Report

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Date: November 14, 2002
Refer to: ER2002-0794

Mr. John Young, Corrective Action Project Leader
Permits Management Program
NMED – Hazardous Waste Bureau
2905 Rodeo Park Drive East
Building 1
Santa Fe, NM 87505-6303

NOV 2002

SUBJECT: QUARTERLY TECHNICAL REPORT FOR JULY THROUGH SEPTEMBER 2002

Dear Mr. Young:

Enclosed are two copies of the Remediation (R) Program Quarterly Technical Report, July through September 2002. The Quarterly Technical Report presents information from each focus area on the quarter's activities, including regulatory meetings, sampling, cleanups, and report writing. Also enclosed is a certification statement signed by the designee owner and operator for the Los Alamos National Laboratory. In accordance with Laboratory security requirements, copies of this report are available upon request through the external Remediation Program Web site at http://erproject.lanl.gov/documents/virtualhome.html. The report is also available on the internal Web site at http://erproject.lanl.gov/documents/VL/status.html.

If you have questions regarding this report, please contact Paul Schumann at (505) 667–5840 or Everett Trollinger at (505) 667–0281.

Sincerely,

David McInroy, Acting Program Manager
Remediation Program
Los Alamos National Laboratory

Sincerely,

Everett Trollinger, Project Manager
Department of Energy
Office of Los Alamos Site Operations

DM/ET/MB/rq

Enclosure: 1) Quarterly Technical Report for July through September 2002 (ER2002-0704)
2) Certification

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CERTIFICATION BY THE ENVIRONMENTAL RESTORATION (ER) PROJECT TECHNICAL REPRESENTATIVES

Document Title: Quarterly Technical Report for July through September 2002

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

Name: _____ Date: 11/14/02

David McInroy, Acting Program Manager
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Los Alamos National Laboratory

or

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Herman LeDoux,
Assistant Area Manager of
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Department Of Energy/Office of Los Alamos Site Operations

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Remediation Program

RRES

LA-UR-02-6976
November 14, 2002
ER2002-0704

Quarterly Technical Report
July–September 2002

Los Alamos
NATIONAL LABORATORY
Los Alamos NM 87545

Produced by the Regulatory Compliance Focus Area

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List of Acronyms and Abbreviations

AOC	area of concern
bgs	below ground surface
BMP	best management practice
CAB	Citizens Advisory Board
CMS	corrective measures study
DOE	US Department of Energy
DOE-HQ	US Department of Energy-Headquarters
DOE-OLASO	US Department of Energy-Office of Los Alamos Site Operations
DQO	data quality objective
EES-10	Environmental Dynamics and Spatial Analysis Group
EPA	US Environmental Protection Agency
ER	environmental restoration
ERDB	Environmental Restoration Database
ESH	Environment, Safety, and Health (Division)
FWO-WFM	Facilities and Waste Operations Division's Waste Facility Management Group
FY	fiscal year
HSR	Health, Safety, and Radiation Protection (Division)
HSWA	Hazardous and Solid Waste Amendments
IA	interim action
IM	interim measure
Laboratory	Los Alamos National Laboratory
MDA	material disposal area
NFA	no further action
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NMT-4	Nuclear Material Management and Accountability Group
NMWQCC	New Mexico Water Quality Control Commission
PAH	polycyclic aromatic hydrocarbon
PDF	portable document format
NTISV	nontraditional in situ vitrification
PCB	polychlorinated biphenyl
PRG	preliminary remediation goal
PRS	potential release site

PTSE	Primary Toxicity Study Evaluation
QA	quality assurance
RCRA	Resource Conservation and Recovery Act
RFI	RCRA facility investigation
RRES	Risk Reduction and Environmental Stewardship (Division)
RRES-ECO	Ecology Group
RRES-MAQ	Meteorology and Air Quality Group
RRES-R	Remediation Program
RRES-SWRC	Solid Waste Regulatory Compliance Group
RRES-WQH	Water Quality and Hydrology Group
RSI	request for supplemental information
SAP	sampling and analysis plan
SMO	Sample Management Office
SWMU	solid waste management unit
TA	technical area
TRV	toxicity reference value
VCA	voluntary corrective action
VCM	voluntary corrective measure
VOC	volatile organic compound
WQDB	Water Quality Database

QUARTERLY TECHNICAL REPORT

JULY–SEPTEMBER 2002

LOS ALAMOS NATIONAL LABORATORY

RISK REDUCTUCTION AND ENVIRONMENTAL STEWARDSHIP

REMEDIATION PROGRAM

ALBUQUERQUE OPERATIONS OFFICE

CONTRACTOR: University of California

PROGRAM MANAGER (Acting): David McInroy

NUMBER OF POTENTIAL RELEASE SITES: Approximately 2,000

POTENTIAL WASTE: Radionuclides, High Explosives, Inorganic Chemicals, Organic Chemicals

1.0 INTRODUCTION

This quarterly report describes the technical status of activities in the Los Alamos National Laboratory (the Laboratory) Risk Reduction and Environmental Stewardship Division's Remediation (RRES-R) Program, formerly the Environmental Restoration (ER) Project. The activities are divided according to the current focus area structure and then, when applicable, by the technical area (TA) where the specific activity is located. The Hazardous and Solid Waste Amendments (HSWA) portion of the Laboratory's Hazardous Waste Facility Permit (Module VIII, Section P, Task V, C) requires the submission of a technical progress report on a quarterly basis. This report, submitted to fulfill the permit's requirement, summarizes much of the fieldwork and report-writing performed this quarter in the RRES-R Program.

2.0 FOCUS AREAS

2.1 Canyon Investigations — Focus Area Leader: Allyn Pratt

2.1.1 Ongoing Reach Investigations

2.1.1.1 Los Alamos Canyon and Pueblo Canyon

Data assessment was completed for analytical data from sediment samples collected in Los Alamos Canyon and Pueblo Canyon reaches, completing this work element. This data assessment was conducted as part of the planning for the Los Alamos and Pueblo Canyons surface aggregate report, and these data will be presented in the report.

2.1.1.2 Mortandad Canyon

Initial data assessment was completed for analytical data from 286 sediment samples collected from reaches E-1, M-2, M-3, M-4, M-5, and TS-3 in fiscal year (FY) 2001. These data will be used to help guide future sampling and will be incorporated in the future surface aggregate report for Mortandad Canyon.

2.1.2 Los Alamos Canyon and Pueblo Canyon Surface Water and Alluvial Groundwater Activities

All four rounds of surface water and alluvial groundwater sampling have been completed in accordance with the New Mexico Environment Department (NMED)-approved sampling and analysis plan (SAP). These data are being compiled along with all other relevant surface water and alluvial groundwater data for reporting in the Los Alamos and Pueblo Canyons surface aggregate report currently scheduled for completion at the end of calendar year 2003.

2.1.3 Acid Canyon Interim Action

The interim action (IA) completion report for the South Fork of Acid Canyon sediment removal activities was completed and submitted to the US Department of Energy (DOE) in September. Analytical results from confirmation samples demonstrated that the cleanup goal was met, and that potential radiation doses to recreational users of the canyon have been successfully reduced following "as low as reasonably achievable" guidelines.

2.1.4 Los Alamos and Pueblo Canyon Surface Aggregate Report

This report will present the assessment and evaluation of all Canyons Focus Area investigations conducted to date in the Los Alamos Canyon and Pueblo Canyon watersheds. Other data relevant to a watershed-scale assessment of contamination will also be evaluated. The primary objective of the report will be to assess potential human health- and ecological risk associated with current and estimated future contamination in sediment, surface water, and alluvial groundwater in the watershed.

Technical discussions with NMED concerning sampling and data collection in support of an ecological risk assessment for Los Alamos and Pueblo Canyons were completed, and sampling was conducted in July. The content of the technical discussions is being documented in a record of communication. This work included four components: (1) small mammal trapping in four trapping arrays by personnel from the Laboratory's Ecology Group (RRES-ECO) and associated sediment sampling within these arrays to characterize media that the mammals were exposed to (hantavirus tests have been completed for the small mammals, and submittal of biota samples is pending finalization of an analytical protocol with the off-site laboratory); (2) sampling of floodplain sediment in 12 locations for earthworm bioassay tests, seedling germination tests, and media characterization; (3) sampling of channel sediment in 12 locations for assessing potential effects on aquatic organisms and media characterization; and (4) bluebird nest box surveys by personnel from the Laboratory's Environmental Dynamics and Spatial Analysis Group (EES-10). Results from these biota tests and surveys and from the sediment samples are pending. These results will be presented and assessed in the Los Alamos and Pueblo Canyons surface aggregate report.

2.1.5 Pueblo Canyon Stormwater Sampling

Plutonium is being measured by both the Laboratory and NMED at elevated concentrations in nonfiltered stormwater in Pueblo Canyon. The recent elevation in plutonium transport is associated with the increase in the number and magnitude of floods that have been sustained through the length of the canyon following the Cerro Grande fire. Stormwater samples were collected in the summer of 2002 from eight stations located along the length of Pueblo Canyon to evaluate spatial variations in plutonium concentration and variations associated with a range of flood discharges. The locations were chosen to partition the watershed in a way that will support an evaluation of how variations in plutonium concentrations in sediment and variations in valley-floor and channel geomorphology affect

concentrations of plutonium in floods. The assessment of these data will support an evaluation of potential mitigation options to minimize plutonium transport.

2.2 Material Disposal Areas — Focus Area Leader: John Hopkins

2.2.1 General Information for Material Disposal Areas Focus Area

During the fourth quarter of FY 2002, the Material Disposal Areas (MDAs) Focus Area completed the voluntary corrective measure (VCM) plan for Potential Release Site (PRS) 21-011(k), completed the voluntary corrective action (VCA) completion report for PRS 54-007(a), submitted the MDA H Resource Conservation and Recovery Act (RCRA) facility investigation (RFI) report addendum, conducted a geophysical survey at MDA C, and received preliminary analytical results for the vitrified mass at MDA V at TA-21.

2.2.2 Technical Area Activities

2.2.2.1 TA-21

PRS 21-027(d)-99, NTISV Cold Demonstration VCM. The VCM completion report for PRS 21-027(d)-99, the nontraditional in situ vitrification (NTISV) cold demonstration, was approved by NMED this quarter; however, the no further action (NFA) status proposed in the report was not approved.

PRS 21-018(a)-99, NTISV Hot Demonstration at MDA V. Samples of the vitrified material were submitted to a fixed laboratory on July 1, 2002, for analysis of total metals, total radionuclides, toxicity characteristic leaching procedure metals, and product consistency testing. Results for all of these analyses were received and are currently being assessed. A description of all field activities and analytical results will be documented in an interim measure (IM) completion report.

PRS 21-011(k), VCM Activities. The VCM plan for excavation and on-site solidification of cesium-contaminated soil and sediment at the PRS 21-011(k) outfall was submitted to NMED on July 1, 2002. DOE and the Laboratory subsequently agreed that the excavated contaminated soil, sediment, and tuff should be transported and disposed of at Area G to limit the number of disposal sites at the Laboratory. A revised VCM plan will be submitted to NMED in October 2002. Fieldwork is scheduled to begin in November 2002. Site restoration and demobilization activities will be conducted in the third quarter of FY 2003; the VCM completion report will be prepared and submitted to NMED in FY 2003.

PRS 21-013(d), VCA Activities. Work began on the VCA plan for PRS 21-013(d), a former disposal site. The plan will be submitted to DOE in December 2002. The fieldwork will begin in the second quarter of FY 2003, and the VCA completion report will be submitted to NMED in July 2003.

PRS 21-014 (MDA A) Generals Tanks: A scoping document and site-specific health and safety plan were completed for the Phase I characterization of the General's Tanks. A management self-assessment was conducted to verify readiness to conduct the work. The assessment identified the need to prepare a hazard analysis report for activities at the General's Tanks. Compilation and review of the report will be integrated with the Laboratory's Office of Authorization Basis in the first quarter of FY 2003.

PRS 21-015 (MDA B) and PRS 21-017(a)-99 (MDA U). The subcontractor continued work on the draft RFI reports for MDA B and MDA U and is scheduled to submit the RFI reports to the RRES-R Program for peer review in the first quarter of FY 2003.

PRS 21-016(a)-99 (MDA T) and PRS 21-018(a)-99 (MDA V). The subcontractor continued work on draft RFI reports for MDA T and MDA V and is scheduled to conduct a decision peer review on data usability in the first quarter of FY 2003.

PRS 21-024(f) VCA Activities. Work is continuing on the VCA completion report for PRS 21-024(f), a former septic system. Additional samples will be collected next quarter to address data gaps, and the analytical results will be included in the VCA completion report.

PRS 21-024(i), IA Activities. During the fourth quarter of FY 2002, personnel continued work on the IA completion report for PRS 21-024(i), a former septic system. Additional samples were collected from Area 3, a geologic bench located above Los Alamos Canyon, approximately 30 ft below the outfall from the former septic system. These samples were collected in September to address data gaps identified during the reporting and data assessment process. Results will be available next quarter and will be included in the IA completion report.

PRS 21-029, DP Tank Farm. Site inspections at the two hydrocarbon seep areas in DP Canyon were conducted in July, August, and September 2002. The inspection reports are included as Appendix A of this document.

2.2.2.2 TA-49

PRS 49-001(a)-00, MDA AB, Areas 2, 2A, and 2B. Monthly moisture monitoring continued at this site during the fourth quarter of FY 2002. A review of the data is presented in Appendix B of this report. Erosion-control best management practices (BMPs) were inspected following precipitation events and remain in good condition. A draft supplemental SAP was prepared in the fourth quarter for the surface and subsurface investigation at MDA AB and will be peer-reviewed in the first quarter of FY 2003. Two technical papers were completed this quarter, one on the hydrologic properties of theTA-49 unsaturated zone (Springer and Schofield 2002, 73651) and one regarding the stratigraphy of the tuffs from Borehole 49-2-700-1 (Stimac et al. 2002, 73391).

2.2.2.3 TA-50

MDA C. Pore-gas samples are collected from two boreholes to measure the vertical extent of a potential volatile organic compound (VOC) plume at MDA C. During the third-quarter sampling event, only the borehole accessible by paved roads (Borehole 50-10131) was sampled, because of restrictions on off-road vehicle use during the extreme fire conditions that existed at that time. This reduced data set was originally reported in the third quarterly report; however, some of the sample collection dates were reported incorrectly. Therefore, the corrected third-quarter results are being reported again along with a complete set of fourth-quarter results for FY 2002 in Appendix C of this report.

A second geophysical investigation was conducted at MDA C in September. Results have not yet been received. A SAP addendum proposing additional sampling activities to fill data gaps at MDA C is being drafted.

2.2.2.4 TA-54

MDA H. Peer review comments were incorporated into the MDA H corrective measures study (CMS) report, and a review copy was prepared for the MDA H High-Performance Team. Monthly MDA H CMS progress reports for June, July, and August 2002 were submitted to NMED during the fourth quarter of FY 2002 in accordance with Module VIII of the Laboratory's Hazardous Waste Facility Permit. Plans were

initiated for an independent review of the MDA H CMS report. Comments on the MDA H RFI report addendum were received from NMED in September 2002.

Pore-Gas Monitoring. The quarterly pore-gas monitoring at MDA G and MDA L was completed as required by Module VIII of the Laboratory's Hazardous Waste Facility Permit. The field-screening information and the fixed-laboratory results for the fourth quarter of FY 2002 are presented in Appendix C of this report.

PRS 54-007(a). The VCA completion report for PRS 54-007(a) was completed and submitted to NMED in September 2002. The septic tank was removed in May 2002 as part of the VCA.

2.3 RCRA Corrective Actions — Focus Area Leader (Acting): Don Hickmott

2.3.1 High Explosives Production Sites Team

The High Explosives Production Sites Team continued fieldwork, data analysis, and report-writing activities in support of the CMS at PRS 16-021(c)-99 (the 260 outfall). The team continued the work associated with Well CdV-R-15-3, including the eighth round of quarterly sampling, and continued work on the CdV-R-37-2 deep well, including the fourth round of quarterly sampling. Hydrogeology studies, including stream profiles, were continued. High-performance team activities continued. The IM report for PRS 16-021(c)-99 was completed and submitted to the regulators.

2.3.1.1 TA-16

CMS Hydrogeology and Monitoring. The field team continued to monitor water levels in the Cañon de Valle alluvial wells and in the intermediate-depth wells. The hydrologic system in that canyon remains dry. However, all five of the alluvial wells in Cañon de Valle contained water this quarter; the uppermost well became wet this quarter. The three alluvial wells in Martin Spring Canyon were dry throughout the reporting period. None of the intermediate-depth boreholes contained water throughout the quarter. SWSC Spring and the headwaters of Cañon de Valle were dry; however, a small new spring was found in the headwaters region. The 90s Line Pond became wet briefly, following an August storm event. Quarterly sampling locations were sampled during September.

