1.67
Nitrobenzene-d5	4165-60-0	62.3				% Rec.		8270C	11/25/14	1.67
2-Fluorobiphenyl	321-60-8	71.9				% Rec.		8270C	11/25/14	1.67
2,4,6-Tribromophenol	118-79-6	55.4				% Rec.		8270C	11/25/14	1.67
p-Terphenyl-d14	1718-51-0	68.9				% Rec.		8270C	11/25/14	1.67

U = Not Detected at the LOD

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Reported: 12/03/14 15:50 Revised: 12/08/14 16:53
L734810-05 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.
L734810-05 (GFAA METALS) - IS/SURR failed on lower dilution.
L734810-05 (ICP METALS) - Diluted due to matrix interference.
L734810-05 (8270) - Dilution due to sample volume

DNR - Do Not Report



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 08, 2014

Date Received : November 20, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-MW15-ND01
 Collected By :
 Collection Date : 11/19/14 10:38

ESC Sample # : L734810-06
 Site ID :
 Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved	7440-36-0	U	1	2.5	10	ug/l		6020	11/28/14	5
Arsenic, Dissolved <i>F SOL-I</i>	7440-38-2	1.8	1.2	2.5	10	ug/l	J	6020	11/28/14	5
Cadmium, Dissolved	7440-43-9	U	0.8	2.5	5	ug/l		6020	11/28/14	5
Chromium, Dissolved <i>F SOL-I</i>	7440-47-3	3.6	2.7	7.5	10	ug/l	J	6020	11/28/14	5
Cobalt, Dissolved <i>F SOL-I</i>	7440-48-4	2.6	1.3	2.5	10	ug/l	J	6020	11/28/14	5
Lead, Dissolved <i>F SOL-I</i>	7439-92-1	1.4	1.2	2.5	10	ug/l	J	6020	11/28/14	5
Nickel, Dissolved <i>U JCS, AS, FO-I</i>	7440-02-0	4.0 5.0	1.0 4.0	5.0	10	ug/l	J	6020	11/28/14	5
Selenium, Dissolved	7782-49-2	12.	1.9	5.0	10	ug/l		6020	11/28/14	5
Silver, Dissolved	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/28/14	5
Thallium, Dissolved	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/28/14	5
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	11/24/14	1
Aluminum, Dissolved	7429-90-5	2600	180	250	500	ug/l		6010B	11/26/14	5
Barium, Dissolved	7440-39-3	93.	8.5	13.	25	ug/l		6010B	11/26/14	5
Beryllium, Dissolved	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/26/14	5
Copper, Dissolved	7440-50-8	U	26	50.	100	ug/l		6010B	11/26/14	5
Manganese, Dissolved	7439-96-5	240	6	25.	50	ug/l		6010B	11/26/14	5
Vanadium, Dissolved <i>U MB, ICB-I</i>	7440-62-2	31. 50	12. 31	50.	100	ug/l	J	6010B	11/26/14	5
Zinc, Dissolved	7440-66-6	U	30	130	250	ug/l		6010B	11/26/14	5

U = Not Detected at the LOD

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Reported: 12/03/14 15:50 Revised: 12/08/14 16:53

L734810-06 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

L734810-06 (ICP METALS) - Diluted due to matrix interference.

Kazko



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 20, 2014
Description : Holloman AFB
Sample ID : H-TU904-MW15-NT01
Collected By :
Collection Date : 11/19/14 10:38

ESC Sample # : L734810-07
Site ID :
Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony <i>U CCB-I</i>	7440-36-0	0.50 <i>0.49</i>	0.21 <i>0.49</i>	0.50	2	ug/l	J	6020	12/01/14	1
Arsenic <i>J PD-I</i>	7440-38-2	31.	1.2	2.5	10	ug/l	J	6020	11/28/14	5
Cadmium <i>F SOL ICS-H</i>	7440-43-9	0.80	0.8	2.5	5	ug/l	J	6020	11/28/14	5
Chromium <i>J PD-I</i>	7440-47-3	100	2.7	7.5	10	ug/l	J	6020	11/28/14	5
Cobalt <i>J PD-I</i>	7440-48-4	27.	1.3	2.5	10	ug/l	J	6020	11/28/14	5
Lead	7439-92-1	32.	1.2	2.5	10	ug/l	J	6020	12/02/14	5
Nickel <i>J PD-I</i>	7440-02-0	41.	0.35	1.0	2	ug/l	J	6020	12/01/14	1
Selenium	7782-49-2	26.	1.9	5.0	10	ug/l	J	6020	11/28/14	5
Silver	7440-22-4	U	1.6	2.5	10	ug/l	J	6020	11/28/14	5
Thallium <i>F SOL ICS-H</i>	7440-28-0	1.1	0.95	2.5	10	ug/l	J	6020	11/28/14	5
Mercury	7439-97-6	U	0.049	0.080	0.2	ug/l	J	7470A	11/22/14	1
Aluminum <i>J MS, PD-H</i>	7429-90-5	21000	180	250	500	ug/l	J	6010B	11/28/14	5
Barium <i>J PD-I</i>	7440-39-3	880	8.5	13.	25	ug/l	J	6010B	11/28/14	5
Beryllium	7440-41-7	U	3.5	5.0	10	ug/l	J	6010B	11/28/14	5
Copper	7440-50-8	U	26	50.	100	ug/l	J	6010B	11/28/14	5
Manganese	7439-96-5	960	6	25.	50	ug/l	J	6010B	11/28/14	5
Vanadium <i>F SOL-I</i>	7440-62-2	92.	12	50.	100	ug/l	J	6010B	11/28/14	5
Zinc <i>F SOL-I</i>	7440-66-6	140	30	130	250	ug/l	J	6010B	11/28/14	5
TPH (GC/FID) Low Fraction <i>U J MS-I</i>	8006-61-9	U	31	50.	100	ug/l	J	8015D/G	11/23/14	1
Surrogate Recovery- a, a, a-Trifluorotoluene (FID)	98-08-8	98.0				% Rec.	J	8015D/G	11/23/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l	J	8260B	11/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l	J	8260B	11/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l	J	8260B	11/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l	J	8260B	11/26/14	1
Bromodichloromethane <i>F SOL-I</i>	75-27-4	0.50	0.38	0.50	1	ug/l	J	8260B	11/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l	J	8260B	11/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l	J	8260B	11/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l	J	8260B	11/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l	J	8260B	11/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l	J	8260B	11/26/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l	J	8260B	11/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l	J	8260B	11/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l	J	8260B	11/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l	J	8260B	11/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l	J	8260B	11/26/14	1
Chloroform <i>F SOL-I</i>	67-66-3	1.1	0.32	2.5	5	ug/l	J	8260B	11/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l	J	8260B	11/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l	J	8260B	11/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l	J	8260B	11/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l	J	8260B	11/26/14	1

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Reported: 12/03/14 15:50 Revised: 12/08/14 16:53
L734810-07 (ICP METALS) - Diluted due to matrix interference.
L734810-07 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KAZ 2/20/15
BAS 2/20/15
22 of 1876



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 08, 2014

Date Received : November 20, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-MW15-NT01
 Collected By :
 Collection Date : 11/19/14 10:38

ESC Sample # : L734810-07
 Site ID :
 Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/26/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloroethene	75-35-4	0.41	0.4	0.50	1	ug/l	J	8260B	11/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/26/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/26/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	11/26/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.3	0.75	1	ug/l		8260B	11/26/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Trichloroethene	79-01-6	15.	0.4	0.50	1	ug/l		8260B	11/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/26/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/26/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/26/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/26/14	1

Surrogate Recovery

U = Not Detected at the LOD

Note:

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 Reported: 12/03/14 15:50 Revised: 12/08/14 16:53
 L734810-07 (ICP METALS) - Diluted due to matrix interference.
 L734810-07 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

DNR - Do Not Report

KA Zholis
BM 2/20/15
 23 of 1876



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 20, 2014
Description : Holloman AFB
Sample ID : H-TU904-MW15-NT01
Collected By :
Collection Date : 11/19/14 10:38

ESC Sample # : L734810-07
Site ID :
Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Toluene-d8	2037-26-5	102.				% Rec.		8260B	11/26/14	1
Dibromofluoromethane	1868-53-7	99.0				% Rec.		8260B	11/26/14	1
4-Bromofluorobenzene	460-00-4	100.				% Rec.		8260B	11/26/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		76.	22	33.	100	ug/l	J	8015	12/02/14	1
C28-C40 Oil Range		34.	12	33.	100	ug/l	J	8015	12/02/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	92.5				% Rec.		8015	12/02/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	11/24/14	1
Acenaphthene	83-32-9	U	0.0082	0.025	0.05	ug/l		8270 C-	11/24/14	1
Acenaphthylene	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo(a)anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo(a)pyrene	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo(b)fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo(g,h,i)perylene	191-24-2	U	0.016	0.025	0.05	ug/l	J3	8270 C-	11/24/14	1
Benzo(k)fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	11/24/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	11/24/14	1
Dibenz(a,h)anthracene	53-70-3	U	0.0045	0.025	0.05	ug/l	J3	8270 C-	11/24/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/24/14	1
Fluorene	86-73-7	U	0.009	0.025	0.05	ug/l		8270 C-	11/24/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	11/24/14	1
Naphthalene	91-20-3	0.030	0.012	0.025	0.05	ug/l	J	8270 C-	11/24/14	1
Phenanthrene	85-01-8	U	0.018	0.025	0.05	ug/l		8270 C-	11/24/14	1
Pyrene	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/24/14	1
2-Methylnaphthalene	91-57-6	U	0.016	0.025	0.25	ug/l		8270 C-	11/24/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	87.3				% Rec.		8270 C-	11/24/14	1
2-Fluorobiphenyl	321-60-8	87.8				% Rec.		8270 C-	11/24/14	1
p-Terphenyl-d14	1718-51-0	102.				% Rec.		8270 C-	11/24/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	11/25/14	1
Bis(2-chloroethyl) ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	11/25/14	1
Bis(2-chloroisopropyl) ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	11/25/14	1
Benzyl Alcohol	100-51-6	U	0.39	5.0	10	ug/l		8270C	11/25/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	11/25/14	1
Benzoic acid	65-85-0	U	0.44	5.0	10	ug/l		8270C	11/25/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	11/25/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	11/25/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	11/25/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	11/25/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	11/25/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	11/25/14	1

U = Not Detected at the LOD

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Reported: 12/03/14 15:50 Revised: 12/08/14 16:53
L734810-07 (ICP METALS) - Diluted due to matrix interference.
L734810-07 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KAB/kolis
BMS 9/9/15
KAB/kolis
BMS 2/20/15
24 of 1876



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Tax I.D. 62-0814289
Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 20, 2014
Description : Holloman AFB
Sample ID : H-TU904-MW15-NT01
Collected By :
Collection Date : 11/19/14 10:38

ESC Sample # : L734810-07
Site ID :
Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	11/25/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	11/25/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.33	5.0	10	ug/l		8270C	11/25/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	11/25/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	11/25/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	11/25/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	11/25/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	11/25/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	11/25/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	11/25/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	0.28	1.0	3	ug/l	J	8270C	11/25/14	1
Di-n-butyl phthalate	84-74-2	U	0.27	1.0	3	ug/l		8270C	11/25/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	11/25/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	11/25/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	11/25/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.26	5.0	10	ug/l		8270C	11/25/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	11/25/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	11/25/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	11/25/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	11/25/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	11/25/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	11/25/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	11/25/14	1
3&4-Methyl Phenol	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	11/25/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	11/25/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	11/25/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	11/25/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	11/25/14	1
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	11/25/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	11/25/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	11/25/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	11/25/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	11/25/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	11/25/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	11/25/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	30.5				% Rec.		8270C	11/25/14	1
Phenol-d5	4165-62-2	21.6				% Rec.		8270C	11/25/14	1
Nitrobenzene-d5	4165-60-0	64.4				% Rec.		8270C	11/25/14	1
2-Fluorobiphenyl	321-60-8	72.2				% Rec.		8270C	11/25/14	1
2,4,6-Tribromophenol	118-79-6	65.1				% Rec.		8270C	11/25/14	1
p-Terphenyl-d14	1718-51-0	69.2				% Rec.		8270C	11/25/14	1

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Reported: 12/03/14 15:50 Revised: 12/08/14 16:53

L734810-07 (ICP METALS) - Diluted due to matrix interference.

L734810-07 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

DNR - Do Not Report

*CAZ/2015
BMS 2/20/15
25 of 1876*



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 08, 2014

Date Received : November 20, 2014
 Description : Holloman AFB
 Sample ID : H-TU904-MW13-ND01
 Collected By :
 Collection Date : 11/19/14 10:00

ESC Sample # : L734810-08

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved	7440-36-0	U	1	2.5	10	ug/l		6020	11/28/14	5
Arsenic, Dissolved	7440-38-2	U	1.2	2.5	10	ug/l		6020	11/28/14	5
Cadmium, Dissolved	7440-43-9	U	0.8	2.5	5	ug/l		6020	11/28/14	5
Chromium, Dissolved	7440-47-3	4.9	2.7	7.5	10	ug/l	J	6020	11/28/14	5
Cobalt, Dissolved	7440-48-4	2.7	1.3	2.5	10	ug/l	J	6020	11/28/14	5
Lead, Dissolved	7439-92-1	U	1.2	2.5	10	ug/l		6020	11/28/14	5
Nickel, Dissolved	7440-02-0	4.8 5.0	1.8 4.8	5.0	10	ug/l	J	6020	11/28/14	5
Selenium, Dissolved	7782-49-2	12.	1.9	5.0	10	ug/l		6020	11/28/14	5
Silver, Dissolved	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/28/14	5
Thallium, Dissolved	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/28/14	5
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	11/24/14	1
Aluminum, Dissolved	7429-90-5	1100	180	250	500	ug/l		6010B	11/26/14	5
Barium, Dissolved	7440-39-3	66.	8.5	13.	25	ug/l		6010B	11/26/14	5
Beryllium, Dissolved	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/26/14	5
Copper, Dissolved	7440-50-8	U	26	50.	100	ug/l		6010B	11/26/14	5
Manganese, Dissolved	7439-96-5	330	6	25.	50	ug/l		6010B	11/26/14	5
Vanadium, Dissolved	7440-62-2	19.50 12.19	12.19	50.	100	ug/l	J	6010B	11/26/14	5
Zinc, Dissolved	7440-66-6	U	30	130	250	ug/l		6010B	11/26/14	5

U = Not Detected at the LOD
 Note:

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 Reported: 12/03/14 15:50 Revised: 12/08/14 16:53
 L734810-08 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.
 L734810-08 (ICP METALS) - Diluted due to matrix interference.

KAZ 12/15
 BW 12/20/14
 26 of 1876



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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 20, 2014
Description : Holloman AFB
Sample ID : H-TU904-MW13-NT01
Collected By :
Collection Date : 11/19/14 10:00

ESC Sample # : L734810-09

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony <i>U CC8-I</i>	7440-36-0	8.29 0.50	0.21 0.29	0.50		ug/l	J	6020	12/01/14	1
Arsenic <i>J FD-I</i>	7440-38-2	31.	1.2	2.5	10	ug/l		6020	11/28/14	5
Cadmium <i>F3 SOL, ICS-4</i>	7440-43-9	1.2	0.8	2.5	5	ug/l	J	6020	11/28/14	5
Chromium <i>J FD-I</i>	7440-47-3	140	2.7	7.5	10	ug/l		6020	11/28/14	5
Cobalt <i>J FD-I</i>	7440-48-4	41.	1.3	2.5	10	ug/l		6020	11/28/14	5
Lead	7439-92-1	40.	1.2	2.5	10	ug/l		6020	12/02/14	5
Nickel <i>J FD-I</i>	7440-02-0	45.	0.35	1.0	2	ug/l		6020	12/01/14	1
Selenium	7782-49-2	42.	1.9	5.0	10	ug/l		6020	11/28/14	5
Silver	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/28/14	5
Thallium <i>F3 SOL, ICS-4</i>	7440-28-0	1.4	0.95	2.5	10	ug/l	J	6020	11/28/14	5
Mercury <i>F SOL-I</i>	7439-97-6	0.053	0.049	0.080	0.2	ug/l	J	7470A	11/22/14	1
Aluminum <i>J MS, FD-H</i>	7429-90-5	27000	180	250	500	ug/l		6010B	11/28/14	5
Barium	7440-39-3	790	8.5	13.	25	ug/l		6010B	11/28/14	5
Beryllium	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/28/14	5
Copper <i>F SOL-I</i>	7440-50-8	46.	26	50.	100	ug/l	J	6010B	11/28/14	5
Manganese	7439-96-5	1300	6	25.	50	ug/l		6010B	11/28/14	5
Vanadium <i>F SOL-I</i>	7440-62-2	100	12	50.	100	ug/l	J	6010B	11/28/14	5
Zinc <i>F SOL-I</i>	7440-66-6	150	30	130	250	ug/l	J	6010B	11/28/14	5
TPH (GC/FID) Low Fraction <i>U MS-I</i>	8006-61-9	U	31	50.	100	ug/l		8015D/G	11/23/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	98.0				% Rec.		8015D/G	11/23/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/26/14	1
Bromodichloromethane <i>F SOL-I</i>	75-27-4	0.80	0.38	0.50	1	ug/l	J	8260B	11/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/26/14	1
Chloroform <i>F SOL-I</i>	67-66-3	1.5	0.32	2.5	5	ug/l	J	8260B	11/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/26/14	1

U = Not Detected at the LOD

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Reported: 12/03/14 15:50 Revised: 12/08/14 16:53
L734810-09 (ICP METALS) - Diluted due to matrix interference.
L734810-09 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KAZ/2015
BK 12/20/15
27 of 1876



L.A.B S.C.I.E.N.C.E.S

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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 20, 2014
Description : Holloman AFB

ESC Sample # : L734810-09

Sample ID : H-TU904-MW13-NT01

Site ID :

Collected By :
Collection Date : 11/19/14 10:00

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/26/14	1
1,1-Dichloroethane	75-34-3	0.36	0.26	0.50	1	ug/l	J	8260B	11/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloroethene	75-35-4	0.66	0.4	0.50	1	ug/l	J	8260B	11/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/26/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/26/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	11/26/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.3	0.50	0.75	1		8260B	11/26/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Trichloroethene	79-01-6	15.	0.4	0.50	1	ug/l		8260B	11/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/26/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/26/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/26/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/26/14	1