A controlled-source audio-frequency magnetotellurics study was completed at TA-16; this method should have the capability of imaging water-bearing zones to a depth of 1000 ft. Preliminary results appear promising. These data will support data quality objectives (DQOs) for upcoming intermediate-depth boreholes. DQOs for these boreholes were discussed.

Stable isotope samples were collected during precipitation events. Every-other-day samples were collected and archived for eventual stable isotope analysis. Flow-integrated samples were collected in Burning Ground and Martin Springs. Stream profiles that included analytical laboratory sampling were completed. All fourth-quarter analytical results are pending.

A review of data from all of the water data collected to date from the springs was continued. Time series at all locales that are being sampled during quarterly sampling were reviewed. Outliers and other analyses that may have issues were identified for focused validation. Data indicate there is no obvious decrease in contaminant concentrations in the post-IM samples evaluated to date.

The eighth round of quarterly sampling was completed at deep groundwater well CdV-R-15-3. No chemicals of concern have been observed to date.

The fourth round of quarterly sampling was completed at deep groundwater well CdV-R-37-2. The well completion report was peer reviewed and finalized. It will be completed during FY 2003.

PRS 16-021(c)-99 CMS. Additional data from the stormwater management system at the 260 outfall were received. This barrier unit is designed to remove high explosives and barium from spring waters. Data indicate the barrier unit is removing high explosives effectively but not barium. Field summary reports for composting and phytoremediation were completed. Stabilization and distribution coefficient studies to support modeling of monitored natural attenuation were continued.

Modeling of flow in the regional aquifer, GoldSim modeling of risk associated with groundwater, and groundwater modeling were continued this quarter.

The 260 Outfall and the Ecological Risk High-Performance Teams continued to evaluate ecological sampling in Cañon de Valle. The population dynamics studies indicate minimal impacts to rodents in Cañon de Valle, relative to a reference canyon; however, body-burden data for rodents appear to be of low quality. Resampling for rodents was completed in May; analytical work is pending resolution of analytical issues with the external laboratories. A second round of studies of aqueous invertebrates was started.

PRS 16-021(c)-99 IM. The IM report for PRS 16-021(c)-99 was completed and submitted to the regulators.

Surface Water. BMPs were inspected and maintained.

2.3.2 Firing Sites Team

No activities occurred this reporting period.

2.3.3 Industrial Sites Team

During the fourth quarter of FY 2002, Industrial Sites Team members responded to approximately 136 requests for excavations; environment, safety, and health (ESH)-ID questionnaires; and facility inquiries about new construction projects. In addition, the team worked with facility managers (by attending meetings and providing information) on ongoing projects or planning of construction projects to be located where PRSs are present.

Personnel attended meetings and conducted two site visits to aid in the planning of the by-pass road project at TA-03. The following PRSs are currently in or near the proposed path of the construction project: PRSs 03-009(i), 03-014(c2 and j [part of consolidated PRS 03-014(a)-99]), and 03-015-00.

In other TA-03 activities, personnel provided support to the turbine project at the TA-03 power plant by attending several meetings and providing information about PRSs and contamination at the site of the turbine project and by participating in site visits. The Industrial Sites Team worked with the field team leader to implement the SAP for the site. A 10-day sampling notification was submitted to NMED for the sampling campaign. Samples were collected and submitted through the Sample Management Office (SMO) to capture analytical data in the environmental restoration database (ERDB).

A document was prepared describing the PRSs in TA-55 and former TA-42 for the Chemical and Metallurgy Research Replacement Project in support of the identification of conceptual design products issues. The document provided descriptions of the PRSs, provided maps with the location and approximate size of the PRSs, summarized existing analytical data, presented results of screening

assessments, and provided supporting documentation for the regulatory status of each PRS in the two technical areas.

During this quarter, the Industrial Sites Team reviewed, and provided information for, the draft solid waste management unit (SWMU) report for PRSs in TAs-03, -60, and -61.

2.3.3.1 TA-03

PRS 03-010(a). Readiness review documentation and meetings were completed for a geophysical investigation at PRS 03-010(a), a systematic release from a vacuum pump repair shop. The geophysical survey was started and completed in August 2002. The purpose of the geophysical surveys was to determine whether geophysical methods might define the extent of a localized perched aquifer beneath and west of Building SM-30 in TA-03, and, if so, to map the extent of the aquifer.

The geophysical methods selected for the investigation were high-resolution resistivity, residual potential mapping, and conventional electromagnetics. In addition to using these geophysical methods, utility tracing and land surveying was done to locate stations and underground utilities. Five lines of high-resolution resistivity, six lines of residual potential mapping, and twelve lines of electromagnetics were completed. All three methods produced compatible and complementary results. The preliminary results of the investigation indicate that

- the alluvial fill appears to be limited in lateral extent to the north, west, and south;
- any associated increase in moisture in the fill appears to be vertically limited by a layer of welded Bandelier Tuff underlying the fill; and
- no seepage, weepage, or increase in moisture content is evident in the alluvial-fill slope west of the chain-link fence.

Final results of the investigation will be presented to NMED during the first quarter of FY 2003 and will include discussions of the path forward for this site.

PRS 03-056(c). PRS 03-056(c) is a former polychlorinated biphenyl (PCB) transformer site that was remediated by the ER Project during a VCA that started in FY 2000 and was completed in FY 2001(Environmental Restoration Project 2001, 71259). On the basis of a teleconference on August 14, 2002, a correction to the response to the request for supplemental information (RSI) for the PRS 03-056(c) VCA completion report was submitted to NMED on August 28, 2002. The corrections to the response to the RSI provided mostly editorial corrections and helped avoid receipt of a notice of deficiency on the VCA report. An approval letter for the report was received from NMED on September 20, 2002. In the letter, NMED approved the report but did not concur with the recommendation for NFA for the site.

2.3.3.2 TA-35

Preparations have begun for the execution of the SAP for the Middle Mortandad/Ten Site Aggregate (Environmental Restoration Project 2002, 73092).

2.3.3.3 TA-48

On August 8, 2002, pursuant to New Mexico Water Quality Control Commission (NMWQCC) regulations (20 NMAC 6.2), the DOE and the Laboratory notified the NMED Surface Water Quality Bureau of the discovery of a small amount of soil contaminated with organic chemicals at TA-48. The soil was

unearthed during trenching operations east of Building 48-1 near a shed (structure 48 RC-89). Since the initial discovery, the Laboratory, DOE, and subcontractors have worked to eliminate any potential hazards associated with elevated concentrations of chemicals in the soils. Priority goals included protection of human health, source identification, site characterization, and cleanup. All necessary remediation was completed, and potential health threats were eliminated.

In the initial notification to NMED, the Laboratory reported that this soil contamination was the result of an operational spill, and as such, is subject to the NMWQCC regulations. Lack of residual contamination in the upper 3 ft of fill indicates that the contamination had not been released from a surface source, such as two areas of concern (AOCs) in the vicinity of this site [former AOC 48-002(c) and AOC 48-002(e)]. To confirm that the source of this contamination was the result of an operational release, design drawings for the facility were reviewed and a ground-penetrating radar survey was conducted to identify potential sources. Results of these efforts did not lead to a definitive conclusion that this contamination stemmed from an operational release.

A preliminary risk evaluation was completed, and preliminary remediation goals (PRGs) were established based on the data from samples collected at the site. A summary of the data and proposed PRGs are presented in Table 2.3-1.

Table 2.3-1
Data Summary and Proposed Cleanup Levels for TA-48 Soil Contamination

Analyte	Maximum Sample Concentration (mg/kg)	EPA Region 6 PRG* (mg/kg)	Proposed Cleanup Level (mg/kg)
Naphthalene	360	240	80
1,2,4-Trimethylbenzene	540	210	70
1,3,5-Trimethylbenzene	580	87	29

* Industrial risk-based values for an outdoor worker based on US Environmental Protection Agency (EPA) Region 6 human health medium-specific screening levels (EPA 2001, 71466)

Excavation of contaminated soil began on September 12, 2002, and concluded on September 23, 2002. Confirmation samples were collected on September 23, 2002, after approximately 150 yd^3 of contaminated soil were excavated from the site. The area of excavation is approximately 30 ft x 37 ft and the center of the excavation is 6 ft deep. Results showed that the contamination was found only in a layer of fill approximately 3 ft below ground surface (bgs) and above bedrock (tuff). No contamination was found below depths of 6.5 ft. bgs. A photoionization detector was used to produce a combination of direct readings and head-space sample results to guide the aggressive removal of contaminated material from the site (i.e., to levels that would be well below the proposed PRGs). All soils showing more than 10 ppm photoionization detector units were excavated. An additional 3 ft of soil and fill were removed from the sidewalls and bottom of the excavation to ensure that an adequate buffer beyond the zone of known contamination was removed.

Although DOE and the Laboratory were unable to find conclusive evidence to explain the origin or cause of the contamination and because a source indicating routine and systematic releases was not found and this contamination is not related to an area in which wastes were managed, DOE and the Laboratory proposed this site as a new AOC. The Laboratory will follow the process for including this site in DOE's AOC inventory.

2.3.3.4 TA-53

Sanitary Sewer Discharge to the TA-53 Impoundments. A small discharge of sanitary effluent into the northern impoundments was discovered on July 24, 2002, and the Laboratory reported the discharge to the NMED-Hazardous Waste Bureau (NMED-HWB) in an e-mail on July 30, 2002 (Veenis 2002, 73652). On August 6, 2002, NMED-HWB requested a response to a series of questions regarding the discharge. The Laboratory sent a subsequent response to NMED on August 28, 2002 (LANL 2002, 73570). The discharge, a small puddle below the cutoff point of the recently removed line that distributed the sanitary effluent into the northern impoundments, was caused by a pipe leak. An investigation showed that the leak was from the facility's sanitary system. The line that runs to the northern impoundments from a manhole had been plugged in 1993, but the plug, located at the point where the line exits the manhole, proved to be inadequate and subsequently failed. The 6-in. line was then plugged again on July 30, 2002, using concrete to permanently seal the line at the manhole. Water samples were collected and analyzed for the presence of radiological contaminants (gross alpha, beta, and gamma and tritium), inorganic chemicals, and organic chemicals (semivolatile organic compounds, VOCs, and PCBs). Analytical results indicate no radionuclides in the water samples and only low levels of gamma-emitting radionuclides in the sludge; also, VOCs and inorganic chemical results were below RCRA regulatory levels. Therefore, the sanitary wastewater involved in the spill is not classified as hazardous waste.

PRS 53-002(a)-99, Northern and Southern Surface Impoundments. Readiness review documentation was prepared, and a readiness review meeting was completed for sampling activities at the northern and southern impoundments and surrounding areas. The sampling approach was described in Addendum II to the RFI work plan and SAP for PRSs 53-002(a) and 53-002(b) (Environmental Restoration Project 2002, 73646). The campaigns that were executed to meet different objectives (as are described below) were planned as one field campaign (July through August 2002) with the objective of creating efficiencies and saving time and money.

PRS 53-002(a)-99 Drilling. A series of boreholes was drilled in July and August 2002 for the characterization of a tritium plume below the impoundments. Three 200-ft boreholes and one 300-ft borehole were drilled and samples were collected to determine the extent of tritium below the impoundments at TA-53. Approximately 20 samples were collected from each of the 200-ft boreholes, and 30 samples were collected from the 300-ft borehole. Also, to fill data gaps from previous field campaigns (1994/1995 and 1999/2000), three 50-ft boreholes and two auger holes were drilled. Approximately three samples from each 50-ft

borehole and two samples from each auger hole were collected and submitted for analysis; results are pending.

Sampling in Los Alamos Tributary below TA-53. Data analysis and assessments of Phase I data were completed, and the data needs (or data gaps) for the Phase II sampling were determined. Samples were collected to define the lateral extent of contamination in the tributary to Los Alamos Canyon below the impoundments. Twenty-three samples were collected in August 2002 as part of Phase II in three reaches of the tributary. Sample results are pending.

PRS 53-002(a) IA. Samples were collected from the bottom of the excavation after removal of the sludge and clay liner in the two northern impoundments at TA-53. Ten samples were collected in August 2002 to verify the effectiveness of the IA. Sample results are pending. Also, three samples were collected from the southern impoundment after removal of material with residual contamination in the center of the impoundment. Five samples were collected in the oufall area after removal of contaminated soils.

PRS 53-002(a)-99 Addendum II to the RFI work plan. Industrial Sites Team members completed preparation, review, and approval of Addendum II to the RFI work plan and SAP for PRSs 53-002(a) and 53-002(b) (Environmental Restoration Project 2002, 73646), which proposes sampling at the site, with the objective of filling data gaps and completing the characterization of the site. The document was delivered to NMED on July 24, 2002.

2.3.4 Townsites Team

Land transfer, private property, Los Alamos community development, and other non-DOE property-related issues were addressed this quarter.

2.3.4.1 TA-00

The VCA plan for the DP Road Land Transfer Tract [PRSs 00-004, 00-010(a,b), 00-027, 00-030(a,b,l,m), 00-033 and part of 21-021] is awaiting NMED review. Fieldwork for all PRSs except PRSs 00-029(a–c) is now complete, the subsurface components for the soil vapor extraction system for PRS 00-027 have been installed, and all remediation-derived hazardous waste has been removed from the site(s).

2.3.4.2 TA-02

RRES-R Program staff have been coordinating activities with decontamination and decommissioning staff planning the upcoming removal of the remaining structures at TA-02 (Omega West Reactor) pending adequate funding to accomplish the necessary scope.

2.3.4.3 TA-73

PRSs 73-001(a,b)-99 [73-001(a–d) and 73-004(d)]. DOE has reviewed the 73-1 Airport Landfill VCM plan, and RRES-R Program personnel are preparing the plan for submittal to the NMED. A preliminary conceptual design has been developed and is included in the VCM plan.

Responsibility for the execution and management of the Airport Landfill IM has been shifted from the University of California to the DOE.

2.3.5 MDA P Closure

All waste disposal and other field activity at MDA P have been completed. Phase II confirmation sampling has also been completed.

Work on the final report for the MDA P and 387 Burn Pad closures and the PRS 16-016(c)-99 VCA completion continued this quarter. Phase I and Phase II field reports have been drafted and are in review. Chapter one of the final report is complete and work on Chapter two is under way. The risk assessment is nearing completion.

2.4 Groundwater Investigations — Focus Area Leader (Acting): John McCann

Drilling, sampling, database management, and reporting activities were continued at an expedited pace this quarter. Well construction activities were completed at Well R-14 with well development activities continuing into the first quarter of FY 2003. Four regional wells were installed in the area of TA-54. These installation activities are summarized in Table 2.4-1.

Table 2.4-1
Regional Well Installation Activities for Fourth Quarter FY 2002

Well	Watershed	Date Drilled	Total Depth (ft)	Number of Screens
R-32	Pajarito	Aug 02	1008	3
R-20	Pajarito	Aug 02	1365	3
R-16	Mortandad	Aug 02	1287	4
R-23	Pajarito	Sep 02	930	1

Development for these wells will continue into the first quarter of FY 2003.

Sampling was conducted this quarter at Wells CdV-R-15-3, CdV-R-37-2, MCOBT 4.4, R-7, R-9i, R-12, R-13, R-15, R-19, R-22, and R-25.

Work continued on data management activities, including importing groundwater analytical data to the RRES-WQH Water Quality database (WQDB).

Accomplishments in the reporting area this quarter include the completion of geochemistry reports for Wells R-12 and R-19.

Groundwater hydrochemical data for four regional wells are presented in Appendix D. Analytical results are reported for the following locations: R-7 (two screens; fourth sampling round), CdV-R-15-3 (three screens; fifth and sixth sampling rounds), R-22 (five screens; third and fourth sampling rounds), and R-25 (seven screens; third and fourth sampling rounds). Data reported include field parameters, inorganic, organic, and radiological constituents.

2.5 Information Management — Focus Area Leader: Stephen Bolivar

2.5.1 Team Activities

2.5.1.1 Information Management

The primary focus of Information Management personnel for the last quarter of FY 2002 was to continue with the business process reengineering. The goals for FY 2002 were to complete all SMO applications (sample event initialization, sample shipping and receiving, verification and validation, tracking, and invoicing) and move them all into production mode. Three SMO iterations (each one providing further enhancements) were completed, and all applications were moved into production. All transition data, 141,000 records, data that were neither in the old data system or the new data system, have been transferred into the new system. The next major reengineering effort was to create a prototype of the Spatial Mapping and Reporting Tool Application before the end of the FY, and this was accomplished. The SMO applications move the data into the database; the Spatial Mapping and Reporting Tool applications are used to extract data from the database and produce data for evaluation.

Personnel continue to synchronize database changes with RRES-WQH as part of a data-sharing agreement, ensuring that both organizations maintain identical structures, which facilitates data transfers. Construction well data and corresponding analytical data for five regional wells were transferred this year.

2.5.1.2 Records Management

Records Processing Facility personnel received 21,936 record pages this quarter for processing. There are now 226,901 records for query on the Records Processing Facility database. Personnel performed 1790 retrievals for customers during the quarter. SMO personnel are transferring 10,000 data packages to the RRES-R Records Processing Facility for scanning, microfilming, dual storage, archiving, etc. To date, 172 boxes out of 817 boxes of documents have been scanned electronically, i.e., a total of 58,541 pages.

2.5.1.3 Sample Management Office

Personnel from the SMO now accept field samples, create the necessary paperwork, contact the appropriate laboratories, ship the samples, and ensure the requested information is correct, using the new applications (developed as part of the reengineering effort). The new applications have resulted in a $1.35 million savings in annual operating costs and have reduced a lengthy process that used to take weeks, and in some cases months, down typically to three days. This is documented in a white paper sent to the RRES Division Office. The SMO issued 141 field data groups (number of discrete samples) and had 420 customers this quarter. Personnel handled and shipped 3408 containers. For the year, 12,423 containers were shipped, and invoices from analytical laboratories totaled $1.7 million. These totals are near the five-year average.

2.5.1.4 Computer Support

Computer support personnel received 246 service requests this quarter and closed all but 28 of them. For the year, 974 requests have been received, and 46 remain open. In an effort to increase electronic stability, the server room and electrical connections were upgraded. All desktop computers have been upgraded to the WIN 2000 operating system.

2.5.1.5 Geographic Information System Support

All maps generated from GISLab are now captured in a portable document format (PDF) format. These files are catalogued and made available to RRES-R Program personnel, which reduces production costs. A digital copy is also produced in the Records Processing Facility. All maps also have a source statement, and metadata is available. The effort to clean up themes (information that is plotted onto maps, e.g., roads) is ongoing. As themes are being cleaned up or archived, configuration controls have been put into place to ensure users have the most accurate and latest data and can submit any changes using a formal process that ensures the changes are addressed. This quarter, the Cartographic Laboratory handled 115 new requests, produced 128 new maps, and produced 264 copies of existing maps, for a total map production of 392.

2.6 Analysis and Assessment — Focus Area Leader: Alison Dorries

2.6.1 Team Activities

2.6.1.1 Data Analysis and Assessment Team

Data Quality. The Data Quality Team completed the following activities this quarter:

- Continued data assessment for the draft SWMU report.
- Compiled PRS/subject module information for samples without PRS assignments.
- Provided feedback on the field quality assurance (QA) component of the SMO Application before implementation. Team members tested and provided comments on the current version of the application to improve the Field QA screen and its use.
- Completed the assessment of 140 records for upload to the subject module. The subject relationship records included watershed, watershed aggregate, and technical area.
- Completed DQO training.
- Provided training for new data stewards on standard operating procedures, data quality assessment, and data reporting.
- Worked on legacy data cleanup and issue resolution for TAs, canyons, and MDAs.

Data Stewardship.

Integrated Information Management System Support. The Data Stewardship Team continues to work with the Information Management Team to design and implement the Integrated Information Management System. The system consists in part of software tools intended to ensure consistency and accuracy in data and information management and to allow tracking and traceability of environmental data. In the fourth quarter of FY 2002, the Data Stewardship Team continued to provide technical support for the development and implementation of the software applications described as follows.

- The Sample Tracking Application provides software tools that interface with the ERDB Planning Module to track the sample planning and analysis process, from planning and initiating a sampling event, generating field paperwork, ordering sample analytics, checking-in samples at the SMO, and shipping samples to analytical laboratories, to completing a sampling event. Phase 2 of the Sample Tracking Application, which has the functionality to plan a sample event and generate the field paperwork (sample collection logs and field chain-of-custody forms), is now in

production. Enhancements to the application included field QA tools, such as a system for field information review.

- The Verification and Validation Application was launched in the fourth quarter and is in production. This application provides software tools that interface with the ERDB to provide tracking of the verification and validation processes for analytical chemistry data. Verification is the comparison of the hard-copy data package with the electronic record received in an electronic data deliverable file. Validation is a process in which qualifier flags and accompanying reason codes are applied to the data to indicate the data quality. The application software improvements and changes are under change control.

Data Stewardship and Reporting.

Data Management. The Data Stewardship Team finished loading legacy and Oracle system data and incoming analytical data this quarter into the ERDB. The new Verification and Validation Application is now in place to perform this function. The Data Stewardship Team, working with the Validation Team, processed the analytical data records associated with 597 request/suite combinations in the fourth quarter of FY 2002.

Also in this quarter, data stewards have calculated and loaded 384,262 report qualifiers into the ERDB. Data quality flags were assigned to more than 2.6 million ERDB records. A total of 75,734 subject relationships were created for the Subject Relationship Module of the ERDB (i.e., samples were linked with the appropriate PRS or watershed).

Data Set Preparation. The Data Stewardship Team prepared 27 electronic datasets for RRES-R Program users. Data stewards set up 89 sampling events in the ERDB and created the necessary field paperwork for 3167 samples.

Additional sample event planning and data reporting activities included the following:

- Reviewed and commented on the report specifications for the SMO Application reports. Team members provided additional specifications for required event-specific and Analysis and Assessment Focus Area management reports to expand the usability of the application.
- Provided an additional training session on RRES-R Desk Instruction 4.11, "Completing the SMO Analytical Order and Field Paperwork Request," for field team leaders and sampling personnel.
- Continued with RRES-R Program Web page design to allow stakeholder access to analytical results, thus allowing real-time data viewing.

Data Stewardship for Groundwater Data. The data stewards for the Groundwater Investigation Focus Area performed the following activities during the first half of the fourth quarter:

- performed the final review of data for the RRES-R third-quarter technical report (Wells R-5, R-7, CdV-R-15-3, and R-31 [36 tables]);
- finished compiling and formatting Well R-25 third-quarter sampling data (21 tables);
- compiled and formatted all Well R-22 water quality data for the geochemistry report for that well (84 tables) and prepared a list of additional sample IDs and checked chemistry status for the RRES-R fourth-quarter technical report; and

- requested and performed focused evaluation of organic chemicals, nitrogen-15 isotope, and thermal ionization mass spectrometry data for Well R-22 and participated in the evaluation and comparison of RRES-R and RRES-WQH sample collection and database structure.

In the second half of the fourth quarter, data tables were prepared for the RRES-R fourth-quarter technical report for Wells R-7 (6 tables), R-25 (21 tables), and CdV-R-15-3 (42 tables). Including previously reviewed and formatted data, a total of 97 water quality tables were reported in the fourth-quarter technical report.

Staff assisted with numerous other groundwater activities this quarter. Those tasks included assisting with laboratory data issues; developing standard operating procedures and DQOs for RRES-WQH; and presenting a poster session at the American Geophysical Union Chapman Conference on Arid Landscapes, in Taos, New Mexico.

Staff continued to make progress in borehole geophysics activities. Geophysical log information was moved to the ERDB, and new geophysical data collected during the fourth quarter were downloaded. Several borehole records have been added to the WELL_HDR table, including the addition of critical associated records to construction tables. This facilitates records with geophysical log headers to be linked to the LOG_HDR table so data tables can be migrated to the WQDB. A construction table and geophysical log headers data were prepared for CdV-R-15-3 and released to the database.

Work on additional boreholes is progressing with basic construction records and geophysical log header records for Well R-31 being entered and transferred to the ERDB. Initial work on log header records for Wells R-14 and R-19 has been completed. The ERDB/WQDB coordination activity is progressing, and the transfer of more information is planned in the next quarter.

Data Validation. The Chemistry Validation Team validated 268 requests consisting of 646 suite combinations during the fourth quarter. Validation team personnel remain current with incoming data packages. The validation process consists of performing validation of external laboratory data packages based on EPA's National Functional Guidelines. The Data Authentication Team assisted the Data Stewardship Team with the authentication/verification (the comparison of electronic with hard-copy records) of 522 suite combinations in the fourth quarter.

2.6.2.3 Risk Assessment and Review Team

Human Health Risk. Work continued on the draft document on guidance for developing human health PRGs for nonradiological chemicals of potential concern. The document was peer reviewed and comments were received.

The team completed peer reviews of a VCA report on PRS 54-007(a), the CMS report for MDA H, the addendum to the RFI report for MDA H, a VCA completion report for two PRSs at TA-21, and the South Fork Acid Canyon IA report. Staff also reviewed a VCA report and abbreviated RFI reports for several PRSs in support of proposals for NFA and for requests for permit modification for historical sites.

Support was provided for the NMED's RSI on the RFI report for PRS 00-030(g). Team members will provide an update to the human health risk assessment to address NMED comments.

Staff provided cleanup levels for non-ER sites to assist in decommissioning and decontamination and remediation of contaminated areas.

The Interagency Flood Risk Assessment Team finalized a press release updating the potential effects of floods following the Cerro Grande fire. The team used 2001 data to update its assessment of potential risks from exposure to sediments and water coming from the area around the Laboratory that burned during the Cerro Grande fire. The most recent assessment continues to show that common activities that result in direct skin contact with ash-containing sediments or water, such as swimming, pose no substantial increased health risk beyond that posed by the same activities before the Cerro Grande fire. A joint press release (from the Laboratory and NMED) on this subject is planned.

Ecological Risk. Four abstracts (three posters and one platform) were accepted for the Society of Environmental Toxicology and Chemistry for the 2002 meeting in Salt Lake City, Utah. The proposed posters feature the ECORISK database, calculation of ecological PRGs, and the bluebird nest box network. The platform session is a description of the process for selecting assessment endpoints and measures of effect for the Los Alamos and Pueblo Canyons surface aggregate ecological risk assessment.

Other ecological risk activities included the following:

- Provided support for the Los Alamos and Pueblo Canyons surface aggregate report this quarter. The first round of the small mammal trapping has been completed, and biota and sediment samples were collected for analytical laboratory analyses.
- Presented the aquatic study design for the ecological risk assessment in Los Alamos and Pueblo Canyons to NMED. Both parties agreed on the design. Samples of water and sediment were collected and sent to an external laboratory to conduct *Chironomus tentans* toxicity tests.
- Completed ecological scoping checklists and screening ecological risk assessments for several proposals for NFA and requests for permit modifications for historical sites.
- Addressed the NMED's RSI on the RFI report for PRS 00-030(g), and will provide an update to the ecological risk assessment to address NMED comments.
- Visited MDA P with the closure report team to clarify the strategy for assessing ecological risk at this site. A subsequent telephone conversation (September 4, 2002) with the NMED risk assessor resulted in a tentative agreement on the assessment approach. Both parties agreed that it was appropriate to proceed and that NMED would consult with EPA Region 6 to see if assumptions are acceptable. A subsequent e-mail from NMED (dated September 24, 2002) confirmed that EPA Region 6 was also in agreement with the proposed approach.
- Developed an approach for calculating ecological PRGs for remedial activities. A draft document describing the process was completed in September.
- Presented an overview of the ecological risk assessment process at the RRES-R Program's public meeting in September.

Ecological Risk Database. Staff completed the final quality check of the FY 2002 Primary Toxicity Study Evaluation (PTSE) Part 1, 2, and 3 records, including the revision of records for the critical life stage issues. Staff also completed the quality check of Part 3 records, graphs, and values to determine whether the toxicity reference values (TRVs) change as a result of changes to Part 1 and 2 records and application of uncertainty factors based on the revised definition for critical life stage designation. Information continued to be gathered on plant and bird ages/life stages to fill data gaps in coding test organism age in primary toxicity data records. Staff also reviewed select Oak Ridge National Laboratory documents for uses/applications of critical life stage to prepare the working definition for critical life stage and guidelines for use in uncertainty factor application.

Staff began to update team resources to include more recent and relevant toxicological literature for cobalt in mammals and birds. This activity included contacting the EPA Ecological Soil Screening Level Team for literature references for cobalt in bird and mammal TRVs and ecological soil screening levels. A search was also conducted for cobalt in birds and mammals in the ECOTOX database, and the ECOTOX reference section was reviewed. Staff began retrieving polycyclic aromatic hydrocarbon (PAH) references in order to develop a PTSE TRV for PAHs and birds. New toxicological literature was entered into the reference tracking system.

Staff derived new TRVs (37 chemicals; the 12 for PAHs are draft only) and drafted a working definition of critical life stage in the PTSE Process and its application in uncertainty factors for deriving a TRV. The PTSE methods document was updated. Staff calculated FY 2003 default ecological screening levels and prepared ECORISK Database Revision 1.5; a summary report of changes in data since Revision 1.4 that directly affected ecological screening levels was also prepared.

Native American Risk. Personnel gave a presentation to San Ildefonso Pueblo environmental staff in September on the chemistry and toxicity of contaminants. A subsequent training session on risk characterization and calculations is tentatively scheduled for the first quarter of FY 2003.

Peer Review Team. Team members coordinated and participated in peer reviews for RRES-R Program documents this quarter, as needed.

2.6.2.4 Strategic Decision Analysis Team

The site and watershed aggregation and prioritization report (Environmental Restoration Project 2002, 73190) was finalized and published. This report documents how the ER Project grouped sites into aggregates as a more efficient approach to characterizing the type(s), amount(s) and distribution(s) of contamination, then prioritized the aggregates to complete the corrective action process.

The Strategic Decision Analysis Team spent the fourth quarter of FY 2002 conducting a baseline sitewide groundwater pathway risk assessment, which will form the basis of the risk-based corrective action decision strategy for groundwater in a manner based on the EPA Region 6 corrective action strategy. The results of the risk assessment will provide a basis for the Laboratory's input into EPA's environmental indicator initiative, insofar as the Region 6 strategy was developed in response to that initiative. The baseline groundwater pathway risk assessment and associated risk-based decision process will be the demonstration pilot for an all-media environmental risk management system for the RRES Division environmental protection programs. This effort will direct resources to ensure risk reduction across all media in a prioritized way and will be fully consistent with guidance explained by DOE's Office of Environmental Policy and Assistance and the EPA's Federal Facilities Enforcement Office in *Environmental Management Systems Primer for Federal Facilities* (DOE and EPA 1997, 73653).

2.7 Regulatory Compliance — Focus Area Leader (Acting): Paul Schumann

2.7.1 General Information for Regulatory Compliance Focus Area

One monthly meeting was held with NMED on July 17, 2002. A few informal discussions were held with NMED regarding special topics such as permit modification and ongoing RFIs, IMs, VCAs/VCMs, RFI reports, CMS reports, and responses to RSIs; however, communications were minimal because both staffs' efforts were diverted to working on the May 2, 2002, Draft Section 13 Order.

Team members performed the following miscellaneous tasks this quarter:

- participated as members of high-performance teams for the TA-54 MDA H CMS, airport landfill remedial actions, and the 260 outfall;
- conducted inspections of RRES-R Program field operations and waste management activities;
- continued reviewing and revising information in the PRS database and draft SWMU report; and
- assisted in the preparation of responses and review of responses to the NMED request for clarification of SWMU and AOC information and the request for information regarding accelerator-produced radioactive material.

2.7.2 Team Activities

2.7.2.1 Communications and Outreach Team

Outreach Activities. Work continued with the MDA H Focus Group. A letter is being prepared to update focus group members on the status of the MDA H CMS report and the RFI report addendum for MDA H. The MDA H High-Performance Team is planning to provide the addendum to focus group members, the focus group's technical consultant/independent reviewer, and NMED personnel in October 2002. The MDA H CMS report will be provided to NMED and subsequently to the focus group for review in early 2003.

The public notice for the MDA P Class I closure plan modification was sent to persons listed on the NMED mailing list and the Laboratory's facility mailing list, a total of more than 1700. As a result of this effort, the Laboratory received requests from four individuals for copies of the MDA P closure plan modification.

Staff prepared for and conducted the September RRES-R Program's quarterly public meeting. Topics for the meeting were the cleanup of the TA-53 surface impoundments, the NTISV hot demonstration update, and a presentation on ecological risk assessment.

The Laboratory conducted several tours this quarter, including tours of Laboratory sites or town sites for personnel from DOE-Headquarters (DOE-HQ), NMED, and the Northern New Mexico Citizens Advisory Board (CAB).

Work continued with the CAB. The following documents were delivered to the CAB, per their request: VCM plan for PRS 21-011(k), the EPA RCRA Orientation Manuals, and the MDA P closure plan. Staff attended various meetings sponsored by the CAB, such as their quarterly public meeting held on July 31, 2002; their various subcommittee meetings; etc.

Mesa Public Library staff requested the removal of some of the older ER Project documents so space for newer documents is available. Staff removed the documents and delivered new documents, such as the 1998 land transfer environmental restoration report.

The following document preparation activities took place this quarter:

- Published articles regarding the NTISV hot demonstration, PRSs 21-030 and C-21-015, and the TA-54 wells. Newsbulletin articles on these topics were published this quarter.
- Prepared approximately 30 photographs for use in the current Environmental Surveillance Report, a document coordinated by RRES-ECO.

- Finalized the access agreement with the Los Alamos County, which was approved through FY 2017.
- Finalized information sheets for ecological risk assessment and for TA-21 MDAs.
- Provided approximately 40 digital photos of the last two years' environmental restoration activities to DOE-HQ for a Web-based digital photo archive.
- Assisted with the environmental restoration photograph database for the draft SWMU report.