Surrogate Recovery
U = Not Detected at the LOD
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L734810-09 (ICP METALS) - Diluted due to matrix interference.
L734810-09 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

Handwritten: LCA 2/20/15
BMS 2/20/15
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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 20, 2014
Description : Holloman AFB
Sample ID : H-TU904-MW13-NT01
Collected By :
Collection Date : 11/19/14 10:00

ESC Sample # : L734810-09

Site ID :

Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Toluene-d8	2037-26-5	100.				% Rec.		8260B	11/26/14	1
Dibromofluoromethane	1868-53-7	98.4				% Rec.		8260B	11/26/14	1
4-Bromofluorobenzene	460-00-4	101.				% Rec.		8260B	11/26/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		120	22	33.	100	ug/l		8015	12/02/14	1
C28-C40 Oil Range		U	12	33.	100	ug/l		8015	12/02/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	97.0				% Rec.		8015	12/02/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	11/24/14	1
Acenaphthene	83-32-9	U	0.0082	0.025	0.05	ug/l		8270 C-	11/24/14	1
Acenaphthylene	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo (a) anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo (a) pyrene	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo (b) fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	11/24/14	1
Benzo (g,h,i) perylene	191-24-2	U	0.016	0.025	0.05	ug/l	J3	8270 C-	11/24/14	1
Benzo (k) fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	11/24/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	11/24/14	1
Dibenz (a,h) anthracene	53-70-3	U	0.0045	0.025	0.05	ug/l	J3	8270 C-	11/24/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/24/14	1
Fluorene	86-73-7	U	0.009	0.025	0.05	ug/l		8270 C-	11/24/14	1
Indeno (1,2,3-cd) pyrene	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	11/24/14	1
Naphthalene	91-20-3	0.020	0.012	0.025	0.25	ug/l	J	8270 C-	11/24/14	1
Phenanthrene	85-01-8	U	0.018	0.025	0.05	ug/l		8270 C-	11/24/14	1
Pyrene	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/24/14	1
2-Methylnaphthalene	91-57-6	U	0.016	0.025	0.25	ug/l		8270 C-	11/24/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	81.4				% Rec.		8270 C-	11/24/14	1
2-Fluorobiphenyl	321-60-8	81.7				% Rec.		8270 C-	11/24/14	1
p-Terphenyl-d14	1718-51-0	94.7				% Rec.		8270 C-	11/24/14	1
Base/Neutral Extractables										
Bis (2-chlorethoxy) methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	11/25/14	1
Bis (2-chloroethyl) ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	11/25/14	1
Bis (2-chloroisopropyl) ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	11/25/14	1
Benzyl Alcohol	100-51-6	U	0.39	5.0	10	ug/l		8270C	11/25/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	11/25/14	1
Benzoic acid	65-85-0	U	0.44	5.0	10	ug/l		8270C	11/25/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	11/25/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	11/25/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	11/25/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	11/25/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	11/25/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	11/25/14	1

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Reported: 12/03/14 15:50 Revised: 12/08/14 16:53

L734810-09 (ICP METALS) - Diluted due to matrix interference.

L734810-09 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KA 8/20/15
BNS 9/4/15
KAZ 8/20/15
BNS 3/20/15
29 of 1876



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 20, 2014
Description : Holloman AFB
Sample ID : H-TU904-MW13-NT01
Collected By :
Collection Date : 11/19/14 10:00

ESC Sample # : L734810-09
Site ID :
Project # : 23446543.0053AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	11/25/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	11/25/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.33	5.0	10	ug/l		8270C	11/25/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	11/25/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	11/25/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	11/25/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	11/25/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	11/25/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	11/25/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	11/25/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	0.94	0.71	1.0	3	ug/l	J	8270C	11/25/14	1
Di-n-butyl phthalate	84-74-2	0.45	0.27	1.0	3	ug/l	J	8270C	11/25/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	11/25/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	11/25/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	11/25/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.35	5.0	10	ug/l		8270C	11/25/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	11/25/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	11/25/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	11/25/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	11/25/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	11/25/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	11/25/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	11/25/14	1
3,4-Methyl Phenol	3,4-Methyl	U	0.27	5.0	10	ug/l		8270C	11/25/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	11/25/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	11/25/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	11/25/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	11/25/14	1
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	11/25/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	11/25/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	11/25/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	11/25/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	11/25/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	11/25/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	11/25/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	40.8				% Rec.		8270C	11/25/14	1
Phenol-d5	4165-62-2	29.9				% Rec.		8270C	11/25/14	1
Nitrobenzene-d5	4165-60-0	66.1				% Rec.		8270C	11/25/14	1
2-Fluorobiphenyl	321-60-8	70.8				% Rec.		8270C	11/25/14	1
2,4,6-Tribromophenol	118-79-6	67.1				% Rec.		8270C	11/25/14	1
p-Terphenyl-d14	1718-51-0	69.3				% Rec.		8270C	11/25/14	1

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Reported: 12/03/14 15:50 Revised: 12/08/14 16:53
L734810-09 (ICP METALS) - Diluted due to matrix interference.
L734810-09 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

DNR - Do Not Report

Kazhokis
Bms 2/20/15
30 of 1876

**Holloman AFB
Groundwater Monitoring
Data Review Summary**

Data Package Number: L735181

Sampling Event Dates: November 19-21, 2014

Sample-specific Parameter Review/Laboratory Performance Parameters: Yes

Full Validation (e.g. result recalculation): No

Data Reviewer: Katie Abbott, URS Project Chemist

Date Completed: February 20, 2015

Peer Reviewer: Sheri Fling, URS Project Quality Assurance Manager (QAM)

The table below summarizes the data package and sample identifications discussed in this data review.

Field Identification	Sample Type	Lab Identification	Matrix	Analyses						
				GRO	DRO/ORO	VOCs	PAHs	SVOCs	Dissolved Metals	Total Metals
L735181										
H-TU508-TRIPBLANK-TT01	TB	L735181-01	Water	X	---	X	---	---	---	---
H-TU508-MW06-NT01	SA	L735181-02	Water	X	X	X	X	X	---	X
H-TU508-MW06-ND01	SA	L735181-03	Water	---	---	---	---	---	X	---
H-TU508-MW05-ND01	SA	L735181-04	Water	---	---	---	---	---	X	---
H-TU508-MW05-NT01	SA	L735181-05	Water	X	X	X	X	X	---	X ^m
H-TU508-MW04-ND01	SA	L735181-06	Water	---	---	---	---	---	X ^m	---
H-TU508-MW04-NT01	SA	L735181-07	Water	X	X	X	X	X	---	X
H-TU508-MW07-NT01	SA	L735181-08	Water	---	---	---	X	X	---	X
H-TU508-MW07-ND01	SA	L735181-09	Water	---	---	---	---	---	X	---
H-TU508-MW07-NT01	SA	L735181-10	Water	X	X	X	---	---	---	---

Sample Type: SA – Sample TB - Trip Blank
X^m - Matrix Spike/Matrix Spike Duplicate

Analyses:

DRO/ORO - Diesel and Oil Range Organics (8015D)

GRO – Gasoline Range Organics (8015D)

Total/Dissolved Metals – Antimony, Arsenic, Cadmium, Chromium, Cobalt, Lead, Nickel, Selenium, Silver, Thallium, Mercury, Aluminum, Barium, Beryllium, Copper, Manganese, Vanadium, Zinc (6010B/6020/7470A)

PAHs – Polynuclear Aromatic Hydrocarbons (8270C SIM)

SIM – Selective Ion Monitoring

SVOCs – Semivolatile Organic Compounds (8270C)

VOCs – Volatile Organic Compounds (8260B)

The data review was conducted in accordance with the Final Interim Measures Work Plan – Appendix A, Sampling and Analysis Plan/Quality Assurance Project Plan: Former Septic System Site TU904 (URS, September 2014); Group 2 Former Underground Storage Sites: AOC-UST-889 (TU515) (URS, September 2014); and Group 3 Former Underground Storage Tank Sites:

AOC-UST-221 (TU503), AOC-UST-298 (TU508), AOC-UST-901 (TU506) and AOC-UST-7003 (TU518) (URS, August 2014); data validation standard operating procedure (SOP) 14; Department of Defense (DoD) Quality Systems Manual version 4.2 (DoD, 2010); and method requirements.

General Overall Assessment:

- Data are usable without qualification.
- Data are usable with qualification (noted below).
- Some or all data are unusable for any purpose (detailed below).

Case Narrative Comments: Any laboratory case narrative comments concerning data qualification were addressed in the table below.

Trace level detects, reported between the method detection limit (MDL) and the reporting limit (LOQ), have been qualified as estimated (F SQL-I). All other occurrences of data qualification are covered in the following table.

Review Parameter	Criteria Met?	Comment
Chain of Custody & Sample Receipt	Yes	The samples were received by ESC Lab Sciences in good condition and were consistent with the accompanying chain of custody (COC). The cooler temperatures upon receipt were within the recommended ≤ 6 degrees Celsius ($^{\circ}\text{C}$) temperature range.
Reporting	Yes	<p>During review of a representative data package selected for full validation, it was noted that improper reference spectra were displayed in the printed version of the data package for Method 8260B. Due to a LIMS limitation, the data package reference spectra were not consistently representative of the actual spectra for the analytes detected. Because the laboratory data review involves the use of NBS reference spectra and not the reference spectra taken from the instrument calibration, the analyst was not seeing the improper alignment of spectra noted in the data package during his/her review at the instrument. The laboratory revised and reissued the data package with correct reference spectral data, consistent with method requirements, and no results were changed. Therefore, no further action is necessary as a result of this validation finding.</p> <p>Method 8270C Semivolatile Organic Compounds (SVOCs)</p> <p>The results for 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene are not reported by Method 8270C SVOCs but are reported by Method 8260B volatile organic compounds (VOCs). As the detection limits (DLs), limits of detection (LODs), and limits of quantitation (LOQs) are lower by Method 8260B, further action was not necessary.</p> <p>The laboratory noted 4-methylphenol cannot be reported as 3 & 4-methylphenol coelute during the analysis; therefore, the analytes are reported together and 3&4-methylphenol on the data sheets and in the electronic database.</p>
Holding Times	Yes	All samples were analyzed within the method required holding time.
Laboratory Blanks <ul style="list-style-type: none"> • Method Blank • Continuing Calibration Blank 	No	With the exceptions listed in Table 1, target analytes were not detected within the method or calibration blanks.

Review Parameter	Criteria Met?	Comment
<p>Matrix Quality Control</p> <ul style="list-style-type: none"> Matrix Spike/ Matrix Spike Duplicate H-TU508-MW05-NT01 (Total 6020 Metals - Antimony, Lead, Nickel) H-TU508-MW04-ND01 (Dissolved Mercury) Total vs. Partial Analyses (Metals) 	Yes	<p>Matrix Spike/ Matrix Spike Duplicate (MS/MSD)</p> <p>The frequency of MS/MSDs met the QAPP requirement of one per twenty samples.</p> <p>The MS/MSD recoveries and relative percent differences (RPDs) met quality control criteria.</p> <p>The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the sample matrix could not be assessed for oil range organics (ORO).</p> <p>Results in the native sample greater than four times the concentration of the spike added during digestions/extractions are not considered to be a representative measure of accuracy. Further action with respect to spike recovery evaluation or qualification of data was not considered necessary.</p> <p>Consistent with standard operating procedure (SOP) 14, when MS/MSD issues accounted for less than 35% of the MS/MSD analyses conducted, applicable data qualification was limited to qualification of the parent sample of the affected analyte. When >35% of the MS/MSD results did not meet criteria, evaluation was extended to all associated samples. See Section 4.1 of the data validation report for overall qualifiers resulting from the MS/MSD evaluation.</p> <p>Total vs. Partial Analyses (Metals)</p> <p>Consistent with SOP 14, results for the total analysis of a particular analyte should be greater than the results for a partial analyte of that analyte. The following criteria were used to evaluate the total versus dissolved results:</p> <ul style="list-style-type: none"> In instances where the value for a partial analysis exceed that for a total analysis and both of the results are >5xLOQ, the criterion utilized is that the two values should agree within ±30%. In instances where the value for a partial analysis exceeds that for a total analysis and either of the results is 5x the LOQ, the absolute difference between the results is compared against an evaluation criterion of 2xLOQ. <p>The total metal sample results were compared with the associated dissolved sample results against the concentration-dependent criteria set forth in SOP 14.</p>
<p>Metals Only</p> <ul style="list-style-type: none"> Serial Dilution H-TU508-MW05-NT01 (Total 6020 Metals - Antimony, Lead, Nickel) H-TU508-MW04-ND01 (Dissolved Mercury) Post Digestion Spike <p>None in this package</p>	Yes	<p>Serial Dilution (Metals Only)</p> <p>Consistent with the method, only the results that were greater than 50 times their respective DLs were appropriate for comparing to the serial dilution evaluation criterion. All percent differences (%Ds) between the original sample results and the results obtained from the sample-diluted 1:5 were ≤10%.</p> <p>Post Digestion Spike (PDS) (Metals Only)</p> <p>A post digestion spike was not reported in association with the sample in this data package.</p>
<p>Method Quality Control</p> <ul style="list-style-type: none"> Surrogates (VOCs, PAHs, SVOCs, GRO, DRO/ORO) 	Yes	<p>The surrogate recoveries were within the laboratory specified acceptance criteria.</p>

Review Parameter	Criteria Met?	Comment
Field Quality Control <ul style="list-style-type: none"> • Trip Blank H-TU508-TRIPBLANK-TT01 • Field Duplicate None in this package • Equipment Blank None in this package • Field Blank None in this package 	Yes	<p>Trip Blank Target analytes were not detected in the trip blank.</p> <p>Field Duplicate The frequency of field duplicates met the QAPP requirement of one per twenty samples. A field duplicate was not submitted with the data package. Consistent with SOP 14, when field duplicate issues accounted for less than 35% of the field duplicate analyses conducted, applicable data qualification was limited to qualification of the parent sample for the affected analyte. When >35% of the field duplicate results did not meet criteria, evaluation was extended to all associated samples. See Section 4.3 of the data validation report for overall qualifiers resulting from the field duplicate evaluation.</p> <p>Equipment Blank As dedicated equipment was used to collect these samples, an equipment blank was not submitted for this sampling event. Further action was not necessary.</p> <p>Field Blank The frequency of field blanks met the QAPP requirement of one per twenty samples. A field blank was not submitted with this data package. See Section 4.4 of the data validation report for overall qualifiers resulting from the field blank evaluation.</p>
LODs met?	No	Due to dilutions, several of the total and dissolved metals results for all samples were reported as non-detect at elevated LODs. See Section 3.7 of the validation report for further discussion.
Other Parameters	Yes	Naphthalene (8260B and 8270C-PAHs) and hexachloro-1,3-butadiene and 1,2,4-trichlorobenzene (8260B and 8270C) were analyzed by multiple methods. Results were selected for reporting using the following criteria: <ul style="list-style-type: none"> • If both results were non-detect, the non-detect result with the lower DL was selected. • If both results were reported as detected, the higher detected result was selected for reporting. • If one result was reported as non-detect and the other result was reported as detected, the detected result was selected for reporting.
Initial Calibration	Yes	<p>Methods 8260B VOCs & 8270C SVOCs</p> <p>A minimum relative response factor (RRF) of 0.05 was used for the system performance check compounds (SPCCs) and all SPCCs met this criterion. The percent relative standard deviations (%RSDs) over the initial calibration RRFs for all calibration check compounds (CCCs) satisfied the method requirement of <30%. For all other target compounds, a requirement of 15% was used. The %RSD values for all target analytes in the calibration were less than 15%. Therefore, the initial calibration met method acceptance criteria.</p>

Review Parameter	Criteria Met?	Comment
		<p>Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)</p> <p>The %RSD values for all target analytes in the calibration were less than 20%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8015D Gasoline Range Organics (GRO)/DRO/ORO</p> <p>The relationship between instrument response and concentration was established with a blank and at least five standards for each analyte. The %RSD over the initial calibrations curve satisfied the method requirement of <15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Methods 6010B (Inductively Coupled Plasma [ICP] Metals) and 6020 (ICPMS Metals)</p> <p>The initial calibrations (ICALs) were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with a blank and at least five standards. The calibrations were verified with the analysis of an initial calibration verification (ICV) standard. All metals were recovered within the method acceptance range of 90-110%.</p> <p>7470A (Mercury)</p> <p>The ICALs were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with five standards. The correlation coefficient was >0.995. The calibration was verified with the analysis of an ICV standard. The analytes were recovered within the acceptance range of 90-110%. Response and linearity criteria were met and data qualification on the basis of initial calibration was not necessary.</p>
Initial Calibration Verification/Continuing Calibration Verification	No	<p>Method 8260B VOCs</p> <p>The percent differences (%Ds) for all CCCs in the ICVs and continuing calibrations (CCALs) were less than 20%, satisfying method requirements, and other target analytes satisfied the %D criterion of 20%.</p> <p>Methods 8270C PAHs/SVOCs</p> <p>With the exceptions listed in Table 2, the %D values for all target analytes in the calibration were less than 20%.</p> <p>Method 8015D GRO/Method 8015 DRO/ORO</p> <p>The %Ds for GRO and DRO/ORO (C10-C40) in the ICVs and CCALs were less than 15%. Data qualification was not necessary.</p> <p>Methods 6010B (ICP Metals), 6020 (ICPMS Metals), and 7470A (Mercury)</p> <p>Calibration verification analyses were conducted at the proper frequency. All metals were recovered within the DOD QSM 4.2 low level acceptance range of 80-120% and the method medium/high acceptance range of 90-110%.</p>
Interference Check Standard (Metals Only)	No	<p>The interference check standard (ICS) AB solutions were analyzed at the proper frequency. The target analytes were recovered within the acceptance range of 80-120% in the ICS AB solution. With the exceptions listed in Table 3, interferent elements were not present in the samples at concentrations greater than those in the ICSs.</p>

Review Parameter	Criteria Met?	Comment
		The interferent elements aluminum, calcium, iron, and magnesium were present in most samples in this data package at concentrations greater than or equal to those in the ICSs. As such, these samples were evaluated for positive and negative biases suggested by the ICS A. Data qualification was issued if the absolute value of the ICS A result was greater than the DL and it suggested a positive or negative bias which accounted for more than 25% of associated sample results or LODs. (Note: The ICS A solution only contains the interferent elements aluminum, calcium, iron, and magnesium so any positive or negative result for other analytes is inferred to be a bias potentially caused by one or more of the interferent elements present). Table 3 summarizes the resultant data qualification on the basis of the ICS results.
Internal Standard (VOCs/SVOCs/PAHs/Metals (6020))	Yes	Recoveries for the internal standards in field samples were within the applicable acceptance limits. Therefore, data qualification based on internal standards was not necessary.
Laboratory Control Sample/ Laboratory Control Sample Duplicate	No	One laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) per method per analytical batch was prepared and analyzed. With the exceptions listed in Table 4, all of the LCS recoveries and LCS/LCSD RPDs were within the QAPP acceptance limits. These results are indicative of an acceptable level of accuracy and precision with respect to the analytical method. Method 8015 DRO/ORO The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the method could not be assessed for ORO.
Package Completeness	No	With the exception of the benzoic acid results for all samples, which was qualified as unusable due to LCS/LCSD recoveries <10%, the results are usable as qualified for the project objective. The data are 99% complete.

> - Greater Than
 < - Less Than
 ≤ - Less Than or Equal to
 ± - Plus or Minus
 °C - Degrees Celsius
 % - Percent

%Ds - Percent Differences
 %RSD - Percent Relative Standard Deviation
 CCALs - Continuing Calibrations
 CCBs - Continuing Calibration Blanks
 CCCs - Calibration Check Compounds
 COC - Chain of Custody
 COD - Coefficient of Determination
 DLs - Detection Limits
 DRO - Diesel Range Organics
 GRO - Gasoline Range Organics
 ICAL - Initial Calibration
 ICB - Initial Calibration Blank

ICP - Inductively Coupled Plasma
 ICPMS - Inductively Coupled Plasma Mass Spectrometry
 ICS - Interference Check Standard
 ICV - Initial Calibration Verification
 LCS - Laboratory Control Sample
 LCSD - Laboratory Control Sample Duplicate
 LOD - Limit of Detection
 LOQ - Limit of Quantitation
 MS/MSD - Matrix Spike/ Matrix Spike Duplicate
 ORO - Oil Range Organics
 PAHs - Polynuclear Aromatic Hydrocarbons
 PDS - Post Digestion Spike
 QAPP - Quality Assurance Project Plan
 RPDs - Relative Percent Differences
 RRF - Relative Response Factor
 SOP - Standard Operating Procedure
 SPCCs - System Performance Check Compounds
 VOCs - Volatile Organic Compounds

Table 1: Blank Outliers and Resultant Data Qualification

Associated Samples	Analyte	Concentration	Qualification
Total Metals			
MB Batch WG756921 H-TU508-MW06-NT01 H-TU508-MW05- NT01 H-TU508-MW04-NT01 H-TU508-MW07-NT01	Arsenic	0.268 µg/L	None. The associated results were reported at concentrations >5x the concentration of the blank contamination.
	Selenium	0.431 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).
CCB 11/28/2014 5:08PM H-TU508-MW06-NT01 H-TU508-MW05- NT01 H-TU508-MW04-NT01 H-TU508-MW07-NT01	Vanadium	3.06 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U CCB-I).
CCB 12/2/2014 5:14PM H-TU508-MW06-NT01 H-TU508-MW05- NT01 H-TU508-MW04-NT01 H-TU508-MW07-NT01	Antimony	0.347 µg/L	
CCB 12/2/2014 5:23PM H-TU508-MW04-NT01 H-TU508-MW07-NT01		0.374 µg/L	
Dissolved Metals			
MB Batch WG756740 H-TU508-MW06-ND01 H-TU508-MW05-ND01 H-TU508-MW04-ND01 H-TU508-MW07-ND01	Aluminum	43.4 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).
	Vanadium	3.51 µg/L	
CCB 11/26/2014 4:08PM H-TU508-MW06-ND01 H-TU508-MW05-ND01	Aluminum	48.5 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U CCB-I).
	Vanadium	3.25 µg/L	
5.48 µg/L			
5.12 µg/L			
CCB 11/26/2014 5:22PM H-TU508-MW06-ND01 H-TU508-MW05-ND01 H-TU508-MW04-ND01 H-TU508-MW07-ND01	Nickel	2.13 µg/L	
CCB 11/26/2014 6:20PM H-TU508-MW04-ND01 H-TU508-MW07-ND01		1.76 µg/L	
CCB 11/28/2014 2:55PM H-TU508-MW06-ND01 H-TU508-MW05-ND01 H-TU508-MW04-ND01 H-TU508-MW07-ND01	Antimony	0.212 µg/L	None. The associated samples were reported as non-detect.
CCB 11/28/2014 3:27PM H-TU508-MW04-ND01 H-TU508-MW07-ND01			

Associated Samples	Analyte	Concentration	Qualification
DRO/ORO			
MB Batch WG756714 H-TU508-MW06-NT01 H-TU508-MW05- NT01 H-TU508-MW04-NT01 H-TU508-MW07-NT01	ORO	17.3 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).
PAHs			
MB Batch WG756543 H-TU508-MW06-NT01 H-TU508-MW05- NT01 H-TU508-MW04-NT01 H-TU508-MW07-NT01	Naphthalene	0.0148 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).

> - Greater Than
 CCB – Continuing Calibration Blank
 MB – Method Blank
 U – Non-detect

< - Less Than
 DRO – Diesel Range Organics
 ORO – Oil Range Organics

µg/L – Micrograms per Liter
 I – Indeterminate Bias
 PAHs – Polynuclear Aromatic Hydrocarbons

Table 2: Initial/Continuing Calibration Verification Outliers and Resultant Data Qualification

Associated Samples	Analyte	%D (Limit)	Data Qualification
SVOCs			
H-TU508-MW06-NT01 H-TU508-MW05- NT01 H-TU508-MW04-NT01	3&4-Methyl Phenol	-50.3 (±20)	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ CCAL-L).
H-TU508-MW07-NT01		-55.5 (±20)	
	n-Nitrosodimethylamine	-21.3 (±20)	

± - Plus or minus
 L – Low Bias

%D – Percent Difference
 SVOCs – Semivolatile Organic Compounds

CCAL – Continuing Calibration
 UJ - Estimated

Table 3: ICS Outliers and Resultant Data Qualification

Interferent Element	Analyte	ICS A (µg/L)	MDL (µg/L)	Qualified Samples	Qualification
Calcium, Magnesium	Lead	0.4	0.18	H-TU508-MW05-NT01	As the potential bias was considered to be high, the associated detected results were qualified as estimated (J ICS-H).

µg/L – Micrograms per Liter
 J – Estimated

H – High Bias
 MDL – Method Detection Limit

ICS – Interference Check Standard

Table 4: LCS Recovery Outliers and Resultant Data Qualification

Associated Samples	Analyte	%R (Limits)	RPD (Limits)	Qualification
SVOCs				
LCS WG756405 H-TU508-MW06-NT01 H-TU508-MW05- NT01 H-TU508-MW04-NT01	Benzoic Acid	9.23/9.22 (10-125)	0.01 (30)	As the potential bias was considered to be low, and the percent recovery <10%, the associated non-detect benzoic acid results were qualified as useable (R) and the detected results were qualified as estimated (J LCS-L).
GRO				
LCS WG756338 H-TU508-TRIPBLANK-TT01 H-TU508-MW06-NT01 H-TU508-MW05-NT01 H-TU508-MW04-NT01 H-TU508-MW07-NT01	GRO	72.3/76.7 (80-120)	5.89 (20)	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ/J LCS-L).

%R – Percent Recoveries

LCS – Laboratory Control Sample

UJ/J - Estimated

Bold indicates a recovery outside of acceptance limits.

I – Indeterminate Bias

R – Unusable

L – Low Bias

SVOCs – Semivolatile Organic Compounds



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 08, 2014

Date Received : November 21, 2014
 Description : Holloman AFB
 Sample ID : H-TU508-TRIPBLANK-TT01
 Collected By :
 Collection Date : 11/20/14 14:20

ESC Sample # : L735181-01
 Site ID :
 Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l	8015D/G	11/26/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	99.4				% Rec.	8015D/G	11/26/14	1
Volatile Organics									
Acetone	67-64-1	U	10	25.	50	ug/l	8260B	11/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l	8260B	11/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l	8260B	11/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l	8260B	11/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l	8260B	11/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l	8260B	11/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l	8260B	11/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l	8260B	11/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l	8260B	11/26/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l	8260B	11/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l	8260B	11/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l	8260B	11/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l	8260B	11/26/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l	8260B	11/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l	8260B	11/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l	8260B	11/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l	8260B	11/26/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l	8260B	11/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l	8260B	11/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l	8260B	11/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l	8260B	11/26/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l	8260B	11/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l	8260B	11/26/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l	8260B	11/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l	8260B	11/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l	8260B	11/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l	8260B	11/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l	8260B	11/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l	8260B	11/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l	8260B	11/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l	8260B	11/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l	8260B	11/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l	8260B	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l	8260B	11/26/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l	8260B	11/26/14	1

U = Not Detected at the LOD

Note:

The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.
 Reported: 12/03/14 10:12 Revised: 12/08/14 12:51

KA 2/20/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 08, 2014

Date Received : November 21, 2014
 Description : Holloman AFB
 Sample ID : H-TU508-TRIPBLANK-TT01
 Collected By :
 Collection Date : 11/20/14 14:20

ESC Sample # : L735181-01

Site ID :

Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l	8260B	11/26/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l	8260B	11/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l	8260B	11/26/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l	8260B	11/26/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l	8260B	11/26/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l	8260B	11/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l	8260B	11/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.37	0.75	1	ug/l	8260B	11/26/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l	8260B	11/26/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l	8260B	11/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l	8260B	11/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l	8260B	11/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l	8260B	11/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l	8260B	11/26/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l	8260B	11/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l	8260B	11/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l	8260B	11/26/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l	8260B	11/26/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l	8260B	11/26/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l	8260B	11/26/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l	8260B	11/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l	8260B	11/26/14	1
Surrogate Recovery									
Toluene-d8	2037-26-5	99.1				% Rec.	8260B	11/26/14	1
Dibromofluoromethane	1868-53-7	102.				% Rec.	8260B	11/26/14	1
4-Bromofluorobenzene	460-00-4	98.1				% Rec.	8260B	11/26/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:12 Revised: 12/08/14 12:51

KA-zholis
BR 2/20/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 21, 2014
Description : Holloman AFB
Sample ID : H-TU508-MW06-NT01
Collected By :
Collection Date : 11/19/14 11:27

ESC Sample # : L735181-02
Site ID :
Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony <i>U CCB-I</i>	7440-36-0	0.57	0.21	0.57	2	ug/l	J	6020	12/01/14	1
Arsenic <i>FS PD-I SQ, PD-I</i>	7440-38-2	8.9	1.2	2.5	10	ug/l	J	6020	11/28/14	5
Cadmium	7440-43-9	U	0.8	2.5	5	ug/l		6020	11/28/14	5
Chromium <i>J PD-I</i>	7440-47-3	21.	2.7	7.5	10	ug/l		6020	11/28/14	5
Cobalt <i>J PD-I SQ, PD-I</i>	7440-48-4	9.7	1.3	2.5	10	ug/l	J	6020	11/28/14	5
Lead	7439-92-1	11.	1.2	2.5	10	ug/l		6020	12/02/14	5
Nickel <i>J PD-I</i>	7440-02-0	18.	0.35	1.0	2	ug/l		6020	12/01/14	1
Selenium <i>U MB-I</i>	7782-49-2	6.8	1.9 <i>6.8</i>	5.0 <i>6.8</i>	10	ug/l	J	6020	11/28/14	5
Silver	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/28/14	5
Thallium	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/28/14	5
Mercury	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	11/22/14	1
Aluminum <i>TAS PD-H</i>	7429-90-5	7400	180	250	500	ug/l		6010B	11/28/14	5
Barium <i>J PD-I</i>	7440-39-3	270	8.5	13.	25	ug/l		6010B	11/28/14	5
Beryllium	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/28/14	5
Copper	7440-50-8	U	26	50.	100	ug/l		6010B	11/28/14	5
Manganese	7439-96-5	730	6	25.	50	ug/l		6010B	11/28/14	5
Vanadium <i>U CCB-I</i>	7440-62-2	27.50	12.27	50.	100	ug/l	J	6010B	11/28/14	5
Zinc <i>F SOL-I</i>	7440-66-6	30.	30	130	250	ug/l	J	6010B	11/28/14	5
TPH (GC/FID) Low Fraction	8006-61-9	84.	31	50.	100	ug/l	J	8015D/G	11/26/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	99.2				% Rec.		8015D/G	11/26/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/29/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/26/14	1
Chloroform <i>F SOL-I</i>	67-66-3	0.50	0.32	2.5	5	ug/l	J	8260B	11/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/26/14	1

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Reported: 12/03/14 10:12 Revised: 12/08/14 12:51
L735181-02 (ICP METALS) - Diluted due to matrix interference.
L735181-02 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

CAZ/2015
BMS 2/20/15
11 of 2417



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 21, 2014
Description : Holloman AFB
Sample ID : H-TU508-MW06-NT01
Collected By :
Collection Date : 11/19/14 11:27

ESC Sample # : L735181-02

Site ID :

Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l	8260B	11/26/14	1	
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l	8260B	11/26/14	1	
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l	8260B	11/26/14	1	
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l	8260B	11/26/14	1	
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l	8260B	11/26/14	1	
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l	8260B	11/26/14	1	
1,1-Dichloroethane	75-34-3	10.	0.26	0.50	1	ug/l	8260B	11/26/14	1	
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l	8260B	11/26/14	1	
1,1-Dichloroethene	75-35-4	22.	0.4	0.50	1	ug/l	8260B	11/26/14	1	
cis-1,2-Dichloroethene	156-59-2	27.	0.26	0.50	1	ug/l	8260B	11/26/14	1	
trans-1,2-Dichloroethene	156-60-5	1.1	0.4	0.50	1	ug/l	8260B	11/26/14	1	
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l	8260B	11/26/14	1	
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l	8260B	11/26/14	1	
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l	8260B	11/26/14	1	
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l	8260B	11/26/14	1	
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l	8260B	11/26/14	1	
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l	8260B	11/26/14	1	
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l	8260B	11/29/14	1	
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l	8260B	11/26/14	1	
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l	8260B	11/26/14	1	
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l	8260B	11/26/14	1	
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l	8260B	11/26/14	1	
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l	8260B	11/26/14	1	
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l	8260B	11/26/14	1	
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l	8260B	11/26/14	1	
Methyl tert-butyl ether	1634-04-4	8.3	0.37	0.50	1	ug/l	8260B	11/26/14	1	
Naphthalene F SOLT	91-20-3	3.1	1	2.5	5	ug/l	J	8260B	11/26/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l	8260B	11/26/14	1	
Styrene	100-42-5	U	0.31	0.50	1	ug/l	8260B	11/26/14	1	
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l	8260B	11/26/14	1	
1,1,2,2-Tetrachloroethane	79-34-5	U	0.37	0.75	1	ug/l	8260B	11/26/14	1	
Tetrachloroethene	127-18-4	47.	0.37	0.50	1	ug/l	8260B	11/26/14	1	
Toluene	108-88-3	U	0.78	2.5	5	ug/l	8260B	11/26/14	1	
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l	8260B	11/26/14	1	
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l	8260B	11/26/14	1	
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l	8260B	11/26/14	1	
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l	8260B	11/26/14	1	
Trichloroethene	79-01-6	39.	0.4	0.50	1	ug/l	8260B	11/26/14	1	
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l	8260B	11/26/14	1	
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l	8260B	11/26/14	1	
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l	8260B	11/29/14	1	
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l	8260B	11/26/14	1	
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l	8260B	11/26/14	1	
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l	8260B	11/26/14	1	
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l	8260B	11/26/14	1	
Surrogate Recovery										

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Reported: 12/03/14 10:12 Revised: 12/08/14 12:51

L735181-02 (ICP METALS) - Diluted due to matrix interference.

L735181-02 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

Handwritten notes:
KA 2/20/15
BMS 2/18/15
12 of 2417
BMS 2/20/15



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 21, 2014
Description : Holloman AFB
Sample ID : H-TU508-MW06-NT01
Collected By :
Collection Date : 11/19/14 11:27

ESC Sample # : L735181-02

Site ID :

Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Toluene-d8	2037-26-5	98.3				% Rec.		8260B	11/26/14	1
Dibromofluoromethane	1868-53-7	98.1				% Rec.		8260B	11/26/14	1
4-Bromofluorobenzene	460-00-4	98.0				% Rec.		8260B	11/26/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		560	22	33.	100	ug/l		8015	11/26/14	1
C28-C40 Oil Range		81.	12-81	33-81	100	ug/l	J	8015	11/26/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	102.				% Rec.		8015	11/26/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	11/25/14	1
Acenaphthene	83-32-9	U	0.0082	0.025	0.05	ug/l		8270 C-	11/25/14	1
Acenaphthylene	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo(a)anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo(a)pyrene	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo(b)fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo(g,h,i)perylene	191-24-2	U	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo(k)fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	11/25/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	11/25/14	1
Dibenz(a,h)anthracene	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	11/25/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
Fluorene	86-73-7	U	0.009	0.025	0.05	ug/l		8270 C-	11/25/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	11/25/14	1
Naphthalene	81-20-3	0.023	0.019	0.025	0.25	ug/l	J	8270 C-	11/25/14	1
Phenanthrene	85-01-8	U	0.018	0.025	0.05	ug/l		8270 C-	11/25/14	1
Pyrene	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
2-Methylnaphthalene	91-57-6	U	0.016	0.025	0.25	ug/l		8270 C-	11/25/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	50.2				% Rec.		8270 C-	11/25/14	1
2-Fluorobiphenyl	321-60-8	48.8				% Rec.		8270 C-	11/25/14	1
p-Terphenyl-d14	1718-51-0	60.8				% Rec.		8270 C-	11/25/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	11/26/14	1
Bis(2-chloroethyl) ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	11/26/14	1
Bis(2-chloroisopropyl) ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	11/26/14	1
Benzyl Alcohol	100-51-6	U	0.39	5.0	10	ug/l		8270C	11/26/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	11/26/14	1
Benzoic acid	65-85-0	U	0.44	5.0	10	ug/l		8270C	11/26/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	11/26/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	11/26/14	1
2-Chloronaphthalene	91-58-7	U	0.33	5.0	1	ug/l		8270C	11/26/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	11/26/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	11/26/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	11/26/14	1

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L735181-02 (ICP METALS) - Diluted due to matrix interference.