Reading Room/Virtual Library. Work on the Virtual Library scanning project continues. Laboratory staff met with personnel from Laguna Industries to discuss the status of the scanning project. As of July 12, 2002, 182 documents were copied, scanned, and converted to PDF files. RRES-R personnel continue to prepare boxes of documents for scanning.

Staff continued to place documents in the Virtual Library and to respond to requests from the public and NMED for copies of various documents; staff responded to 30 requests this quarter. Documents included organizational charts, maps, letters, reports, information on Hillsides 137 and 138, and the Mortandad Canyon work plan. Work also continues with the Laboratory's Freedom of Information Act Officer on requests for environmental restoration documents. Staff delivered documents to the Laboratory's Public Reading Room as needed.

2.7.2.2 Regulatory Tracking Team

PRS and Future Deliverables Tracking. Work resumed in August on PRS and deliverables tracking. Private ownership data were made visible on the Web site. Team members coordinated the review of the NMED-issued work schedule with RRES-R team leaders.

SWMU Report. Work on the draft SWMU report resumed in August. All draft unit descriptions were completed by September 15, 2002.

2.7.2.3 Regulatory Compliance and Facility Integration Team

Team members continued to provide assistance with regulatory compliance issues for activities within the RRES-R Program this quarter. Staff provided regulatory reviews of documents prepared by RRES-R and participated in peer reviews. Deployed personnel from RRES-WQH and the Laboratory's Solid Waste Regulatory Compliance Group (RRES-SWRC) participated in the reviews as subject matter experts regarding water issues and hazardous and solid waste issues, respectively. These efforts included preparing and reviewing comments on NMED's determination of incompleteness on the TA-54 closure/post-closure care plans; the September 2002 installation work plan revision, a permit modification request, three proposals for NFA, sections of the draft SWMU report, various RFI and VCA reports, a well completion report, and a well geochemistry report.

Staff also prepared RRES-R responses to notices of deficiency on permit applications and closure plans and provided regulatory compliance support to the MDA P Team, in preparation for the submittal of the final closure certification report.

Clean Water Compliance. BMP inspection and maintenance activities continued this quarter. Quarterly BMP inspections were completed at TAs-00, -01, -02, -03, -04, -05, -09, -11,-14, -15, -16, -18, -21, -22, -33, -35, -40, -42, -46, -48, -49, -50, -53, and -73. BMP maintenance was completed at TAs-01, -09, -14, -15, -16, -21, -22, -46, -48, and -50. The annual site compliance evaluations were also completed at these sites. The BMP Team completed restoration activities at PRS 21-024(i) and MDA C during September.

A team representative worked as a member of the Surface Water Assessment Team to determine data quality objectives for permit-related stormwater monitoring for SWMUs at the Laboratory. The team is attempting to reach consensus with NMED, DOE, and the Laboratory on an appropriate approach for monitoring runoff from SWMUs under the Laboratory's Multi-Sector General Permit.

Participation continued this quarter in the TA-46 BMP Effectiveness Study being conducted by the Surface Water Assessment Team and DOE Oversight Bureau. Additional sediment and stormwater sampling was conducted this summer to finalize data collection. A report on the findings of this study is scheduled for early 2003

In other clean water compliance activities, staff completed Standard Operating Procedure 2.01 surface water site assessments at TAs-00, -09, -16, -33, -36, and -46. Staff also prepared cost estimates for several engineered options to repair erosion damage at Hillside 137, located behind the Los Alamos Inn in former TA-01.

A team representative participated in the following meetings this quarter:

- Attended Watershed Integration Team meetings where issues including development of a conceptual model for the Watershed Management Plan were discussed. Different risk scenarios and environmental indicators will be considered as well as long-term stewardship concerns.
- Attended the NMWQCC meeting in Santa Fe regarding the Clean Water Act Section 303(d) listing of Laboratory tributaries of the Rio Grande.
- Met with personnel from the Facilities and Waste Operations Division's Waste Facility Management Group (FWO-WFM) to discuss surface water-related issues at TA-50 and TA-54, and with personnel from the Laboratory's Nuclear Material Management and Accountability Group (NMT-4) to discuss surface water-related issues at TA-55. Stormwater Pollution Prevention Plan updates and BMP installation and inspections were also discussed at the meetings.
- Participated in Wetlands Working Group meetings to discuss issues related to the Sandia Canyon wetlands.
- Attended a New Mexico Water Law Conference in Santa Fe, New Mexico. Issues discussed included New Mexico State Water Quality Standards and the Laboratory's Groundwater Protection Program.

Waste Management/Waste Minimization Activities. RRES-R Program staff and subcontractors assisted TA-48 Facility Management Unit-66 staff with the management of a release near Building 48-1 see Section 2.3.3.3 of this report. All contaminated soil was collected in twelve 20-yd^3 roll-off bins for proper transportation and disposal.

Team members conducted a readiness review for MDA A, the General's Tanks. DOE and Laboratory staffs conducted a site walkthrough with experts from the Laboratory's Health, Safety, and Radiation Protection (HSR) and RRES Divisions. The project involves the characterization of sludge with actinides in two tanks buried 6 ft bgs.

Team members also provided support for the following waste management/waste minimization activities this quarter:

- provided waste management support to the environmental restoration drilling project for Well R-16 and coordinated the shipment of site-preparation waste to the Los Alamos County Landfill;

- completed a waste profile form and waste characterization strategy form addendum for PRS 21-011(k);
- reviewed waste characterization strategy forms for PRS 03-010(a) and the DP Canyon shallow alluvial wells and tracer study and reviewed waste characterization form addenda for PRS 21-011(k), TA-00 (DP Road land transfer VCA), and regional wells.
- prepared a chemical waste disposal request form and coordinated the shipment of low-level radioactive waste (cuttings) from MDA H;
- coordinated the shipment of all waste from PRS 54-007(a) to TA-54, Area G;
- performed waste management inspections of all deep well drilling sites; and
- provided waste minimization narratives and environmental restoration waste generation volume figures for the Environmental Stewardship Office at the Laboratory.

Land Transfer Activities. Team members participated in the preparation of Comprehensive Environmental Response, Compensation, and Liability Act-related documents for the transfer of the White Rock "Y"-3 subparcel of Laboratory property from DOE to the New Mexico Highway Department.

Team members gave a presentation on the history of land transfer to the Laboratory's Outreach Coordination Council.

Staff continue to participate as members of the Laboratory's Land Transfer Team and the DOE's Land Transfer Project Office Team. These teams are responsible for the activities leading up to the final transfer of Laboratory property.

Long-Term Stewardship. Team members continued participation in the DOE-Albuquerque Operations Office's Long-Term Stewardship Working Group.

2.7.2.4 Special Projects and Deployed Generalist Team

During FY 2002, 58 PRSs were under consideration to support performance measures for work-off and permit modification. Twenty-seven were candidates for a future Class III permit modification request; 26 were candidates for inclusion in a proposal for a Class III permit modification; and 5 were candidates for NFA from DOE.

Of the 27 candidates for submittal in a Class III permit modification request, 3 were eliminated from eligibility, 7 were submitted, 2 were approved for supplemental information, and 15 are still pending NMED approval.

Of the 26 candidates under consideration for proposal to NMED for NFA in a future Class III permit modification, 15 were eliminated from eligibility; 3 were submitted to NMED (the report or supplemental information includes the proposal for NFA); 5 were submitted in a proposal for a Class III permit modification dated September 25, 2002; 1 was submitted as a VCA report rather than being included in the proposal; and 1 was not completed.

Of the five candidates for NFA to be submitted to DOE, four were submitted and one was not completed.

In document review activities, team members continued to provide peer review input as needed, and the authorized derivative classifier from the team continues to provide classification reviews of RRES-R Program documents as needed. This quarter the authorized derivative classifier reviewed 43 documents.

Support to Focus Areas. Personnel from the Special Projects and Deployed Generalist Team are deployed to the operational focus areas to provide support regarding regulatory issues. In addition to providing general regulatory compliance assistance this quarter, such as reviewing documents, attending operational focus area meetings, and participating in peer reviews for operational focus area documents, the deployed members of the team assisted with the following tasks in the operational focus areas.

Canyons Investigations Activities. Staff reviewed 22 excavation permit requests for the Canyons Focus Area this quarter.

Groundwater Investigations Activities. Sampling notifications were completed for drilling wells R-20, R-23, and R-32. Sampling notifications were completed for quarterly sampling at wells R-13, MCOBT 4.4, CdV-R-37-2, and CdV-R-15-3. Staff provided regulatory support for waste management and notices of intent to discharge for wells R-14, R-16, R-20, R-23, and R-32.

MDA Activities. Staff continued to provide support for the draft IM report for PRS 21-018(a)-99, the NTISV hot demonstration at MDA V and kept NMED apprised of the status of confirmation sample results.

The deployed generalist provided support on issues regarding the VCM plan for PRS 21-011(k), an outfall. A withdrawal letter was prepared for the VCM plan after DOE-Office of Los Alamos Site Operations (DOE-OLASO) and RRES-R Program staff revisited the decision to stabilize contaminated material in place. RRES-R and DOE personnel determined that the actual volume of contaminated soil requiring remediation and the disposal costs were much less than initially estimated and that the cost of excavation and disposal of the contaminated material is similar to the cost for onsite stabilization. To underscore DOE's goal of minimizing the number of RRES-R Program sites that will require long-term stewardship, RRES-R has determined that excavation of the radioactively contaminated material and disposal at Area G at TA-54 is more in keeping with current cost efficiencies and long-term property management strategies. A revised VCM plan for PRS 21-011(k) will be submitted to NMED in October 2002.

The deployed generalist met with TA-50 and Cerro Grande Rehabilitation Project staff regarding the final design plans for the construction of a new pump house and influent tank vault at TA-50, which will overlap the locations of PRSs 50-011(a), 50-004(a)-00, and 50-006(a)-00. The RRES-R Program will collect confirmation samples from the bottom of the building excavation in February 2003 to complete the characterization of PRS 50-011(a) and to gather supplemental characterization data for PRSs 50-004(a)-00 and 50-006(a)-00. The generalist provided TA-50 and Cerro Grande Rehabilitation Project staff with analytical results for RFI surface samples collected in and around the proposed construction site. Confirmation sampling strategies will be coordinated with NMED. The generalist reviewed the excavation permit request for the proposed construction of the new pump house and influent tank vault at TA-50.

Staff assisted with numerous other MDA projects this quarter, including the following.

- Completed final comment resolution for the VCM completion report proposing NFA for PRS 21-027(d)-99, the NTISV cold demonstration, which was submitted to NMED in August 2002.
- Prepared 10-day sampling notification letters for pre-VCM sampling at PRS 21-011(k) and supplemental RFI sampling at PRS 21-024(i).
- Reviewed and assisted with comment resolution on the approach and content of the VCA completion report for PRSs C-21-015 and 21-030, which was submitted to DOE on September 30, 2002.

- Notified NMED that confirmation samples indicated that extent was not defined for PRS 21-024(f), a former septic system. Additional samples to determine extent will be collected during the first quarter of FY 2003, and the VCA completion report for PRS 21-024(f) will be submitted to NMED in mid- to late FY 2003 in anticipation of the pending land transfer of the parcel.
- Finalized the record of communication with NMED staff documenting the June 25, 2002, meeting on the status and path forward for the completion of the IA at PRS 21-024(i), a former septic system. The deployed generalist reviewed and revised the supplemental SAP for the collection of RFI samples from Area 3 of PRS 21-024(i) to complete the determination of nature and extent at the site and notified NMED of the proposed sampling. The IA completion report is scheduled for submittal to NMED on March 30, 2003.
- Reviewed and revised the draft SWMU reports for TA-21 and TA-49.
- Reviewed the final response to the notice of deficiency for the TA-54 permit application.
- Provided guidance on the approach for the remediation of PRSs 21-011(g and h) to be implemented concurrently with the VCM for PRS 21-011(k) and discussed the proposed approach with NMED staff.
- Provided guidance regarding scope and approach for the supplemental SAP prepared for the surface and subsurface investigations at MDA AB and discussed the proposed investigation approach with NMED staff. The supplemental (Phase II RFI) SAP will be peer-reviewed in the first quarter of FY 2003.
- Provided comments on the RFI report for PRS 49-008(b) proposing NFA for the site.
- Reviewed and commented on monthly MDA H CMS progress reports for June, July, and August 2002 submitted to NMED during the fourth quarter and continued to review and provide comments on the MDA H CMS report. The draft MDA H CMS report will be submitted to the MDA H High-Performance Team in October 2002.
- Met with the NMED high-performance team staff to complete final comment resolution on the MDA H RFI report addendum. The addendum will be submitted to NMED in October 2002.
- Reviewed and completed comment resolution on the VCA completion report for PRS 54-007(a), which was submitted to NMED on September 30, 2002.
- Provided guidance regarding the approach to complete the RFI of MDA L.
- Participated in ER Subcommittee of the Northern New Mexico CAB on a site visit of DP Tank Farm, PRS 21-011(k), and other TA-21 sites in August 2002 and attended the September 2002 CAB meeting.

RCRA Corrective Actions Activities. Deployed generalists prepared an RFI report recommending NFA for PRS 03-047(d) and completed sampling notifications for sampling activities at PRSs 16-021(c)-99, 03-013(b), 03-045(b,c), 53-002(a,b), 21-014, and 53-002(a).

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Appendix A

DP Canyon Monthly Inspection Reports
Fourth Quarter, Fiscal Year 2002

DP Canyon Inspection Report
July 31, 2002

Introduction: Regular inspections are conducted to assess the status of two petroleum hydrocarbon seeps in DP Canyon. These seeps, which are downgradient from Potential Release Site 21-029 (DP Tank Farm), are referred to as the upstream and downstream seeps (Figure 1). Inspections are generally conducted on a monthly basis. However, during wetter months, these inspections are conducted on a semimonthly basis. The results of these inspections will help document any changes in the petroleum hydrocarbon seep areas in relation to seasonal changes and recent precipitation.

Date: July 31, 2002

Time: 2:15 p.m.

Personnel: Becky Coel-Roback and Mark Thacker

Weather: 30 °C, cloudy, breezy

Precipitation: 0.77 inch, approximate total since the last inspection (source: Los Alamos National Laboratory Weather Machine).

Presence of standing or running water: At the time of the inspection, there was no flow from the culverts draining the town site. There was some flow entering the drainage at the downstream seep location. A little standing water was present at both locations.

Location and intensity of odors, staining, or sheen (see Figure 1 for locations):

	Air	Water	Soil/Sediment
Upstream Location	No petroleum hydrocarbon odor in air	No petroleum sheen on water	Sheen and faint odor in disturbed sediments
Downstream Location	No petroleum hydrocarbon odor in air	No petroleum sheen on water	Faint odor in disturbed sediments

Photographs: The following photographs were taken during the site visit (see Figure 1 for locations).

Location 1, canyon head. Culverts at the head of DP Canyon, showing no active water flow

Location 2, upstream location. Small pool with standing water

Location 3, upstream location. During the July 31 inspection, no petroleum hydrocarbon sheen was noted on standing water. A faint petroleum hydrocarbon odor was noted in disturbed sediments.

Location 4, upstream location. Stream channel, looking downstream from sample location 21-11136

Location 5, downstream location. There was some standing water in this pool during the July 31 inspection.

Location 6, downstream location. Petroleum hydrocarbons were evident in disturbed sediments at this location during the July 31 inspection. No petroleum hydrocarbon odor was noted in air.

Location 7, downstream location. Stream channel, looking downstream from sample location 21-11176

DP Canyon Inspection Report
August 29, 2002

Introduction: Regular inspections are conducted to assess the status of two petroleum hydrocarbon seeps in DP Canyon. These seeps, which are downgradient from Potential Release Site 21-029 (DP Tank Farm), are referred to as the upstream and downstream seeps (Figure 1). Inspections are generally conducted on a monthly basis. However, during wetter months, these inspections are conducted on a semimonthly basis. The results of these inspections will help document any changes in the petroleum hydrocarbon seep areas in relation to seasonal changes and recent precipitation.

Date: August 29, 2002

Time: 12:15 p.m.

Personnel: Becky Coel-Roback and Mark Thacker

Weather: 23 °C, breezy, partly cloudy, humid

Precipitation: 0.6 inch, approximate minimum since last inspection (NOTE: some data were lost for this reporting period—source: Los Alamos National Laboratory Weather Machine).

Presence of standing or running water: At the time of the inspection, there was some flow from the culverts due to a recent rain shower. There was standing water present at both the upstream and downstream locations.

Location and intensity of odors, staining, or sheen (see Figure 1 for locations):

	Air	Water	Soil/Sediment
Upstream Location	No petroleum hydrocarbon odor in air	No sheen or odor on standing water	No petroleum hydrocarbon odor or sheen in disturbed sediments
Downstream Location	No petroleum hydrocarbon odor in air	Small area of sheen on standing water	Faint petroleum hydrocarbon odor in disturbed sediments

Photographs: The following photographs were taken during the site visit (see Figure 1 for locations).