L735181-02 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

DNR - Do NOT Report

KA 8/20/15

BMS 9/4/15

KA 2/20/15

BMS 2/20/15



L.A.B S.C.I.E.N.C.E.S

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REPORT OF ANALYSIS

Sheri Fling
URS
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December 08, 2014

Date Received : November 21, 2014
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Sample ID : H-TU508-MW06-NT01
Collected By :
Collection Date : 11/19/14 11:27

ESC Sample # : L735181-02

Site ID :

Project # : 23446543.0057AA

Table with columns: Parameter, CAS#, Result, DL, LOD, LOQ, Units, Qual Method, Date, Dil. Includes rows for 2,6-Dinitrotoluene, Hexachlorobenzene, Acid Extractables, and Surrogate Recovery.

U = Not Detected at the LOD

Note:

The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.
Reported: 12/03/14 10:12 Revised: 12/08/14 12:51
L735181-02 (ICP METALS) - Diluted due to matrix interference.
L735181-02 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

DNR - Do Not Report

KAZ/20/15



12065 Lebanon Rd.
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(615) 758-5858
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 21, 2014
Description : Holloman AFB
Sample ID : H-TU508-MW06-ND01
Collected By :
Collection Date : 11/19/14 11:27

ESC Sample # : L735181-03
Site ID :
Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved	7440-36-0	U	1	2.5	10	ug/l		6020	11/28/14	5
Arsenic, Dissolved <i>F SCL-I</i>	7440-38-2	5.3	1.2	2.5	10	ug/l	J	6020	11/28/14	5
Cadmium, Dissolved	7440-43-9	U	0.8	2.5	5	ug/l		6020	11/28/14	5
Chromium, Dissolved	7440-47-3	U	2.7	7.5	10	ug/l		6020	11/28/14	5
Cobalt, Dissolved <i>F SCL-I</i>	7440-48-4	2.6	1.3	2.5	10	ug/l	J	6020	11/28/14	5
Lead, Dissolved	7439-92-1	U	1.2	2.5	10	ug/l		6020	11/28/14	5
Nickel, Dissolved <i>UCCB ASFOE</i>	7440-02-0	8.5	1.8 8.5	5.0 8.5	10	ug/l	J	6020	11/28/14	5
Selenium, Dissolved <i>F SCL-I</i>	7782-49-2	3.1	1.9	5.0	10	ug/l	J	6020	11/28/14	5
Silver, Dissolved	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/28/14	5
Thallium, Dissolved	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/28/14	5
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	11/24/14	1
Aluminum, Dissolved <i>U MB, ICB-I</i>	7429-90-5	270	270	270	500	ug/l	J	6010B	11/26/14	5
Barium, Dissolved	7440-39-3	57.	8.5	13.	25	ug/l		6010B	11/26/14	5
Beryllium, Dissolved	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/26/14	5
Copper, Dissolved	7440-50-8	U	26	50.	100	ug/l		6010B	11/26/14	5
Manganese, Dissolved	7439-96-5	820	6	25.	50	ug/l		6010B	11/26/14	5
Vanadium, Dissolved <i>U MB, ICB-I</i>	7440-62-2	62.	12 62	50 62	100	ug/l	J	6010B	11/26/14	5
Zinc, Dissolved	7440-66-6	U	30	130	250	ug/l		6010B	11/26/14	5

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:12 Revised: 12/08/14 12:51
L735181-03 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.
L735181-03 (ICP METALS) - Diluted due to matrix interference.

KARZOLIS
BMS 2/20/15
15 of 2417



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 21, 2014
Description : Holloman AFB
Sample ID : H-TU508-MW05-ND01
Collected By :
Collection Date : 11/19/14 10:00

ESC Sample # : L735181-04
Site ID :
Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved	7440-36-0	U	1	2.5	10	ug/l		6020	11/28/14	5
Arsenic, Dissolved	7440-38-2	19.	1.2	2.5	10	ug/l		6020	11/28/14	5
Cadmium, Dissolved	7440-43-9	U	0.8	2.5	5	ug/l		6020	11/28/14	5
Chromium, Dissolved	7440-47-3	U	2.7	7.5	10	ug/l		6020	11/28/14	5
Cobalt, Dissolved	7440-48-4	3.7	1.3	2.5	10	ug/l	J	6020	11/28/14	5
Lead, Dissolved	7439-92-1	U	1.2	2.5	10	ug/l		6020	11/28/14	5
Nickel, Dissolved	7440-02-0	5.6	1.0	5.6	5.6	10	J	6020	11/28/14	5
Selenium, Dissolved	7782-49-2	3.7	1.9	5.0	10	ug/l	J	6020	11/28/14	5
Silver, Dissolved	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/28/14	5
Thallium, Dissolved	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/28/14	5
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	11/24/14	1
Aluminum, Dissolved	7429-90-5	U	180	250	500	ug/l		6010B	11/26/14	5
Barium, Dissolved	7440-39-3	39.	8.5	13.	25	ug/l		6010B	11/26/14	5
Beryllium, Dissolved	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/26/14	5
Copper, Dissolved	7440-50-8	U	26	50.	100	ug/l		6010B	11/26/14	5
Manganese, Dissolved	7439-96-5	360	6	25.	50	ug/l		6010B	11/26/14	5
Vanadium, Dissolved	7440-62-2	35.50	12.35	50.	100	ug/l	J	6010B	11/26/14	5
Zinc, Dissolved	7440-66-6	U	30	130	250	ug/l		6010B	11/26/14	5

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:12 Revised: 12/08/14 12:51

L735181-04 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

L735181-04 (ICP METALS) - Diluted due to matrix interference.

Handwritten signature and date:
K.A. Zholis
BMS 2/2/15
16 of 2417



L · A · B S · C · I · E · N · C · E · S

YOUR LAB OF CHOICE

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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 21, 2014
Description : Holloman AFB
Sample ID : H-TU508-MW05-NT01
Collected By :
Collection Date : 11/19/14 10:00

ESC Sample # : L735181-05

Site ID :

Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony <i>U CCB-I</i>	7440-36-0	0.96	0.21	0.56	2	ug/l	J	6020	12/01/14	1
Arsenic <i>J FO-I</i>	7440-38-2	17.	1.2	2.5	10	ug/l	J	6020	11/28/14	5
Cadmium	7440-43-9	U	0.8	2.5	5	ug/l	J	6020	11/28/14	5
Chromium <i>F FO-I SQL, FO-I</i>	7440-47-3	4.7	2.7	7.5	10	ug/l	J	6020	11/28/14	5
Cobalt <i>F FO-I SQL, FO-I</i>	7440-48-4	4.1	1.3	2.5	10	ug/l	J	6020	11/28/14	5
Lead <i>F SQL, ICS-H</i>	7439-92-1	1.2	1.2	2.5	10	ug/l	J	6020	12/02/14	5
Nickel <i>J FO-I</i>	7440-02-0	6.7	0.35	1.0	2	ug/l	J	6020	12/01/14	1
Selenium <i>U MB-I</i>	7782-49-2	3.0 5.0	1.0 3.0	5.0	10	ug/l	J	6020	11/28/14	5
Silver	7440-22-4	U	1.6	2.5	10	ug/l	J	6020	11/28/14	5
Thallium	7440-28-0	U	0.95	2.5	10	ug/l	J	6020	11/28/14	5
Mercury	7439-97-6	U	0.049	0.080	0.2	ug/l	J	7470A	11/22/14	1
Aluminum <i>J MS, FO-H</i>	7429-90-5	1500	180	250	500	ug/l	J	6010B	11/28/14	5
Barium <i>J FO-I</i>	7440-39-3	84.	8.5	13.	25	ug/l	J	6010B	11/28/14	5
Beryllium	7440-41-7	U	3.5	5.0	10	ug/l	J	6010B	11/28/14	5
Copper	7440-50-8	U	26	50.	100	ug/l	J	6010B	11/28/14	5
Manganese	7439-96-5	650	6	25.	50	ug/l	J	6010B	11/28/14	5
Vanadium <i>U CCB-I</i>	7440-62-2	40.50 12.40	30	50.	100	ug/l	J	6010B	11/28/14	5
Zinc	7440-66-6	U	30	130	250	ug/l	J	6010B	11/28/14	5
TPH (GC/FID) Low Fraction	8006-61-9	76.	31	50.	100	ug/l	J	8015D/G	11/26/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	98.5				% Rec.	J	8015D/G	11/26/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l	J	8260B	11/26/14	1
Benzene	71-43-2	6.3	0.33	0.50	1	ug/l	J	8260B	11/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l	J	8260B	11/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l	J	8260B	11/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l	J	8260B	11/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l	J	8260B	11/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l	J	8260B	11/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l	J	8260B	11/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l	J	8260B	11/26/14	1
tert-Butylbenzene <i>F SQL-I</i>	98-06-6	0.69	0.4	0.50	1	ug/l	J	8260B	11/26/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l	J	8260B	11/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l	J	8260B	11/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l	J	8260B	11/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l	J	8260B	11/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l	J	8260B	11/26/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l	J	8260B	11/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l	J	8260B	11/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l	J	8260B	11/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l	J	8260B	11/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l	J	8260B	11/26/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:12 Revised: 12/08/14 12:51
L735181-05 (ICP METALS) - Diluted due to matrix interference.
L735181-05 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KAZ/2015



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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 21, 2014
Description : Holloman AFB

ESC Sample # : L735181-05

Sample ID : H-TU508-MW05-NT01

Site ID :

Collected By :
Collection Date : 11/19/14 10:00

Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/26/14	1
1,1-Dichloroethane	75-34-3	2.2	0.26	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloroethene	75-35-4	18.	0.4	0.50	1	ug/l		8260B	11/26/14	1
cis-1,2-Dichloroethene	156-59-2	32.	0.26	0.50	1	ug/l		8260B	11/26/14	1
trans-1,2-Dichloroethene	156-60-5	0.58	0.4	0.50	1	ug/l	J	8260B	11/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/26/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/26/14	1
Methyl tert-butyl ether	1634-04-4	1.2	0.37	0.50	1	ug/l		8260B	11/26/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	11/26/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.58	0.75	1	ug/l		8260B	11/26/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Trichloroethene	79-01-6	3.9	0.4	0.50	1	ug/l		8260B	11/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/26/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/26/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/26/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Surrogate Recovery										

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:12 Revised: 12/08/14 12:51

L735181-05 (ICP METALS) - Diluted due to matrix interference.

L735181-05 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

DNR - Do Not Report

*BAZ/colis
BMS 2/20/15
18 of 2417*



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 21, 2014
Description : Holloman AFB
Sample ID : H-TU508-MW05-NT01
Collected By :
Collection Date : 11/19/14 10:00

ESC Sample # : L735181-05

Site ID :

Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Toluene-d8	2037-26-5	99.6				% Rec.		8260B	11/26/14	1
Dibromofluoromethane	1868-53-7	99.4				% Rec.		8260B	11/26/14	1
4-Bromofluorobenzene	460-00-4	99.7				% Rec.		8260B	11/26/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		580	22	33.	100	ug/l		8015	11/26/14	1
C28-C40 Oil Range		74.	12.74	33.74	100	ug/l	J	8015	11/26/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	102.				% Rec.		8015	11/26/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	11/25/14	1
Acenaphthene	83-32-9	0.18	0.0082	0.025	0.05	ug/l		8270 C-	11/25/14	1
Acenaphthylene	208-96-8	0.036	0.011	0.025	0.05	ug/l	J	8270 C-	11/25/14	1
Benzo(a)anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo(a)pyrene	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo(b)fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo(g,h,i)perylene	191-24-2	U	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo(k)fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	11/25/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	11/25/14	1
Dibenz(a,h)anthracene	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	11/25/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
Fluorene	86-73-7	0.082	0.009	0.025	0.05	ug/l		8270 C-	11/25/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	11/25/14	1
Naphthalene	91-20-3	0.12	0.012	0.025	0.25	ug/l	J	8270 C-	11/25/14	1
Phenanthrene	85-01-8	U	0.018	0.025	0.05	ug/l		8270 C-	11/25/14	1
Pyrene	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
2-Methylnaphthalene	91-57-6	U	0.016	0.025	0.25	ug/l		8270 C-	11/25/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	54.4				% Rec.		8270 C-	11/25/14	1
2-Fluorobiphenyl	321-60-8	53.8				% Rec.		8270 C-	11/25/14	1
p-Terphenyl-d14	1718-51-0	65.8				% Rec.		8270 C-	11/25/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	11/26/14	1
Bis(2-chloroethyl)ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	11/26/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	11/26/14	1
Benzyl Alcohol	100-51-6	U	0.39	5.0	10	ug/l		8270C	11/26/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	11/26/14	1
Benzoic acid	65-85-0	1.4	0.44	5.0	10	ug/l	J	8270C	11/26/14	1
Dibenzofuran	132-64-9	0.64	0.34	5.0	10	ug/l	J	8270C	11/26/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	11/26/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	11/26/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	11/26/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	11/26/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	11/26/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:12 Revised: 12/08/14 12:51

L735181-05 (ICP METALS) - Diluted due to matrix interference.

L735181-05 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KA 8/26/15
KA 2/20/15
BM 9/4/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 21, 2014
Description : Holloman AFB
Sample ID : H-TU508-MW05-NT01
Collected By :
Collection Date : 11/19/14 10:00

ESC Sample # : L735181-05
Site ID :
Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	11/26/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.33	5.0	10	ug/l		8270C	11/26/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	11/26/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	11/26/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	11/26/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	11/26/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	11/26/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	11/26/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	11/26/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	0.71	1.0	3	ug/l		8270C	11/26/14	1
Di-n-butyl phthalate	84-74-2	U	0.27	1.0	3	ug/l		8270C	11/26/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	11/26/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	11/26/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	11/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.36	5.0	10	ug/l		8270C	11/26/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	11/26/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	11/26/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	11/26/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	11/26/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	11/26/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	11/26/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	11/26/14	1
3&4-Methyl Phenol	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	11/26/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	11/26/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	11/26/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	11/26/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	11/26/14	1
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	11/26/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	11/26/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	11/26/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	11/26/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	11/26/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	11/26/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	11/26/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	46.7				% Rec.		8270C	11/26/14	1
Phenol-d5	4165-62-2	35.9				% Rec.		8270C	11/26/14	1
Nitrobenzene-d5	4165-60-0	72.0				% Rec.		8270C	11/26/14	1
2-Fluorobiphenyl	321-60-8	76.9				% Rec.		8270C	11/26/14	1
2,4,6-Tribromophenol	118-79-6	69.6				% Rec.		8270C	11/26/14	1
p-Terphenyl-d14	1718-51-0	67.6				% Rec.		8270C	11/26/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:12 Revised: 12/08/14 12:51

L735181-05 (ICP METALS) - Diluted due to matrix interference.

L735181-05 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

DNR. Do Not Report

Kazhokis
BMS 2/20/15
20 of 2417



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 21, 2014
Description : Holloman AFB
Sample ID : H-TU508-MW04-ND01
Collected By :
Collection Date : 11/19/14 11:00

ESC Sample # : L735181-06

Site ID :

Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved	7440-36-0	U	1	2.5	10	ug/l		6020	11/28/14	5
Arsenic, Dissolved	7440-38-2	14.	1.2	2.5	10	ug/l		6020	11/28/14	5
Cadmium, Dissolved	7440-43-9	U	0.8	2.5	5	ug/l		6020	11/28/14	5
Chromium, Dissolved	7440-47-3	U	2.7	7.5	10	ug/l		6020	11/28/14	5
Cobalt, Dissolved	7440-48-4	1.6	1.3	2.5	10	ug/l	J	6020	11/28/14	5
Lead, Dissolved	7439-92-1	U	1.2	2.5	10	ug/l		6020	11/28/14	5
Nickel, Dissolved	7440-02-0	6.1	1.8	5.0	10	ug/l	J	6020	11/28/14	5
Selenium, Dissolved	7782-49-2	3.2	1.9	5.0	10	ug/l	J	6020	11/28/14	5
Silver, Dissolved	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/28/14	5
Thallium, Dissolved	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/28/14	5
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	11/24/14	1
Aluminum, Dissolved	7429-90-5	860	180	250	500	ug/l		6010B	11/26/14	5
Barium, Dissolved	7440-39-3	62.	8.5	13.	25	ug/l		6010B	11/26/14	5
Beryllium, Dissolved	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/26/14	5
Copper, Dissolved	7440-50-8	U	26	50.	100	ug/l		6010B	11/26/14	5
Manganese, Dissolved	7439-96-5	230	6	25.	50	ug/l		6010B	11/26/14	5
Vanadium, Dissolved	7440-62-2	120	12	20	50	120		6010B	11/26/14	5
Zinc, Dissolved	7440-66-6	U	30	130	250	ug/l		6010B	11/26/14	5

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:12 Revised: 12/08/14 12:51

L735181-06 (ICP METALS) - Diluted due to matrix interference.

L735181-06 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KA-cholis
BMS 2/26/15
21 of 2417



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 08, 2014

Date Received : November 21, 2014
 Description : Holloman AFB
 Sample ID : H-TU508-MW04-NT01
 Collected By :
 Collection Date : 11/19/14 11:00

ESC Sample # : L735181-07

Site ID :

Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony <i>UCCB-I</i>	7440-36-0	0.43 <i>0.50</i>	0.21 <i>0.43</i>	0.50	2	ug/l	J	6020	12/01/14	1
Arsenic <i>JFO-I</i>	7440-38-2	30.	1.2	2.5	10	ug/l		6020	11/28/14	5
Cadmium	7440-43-9	U	0.8	2.5	5	ug/l		6020	11/28/14	5
Chromium <i>FUPT-I, SOL, PD-I</i>	7440-47-3	20.	2.7	7.5	10	ug/l		6020	11/28/14	5
Cobalt <i>FUPT-I, SOL, PD-I</i>	7440-48-4	7.8	1.3	2.5	10	ug/l	J	6020	11/28/14	5
Lead <i>F SOL, PD-I</i>	7439-92-1	9.0	1.2	2.5	10	ug/l	J	6020	12/02/14	5
Nickel <i>JFO-I</i>	7440-02-0	16.	0.35	1.0	2	ug/l		6020	12/01/14	1
Selenium	7782-49-2	14.	1.9	5.0	10	ug/l		6020	11/28/14	5
Silver	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/28/14	5
Thallium	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/28/14	5
Mercury	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	11/22/14	1
Aluminum <i>JMS, FO-H</i>	7429-90-5	6100	180	250	500	ug/l		6010B	11/28/14	5
Barium <i>JFO-I</i>	7440-39-3	150	8.5	13.	25	ug/l		6010B	11/28/14	5
Beryllium	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/28/14	5
Copper	7440-50-8	U	26	50.	100	ug/l		6010B	11/28/14	5
Manganese	7439-96-5	350	6	25.	50	ug/l		6010B	11/28/14	5
Vanadium	7440-62-2	140	12	50.	100	ug/l		6010B	11/28/14	5
Zinc	7440-66-6	U	30	130	250	ug/l		6010B	11/28/14	5
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	11/26/14	1
Surrogate Recovery-% a, a, a-Trifluorotoluene (FID)	98-08-8	99.6				% Rec.		8015D/G	11/26/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/26/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/26/14	1

U = Not Detected at the LOD

Note:

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 Reported: 12/03/14 10:12 Revised: 12/08/14 12:51
 L735181-07 (ICP METALS) - Diluted due to matrix interference.
 L735181-07 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

cazholis



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 21, 2014
Description : Holloman AFB
Sample ID : H-TU508-MW04-NT01
Collected By :
Collection Date : 11/19/14 11:00

ESC Sample # : L735181-07
Site ID :
Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/26/14	1
1,1-Dichloroethane	75-34-3	0.73	0.26	0.50	1	ug/l	J	8260B	11/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloroethene	75-35-4	6.4	0.4	0.50	1	ug/l		8260B	11/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/26/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/26/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l		8260B	11/26/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.75	0.75	1	ug/l		8260B	11/26/14	1
Tetrachloroethene	127-18-4	0.99	0.37	0.50	1	ug/l	J	8260B	11/26/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/26/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/26/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/26/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Surrogate Recovery										

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:12 Revised: 12/08/14 12:51
L735181-07 (ICP METALS) - Diluted due to matrix interference.
L735181-07 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

DNR - Do Not Report

Kacholis
BMS 2/26/15
BMS 2/26/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 21, 2014
Description : Holloman AFB
Sample ID : H-TU508-MW04-NT01
Collected By :
Collection Date : 11/19/14 11:00

ESC Sample # : L735181-07

Site ID :

Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Toluene-d8	2037-26-5	100.				% Rec.		8260B	11/26/14	1
Dibromofluoromethane	1868-53-7	103.				% Rec.		8260B	11/26/14	1
4-Bromofluorobenzene	460-00-4	97.9				% Rec.		8260B	11/26/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		150	22	33.	100	ug/l		8015	11/26/14	1
C28-C40 Oil Range		42.	12.42	33.42	100	ug/l	J	8015	11/26/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	103.				% Rec.		8015	11/26/14	1
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	11/25/14	1
Acenaphthene	83-32-9	U	0.0082	0.025	0.05	ug/l		8270 C-	11/25/14	1
Acenaphthylene	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo(a)anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo(a)pyrene	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo(b)fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo(g,h,i)perylene	191-24-2	U	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo(k)fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	11/25/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	11/25/14	1
Dibenz(a,h)anthracene	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	11/25/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
Fluorene	86-73-7	U	0.009	0.025	0.05	ug/l		8270 C-	11/25/14	1
Indeno(1,2,3-cd)pyrene	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	11/25/14	1
Naphthalene	91-20-3	0.014	0.012	0.025	0.25	ug/l	J	8270 C-	11/25/14	1
Phenanthrene	85-01-8	U	0.018	0.025	0.05	ug/l		8270 C-	11/25/14	1
Pyrene	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
2-Methylnaphthalene	91-57-6	U	0.016	0.025	0.25	ug/l		8270 C-	11/25/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	53.5				% Rec.		8270 C-	11/25/14	1
2-Fluorobiphenyl	321-60-8	51.1				% Rec.		8270 C-	11/25/14	1
p-Terphenyl-d14	1718-51-0	68.6				% Rec.		8270 C-	11/25/14	1
Base/Neutral Extractables										
Bis(2-chloroethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	11/26/14	1
Bis(2-chloroethyl)ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	11/26/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	11/26/14	1
Benzyl Alcohol	100-51-6	U	0.39	5.0	10	ug/l		8270C	11/26/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	11/26/14	1
Benzoic acid	65-85-0	U	0.44	5.0	10	ug/l		8270C	11/26/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	11/26/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	11/26/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	11/26/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	11/26/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	11/26/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	11/26/14	1

U = Not Detected at the LOD

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Reported: 12/03/14 10:12 Revised: 12/08/14 12:51

L735181-07 (ICP METALS) - Diluted due to matrix interference.

L735181-07 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KA 8/26/15
BMS 7/4/15

KA 2/20/15
BMS 2/20/15
24 of 2417



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 21, 2014
Description : Holloman AFB
Sample ID : H-TU508-MW04-NT01
Collected By :
Collection Date : 11/19/14 11:00

ESC Sample # : L735181-07
Site ID :
Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	11/26/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.33	5.0	10	ug/l		8270C	11/26/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	11/26/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	11/26/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	11/26/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	11/26/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	11/26/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	11/26/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	11/26/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	0.71	1.0	3	ug/l		8270C	11/26/14	1
Di-n-butyl phthalate	84-74-2	U	0.27	1.0	3	ug/l		8270C	11/26/14	1
Diethyl phthalate	84-66-2	0.59	0.28	1.0	3	ug/l	J	8270C	11/26/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	11/26/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	11/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.36	5.0	10	ug/l		8270C	11/26/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	11/26/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	11/26/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	11/26/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	11/26/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	11/26/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	11/26/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	11/26/14	1
3&4-Methyl Phenol	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	11/26/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	11/26/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	11/26/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	11/26/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	11/26/14	1
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	11/26/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	11/26/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	11/26/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	11/26/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	11/26/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	11/26/14	1
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	11/26/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	49.7				% Rec.		8270C	11/26/14	1
Phenol-d5	4165-62-2	39.6				% Rec.		8270C	11/26/14	1
Nitrobenzene-d5	4165-60-0	66.5				% Rec.		8270C	11/26/14	1
2-Fluorobiphenyl	321-60-8	72.9				% Rec.		8270C	11/26/14	1
2,4,6-Tribromophenol	118-79-6	61.4				% Rec.		8270C	11/26/14	1
p-Terphenyl-d14	1718-51-0	68.0				% Rec.		8270C	11/26/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:12 Revised: 12/08/14 12:51
L735181-07 (ICP METALS) - Diluted due to matrix interference.
L735181-07 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

DNR - Do Not Report

Kaczko
Bry 2/10/15
25 of 2417



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 22, 2014
Description : Holloman AFB
Sample ID : H-TU508-MW07-NT01
Collected By :
Collection Date : 11/21/14 08:51

ESC Sample # : L735181-08

Site ID :

Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony <i>U CCB-I</i>	7440-36-0	0.50 0.23	0.23 0.21	0.50	2	ug/l	J	6020	12/01/14	1
Arsenic <i>J PD-I</i>	7440-38-2	45.	1.2	2.5	10	ug/l		6020	11/28/14	5
Cadmium	7440-43-9	U	0.8	2.5	5	ug/l		6020	11/28/14	5
Chromium <i>J FO-I</i>	7440-47-3	10.	2.7	7.5	10	ug/l		6020	11/28/14	5
Cobalt <i>FJ SOL, PD-I</i>	7440-48-4	6.7	1.3	2.5	10	ug/l	J	6020	11/28/14	5
Lead <i>F SOL, PD-I</i>	7439-92-1	5.1	1.2	2.5	10	ug/l	J	6020	12/02/14	5
Nickel <i>J PD-I</i>	7440-02-0	11.	0.35	1.0	2	ug/l		6020	12/01/14	1
Selenium <i>U MB-I</i>	7782-49-2	3.4 5.0 1.9 3.4	5.0	5.0	10	ug/l	J	6020	11/28/14	5
Silver	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/28/14	5
Thallium	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/28/14	5
Mercury	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	11/25/14	1
Aluminum <i>J MS, PD-H</i>	7429-90-5	4100	180	250	500	ug/l		6010B	11/28/14	5
Barium <i>J PD-I</i>	7440-39-3	160	8.5	13.	25	ug/l		6010B	11/28/14	5
Beryllium	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/28/14	5
Copper	7440-50-8	U	26	50.	100	ug/l		6010B	11/28/14	5
Manganese	7439-96-5	700	6	25.	50	ug/l		6010B	11/28/14	5
Vanadium <i>U CCB-I</i>	7440-62-2	32. 50	12. 32	50.	100	ug/l	J	6010B	11/28/14	5
Zinc	7440-66-6	U	30	130	250	ug/l		6010B	11/28/14	5
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	11/25/14	1
Acenaphthene <i>US LCL</i>	83-32-9	U	0.0082	0.025	0.05	ug/l		8270 C-	11/25/14	1
Acenaphthylene <i>US LCL US MS-I</i>	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (a) anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (a) pyrene <i>US MS-L</i>	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (b) fluoranthene <i>US MS-L</i>	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (g,h,i) perylene	191-24-2	U	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (k) fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	11/25/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	11/25/14	1
Dibenz (a,h) anthracene <i>US MS-L</i>	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	11/25/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
Fluorene <i>US LCL US MS-I</i>	86-73-7	U	0.009	0.025	0.05	ug/l		8270 C-	11/25/14	1
Indeno (1,2,3-cd) pyrene <i>US MS-L</i>	193-39-5	U	0.0074	0.025	0.05	ug/l		8270 C-	11/25/14	1
Naphthalene <i>FJ SOL, LCL, MS-I</i>	91-20-3	0.11	0.012	0.025	0.25	ug/l	J	8270 C-	11/25/14	1
Phenanthrene	85-01-8	U	0.018	0.025	0.05	ug/l		8270 C-	11/25/14	1
Pyrene	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
2-Methylnaphthalene <i>US LCL, MS-L</i>	91-57-6	U	0.016	0.025	0.25	ug/l		8270 C-	11/25/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	53.2				% Rec.		8270 C-	11/25/14	1
2-Fluorobiphenyl	321-60-8	52.1				% Rec.		8270 C-	11/25/14	1
p-Terphenyl-d14	1718-51-0	69.0				% Rec.		8270 C-	11/25/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	11/26/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/03/14 10:12 Revised: 12/08/14 12:52
L735181-08 (ICP METALS) - Diluted due to matrix interference.
L735181-08 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KA 8/26/15

KA 2/20/15
BMS 2/20/15
26 of 2417

BMS 9/4/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 22, 2014
Description : Holloman AFB
Sample ID : H-TU508-MW07-NT01
Collected By :
Collection Date : 11/21/14 08:51

ESC Sample # : L735181-08

Site ID :

Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Bis(2-chloroethyl)ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	11/26/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	11/26/14	1
Benzyl Alcohol	100-51-6	U	0.39	5.0	10	ug/l		8270C	11/26/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	11/26/14	1
Benzoic acid	65-85-0	U	0.44	5.0	10	ug/l		8270C	11/26/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	11/26/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	11/26/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	11/26/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	11/26/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	11/26/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	11/26/14	1
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	11/26/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.33	5.0	10	ug/l		8270C	11/26/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	11/26/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	11/26/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	11/26/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	11/26/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	11/26/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	11/26/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	11/26/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	0.71	1.0	3	ug/l		8270C	11/26/14	1
Di-n-butyl phthalate	84-74-2	U	0.27	1.0	3	ug/l		8270C	11/26/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	11/26/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	11/26/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	11/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.36	5.0	10	ug/l		8270C	11/26/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	11/26/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	11/26/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	11/26/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	11/26/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	11/26/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	11/26/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	11/26/14	1
3&4-Methyl Phenol	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	11/26/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	11/26/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	11/26/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	11/26/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	11/26/14	1
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	11/26/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	11/26/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	11/26/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	11/26/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	11/26/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	11/26/14	1

U = Not Detected at the LOD

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Reported: 12/03/14 10:12 Revised: 12/08/14 12:52
L735181-08 (ICP METALS) - Diluted due to matrix interference.
L735181-08 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

DNR - Do Not Report



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 Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 08, 2014

Date Received : November 22, 2014
 Description : Holloman AFB
 Sample ID : H-TU508-MW07-NT01
 Collected By :
 Collection Date : 11/21/14 08:51

ESC Sample # : L735181-08
 Site ID :
 Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual Method	Date	Dil.
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l	8270C	11/26/14	1
Surrogate Recovery									
2-Fluorophenol	367-12-4	36.9				% Rec.	8270C	11/26/14	1
Phenol-d5	4165-62-2	25.4				% Rec.	8270C	11/26/14	1
Nitrobenzene-d5	4165-60-0	45.9				% Rec.	8270C	11/26/14	1
2-Fluorobiphenyl	321-60-8	52.6				% Rec.	8270C	11/26/14	1
2,4,6-Tribromophenol	118-79-6	54.5				% Rec.	8270C	11/26/14	1
p-Terphenyl-d14	1718-51-0	51.7				% Rec.	8270C	11/26/14	1

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 L735181-08 (ICP METALS) - Diluted due to matrix interference.
 L735181-08 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 08, 2014

Date Received : November 22, 2014
 Description : Holloman AFB
 Sample ID : H-TU508-MW07-ND01
 Collected By :
 Collection Date : 11/21/14 08:51

ESC Sample # : L735181-09

Site ID :

Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved	7440-36-0	U	1	2.5	10	ug/l		6020	11/28/14	5
Arsenic, Dissolved	7440-38-2	41.	1.2	2.5	10	ug/l		6020	11/28/14	5
Cadmium, Dissolved	7440-43-9	U	0.8	2.5	5	ug/l		6020	11/28/14	5
Chromium, Dissolved	7440-47-3	U	2.7	7.5	10	ug/l		6020	11/28/14	5
Cobalt, Dissolved	7440-48-4	4.4	1.3	2.5	10	ug/l	J	6020	11/28/14	5
Lead, Dissolved	7439-92-1	U	1.2	2.5	10	ug/l		6020	11/28/14	5
Nickel, Dissolved	7440-02-0	5.9	1.8 5.9	5.0 5.9	10	ug/l	J	6020	11/28/14	5
Selenium, Dissolved	7782-49-2	U	1.9	5.0	10	ug/l		6020	11/28/14	5
Silver, Dissolved	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/28/14	5
Thallium, Dissolved	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/28/14	5
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	11/25/14	1
Aluminum, Dissolved	7429-90-5	U	180	250	500	ug/l		6010B	11/26/14	5
Barium, Dissolved	7440-39-3	88.	8.5	13.	25	ug/l		6010B	11/26/14	5
Beryllium, Dissolved	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/26/14	5
Copper, Dissolved	7440-50-8	U	26	50.	100	ug/l		6010B	11/26/14	5
Manganese, Dissolved	7439-96-5	640	6	25.	50	ug/l		6010B	11/26/14	5
Vanadium, Dissolved	7440-62-2	48. 50	12. 48	50.	100	ug/l	J	6010B	11/26/14	5
Zinc, Dissolved	7440-66-6	U	30	130	250	ug/l		6010B	11/26/14	5

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 L735181-09 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.
 L735181-09 (ICP METALS) - Diluted due to matrix interference.

KA Zholis
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 29 of 2417



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 08, 2014

Date Received : November 22, 2014
 Description : Holloman AFB
 Sample ID : H-TU508-MW07-NT01
 Collected By :
 Collection Date : 11/21/14 08:51

ESC Sample # : L735181-10

Site ID :

Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	40.	31	50.	100	ug/l	J	8015D/G	11/26/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	99.0				% Rec.		8015D/G	11/26/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/26/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/26/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/26/14	1
1,1-Dichloroethane	75-34-3	1.3	0.26	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
cis-1,2-Dichloroethene	156-59-2	6.2	0.26	0.50	1	ug/l		8260B	11/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/26/14	1

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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 08, 2014

Date Received : November 22, 2014
 Description : Holloman AFB
 Sample ID : H-TU508-MW07-NT01
 Collected By :
 Collection Date : 11/21/14 08:51

ESC Sample # : L735181-10

Site ID :

Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/26/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/26/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
Naphthalene DNR	91-20-3	U	1	2.5	5	ug/l		8260B	11/26/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.13	0.38	0.75	1	ug/l	8260B	11/26/14	1
Tetrachloroethene	127-18-4	1.6	0.37	0.50	1	ug/l		8260B	11/26/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Trichloroethene	79-01-6	5.4	0.4	0.50	1	ug/l		8260B	11/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/26/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/26/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/26/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	99.8				% Rec.		8260B	11/26/14	1
Dibromofluoromethane	1868-53-7	102.				% Rec.		8260B	11/26/14	1
4-Bromofluorobenzene	460-00-4	99.4				% Rec.		8260B	11/26/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		1700	22	33.	100	ug/l		8015	11/26/14	1
C28-C40 Oil Range		270	12	33.	100	ug/l		8015	11/26/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	106.				% Rec.		8015	11/26/14	1

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DNR - Do Not Report

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BAS 2/20/15
 31 of 2417
BAS 2/20/15

**Holloman AFB
Groundwater Monitoring
Data Review Summary**

Data Package Number: L735318

Sampling Event Dates: November 21, 2014

Sample-specific Parameter Review/Laboratory Performance Parameters: Yes

Full Validation (e.g. result recalculation): No

Data Reviewer: Katie Abbott, URS Project Chemist

Date Completed: February 20, 2015

Peer Reviewer: Sheri Fling, URS Project Quality Assurance Manager (QAM)

The table below summarizes the data package and sample identifications discussed in this data review.