Location 1, canyon head. Some flow from culverts at the head of DP Canyon, from recent rainfall

Location 2, upstream location. Small pool with standing water

Location 3, upstream location. During the August 29 inspection, no evidence of petroleum hydrocarbons was noted in air, water, or disturbed sediments.

Location 4, upstream location. Stream channel, looking downstream from sample location 21-11136

Location 5, downstream location. There was some standing water in the downstream location during the August 29 inspection.

Location 6, downstream location. Slight petroleum hydrocarbon odor was detected in disturbed sediments during the August 29 inspection. There was a small area of sheen on the water.

Location 7, downstream location. Stream channel, looking downstream from sample location 21-11176

DP Canyon Inspection Report
September 25, 2002

Introduction: Regular inspections are conducted to assess the status of two petroleum hydrocarbon seeps in DP Canyon. These seeps, which are downgradient from Potential Release Site 21-029 (DP Tank Farm), are referred to as the upstream and downstream seeps (Figure 1). Inspections are generally conducted on a monthly basis. However, during wetter months, these inspections are conducted on a semimonthly basis. The results of these inspections will help document any changes in the petroleum hydrocarbon seep areas in relation to seasonal changes and recent precipitation.

Date: September 25, 2002

Time: 2:30 p.m.

Personnel: Becky Coel-Roback and Mark Thacker

Weather: 22 °C, cloudy, rainy, cool

Precipitation: 1.44 inches, approximate total since last inspection (source: Los Alamos National Laboratory Weather Machine).

Presence of standing or running water: At the time of the inspection, there was a small amount of flow from the culverts and evidence of recent high flows. There was also flow from the north side of the drainage at the downstream location.

Location and intensity of odors, staining, or sheen (see Figure 1 for locations):

	Air	Water	Soil/Sediment
Upstream Location	No petroleum hydrocarbon odor in air	No petroleum hydrocarbon odors or sheen; sheen on water appears to be from decaying organics	No petroleum hydrocarbon odor in disturbed sediments
Downstream Location	No petroleum hydrocarbon odor in air	No petroleum hydrocarbon sheen on standing water	Petroleum hydrocarbon odor in disturbed sediments

Photographs: The following photographs were taken during the site visit (see Figure 1 for locations).

Location 1, canyon head. Culverts at the head of DP Canyon showing some water flow

Location 2, upstream location. Standing water at the upstream seep location during the September 25 inspection

Location 3, upstream location. During the September 25 inspection, there is no evidence of petroleum hydrocarbons at the upstream location.

Location 4, upstream location. Stream channel, looking downstream from sample location 21-11136

Location 5, downstream location. Standing water was present in the downstream location during the September 25 inspection.

Location 6, downstream location. There were petroleum hydrocarbon odors in disturbed sediments in the downstream location during the September 25 inspection.

Location 7, downstream location. Stream channel, looking downstream from sample location 21-11176

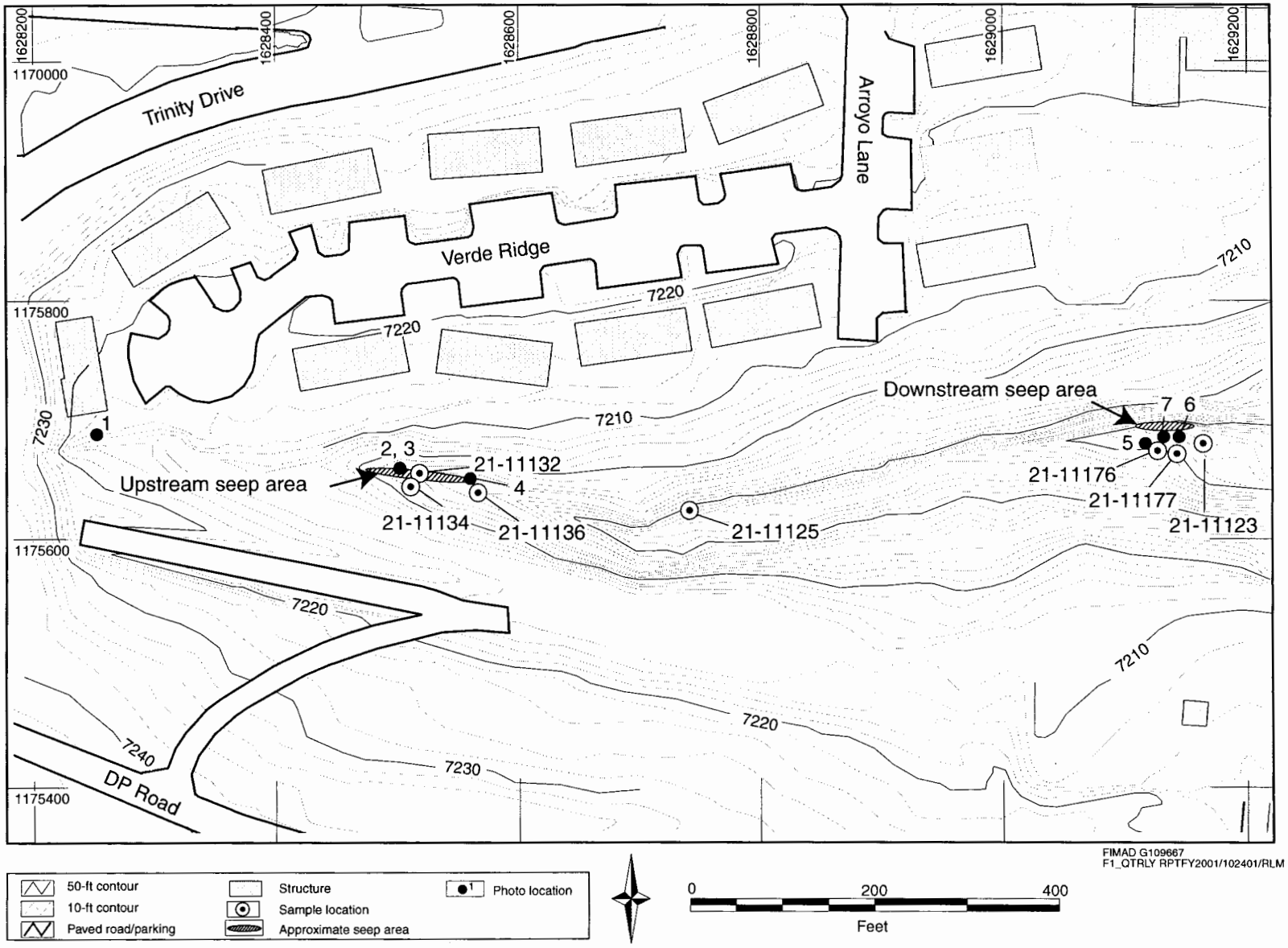

Figure 1. DP Tank Farm photo locations, seep areas, and sampling locations

Appendix B

Quarterly Moisture-Monitoring Report
Fourth Quarter, Fiscal Year 2002
Technical Area 49, Material Disposal Area AB

QUARTERLY MOISTURE-MONITORING REPORT
FOURTH QUARTER, FISCAL YEAR 2002
TECHNICAL AREA 49
MATERIAL DISPOSAL AREA AB

MDA Focus Area

Environmental Restoration Project

Los Alamos National Laboratory

NOVEMBER 2002

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1.0 INTRODUCTION

The TA-49 moisture-monitoring system began collecting data in March of 2000 to assess the performance of the MDA AB Area 2 cover with respect to maintaining and/or reducing subsurface moisture content. The Area 2 cover was installed after the historical asphalt pad was removed during an interim measure (IM) implemented in 1998 at the direction of New Mexico Environment Department Hazardous and Radioactive Materials Bureau (NMED-HRMB). The area was covered with soil, gravel, and bio-barrier as part of stabilization activities. The IM was conducted to address concerns arising from moisture accumulation beneath the asphalt pad.

In 1998–1999, the IM and associated best management practice (BMP) activities conducted at Area 2 included the following:

- installation of a run-on diversion channel to the west of Area 2;
- removal of the asphalt cover over Area 2;
- surface regrading of Area 2 to eliminate surface water ponding;
- grouting and abandonment of CH-2 and the two 150-ft deep RFI boreholes;
- installation of an evapotranspiration (ET) cover composed of crushed tuff monofill with top soil and covered with a steel mesh bio-barrier;
- installation of a silt fence surrounding the ET cover to control both erosion and contaminant transport; and
- seeding the ET cover with shallow-rooting grasses.

For details on the 1998–1999 BMP at Area 2, refer to Environmental Restoration Project (1998, 59166; 1998, 63041; and 1999, 63919).

In February 2000, a moisture-monitoring system was installed to monitor the ET cover at Area 2. Three shallow neutron logging access tubes were installed through the ET cover, and time domain reflectometry (TDR) probes were installed at two depths and at two locations in the ET cover. The TDR probes were wired into a Campbell Scientific, Inc., datalogger for automated measurements. The moisture-monitoring system utilizes three neutron access holes, four time domain reflectometry (TDR) probes, and a rain gauge to evaluate moisture content and relative changes within and beneath the new cover material. Additionally, eight neutron access holes located in the surrounding area are monitored monthly for moisture content. These access holes characterize the moisture content of undisturbed areas immediately adjacent to the cover area. It is anticipated that the new cover material will behave similarly to native undisturbed areas by restoring the semi-arid, moisture limited, near surface environment.

Monthly moisture monitoring began at the site in March of 2000. Monitoring is performed in accordance with ER-SOP-7.05, Rev. 1, "Subsurface Moisture Measurements Using a Neutron Probe." Neutron logging is performed with a dedicated CPN 503DR probe the last two workdays of each month to provide a consistent data set for trend analysis. The TDR probes record moisture content measurements twice a day. The two TDR arrays are located adjacent to neutron access holes 49-10046 and 49-10048 for data comparison and confirmation. The TDR arrays consist of a shallow TDR probe positioned horizontally just beneath the surface soil (approximately 6 in.), and a TDR probe positioned vertically beneath the cover materials at 10 and 6 ft, respectively. The shallow TDR probes are positioned to detect infiltration through the topsoil. A rain gauge was located at the surface of the cover near access hole 49-10046 in order to monitor levels of precipitation at the site. Continuous measurement of site precipitation and the 12-hour

TDR data characterizes the cover's infiltration response to rain events. Figure 1 shows the locations of access holes, boreholes, TDR probes, the rain gauge, the cover, and the silt fence. Table 1 gives the corresponding depths of the TDR probes.

In July, August, and September of 2002, neutron moisture measurements were performed at boreholes TH-1, TH-2, TH-3, TH-4, TH-5, 2A-O, 2A-Y, and 2B-Y and neutron access holes 10046, 10047, and 10048. TDR measurements and precipitation quantities were recorded twice a day to a Campbell Scientific datalogger over the same period. This report will include a discussion of moisture trends over time, a comparison of moisture results from the neutron probe result and the TDR instruments, and a discussion of the relationship between precipitation and moisture content.

2.0 MOISTURE-MONITORING RESULTS

2.1 Neutron Logging

Neutron-logging events occurred at the end of each month, on July 31st and August 1st, August 27th and August 28th, and September 28th and September 30th. Logging was performed with a dedicated a CPN 503DR probe at all access holes and boreholes. The neutron counts from each of the 11 monitoring holes were recorded into a spreadsheet, and corresponding volumetric moisture content was calculated for each. Plots of volumetric moisture content for each sampling period and all of the holes are shown in Attachment A.

2.2 TDR and Precipitation Measurements

TDR measurements and precipitation quantities were collected twice a day through September and were recorded to a Campbell Scientific datalogger. The Campbell Scientific datalogger was programmed to record a timestamp, temperature, TDR raw frequencies, and precipitation in inches. The program converts raw frequency to volumetric moisture content and then records the data (both raw and converted) to a *.dat file. Figures 2 and 3 display moisture content and precipitation measurements from installation in April 2000 through September 2002. The cumulative precipitation was calculated from the on-site rain gauge from August 2000 to April 30, 2001. On May 1, 2001, it became apparent that the rain gauge was not functioning due to debris blocking the instrument. Therefore, from May 1 to date, precipitation data are obtained from the Laboratory TA-49 weather station.

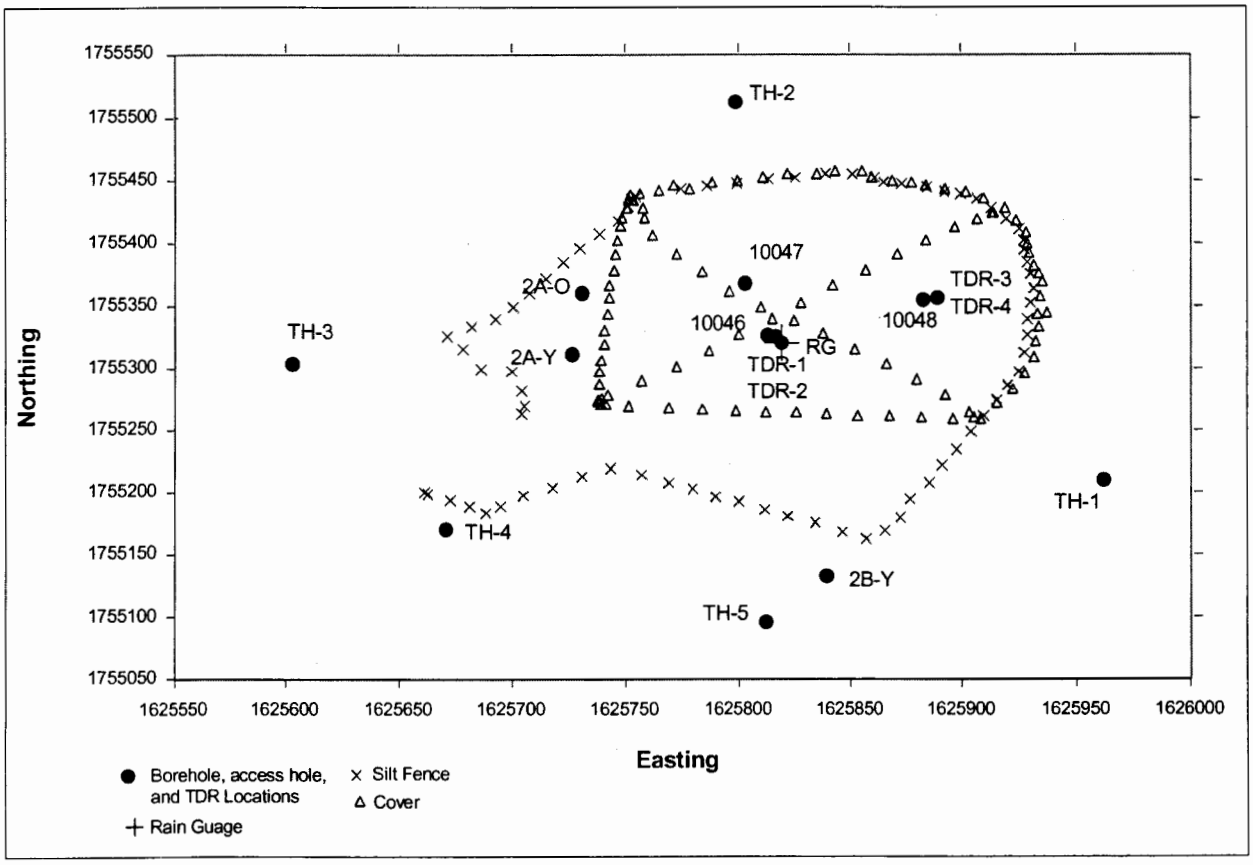


Figure 1. Location of instrumentation, access holes, and boreholes on XY plane at TA-49

Table 1
TDR Array Descriptions

TDR Number	Array Type	Depth (ft)
TDR1	Vertical, within soil overlaying Bandelier Tuff	6
TDR2	Horizontal, at bottom of top-soil	0.5
TDR3	Vertical, within El Cajete pumice formation	10
TDR4	Horizontal, at bottom of top-soil	0.5