Field Identification	Sample Type	Lab Identification	Matrix	Analyses							
				GRO	DRO/ORO	VOCs	PAHs	SVOCs	Dissolved Metals	Total Metals	pH
L735318											
TU506-FIELDBLANK-01-FT01	FB	L735318-01	Water	X	---	X	---	---	---	---	---
TU506-IDW-SOIL*	SA	L735318-02	Soil	X	---	X	---	---	---	---	---
H-TU506-MW04-NT01	SA	L735318-03	Water	X	X	X	---	---	---	---	---
H-TU506-MW-05-NT01	SA	L735318-04	Water	X	X	X	---	---	---	---	---
TU506-IDW-SOIL*	SA	L735318-05	Soil	X	X	X	X	X	---	X	X
H-TU506-MW05-ND01	SA	L735318-06	Water	---	---	---	---	---	X	---	---
H-TU506-MW05-NT01	SA	L735318-07	Water	X	X	X	X	X	---	X	---
H-TU506-MW04-NT01	SA	L735318-08	Water	---	---	---	X	X	---	X	---
H-TU506-MW04-ND01	SA	L735318-09	Water	---	---	---	---	---	X ^m	---	---

Sample Type: FB – Field Blank SA – Sample

X^m - Matrix Spike/Matrix Spike Duplicate

*IDW samples used for disposal purposes only and were not included in the data validation.

Analyses:

DRO/ORO - Diesel and Oil Range Organics (8015D)

GRO – Gasoline Range Organics (8015D)

Total/Dissolved Metals – Antimony, Arsenic, Cadmium, Chromium, Cobalt, Lead, Nickel, Selenium, Silver, Thallium, Mercury, Aluminum, Barium, Beryllium, Copper, Manganese, Vanadium, Zinc (6010B/6020/7470A)

PAHs – Polynuclear Aromatic Hydrocarbons (8270C SIM)

SIM – Selective Ion Monitoring

SVOCs – Semivolatile Organic Compounds (8270C)

VOCs – Volatile Organic Compounds (8260B)

The data review was conducted in accordance with the Final Interim Measures Work Plan – Appendix A, Sampling and Analysis Plan/Quality Assurance Project Plan: Former Septic System Site TU904 (URS, September 2014); Group 2 Former Underground Storage Sites: AOC-UST-889 (TU515) (URS, September 2014); and Group 3 Former Underground Storage Tank Sites: AOC-UST-221 (TU503), AOC-UST-298 (TU508), AOC-UST-901 (TU506) and AOC-UST-

7003 (TU518) (URS, August 2014); data validation standard operating procedure (SOP) 14; Department of Defense (DoD) Quality Systems Manual version 4.2 (DoD, 2010); and method requirements.

General Overall Assessment:

- Data are usable without qualification.
- Data are usable with qualification (noted below).
- Some or all data are unusable for any purpose (detailed below).

Case Narrative Comments: Any laboratory case narrative comments concerning data qualification were addressed in the table below.

Trace level detects, reported between the method detection limit (MDL) and the reporting limit (LOQ), have been qualified as estimated (F SQL-I). All other occurrences of data qualification are covered in the following table.

Review Parameter	Criteria Met?	Comment
Chain of Custody & Sample Receipt	Yes	The samples were received by ESC Lab Sciences in good condition and were consistent with the accompanying chain of custody (COC). The cooler temperatures upon receipt were within the recommended ≤6 degrees Celsius (°C) temperature range.
Reporting	Yes	<p>During review of a representative data package selected for full validation, it was noted that improper reference spectra were displayed in the printed version of the data package for Method 8260B. Due to a LIMS limitation, the data package reference spectra were not consistently representative of the actual spectra for the analytes detected. Because the laboratory data review involves the use of NBS reference spectra and not the reference spectra taken from the instrument calibration, the analyst was not seeing the improper alignment of spectra noted in the data package during his/her review at the instrument. The laboratory revised and reissued the data package with correct reference spectral data, consistent with method requirements, and no results were changed. Therefore, no further action is necessary as a result of this validation finding.</p> <p>Method 8270C Semivolatile Organic Compounds (SVOCs)</p> <p>The results for 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene are not reported by Method 8270C SVOCs but are reported by Method 8260B volatile organic compounds (VOCs). As the detection limits (DLs), limits of detection (LODs), and limits of quantitation (LOQs) are lower by Method 8260B, further action was not necessary.</p> <p>The laboratory noted 4-methylphenol cannot be reported as 3 & 4-methylphenol coelute during the analysis; therefore, the analytes are reported together and 3&4-methylphenol on the data sheets and in the electronic database.</p>
Holding Times	Yes	All samples were analyzed within the method required holding time.
Laboratory Blanks <ul style="list-style-type: none"> • Method Blank • Continuing Calibration Blank 	No	With the exceptions listed in Table 1, target analytes were not detected within the method or calibration blanks.

Review Parameter	Criteria Met?	Comment
<p>Matrix Quality Control</p> <ul style="list-style-type: none"> Matrix Spike/ Matrix Spike Duplicate H-TU506-MW04-ND01 (Dissolved 6010B Metals) Total vs. Partial Analyses (Metals) 	No	<p>Matrix Spike/ Matrix Spike Duplicate (MS/MSD)</p> <p>The frequency of MS/MSDs met the QAPP requirement of one per twenty samples.</p> <p>With the exceptions listed in Table 2, the MS/MSD recoveries and relative percent differences (RPDs) met quality control criteria.</p> <p>The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the sample matrix could not be assessed for oil range organics (ORO).</p> <p>Results in the native sample greater than four times the concentration of the spike added during digestions/extractions are not considered to be a representative measure of accuracy. Further action with respect to spike recovery evaluation or qualification of data was not considered necessary.</p> <p>Consistent with standard operating procedure (SOP) 14, when MS/MSD issues accounted for less than 35% of the MS/MSD analyses conducted, applicable data qualification was limited to qualification of the parent sample of the affected analyte. When >35% of the MS/MSD results did not meet criteria, evaluation was extended to all associated samples. See Section 4.1 of the data validation report for overall qualifiers resulting from the MS/MSD evaluation.</p> <p>Total vs. Partial Analyses (Metals)</p> <p>Consistent with SOP 14, results for the total analysis of a particular analyte should be greater than the results for a partial analyte of that analyte. The following criteria were used to evaluate the total versus dissolved results:</p> <ul style="list-style-type: none"> In instances where the value for a partial analysis exceed that for a total analysis and both of the results are >5xLOQ, the criterion utilized is that the two values should agree within $\pm 30\%$. In instances where the value for a partial analysis exceeds that for a total analysis and either of the results is 5x the LOQ, the absolute difference between the results is compared against an evaluation criterion of 2xLOQ. <p>The total metal sample results were compared with the associated dissolved sample results against the concentration-dependent criteria set forth in SOP 14.</p>
<p>Metals Only</p> <ul style="list-style-type: none"> Serial Dilution H-TU506-MW04-ND01 (Dissolved 6010B Metals) Post Digestion Spike H-TU506-MW04-ND01 (Dissolved 6010B Metals) 	Yes	<p>Serial Dilution (Metals Only)</p> <p>Consistent with the method, only the results that were greater than 50 times their respective DLs were appropriate for comparing to the serial dilution evaluation criterion. All percent differences (%Ds) between the original sample results and the results obtained from the sample-diluted 1:5 were $\leq 10\%$.</p> <p>Post Digestion Spike (PDS) (Metals Only)</p> <p>All PDS recoveries were within the acceptance limits.</p>
<p>Method Quality Control</p> <ul style="list-style-type: none"> Surrogates (VOCs, PAHs, SVOCs, GRO, DRO/ORO) 	Yes	<p>The surrogate recoveries were within the laboratory specified acceptance criteria.</p>

Review Parameter	Criteria Met?	Comment
<p>Field Quality Control</p> <ul style="list-style-type: none"> • Trip Blank None in this package • Field Duplicate None in this package • Equipment Blank None in this package • Field Blank TU506-FIELDBLANK-01-FT01 	Yes	<p>Trip Blank</p> <p>A trip blank was not submitted with the samples in this data package; therefore, contamination introduced during shipment could not be assessed.</p> <p>Field Duplicate</p> <p>The frequency of field duplicates met the QAPP requirement of one per twenty samples.</p> <p>A field duplicate was not submitted with the data package.</p> <p>Consistent with SOP 14, when field duplicate issues accounted for less than 35% of the field duplicate analyses conducted, applicable data qualification was limited to qualification of the parent sample for the affected analyte. When >35% of the field duplicate results did not meet criteria, evaluation was extended to all associated samples. See Section 4.3 of the data validation report for overall qualifiers resulting from the field duplicate evaluation.</p> <p>Equipment Blank</p> <p>As dedicated equipment was used to collect these samples, an equipment blank was not submitted for this sampling event. Further action was not necessary.</p> <p>Field Blank</p> <p>The frequency of field blanks met the QAPP requirement of one per twenty samples.</p> <p>A field blank was not submitted with this data package. See Section 4.4 of the data validation report for overall qualifiers resulting from the field blank evaluation.</p>
LODs met?	No	Due to dilutions, several of the total and dissolved metals results for all samples were reported as non-detect at elevated LODs. See Section 3.7 of the validation report for further discussion.
Other Parameters	Yes	<p>Naphthalene (8260B and 8270C-PAHs) and hexachloro-1,3-butadiene and 1,2,4-trichlorobenzene (8260B and 8270C) were analyzed by multiple methods. Results were selected for reporting using the following criteria:</p> <ul style="list-style-type: none"> • If both results were non-detect, the non-detect result with the lower DL was selected. • If both results were reported as detected, the higher detected result was selected for reporting. • If one result was reported as non-detect and the other result was reported as detected, the detected result was selected for reporting.
Initial Calibration	Yes	<p>Methods 8260B VOCs & 8270C SVOCs</p> <p>A minimum relative response factor (RRF) of 0.05 was used for the system performance check compounds (SPCCs) and all SPCCs met this criterion. The percent relative standard deviations (%RSDs) over the initial calibration RRFs for all calibration check compounds (CCCs) satisfied the method requirement of <30%. For all other target compounds, a requirement of 15% was used. The %RSD values for all target analytes in the calibration were less than 15%. Therefore, the initial calibration met method acceptance criteria.</p>

Review Parameter	Criteria Met?	Comment
		<p>Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)</p> <p>The %RSD values for all target analytes in the calibration were less than 20%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Method 8015D Gasoline Range Organics (GRO)/DRO/ORO</p> <p>The relationship between instrument response and concentration was established with a blank and at least five standards for each analyte. The %RSD over the initial calibrations curve satisfied the method requirement of <15%. Therefore, the initial calibration met method acceptance criteria.</p> <p>Methods 6010B (Inductively Coupled Plasma [ICP] Metals) and 6020 (ICPMS Metals)</p> <p>The initial calibrations (ICALs) were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with a blank and at least five standards. The calibrations were verified with the analysis of an initial calibration verification (ICV) standard. All metals were recovered within the method acceptance range of 90-110%.</p> <p>7470A (Mercury)</p> <p>The ICALs were performed in association with the samples reported in this package. The relationship between instrument response and concentration was established with five standards. The correlation coefficient was >0.995. The calibration was verified with the analysis of an ICV standard. The analytes were recovered within the acceptance range of 90-110%. Response and linearity criteria were met and data qualification on the basis of initial calibration was not necessary.</p>
Initial Calibration Verification/Continuing Calibration Verification	No	<p>Method 8260B VOCs</p> <p>The percent differences (%Ds) for all CCCs in the ICVs and continuing calibrations (CCALs) were less than 20%, satisfying method requirements, and other target analytes satisfied the %D criterion of 20%.</p> <p>Methods 8270C PAHs/SVOCs</p> <p>With the exceptions listed in Table 3, the %D values for all target analytes in the calibration were less than 20%.</p> <p>Method 8015D GRO/Method 8015 DRO/ORO</p> <p>The %Ds for GRO and DRO/ORO (C10-C40) in the ICVs and CCALs were less than 15%. Data qualification was not necessary.</p> <p>Methods 6010B (ICP Metals), 6020 (ICPMS Metals), and 7470A (Mercury)</p> <p>Calibration verification analyses were conducted at the proper frequency. All metals were recovered within the DOD QSM 4.2 low level acceptance range of 80-120% and the method medium/high acceptance range of 90-110%.</p>
Interference Check Standard (Metals Only)	Yes	<p>The interference check standard (ICS) AB solutions were analyzed at the proper frequency. The target analytes were recovered within the acceptance range of 80-120% in the ICS AB solution. Interferent elements were not present in the samples at concentrations greater than those in the ICSs.</p> <p>The interferent elements aluminum, calcium, iron, and magnesium were present in most samples in this data package at concentrations greater than</p>

Review Parameter	Criteria Met?	Comment
		or equal to those in the ICSs. As such, these samples were evaluated for positive and negative biases suggested by the ICS A. Data qualification was issued if the absolute value of the ICS A result was greater than the DL and it suggested a positive or negative bias which accounted for more than 25% of associated sample results or LODs. (Note: The ICS A solution only contains the interferent elements aluminum, calcium, iron, and magnesium so any positive or negative result for other analytes is inferred to be a bias potentially caused by one or more of the interferent elements present).
Internal Standard (VOCs/SVOCs/PAHs/Metals (6020))	Yes	Recoveries for the internal standards in field samples were within the applicable acceptance limits. Therefore, data qualification based on internal standards was not necessary.
Laboratory Control Sample/ Laboratory Control Sample Duplicate	No	<p>One laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) per method per analytical batch was prepared and analyzed. All of the LCS recoveries and LCS/LCSD RPDs were within the QAPP acceptance limits. These results are indicative of an acceptable level of accuracy and precision with respect to the analytical method.</p> <p>Method 8015 DRO/ORO</p> <p>The laboratory only spiked the diesel carbon range (C10-C28); therefore, accuracy and precision with respect to the method could not be assessed for ORO.</p>
Package Completeness	Yes	The results are usable as qualified for the project objective. The data are 100% complete.

> - Greater Than

< - Less Than

≤ - Less Than or Equal to

± - Plus or Minus

°C – Degrees Celsius

% - Percent

%Ds – Percent Differences

%RSD – Percent Relative Standard Deviation

CCALs – Continuing Calibrations

CCBs – Continuing Calibration Blanks

CCCs – Calibration Check Compounds

COC – Chain of Custody

COD – Coefficient of Determination

DLs – Detection Limits

DRO – Diesel Range Organics

GRO – Gasoline Range Organics

ICAL – Initial Calibration

ICB – Initial Calibration Blank

ICP – Inductively Coupled Plasma

ICPMS - Inductively Coupled Plasma Mass Spectrometry

ICS – Interference Check Standard

ICV – Initial Calibration Verification

LCS – Laboratory Control Sample

LCSD – Laboratory Control Sample Duplicate

LOD – Limit of Detection

LOQ – Limit of Quantitation

MS/MSD – Matrix Spike/ Matrix Spike Duplicate

ORO – Oil Range Organics

PAHs – Polynuclear Aromatic Hydrocarbons

PDS – Post Digestion Spike

QAPP – Quality Assurance Project Plan

RPDs – Relative Percent Differences

RRF – Relative Response Factor

SOP – Standard Operating Procedure

SPCCs – System Performance Check Compounds

VOCs – Volatile Organic Compounds

Table 1: Blank Outliers and Resultant Data Qualification

Associated Samples	Analyte	Concentration	Qualification
Total Metals			
MB Batch WG756921 H-TU506-MW05-NT01 H-TU506-MW04-NT01	Arsenic	0.268 µg/L	None. The associated results were reported at concentrations >5x the concentration of the blank contamination.
	Selenium	0.431 µg/L	
CCB 2/28/2014 5:08PM H-TU506-MW05-NT01 H-TU506-MW04-NT01	Vanadium	3.06 µg/L	The associated results were reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U CCB-I).
		2.50 µg/L	
CCB 12/2/2014 5:14PM H-TU506-MW05-NT01 H-TU506-MW04-NT01	Antimony	0.347 µg/L	
		0.374 µg/L	
Dissolved Metals			
MB Batch WG756740 H-TU506-MW05-ND01 H-TU506-MW04-ND01	Aluminum	43.4 µg/L	None. The associated samples were reported as non-detect.
	Vanadium	3.51 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).
3.84 µg/L		The associated result was reported at a concentration <5x the concentration of the blank contamination and was qualified as non-detect (U CCB-I).	
3.25 µg/L			
CCB 11/26/2014 4:08PM H-TU506-MW04-ND01	Aluminum	48.5 µg/L	None. The associated samples were reported as non-detect.
	Vanadium	5.48 µg/L	The associated results were reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U CCB-I).
5.12 µg/L			
CCB 11/28/2014 2:55PM H-TU506-MW05-ND01 H-TU506-MW04-ND01	Nickel	2.13 µg/L	None. The associated samples were reported as non-detect.
		1.76 µg/L	
CCB 11/28/2014 3:27PM H-TU506-MW05-ND01 H-TU506-MW04-ND01	Antimony	2.12 µg/L	
PAHs			
MB Batch WG756543 H-TU506-MW05-NT01 H-TU506-MW04-NT01	Naphthalene	0.0148 µg/L	The associated results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U MB-I).

> - Greater Than

CCB – Continuing Calibration Blank

PAHs – Polynuclear Aromatic Hydrocarbons

< - Less Than

I – Indeterminate Bias

U – Non-detect

µg/L – Micrograms per Liter

MB – Method Blank

Table 2: MS/MSD Recovery and RPD Outliers and Resultant Data Qualification

Associated Sample	Analyte	%R (Limits)	RPD (Limit)	Qualification
Dissolved Metals				
H-TU506-MW04-ND01	Aluminum	124/85 (80-120)	38 (30)	As the potential bias was considered to be high, and the associated selenium result for sample H-TU515-GW07-ND01 was reported as non-detect, data qualification was not considered necessary. As the RPD was outside of control limits, the associated selenium result for sample H-TU515-GW07-ND01 was qualified as estimated (UJ D-I).