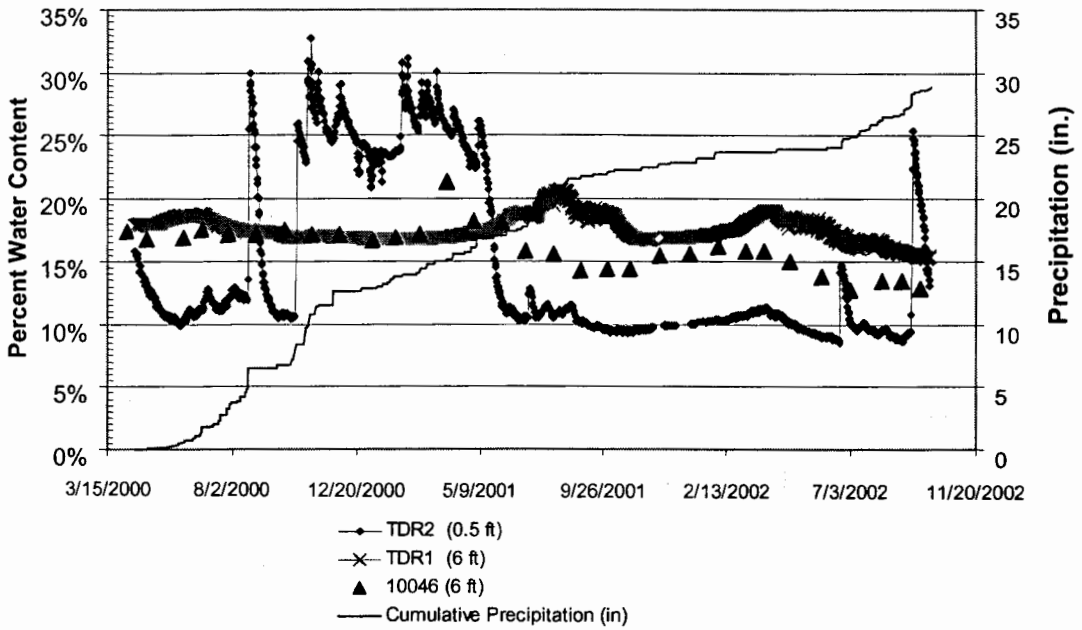


Figure 2. **TDR measurements compared with neutron measurements at access hole 10046, which is in close proximity and at the same corresponding depths as TDR1**

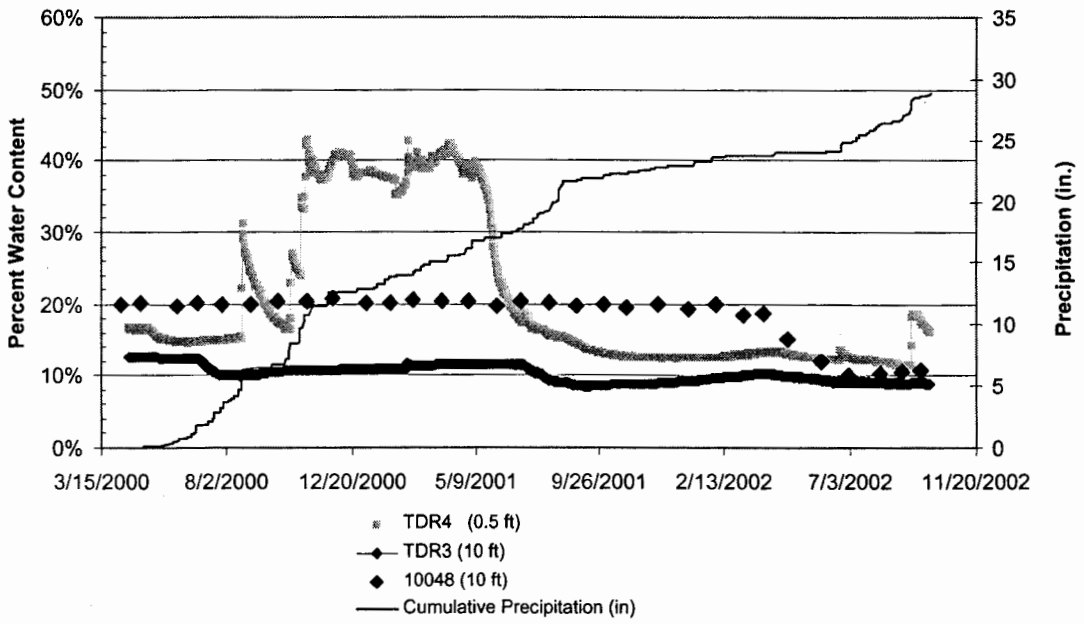


Figure 3. **TDR measurements compared with neutron measurements at access hole 10048, which is in close proximity and at the same corresponding depth as TDR3**

3.0 MOISTURE-MONITORING RESULTS AND DATA ANALYSIS

3.1 Introduction

During the fourth quarter (Q4) of 2002, most neutron access holes have shown either a slight decrease in volumetric moisture content or have shown no change in moisture in the first 5 ft, an interval of unconsolidated materials and/or the soil tuff interface. Trend plots of time versus moisture content were created for specific depth intervals (Attachment B). These plots exhibit the impacts of rainstorms and snowmelt in addition to the effects of evapotranspiration, which accounts for the reduction of near-surface soil moisture.

3.2 Correlation between TDR Measurements and Precipitation Events

In early September 2002, several light rain events occurred. The light storms, which produced less than 1.5 in. of accumulation, had a noticeable effect on the TDR probes. The shallow TDR probes at 0.5 ft have shown a minor increase (2%) in moisture content, which is a response to the multiple-day precipitation events in early September. These events have not been realized at either deep probe.

3.3 TDR and Neutron Comparisons

The moisture-monitoring system is performing as expected with consistent results between TDR arrays and neutron logging. Figures 2 and 3 display the deep TDR data associated with access holes 49-10046 and 49-10048 respectively. The neutron probe data from the same depth as the deep TDR probes is also shown. Neutron probe data differ from the TDR results at both locations by less than 20%. The difference between the two methods is reasonable, given the vertical heterogeneity of media density and differing measured volume for each method. Neutron measurements are sensitive to density while the TDR probe method is not. The neutron probe also measures a larger volume than the TDR probe. The correlation between the two moisture-monitoring methods will become more meaningful as further data are collected and significant seasonal inputs occur.

3.4 Student T-test of Neutron Data

A student t-test analysis was performed to statistically track trends in moisture over time for each of the neutron access holes. The student t-test evaluates the significance of an apparent trend based on a selected confidence interval. For the purpose of this analysis, a 95% confidence interval was selected.

As of September 2002, 30 months of data events were available for statistical analysis. Table 2 presents the results of the student t-test analyses for each of the boreholes and neutron access holes. The trending analysis results show that moisture levels have decreased. During the spring and summer of 2002, the Los Alamos area continued to experience drought conditions. Precipitation levels for the spring of this year have been lower than average. In addition to performing the student t-test analyses, personnel created trend plots of time versus moisture content were created for specific depth intervals (see Attachment B). These plots exhibit the impact of spring rainstorms in the near-surface depth (1–5 ft) for all the access holes (inside the cover and outside the cover), for the months of June through September of 2002. They also show the seasonal variation in moisture since April 2000.

Table 2
Results of the Student T-test Analysis, Based on a 95% Confidence Interval

Borehole/ Neutron Access Hole Number	Moisture Trending Results
TH-1	Analysis shows a decreasing moisture trend from 6 to 70 ft, 76 to 95 ft, and 101 to 110 ft.
TH-2	Analysis shows a decreasing moisture trend from 6 to 25 ft, 36 to 40 ft, and 46 to 104 ft.
TH-3	Analysis shows a decreasing moisture trend from 56 to 75 ft and 95 to 105 ft.
TH-4	Analysis shows a decreasing moisture trend from 1 to 5 ft, 51 to 55 ft, and 61 to 75 ft.
TH-5	Analysis shows a decreasing moisture trend from 1 to 95 ft and 101 to 110 ft.
2B-Y	Analysis shows a decreasing moisture trend from 21 to 29 ft.
2A-Y	Analysis shows a decreasing moisture trend from 1 to 5 ft and 21 to 27 ft.
2A-O	Analysis shows a decreasing moisture trend from 1 to 40 ft and 41 to 59 ft.
49-10046	Analysis shows a decreasing moisture trend from 1 to 13 ft.
49-10047	Analysis shows a decreasing moisture trend from 1 to 2 ft and 9 to 12 ft.
49-10048	Analysis shows a decreasing moisture trend from 1 to 12 ft.

4.0 CONCLUSIONS

The neutron log and TDR data indicate that subsurface moisture level behavior is consistent with the conceptual model for the site over the period of performance. Infiltration is detected in the near-surface material (<5 ft) in response to moderate local precipitation events. At greater depths, moisture contents remain stable or have decreased in the majority of the boreholes and neutron access holes, both within the covered area and areas adjacent to it. Thirty months of neutron data are available to run a student t-test, which identifies the statistically significant moisture trends. The decreases in moisture contents indicate that the cover is performing similarly to the adjacent undisturbed areas with native vegetation. The identification of trends in the near surface material is not a surprise, since the moisture data spanned from spring and summer with below average rainfall to a spring with average precipitation. Additionally, the near surface is expected to show larger responses to seasonal fluctuations in precipitation than at greater depths. Generally, moisture content remained constant or slightly decreased across the site below the unconsolidated surface material through FY 2002. This was expected given the drought conditions, while evaporation and plant transpiration limits infiltration below the rooting depth. The shallow TDR probes detected only the multiple-day storms, which produced precipitation greater than 0.5 in. The deep TDR arrays detect only a small 0.1 to 0.3% change in response to snow melt and long-duration rain events, which indicates that the cover is performing as designed with regard to infiltration.

5.0 RECOMMENDATIONS

The TA-49 moisture-monitoring system was installed to assess the performance of the MDA AB Area 2 cover with respect to maintaining and/or reducing subsurface moisture content. The Area 2 cover was installed as part of an IM implemented in 1998 to address concerns arising from moisture accumulation beneath the former asphalt pad on top of the test shafts. The routine moisture monitoring and site inspections conducted since March 2000 have shown the IM to be successful in eliminating run-on, reducing surface water ponding, and promoting evapotranspiration. This is evidenced by the reduction and/or stabilization of the subsurface moisture content within the covered area. Additionally, the

increased vegetation, site BMPs, and steel mesh bio-barrier have controlled runoff, erosion, and bio-intrusion, reducing the potential for contaminant migration and cover degradation.

MDA G at TA-54 is a mesa-top setting similar to MDA AB. Routine moisture monitoring has been performed at MDA G for more than 10 years. The results have indicated that very little, if any, detectable changes in moisture content occur below the near-surface environment and that any significant changes or trends are effectively captured by bimonthly monitoring. The moisture-monitoring results for the past 31 months at MDA AB have been consistent with those from MDA G. Measurements of the moisture content within the Bandelier Tuff at both mesa-top sites indicate that seasonal precipitation results in little, if any, deep infiltration. Therefore, it is recommended that moisture monitoring of all boreholes and neutron access holes be reduced from monthly to bimonthly. This will be sufficient to capture any potential long-term variability in moisture content below the near-surface environment. The current frequency of TDR measurements will continue to monitor the performance of the cover materials

6.0 REFERENCES

Environmental Restoration Project, June 1998. "Stabilization Plan for Implementing Interim Measures and Best Management Practices at Potential Release Sites 49-001 (b, c, d, and g)," Los Alamos National Laboratory report LA-UR-98-1534, Los Alamos, New Mexico. (Environmental restoration Project 1998, 59166)

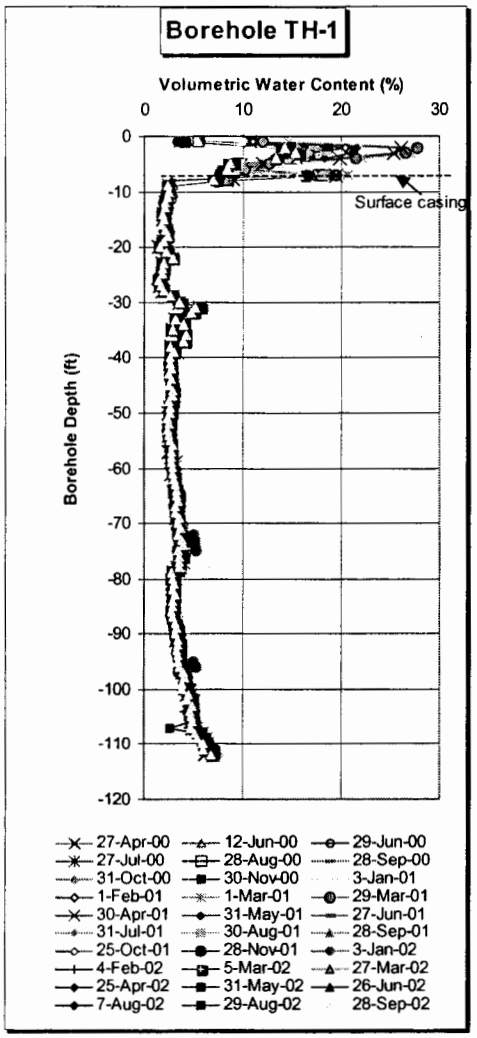
Environmental Restoration Project, September 1998. "Best Management Practices Report for Installation of Stabilization Measures at Potential Release Sites 49-001(b, c, d, and g)," Los Alamos National Laboratory report LA-UR-98-4170, Los Alamos, New Mexico. (Environmental Restoration Project 1998, 63041)

Environmental Restoration Project, August 1999. "Interim Measures Report for Potential Release Sites 49-001(b), 49-001(c), 49-001(d), 49-001(g)," Los Alamos National Laboratory report LA-UR-99-2169, Los Alamos, New Mexico. (Environmental Restoration Project 1999, 63919)

Attachment A

Neutron Moisture Measurements

ATTACHMENT A NEUTRON MOISTURE MEASUREMENTS



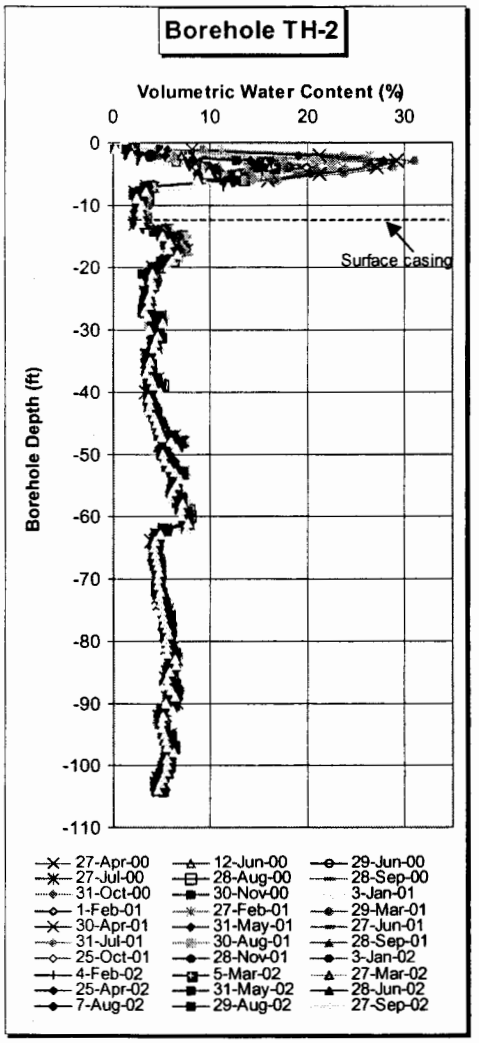
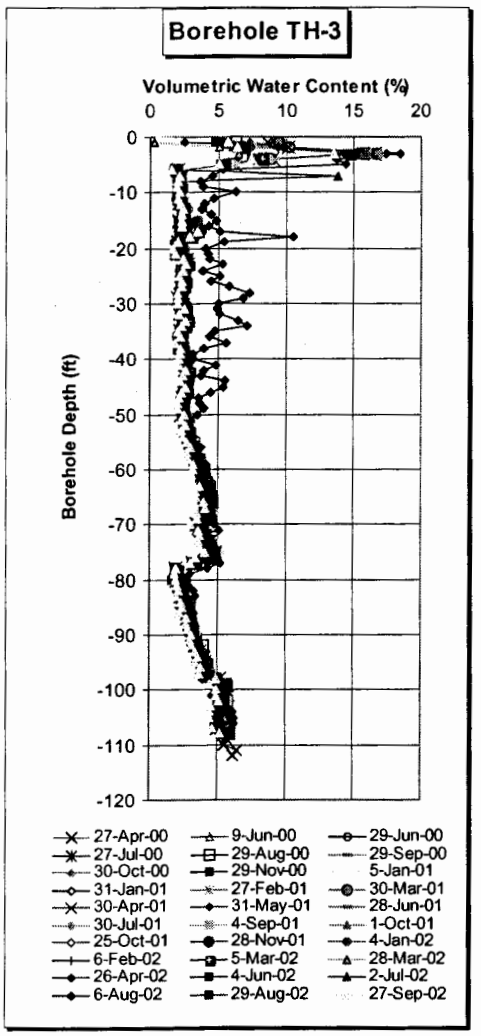


Figure A-1. Neutron probe moisture measurements for boreholes TH-1 and TH-2



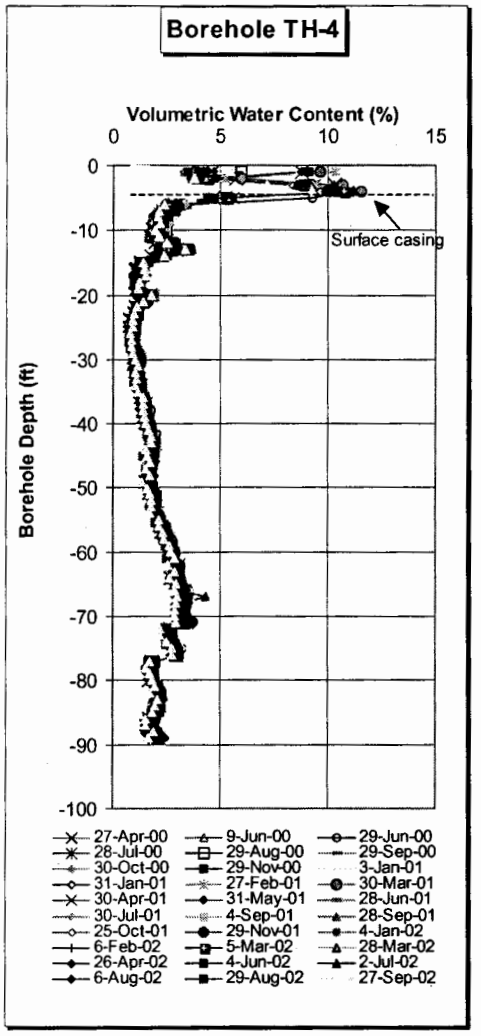


Figure A-2. Neutron probe moisture measurements for boreholes TH-3 and TH-4

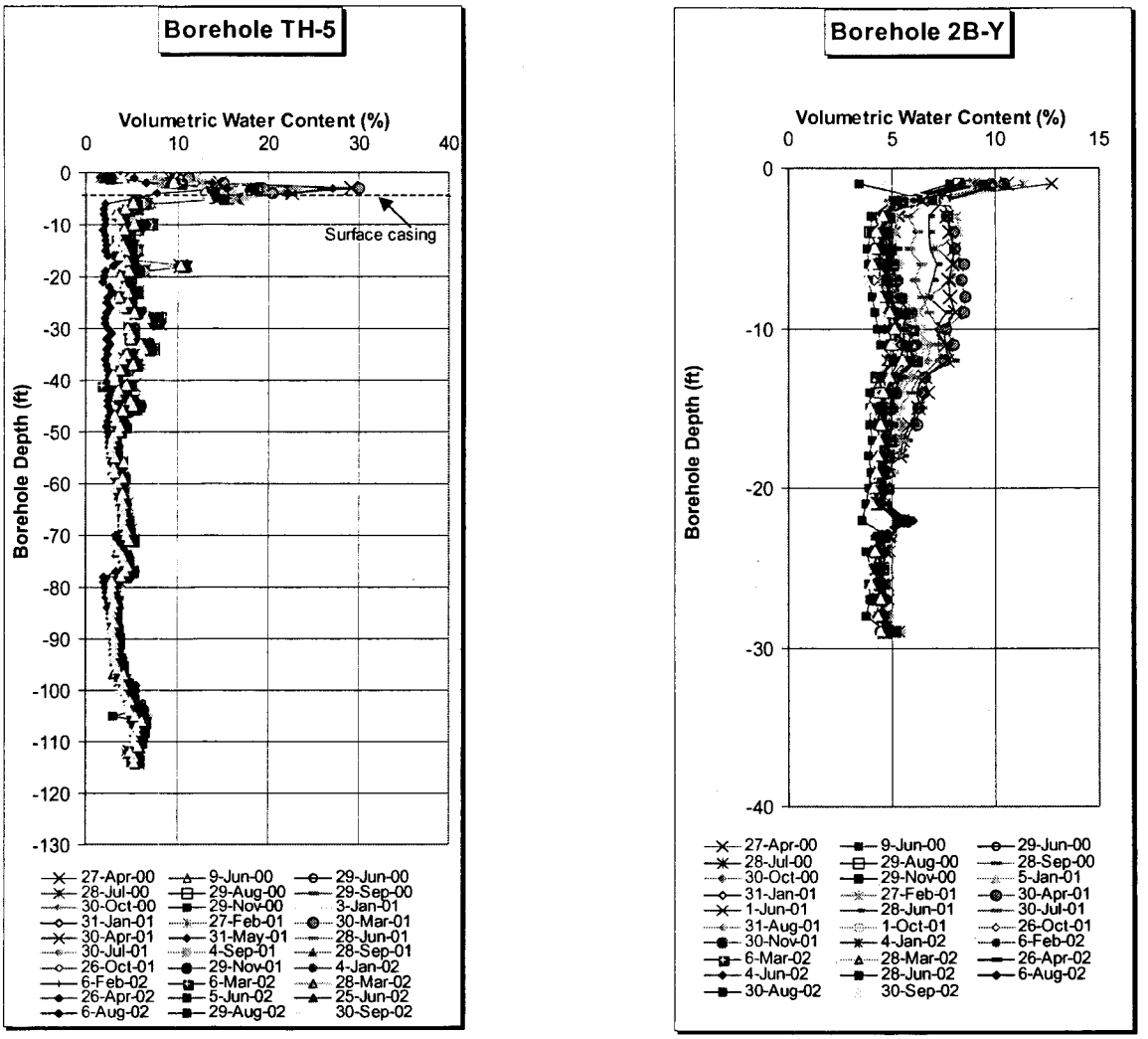
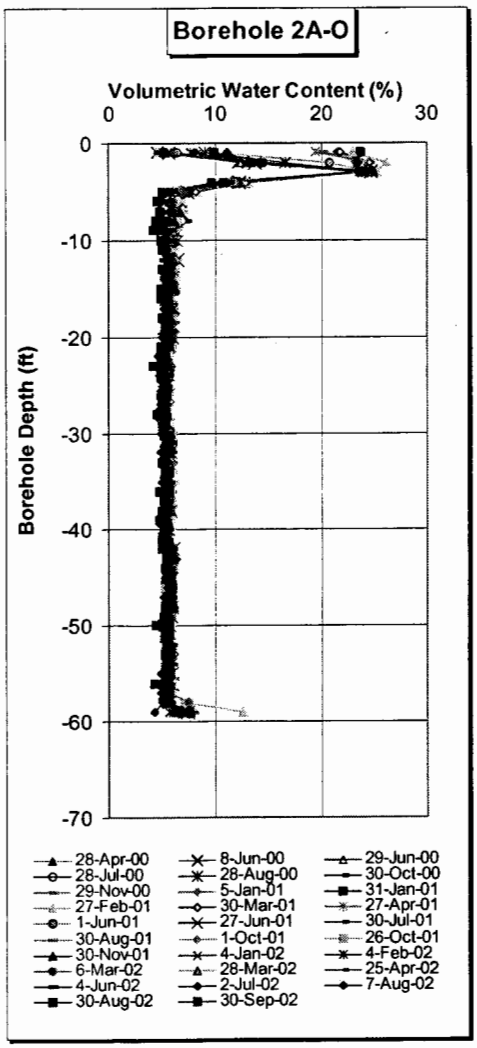


Figure A-3. Neutron probe moisture measurements for boreholes TH-5 and 2B-Y



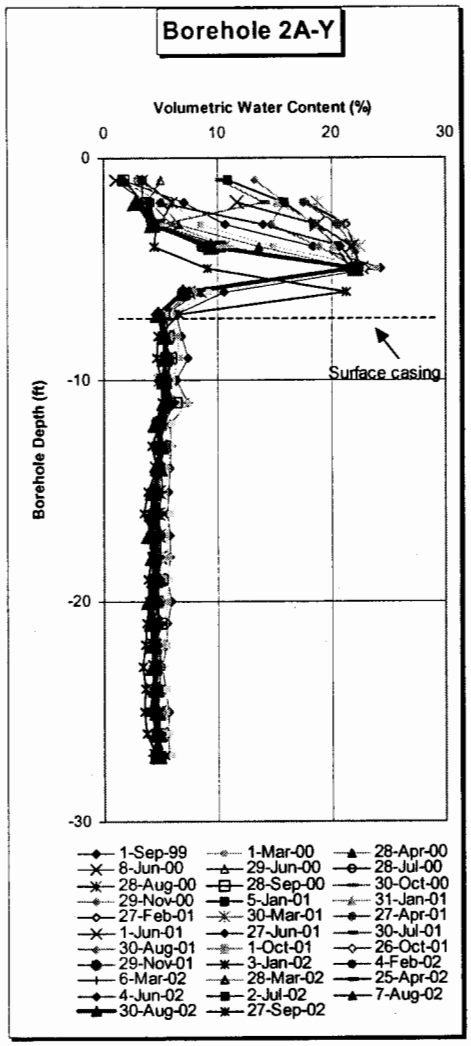
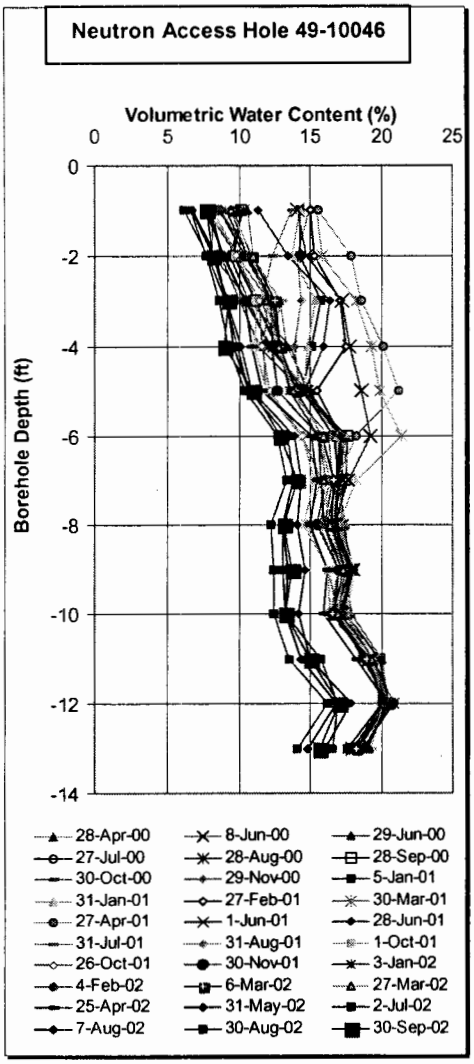


Figure A-4. Neutron probe moisture measurements for boreholes 2A-O and 2A-Y



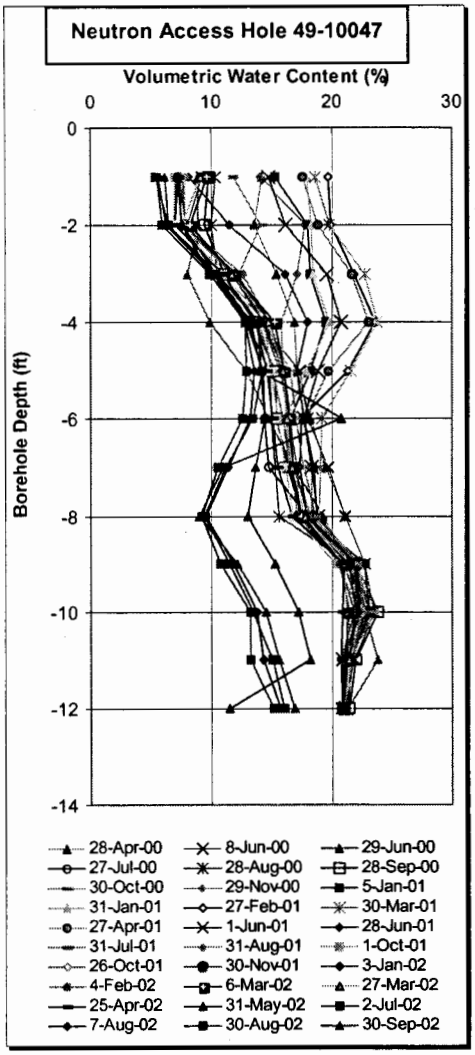


Figure A-5. Neutron probe moisture measurements for neutron access holes 49-10046 and -10047