%R – Percent Recoveries

I – Indeterminate Bias

UJ - Estimated

Bold indicates a recovery or RPD outside of acceptance limit

D – Duplicate or spike duplicate precision evaluation criteria not met

MS/MSD – Matrix Spike Matrix Spike Duplicate

RPD – Relative Percent Difference

Table 3: Initial/Continuing Calibration Verification Outliers and Resultant Data Qualification

Associated Samples	Analyte	%D (Limit)	Data Qualification
SVOCs			
H-TU506-MW05-NT01 H-TU506-MW04-NT01	n-Nitrosodimethylamine	-21.3 (±20)	As the potential bias was considered to be low, the associated results were qualified as estimated (UJ CCAL-L).
	3&4-Methylphenol	-55.5 (±20)	

± - Plus or minus

L – Low Bias

%D – Percent Difference

SVOCs – Semivolatile Organic Compounds

CCAL – Continuing Calibration

UJ - Estimated



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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 22, 2014
Description : Holloman AFB
Sample ID : TU506-FIELD BLANK-01-FT01
Collected By : Jon Mallonee
Collection Date : 11/21/14 10:52

ESC Sample # : L735318-01

Site ID :

Project # : 23446543.0056AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	11/26/14	1
Surrogate Recovery- a,a,a-Trifluorotoluene (FID)	98-08-8	100.				% Rec.		8015D/G	11/26/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/26/14	1
Chloroform	67-66-3	U	0.32	2.5	5	ug/l		8260B	11/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/26/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/26/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/26/14	1

U = Not Detected at the LOD

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 12/04/14 15:44 Revised: 12/08/14 10:40

KA 2/20/15



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 08, 2014

Date Received : November 22, 2014
 Description : Holloman AFB
 Sample ID : TU506-FIELD BLANK-01-FT01
 Collected By : Jon Mallonee
 Collection Date : 11/21/14 10:52

ESC Sample # : L735318-01

Site ID :

Project # : 23446543.0056AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l	8260B	11/26/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l	8260B	11/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l	8260B	11/26/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l	8260B	11/26/14	1
Naphthalene	91-20-3	U	1	2.5	5	ug/l	8260B	11/26/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l	8260B	11/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l	8260B	11/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l	8260B	11/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	0.13	0.50	0.75	ug/l	8260B	11/26/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l	8260B	11/26/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l	8260B	11/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l	8260B	11/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l	8260B	11/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l	8260B	11/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l	8260B	11/26/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l	8260B	11/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l	8260B	11/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l	8260B	11/26/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l	8260B	11/26/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l	8260B	11/26/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l	8260B	11/26/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l	8260B	11/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l	8260B	11/26/14	1
Surrogate Recovery									
Toluene-d8	2037-26-5	100.				% Rec.	8260B	11/26/14	1
Dibromofluoromethane	1868-53-7	100.				% Rec.	8260B	11/26/14	1
4-Bromofluorobenzene	460-00-4	99.5				% Rec.	8260B	11/26/14	1

U = Not Detected at the LOD

Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 22, 2014
Description : Holloman AFB
Sample ID : H-TU506-MW04-NT01
Collected By : Jon Mallonee
Collection Date : 11/21/14 10:49

ESC Sample # : L735318-03
Site ID :
Project # : 23446543.0056AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction	8006-61-9	U	31	50.	100	ug/l		8015D/G	11/27/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	99.6				% Rec.		8015D/G	11/27/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/26/14	1
Chloroform	67-66-3	1.7	0.32	2.5	5	ug/l	J	8260B	11/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/26/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/26/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/26/14	1

U = Not Detected at the LOD

Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 22, 2014
Description : Holloman AFB
Sample ID : H-TU506-MW04-NT01
Collected By : Jon Mallonee
Collection Date : 11/21/14 10:49

ESC Sample # : L735318-03
Site ID :
Project # : 23446543.0056AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/26/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/26/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
Naphthalene <i>DNR</i>	91-20-3	U	1	2.5	5	ug/l		8260B	11/26/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	<i>0.13</i>	0.58	0.75	1	ug/l	8260B	11/26/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/26/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/26/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/26/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	100.				% Rec.		8260B	11/26/14	1
Dibromofluoromethane	1868-53-7	102.				% Rec.		8260B	11/26/14	1
4-Bromofluorobenzene	460-00-4	98.3				% Rec.		8260B	11/26/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range <i>FSOL-I</i>		80.	22	33.	100	ug/l	J	8015	11/26/14	1
C28-C40 Oil Range <i>FSOL-I</i>		66.	12	33.	100	ug/l	J	8015	11/26/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	93.8				% Rec.		8015	11/26/14	1

U = Not Detected at the LOD

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 22, 2014
Description : Holloman AFB
Sample ID : H-TU506-MW-05-NT01
Collected By : Jon Mallonee
Collection Date : 11/21/14 10:06

ESC Sample # : L735318-04
Site ID :
Project # : 23446543.0056AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
TPH (GC/FID) Low Fraction <i>MS-1</i>	8006-61-9	U	31	50.	100	ug/l		8015D/G	11/27/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	98-08-8	100.				% Rec.		8015D/G	11/27/14	1
Volatile Organics										
Acetone	67-64-1	U	10	25.	50	ug/l		8260B	11/26/14	1
Benzene	71-43-2	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Bromobenzene	108-86-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Bromochloromethane	74-97-5	U	0.52	0.75	1	ug/l		8260B	11/26/14	1
Bromodichloromethane	75-27-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Bromoform	75-25-2	U	0.47	0.50	1	ug/l		8260B	11/26/14	1
Bromomethane	74-83-9	U	0.87	2.5	5	ug/l		8260B	11/26/14	1
n-Butylbenzene	104-51-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
sec-Butylbenzene	135-98-8	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
tert-Butylbenzene	98-06-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Carbon Disulfide	75-15-0	U	0.28	0.50	1	ug/l		8260B	11/26/14	1
Carbon tetrachloride	56-23-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Chlorobenzene	108-90-7	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Chlorodibromomethane	124-48-1	U	0.33	0.50	1	ug/l		8260B	11/26/14	1
Chloroethane	75-00-3	U	0.45	2.5	5	ug/l		8260B	11/26/14	1
Chloroform <i>FSQ-1</i>	67-66-3	0.43	0.32	2.5	5	ug/l	J	8260B	11/26/14	1
Chloromethane	74-87-3	U	0.28	0.50	2.5	ug/l		8260B	11/26/14	1
2-Chlorotoluene	95-49-8	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
4-Chlorotoluene	106-43-4	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dibromo-3-Chloropropane	96-12-8	U	1.3	2.5	5	ug/l		8260B	11/26/14	1
1,2-Dibromoethane	106-93-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Dibromomethane	74-95-3	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichlorobenzene	95-50-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichlorobenzene	541-73-1	U	0.22	0.50	1	ug/l		8260B	11/26/14	1
1,4-Dichlorobenzene	106-46-7	U	0.27	0.50	1	ug/l		8260B	11/26/14	1
Dichlorodifluoromethane	75-71-8	U	0.55	2.5	5	ug/l		8260B	11/26/14	1
1,1-Dichloroethane	75-34-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloroethane	107-06-2	U	0.36	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloroethene	75-35-4	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
cis-1,2-Dichloroethene	156-59-2	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
trans-1,2-Dichloroethene	156-60-5	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
1,2-Dichloropropane	78-87-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1-Dichloropropene	563-58-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
1,3-Dichloropropane	142-28-9	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
cis-1,3-Dichloropropene	10061-01-5	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
trans-1,3-Dichloropropene	10061-02-6	U	0.42	0.50	1	ug/l		8260B	11/26/14	1
2,2-Dichloropropane	594-20-7	U	0.32	0.50	1	ug/l		8260B	11/26/14	1
Ethylbenzene	100-41-4	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
2-Hexanone	591-78-6	U	3.8	5.0	10	ug/l		8260B	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Isopropylbenzene	98-82-8	U	0.33	0.50	1	ug/l		8260B	11/26/14	1

U = Not Detected at the LOD

Note:

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REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 22, 2014
Description : Holloman AFB
Sample ID : H-TU506-MW-05-NT01
Collected By : Jon Mallonee
Collection Date : 11/21/14 10:06

ESC Sample # : L735318-04

Site ID :

Project # : 23446543.0056AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
p-Isopropyltoluene	99-87-6	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
2-Butanone (MEK)	78-93-3	U	3.9	5.0	10	ug/l		8260B	11/26/14	1
Methylene Chloride	75-09-2	U	1	2.5	5	ug/l		8260B	11/26/14	1
4-Methyl-2-pentanone (MIBK)	108-10-1	U	2.1	5.0	10	ug/l		8260B	11/26/14	1
Methyl tert-butyl ether	1634-04-4	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
Napthalene <i>DNR</i>	91-20-2	U	1	2.5	5	ug/l		8260B	11/26/14	1
n-Propylbenzene	103-65-1	U	0.35	0.50	1	ug/l		8260B	11/26/14	1
Styrene	100-42-5	U	0.31	0.50	1	ug/l		8260B	11/26/14	1
1,1,1,2-Tetrachloroethane	630-20-6	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
1,1,2,2-Tetrachloroethane	79-34-5	U	<i>0.3</i>	0.58	0.75	1		8260B	11/26/14	1
Tetrachloroethene	127-18-4	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
Toluene	108-88-3	U	0.78	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichlorobenzene	87-61-6	U	0.23	0.50	1	ug/l		8260B	11/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.21	0.50	1	ug/l		8260B	11/26/14	1
1,1,1-Trichloroethane	71-55-6	U	0.319	0.50	1	ug/l		8260B	11/26/14	1
1,1,2-Trichloroethane	79-00-5	U	0.38	0.50	1	ug/l		8260B	11/26/14	1
Trichloroethene	79-01-6	U	0.4	0.50	1	ug/l		8260B	11/26/14	1
Trichlorofluoromethane	75-69-4	U	1.2	2.5	5	ug/l		8260B	11/26/14	1
1,2,3-Trichloropropane	96-18-4	U	0.81	1.0	2.5	ug/l		8260B	11/26/14	1
1,2,4-Trimethylbenzene	95-63-6	U	0.37	0.50	1	ug/l		8260B	11/26/14	1
1,3,5-Trimethylbenzene	108-67-8	U	0.39	0.50	1	ug/l		8260B	11/26/14	1
o-Xylene	95-47-6	U	0.34	0.50	1	ug/l		8260B	11/26/14	1
m&p-Xylene	1330-20-7	U	0.72	1.0	2	ug/l		8260B	11/26/14	1
Vinyl chloride	75-01-4	U	0.26	0.50	1	ug/l		8260B	11/26/14	1
Surrogate Recovery										
Toluene-d8	2037-26-5	100.				% Rec.		8260B	11/26/14	1
Dibromofluoromethane	1868-53-7	102.				% Rec.		8260B	11/26/14	1
4-Bromofluorobenzene	460-00-4	99.0				% Rec.		8260B	11/26/14	1
Diesel and Oil Ranges										
C10-C28 Diesel Range		120	22	33.	100	ug/l		8015	12/02/14	1
C28-C40 Oil Range <i>FSQL-I</i>		58.	12	33.	100	ug/l	J	8015	12/02/14	1
Surrogate Recovery										
o-Terphenyl	84-15-1	105.				% Rec.		8015	12/02/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/04/14 15:44 Revised: 12/08/14 10:40

DNR - Do not Report

*KAZ/2015
BRS 2/2015*



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 Tax I.D. 62-0814289
 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 08, 2014

Date Received : November 22, 2014
 Description : Holloman AFB
 Sample ID : H-TU506-MW05-ND01
 Collected By : Jon Mallonee
 Collection Date : 11/21/14 10:06

ESC Sample # : L735318-06
 Site ID :
 Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved	7440-36-0	U	1	2.5	10	ug/l		6020	11/28/14	5
Arsenic, Dissolved <i>F SCL J</i>	7440-38-2	4.2	1.2	2.5	10	ug/l	J	6020	11/28/14	5
Cadmium, Dissolved	7440-43-9	U	0.8	2.5	5	ug/l		6020	11/28/14	5
Chromium, Dissolved	7440-47-3	U	2.7	7.5	10	ug/l		6020	11/28/14	5
Cobalt, Dissolved <i>F SCL J</i>	7440-48-4	1.6	1.3	2.5	10	ug/l	J	6020	11/28/14	5
Lead, Dissolved	7439-92-1	U	1.2	2.5	10	ug/l		6020	11/28/14	5
Nickel, Dissolved <i>UJCCB, PO, MS, I</i>	7440-02-0	7.3	1.0 7.3	5.0 7.3	10	ug/l	J	6020	11/28/14	5
Selenium, Dissolved <i>F SCL J</i>	7782-49-2	9.4	1.9	5.0	10	ug/l	J	6020	11/28/14	5
Silver, Dissolved	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/28/14	5
Thallium, Dissolved	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/28/14	5
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	11/25/14	1
Aluminum, Dissolved	7429-90-5	U	180	250	500	ug/l		6010B	11/26/14	5
Barium, Dissolved	7440-39-3	67.	8.5	13.	25	ug/l		6010B	11/26/14	5
Beryllium, Dissolved	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/26/14	5
Copper, Dissolved	7440-50-8	U	26	50.	100	ug/l		6010B	11/26/14	5
Manganese, Dissolved	7439-96-5	290	6	25.	50	ug/l		6010B	11/26/14	5
Vanadium, Dissolved <i>U MB, ACCB-I</i>	7440-62-2	65.	12.65	50.65	100	ug/l	J	6010B	11/26/14	5
Zinc, Dissolved	7440-66-6	U	30	130	250	ug/l		6010B	11/26/14	5

U = Not Detected at the LOD

Note:

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 Reported: 12/04/14 15:44 Revised: 12/08/14 10:40
 L735318-06 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.
 L735318-06 (ICP METALS) - Diluted due to matrix interference.

Handwritten signatures and dates:
 KAZKOLIS
 21 of 2755
 BJS 2/20/15



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 22, 2014
Description : Holloman AFB
Sample ID : H-TU506-MW05-NT01
Collected By : Jon Mallonee
Collection Date : 11/21/14 10:06

ESC Sample # : L735318-07
Site ID :
Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony <i>U CCB-I</i>	7440-36-0	0.76	0.16	0.76	2	ug/l	J	6020	12/01/14	1
Arsenic <i>J FO-I</i>	7440-38-2	18.	1.2	2.5	10	ug/l		6020	11/28/14	5
Cadmium	7440-43-9	U	0.8	2.5	5	ug/l		6020	11/28/14	5
Chromium <i>J FO-I</i>	7440-47-3	38.	2.7	7.5	10	ug/l		6020	11/28/14	5
Cobalt <i>J FO-I</i>	7440-48-4	23.	1.3	2.5	10	ug/l		6020	11/28/14	5
Lead	7439-92-1	23.	1.2	2.5	10	ug/l		6020	12/02/14	5
Nickel <i>J PO-I</i>	7440-02-0	34.	0.35	1.0	2	ug/l		6020	12/01/14	1
Selenium	7782-49-2	18.	1.9	5.0	10	ug/l		6020	11/28/14	5
Silver	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/28/14	5
Thallium	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/28/14	5
Mercury	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	11/26/14	1
Aluminum <i>J MS, FO-H</i>	7429-90-5	14000	180	250	500	ug/l		6010B	11/28/14	5
Barium <i>J FO-I</i>	7440-39-3	420	8.5	13.	25	ug/l		6010B	11/28/14	5
Beryllium	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/28/14	5
Copper	7440-50-8	U	26	50.	100	ug/l		6010B	11/28/14	5
Manganese	7439-96-5	860	6	25.	50	ug/l		6010B	11/28/14	5
Vanadium <i>F SQL-I</i>	7440-62-2	88.	12	50.	100	ug/l	J	6010B	11/28/14	5
Zinc <i>F SQL-I</i>	7440-66-6	64.	30	130	250	ug/l	J	6010B	11/28/14	5
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	0.067	0.013	0.025	0.05	ug/l		8270 C-	11/25/14	1
Acenaphthene	83-32-9	U	0.0082	0.025	0.05	ug/l		8270 C-	11/25/14	1
Acenaphthylene <i>U J MS-I</i>	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (a) anthracene	56-55-3	0.37	0.012	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (a) pyrene <i>J MS-L</i>	50-32-8	0.39	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (b) fluoranthene	205-99-2	0.22	0.019	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (g, h, i) perylene	191-24-2	0.33	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo (k) fluoranthene	207-08-9	0.74	0.026	0.035	0.05	ug/l		8270 C-	11/25/14	1
Chrysene	218-01-9	0.98	0.014	0.025	0.05	ug/l		8270 C-	11/25/14	1
Dibenz (a, h) anthracene <i>J MS-L</i>	53-70-3	1.3	0.0045	0.025	0.05	ug/l		8270 C-	11/25/14	1
Fluoranthene <i>F SQL-I, J MS-H</i>	206-44-0	0.040	0.016	0.025	0.05	ug/l	J	8270 C-	11/25/14	1
Fluorene <i>U J MS-I</i>	86-73-7	U	0.009	0.025	0.05	ug/l		8270 C-	11/25/14	1
Indeno (1,2,3-cd) pyrene <i>J MS-L</i>	193-39-5	0.60	0.0074	0.025	0.05	ug/l		8270 C-	11/25/14	1
Naphthalene <i>U J MS, AS-I, I</i>	91-20-3	0.013	0.012	0.025	0.25	ug/l	J	8270 C-	11/25/14	1
Phenanthrene <i>F SQL-I</i>	85-01-8	0.022	0.018	0.025	0.05	ug/l	J	8270 C-	11/25/14	1
Pyrene <i>F SQL-I</i>	129-00-0	0.044	0.016	0.025	0.05	ug/l	J	8270 C-	11/25/14	1
2-Methylnaphthalene <i>U MS, AS-I, I</i>	91-57-6	U	0.016	0.025	0.25	ug/l		8270 C-	11/25/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	59.6				% Rec.		8270 C-	11/25/14	1
2-Fluorobiphenyl	321-60-8	55.3				% Rec.		8270 C-	11/25/14	1
p-Terphenyl-d14	1718-51-0	69.2				% Rec.		8270 C-	11/25/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	11/26/14	1

U = Not Detected at the LOD

Note:

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Reported: 12/04/14 15:44 Revised: 12/08/14 10:40
L735318-07 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.
L735318-07 (ICP METALS) - Diluted due to matrix interference.

KA 2/20/15
BMS 9/4/15 BMS 2/20/15
22 of 2755



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 22, 2014
Description : Holloman AFB
Sample ID : H-TU506-MW05-NT01
Collected By : Jon Mallonee
Collection Date : 11/21/14 10:06

ESC Sample # : L735318-07
Site ID :
Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Bis(2-chloroethyl)ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	11/26/14	1
Bis(2-chloroisopropyl)ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	11/26/14	1
Benzyl Alcohol	100-51-6	U	0.39	5.0	10	ug/l		8270C	11/26/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	11/26/14	1
Benzoic acid	65-85-0	U	0.44	5.0	10	ug/l		8270C	11/26/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	11/26/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	11/26/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	11/26/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	11/26/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	11/26/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	11/26/14	1
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	11/26/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	11/26/14	1
Hexachloro-1,3-butadiene	87-68-3	U	0.33	5.0	10	ug/l		8270C	11/26/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	11/26/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	11/26/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	11/26/14	1
n-Nitrosodimethylamine	62-75-9	U	1.3	5.0	10	ug/l		8270C	11/26/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	11/26/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	11/26/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	11/26/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	0.71	1.0	3	ug/l		8270C	11/26/14	1
Di-n-butyl phthalate	84-74-2	U	0.27	1.0	3	ug/l		8270C	11/26/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	11/26/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	11/26/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	11/26/14	1
1,2,4-Trichlorobenzene	120-82-1	U	0.36	5.0	10	ug/l		8270C	11/26/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	11/26/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	11/26/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	11/26/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	11/26/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	11/26/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	11/26/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	11/26/14	1
3&4-Methyl Phenol	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	11/26/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	11/26/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	11/26/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	11/26/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	11/26/14	1
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	11/26/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	11/26/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	11/26/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	11/26/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	11/26/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	11/26/14	1

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Reported: 12/04/14 15:44 Revised: 12/08/14 10:40

L735318-07 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

L735318-07 (ICP METALS) - Diluted due to matrix interference.

DNR - Do Not Report

KA Zholis
BMJ 2/10/15
23 of 2755



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 Est. 1970

REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 08, 2014

Date Received : November 22, 2014
 Description : Holloman AFB
 Sample ID : H-TU506-MW05-NT01
 Collected By : Jon Mallonee
 Collection Date : 11/21/14 10:06

ESC Sample # : L735318-07
 Site ID :
 Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual Method	Date	Dil.
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l	8270C	11/26/14	1
Surrogate Recovery									
2-Fluorophenol	367-12-4	45.6				% Rec.	8270C	11/26/14	1
Phenol-d5	4165-62-2	33.9				% Rec.	8270C	11/26/14	1
Nitrobenzene-d5	4165-60-0	55.6				% Rec.	8270C	11/26/14	1
2-Fluorobiphenyl	321-60-8	57.4				% Rec.	8270C	11/26/14	1
2,4,6-Tribromophenol	118-79-6	30.5				% Rec.	8270C	11/26/14	1
p-Terphenyl-d14	1718-51-0	58.9				% Rec.	8270C	11/26/14	1

U = Not Detected at the LOD

Note:

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 Reported: 12/04/14 15:44 Revised: 12/08/14 10:40
 L735318-07 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.
 L735318-07 (ICP METALS) - Diluted due to matrix interference.

KA Zholis



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Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 22, 2014
Description : Holloman AFB
Sample ID : H-TU506-MW04-NT01
Collected By : Jon Mallonee
Collection Date : 11/21/14 10:49

ESC Sample # : L735318-08
Site ID :
Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony <i>U CCB-I</i>	7440-36-0	0.72	0.72	0.50	2	ug/l	J	6020	12/01/14	1
Arsenic <i>J PD-I</i>	7440-38-2	10.	1.2	2.5	10	ug/l		6020	11/28/14	5
Cadmium	7440-43-9	U	0.8	2.5	5	ug/l		6020	11/28/14	5
Chromium <i>J PD-I</i>	7440-47-3	46.	2.7	7.5	10	ug/l		6020	11/28/14	5
Cobalt <i>J PD-I</i>	7440-48-4	15.	1.3	2.5	10	ug/l		6020	11/28/14	5
Lead	7439-92-1	16.	1.2	2.5	10	ug/l		6020	12/02/14	5
Nickel <i>J PD-I</i>	7440-02-0	22.	0.35	1.0	2	ug/l		6020	12/01/14	1
Selenium	7782-49-2	12.	1.9	5.0	10	ug/l		6020	11/28/14	5
Silver	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/28/14	5
Thallium	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/28/14	5
Mercury	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	11/26/14	1
Aluminum <i>J MS, PD-M</i>	7429-90-5	11000	180	250	500	ug/l		6010B	11/28/14	5
Barium <i>J PD-I</i>	7440-39-3	270	8.5	13.	25	ug/l		6010B	11/28/14	5
Beryllium	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/28/14	5
Copper	7440-50-8	U	26	50.	100	ug/l		6010B	11/28/14	5
Manganese <i>F SQ-I</i>	7439-96-5	430	6	25.	50	ug/l		6010B	11/28/14	5
Vanadium <i>U CCB-I</i>	7440-62-2	50.	± 50	50.	100	ug/l	J	6010B	11/28/14	5
Zinc <i>F SQ-I</i>	7440-66-6	52.	30	130	250	ug/l	J	6010B	11/28/14	5
Polynuclear Aromatic Hydrocarbons										
Anthracene	120-12-7	U	0.013	0.025	0.05	ug/l		8270 C-	11/25/14	1
Acenaphthene	83-32-9	U	0.0082	0.025	0.05	ug/l		8270 C-	11/25/14	1
Acenaphthylene <i>U J MS-I</i>	208-96-8	U	0.011	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo(a)anthracene	56-55-3	U	0.012	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo(a)pyrene <i>U MS-L</i>	50-32-8	U	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo(b)fluoranthene	205-99-2	U	0.019	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo(g,h,i)perylene	191-24-2	U	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
Benzo(k)fluoranthene	207-08-9	U	0.026	0.035	0.05	ug/l		8270 C-	11/25/14	1
Chrysene	218-01-9	U	0.014	0.025	0.05	ug/l		8270 C-	11/25/14	1
Dibenz(a,h)anthracene <i>U MS-L</i>	53-70-3	U	0.0045	0.025	0.05	ug/l		8270 C-	11/25/14	1
Fluoranthene	206-44-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
Fluorene <i>U MS-I</i>	86-73-7	U	0.009	0.025	0.05	ug/l		8270 C-	11/25/14	1
Indeno(1,2,3-cd)pyrene <i>U MS-L</i>	193-39-5	U	0.012	0.025	0.05	ug/l		8270 C-	11/25/14	1
Naphthalene <i>U MS, MS-L, MS-I</i>	91-20-3	0.018	0.012	0.025	0.25	ug/l	J	8270 C-	11/25/14	1
Phenanthrene	85-01-8	U	0.018	0.025	0.05	ug/l		8270 C-	11/25/14	1
Pyrene	129-00-0	U	0.016	0.025	0.05	ug/l		8270 C-	11/25/14	1
2-Methylnaphthalene <i>U MS-L, MS-I</i>	91-57-6	U	0.016	0.025	0.25	ug/l		8270 C-	11/25/14	1
Surrogate Recovery										
Nitrobenzene-d5	4165-60-0	57.3				% Rec.		8270 C-	11/25/14	1
2-Fluorobiphenyl	321-60-8	53.7				% Rec.		8270 C-	11/25/14	1
p-Terphenyl-d14	1718-51-0	64.4				% Rec.		8270 C-	11/25/14	1
Base/Neutral Extractables										
Bis(2-chlorethoxy)methane	111-91-1	U	0.33	5.0	10	ug/l		8270C	11/26/14	1

U = Not Detected at the LOD

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Reported: 12/04/14 15:44 Revised: 12/08/14 10:40
L735318-08 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.
L735318-08 (ICP METALS) - Diluted due to matrix interference.

Handwritten signatures and dates:
KAZ...
BMS 2/24/15
BMS 9/4/15



YOUR LAB OF CHOICE

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Sheri Fling
URS
8181 E. Tufts Avenue
Denver, CO 80237

December 08, 2014

Date Received : November 22, 2014
Description : Holloman AFB
Sample ID : H-TU506-MW04-NT01
Collected By : Jon Mallonee
Collection Date : 11/21/14 10:49

ESC Sample # : L735318-08
Site ID :
Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Bis(2-chloroethyl) ether	111-44-4	U	1.6	5.0	10	ug/l		8270C	11/26/14	1
Bis(2-chloroisopropyl) ether	108-60-1	U	0.44	5.0	10	ug/l		8270C	11/26/14	1
Benzyl Alcohol	100-51-6	U	0.39	5.0	10	ug/l		8270C	11/26/14	1
Carbazole	86-74-8	U	0.16	5.0	10	ug/l		8270C	11/26/14	1
Benzoic acid	65-85-0	U	0.44	5.0	10	ug/l		8270C	11/26/14	1
Dibenzofuran	132-64-9	U	0.34	5.0	10	ug/l		8270C	11/26/14	1
4-Bromophenyl-phenylether	101-55-3	U	0.36	5.0	10	ug/l		8270C	11/26/14	1
2-Chloronaphthalene	91-58-7	U	0.33	0.50	1	ug/l		8270C	11/26/14	1
4-Chlorophenyl-phenylether	7005-72-3	U	0.3	5.0	10	ug/l		8270C	11/26/14	1
3,3-Dichlorobenzidine	91-94-1	U	2	5.0	10	ug/l		8270C	11/26/14	1
2,4-Dinitrotoluene	121-14-2	U	1.6	5.0	10	ug/l		8270C	11/26/14	1
2,6-Dinitrotoluene	606-20-2	U	0.28	5.0	10	ug/l		8270C	11/26/14	1
Hexachlorobenzene	118-74-1	U	0.34	0.50	1	ug/l		8270C	11/26/14	1
Hexachloro-1,3-butadiene <i>DNR</i>	87-68-3	U	0.33	5.0	10	ug/l		8270C	11/26/14	1
Hexachloroethane	67-72-1	U	0.36	5.0	10	ug/l		8270C	11/26/14	1
Isophorone	78-59-1	U	0.27	5.0	10	ug/l		8270C	11/26/14	1
Nitrobenzene	98-95-3	U	0.37	5.0	10	ug/l		8270C	11/26/14	1
n-Nitrosodimethylamine <i>US CAL-L</i>	62-75-9	U	1.3	5.0	10	ug/l		8270C	11/26/14	1
n-Nitrosodiphenylamine	86-30-6	U	0.3	5.0	10	ug/l		8270C	11/26/14	1
n-Nitrosodi-n-propylamine	621-64-7	U	0.4	5.0	10	ug/l		8270C	11/26/14	1
Benzylbutyl phthalate	85-68-7	U	0.28	1.0	3	ug/l		8270C	11/26/14	1
Bis(2-ethylhexyl)phthalate	117-81-7	U	0.71	1.0	3	ug/l		8270C	11/26/14	1
Di-n-butyl phthalate	84-74-2	U	0.27	1.0	3	ug/l		8270C	11/26/14	1
Diethyl phthalate	84-66-2	U	0.28	1.0	3	ug/l		8270C	11/26/14	1
Dimethyl phthalate	131-11-3	U	0.28	1.0	3	ug/l		8270C	11/26/14	1
Di-n-octyl phthalate	117-84-0	U	0.28	1.0	3	ug/l		8270C	11/26/14	1
1,2,4-Trichlorobenzene <i>DNR</i>	120-82-1	U	0.36	5.0	10	ug/l		8270C	11/26/14	1
Acid Extractables										
4-Chloro-3-methylphenol	59-50-7	U	0.26	5.0	10	ug/l		8270C	11/26/14	1
2-Chlorophenol	95-57-8	U	0.28	5.0	10	ug/l		8270C	11/26/14	1
2,4-Dichlorophenol	120-83-2	U	0.28	5.0	10	ug/l		8270C	11/26/14	1
2,4-Dimethylphenol	105-67-9	U	0.62	5.0	10	ug/l		8270C	11/26/14	1
4,6-Dinitro-2-methylphenol	534-52-1	U	2.6	5.0	10	ug/l		8270C	11/26/14	1
2,4-Dinitrophenol	51-28-5	U	3.2	5.0	10	ug/l		8270C	11/26/14	1
2-Methylphenol	95-48-7	U	0.31	5.0	10	ug/l		8270C	11/26/14	1
3&4-Methyl Phenol <i>US CAL-L</i>	3&4-Methyl	U	0.27	5.0	10	ug/l		8270C	11/26/14	1
2-Nitrophenol	88-75-5	U	0.32	5.0	10	ug/l		8270C	11/26/14	1
4-Nitrophenol	100-02-7	U	2	5.0	10	ug/l		8270C	11/26/14	1
4-Chloroaniline	106-47-8	U	0.38	5.0	10	ug/l		8270C	11/26/14	1
2-Nitroaniline	88-74-4	U	1.9	5.0	10	ug/l		8270C	11/26/14	1
3-Nitroaniline	99-09-2	U	0.31	5.0	10	ug/l		8270C	11/26/14	1
1,2-Diphenylhydrazine	103-33-3	U	0.32	5.0	10	ug/l		8270C	11/26/14	1
4-Nitroaniline	100-01-6	U	0.35	5.0	10	ug/l		8270C	11/26/14	1
Pentachlorophenol	87-86-5	U	0.31	5.0	10	ug/l		8270C	11/26/14	1
Phenol	108-95-2	U	0.33	5.0	10	ug/l		8270C	11/26/14	1
2,4,5-Trichlorophenol	95-95-4	U	0.24	5.0	10	ug/l		8270C	11/26/14	1

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Reported: 12/04/14 15:44 Revised: 12/08/14 10:40

L735318-08 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

L735318-08 (ICP METALS) - Diluted due to matrix interference.

DNR - Do Not Report

KA Zholis
BMS 2/20/15
26 of 2755



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REPORT OF ANALYSIS

Sheri Fling
 URS
 8181 E. Tufts Avenue
 Denver, CO 80237

December 08, 2014

Date Received : November 22, 2014
 Description : Holloman AFB
 Sample ID : H-TU506-MW04-NT01
 Collected By : Jon Mallonee
 Collection Date : 11/21/14 10:49

ESC Sample # : L735318-08

Site ID :

Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
2,4,6-Trichlorophenol	88-06-2	U	0.3	5.0	10	ug/l		8270C	11/26/14	1
Surrogate Recovery										
2-Fluorophenol	367-12-4	40.1				% Rec.		8270C	11/26/14	1
Phenol-d5	4165-62-2	30.4				% Rec.		8270C	11/26/14	1
Nitrobenzene-d5	4165-60-0	46.9				% Rec.		8270C	11/26/14	1
2-Fluorobiphenyl	321-60-8	58.3				% Rec.		8270C	11/26/14	1
2,4,6-Tribromophenol	118-79-6	54.6				% Rec.		8270C	11/26/14	1
p-Terphenyl-d14	1718-51-0	55.4				% Rec.		8270C	11/26/14	1

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L735318-08 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

L735318-08 (ICP METALS) - Diluted due to matrix interference.

KA 2/20/15



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 Denver, CO 80237

December 08, 2014

Date Received : November 22, 2014
 Description : Holloman AFB
 Sample ID : H-TU506-MW04-ND01
 Collected By : Jon Mallonee
 Collection Date : 11/21/14 10:49

ESC Sample # : L735318-09
 Site ID :
 Project # : 23446543.0057AA

Parameter	CAS#	Result	DL	LOD	LOQ	Units	Qual	Method	Date	Dil.
Antimony, Dissolved	7440-36-0	U	1	2.5	10	ug/l		6020	11/28/14	5
Arsenic, Dissolved <i>F SPL I</i>	7440-38-2	2.2	1.2	2.5	10	ug/l	J	6020	11/28/14	5
Cadmium, Dissolved	7440-43-9	U	0.8	2.5	5	ug/l		6020	11/28/14	5
Chromium, Dissolved	7440-47-3	U	2.7	7.5	10	ug/l		6020	11/28/14	5
Cobalt, Dissolved	7440-48-4	U	1.3	2.5	10	ug/l		6020	11/28/14	5
Lead, Dissolved	7439-92-1	U	1.2	2.5	10	ug/l		6020	11/28/14	5
Nickel, Dissolved <i>UCCB, As, PD-I</i>	7440-02-0	2.35.0 <i>1.8 2.3</i>		5.0	10	ug/l	J	6020	11/28/14	5
Selenium, Dissolved <i>F SPL I</i>	7782-49-2	8.0	1.9	5.0	10	ug/l	J	6020	11/28/14	5
Silver, Dissolved	7440-22-4	U	1.6	2.5	10	ug/l		6020	11/28/14	5
Thallium, Dissolved	7440-28-0	U	0.95	2.5	10	ug/l		6020	11/28/14	5
Mercury, Dissolved	7439-97-6	U	0.049	0.080	0.2	ug/l		7470A	11/25/14	1
Aluminum, Dissolved <i>U D-I</i>	7429-90-5	U	180	250	500	ug/l	J3	6010B	11/26/14	5
Barium, Dissolved	7440-39-3	66.	8.5	13.	25	ug/l		6010B	11/26/14	5
Beryllium, Dissolved	7440-41-7	U	3.5	5.0	10	ug/l		6010B	11/26/14	5
Copper, Dissolved	7440-50-8	U	26	50.	100	ug/l		6010B	11/26/14	5
Manganese, Dissolved	7439-96-5	87.	6	25.	50	ug/l		6010B	11/26/14	5
Vanadium, Dissolved <i>U MB, UCCB-I</i>	7440-62-2	62.	12.62 <i>50.62</i>	50.62	100	ug/l	J	6010B	11/26/14	5
Zinc, Dissolved	7440-66-6	U	30	130	250	ug/l		6010B	11/26/14	5

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L735318-09 (GFAA METALS) - Non-target compounds too high to run at a lower dilution.

KA 2/20/15
BWS 2/20/15
 28 of 2755