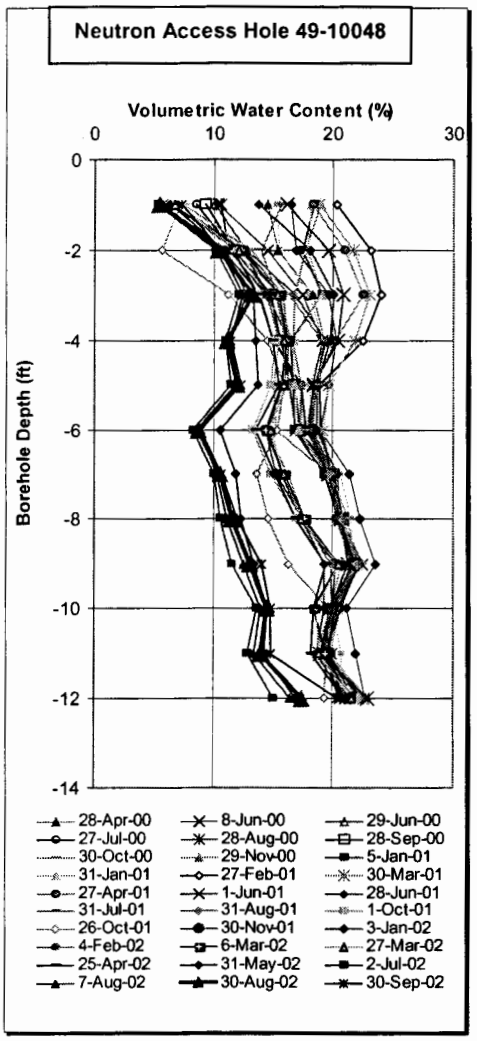


Figure A-6. Neutron probe moisture measurements for neutron access hole 49-10048

Attachment B

Time Versus Moisture Content Plots

ATTACHMENT B TIME VERSUS MOISTURE CONTENT PLOTS

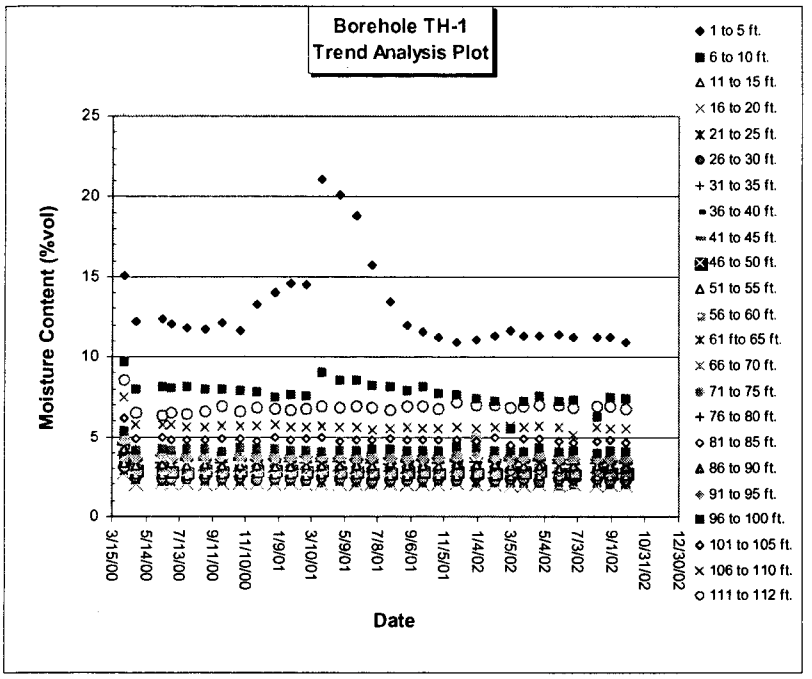


Figure B-1. Trend plot of neutron moisture measurements, borehole TH-1

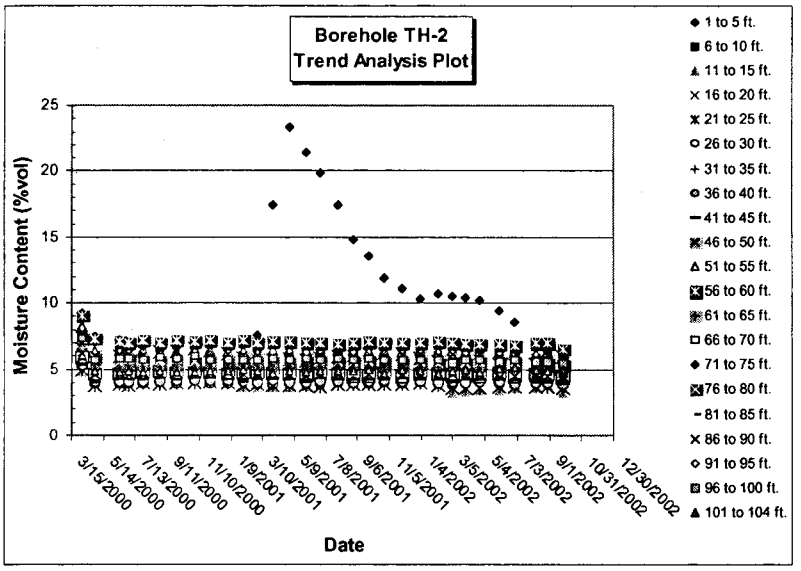


Figure B-2. Trend plot of neutron moisture measurements, borehole TH-2

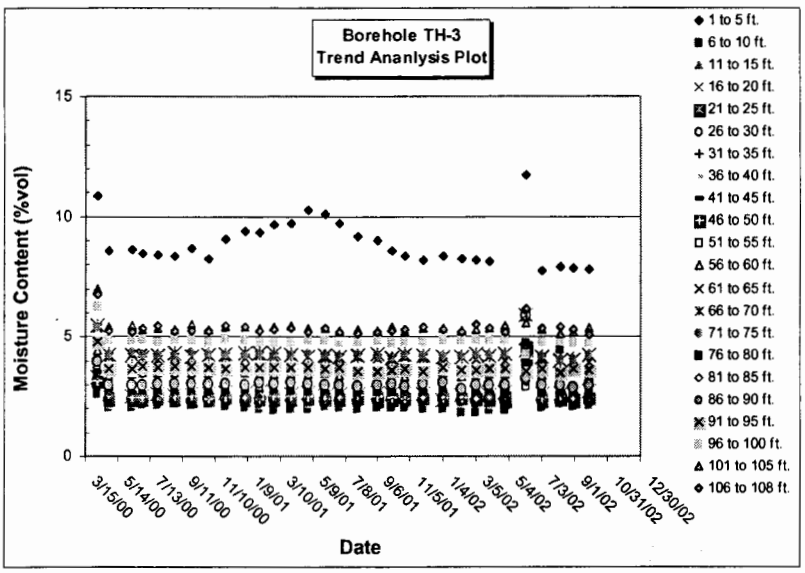


Figure B-3. Trend plot of neutron moisture measurements, borehole TH-3

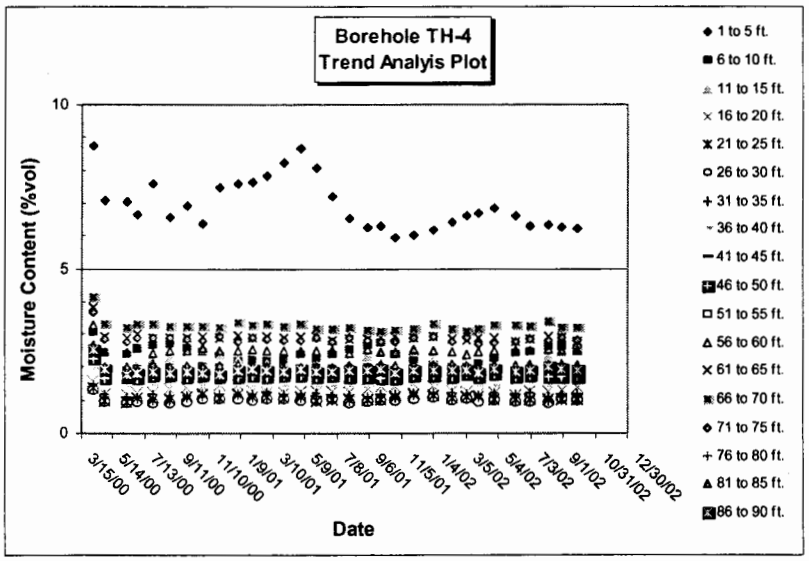


Figure B-4. Trend plot of neutron moisture measurements, borehole TH-4

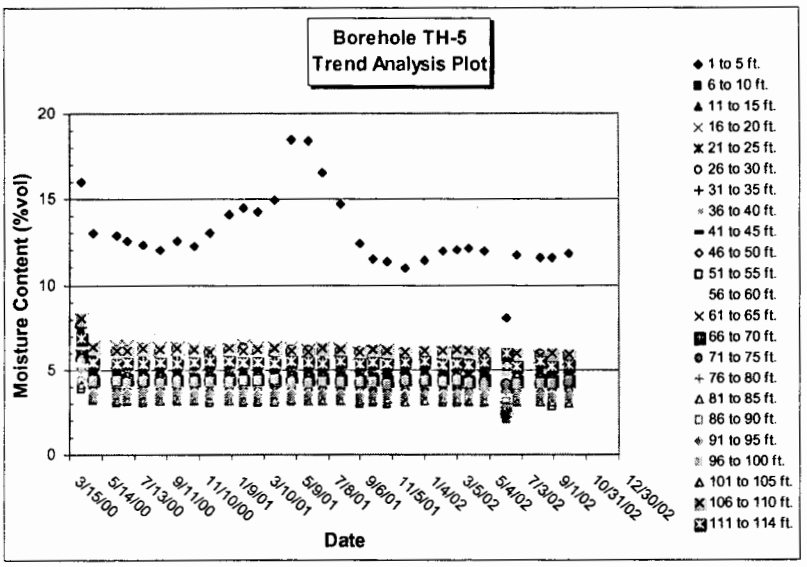


Figure B-5. Trend plot of neutron moisture measurements, borehole TH-5

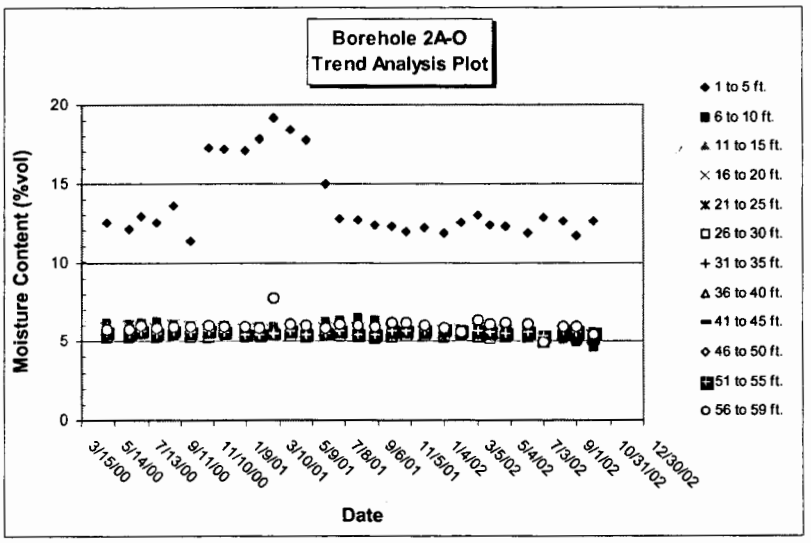


Figure B-6. Trend plot of neutron moisture measurements, borehole 2A-O

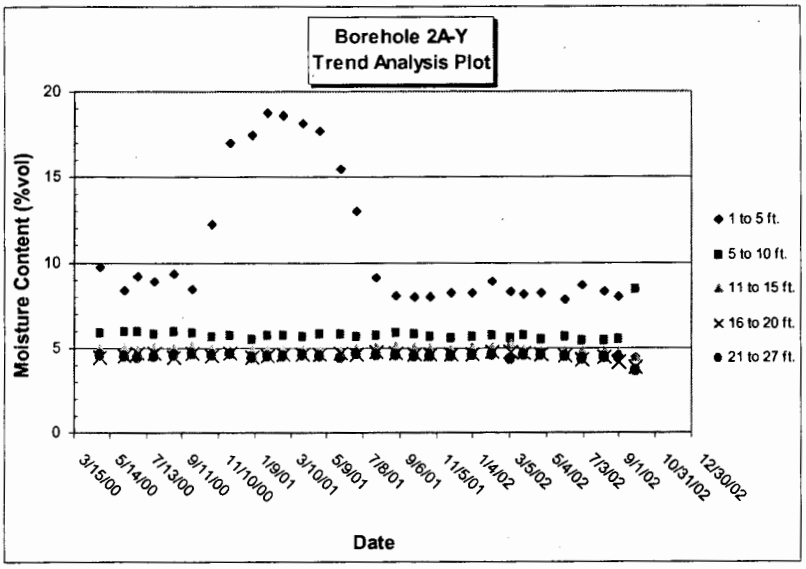


Figure B-7. Trend plot of neutron moisture measurements, borehole 2A-Y

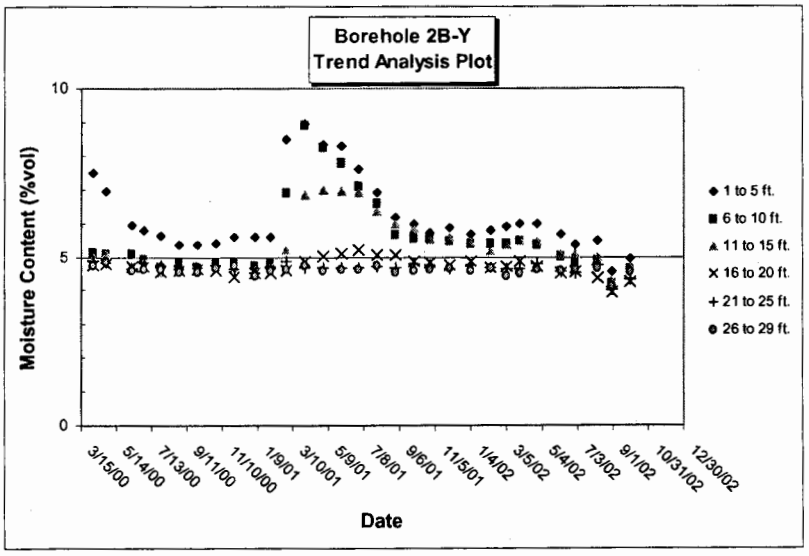


Figure B-8. Trend plot of neutron moisture measurements, borehole 2B-Y

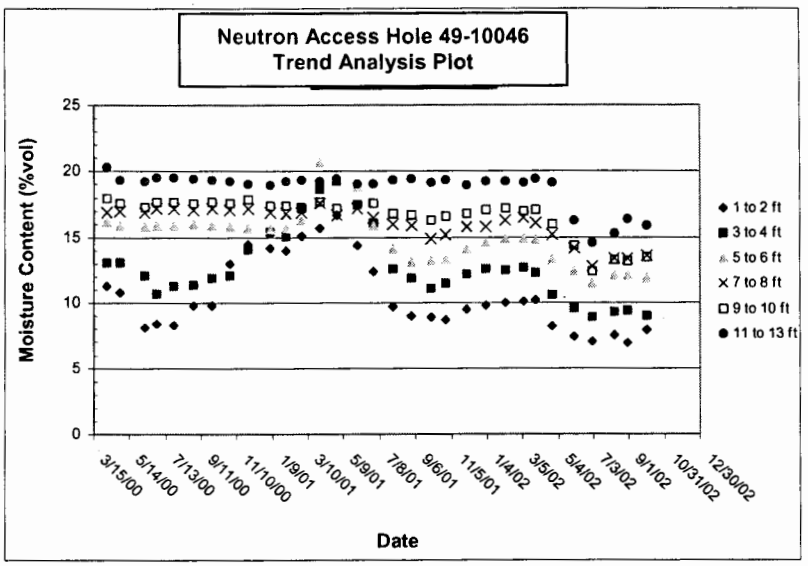


Figure B-9. Trend plot of neutron moisture measurements, neutron access hole 49-10046

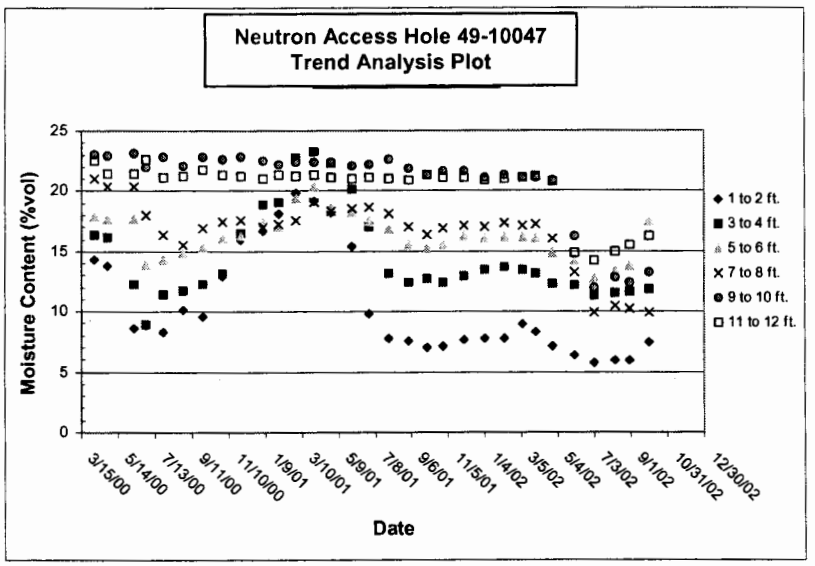


Figure B-10. Trend plot of neutron moisture measurements, neutron access hole 49-10047

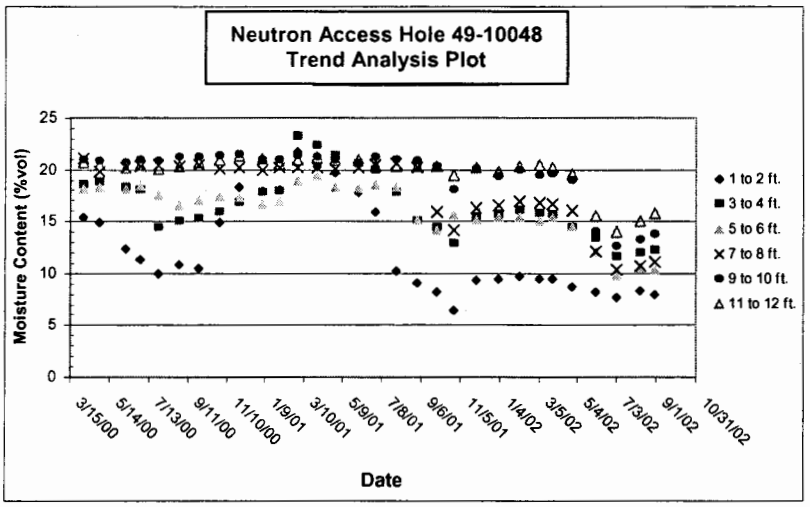


Figure B-11. Trend plot of neutron moisture measurements, neutron access hole 49-10048

Appendix C

Quarterly Pore-Gas Sampling at
Technical Areas 54, Material Disposal Areas L and G, and
Technical Area 50, Material Disposal Area C
Fourth Quarter Fiscal Year 2002

PORE-GAS SAMPLING AT TECHNICAL AREAS 50 AND 54 MATERIAL DISPOSAL AREAS C, G, AND L ANNUAL REPORT FOR FISCAL YEAR 2002

MDA Focus Area
Environmental Restoration Project
Los Alamos National Laboratory

NOVEMBER 2002

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1.0 INTRODUCTION

This report discusses fourth-quarter subsurface pore-gas sampling at Los Alamos National Laboratory (the Laboratory), Technical Areas (TAs) 54 and 50; it also presents a review of the data for Fiscal Year 2002. Monitoring at TA-54 is required by Module VIII of the Laboratory's Hazardous Waste Facility Permit in Section C.5, "Unsaturated Zone Monitoring" (EPA 1990, 1585). The approved plan (Davis 1993, 38812) for pore-gas sampling at TA-54 is described in the Laboratory's response (Glatzmaier 1993, 30987) to an Environmental Protection Agency (EPA) notice of deficiency (Driscoll 1992, 3849.3) addressing the Laboratory's Resource Conservation and Recovery Act facility investigation (RFI) work plan for TA-54 (LANL 1992, 7669). Monitoring at TA-50 is being performed to gather RFI data.

1.1 Sampling Plan Requirements

Twenty-eight Environmental Restoration (ER) Project wells are available for pore-gas sampling at TA-54. The sampling and analysis plan requires the collection of samples from 12 wells each quarter. These 12 samples are collected for analysis of volatile organic compounds (VOCs). Of these 12 samples, seven are to be selected from a list of 10 wells located at Material Disposal Area (MDA) L, and two are to be selected from a list of four wells located at MDA G. Thus, 9 of the 12 samples collected each quarter are constrained to a defined set of 14 wells. This leaves 3 samples per quarter that may be distributed among the remaining 14 available ER Project pore-gas sampling wells or the boreholes provided by the TA-54 Area G Performance Assessment Maintenance Group (PAMG wells). The schedule for FY 2002 sample locations were presented in the FY 2001 annual report and meet these requirements.

The SUMMA canister sampling method is currently being used with analysis by EPA TO-14 (gas chromatography/mass spectrometry) (EPA 1999, 70063). SUMMA canister samples are drawn from one of the several sampling ports available at each well.

Before the required sampling is performed, all available wells (ER Project wells and PAMG wells) are screened with the Brüel and Kjaer (B & K) multigas monitor, Type 1302. Each port is purged and monitored with field instruments until CO_2 levels have stabilized at values representative of subsurface pore-gas conditions and is then screened for four VOCs (1,1,1-trichloroethane, trichloroethene, perchloroethene, and Freon-11).

Three types of field quality assurance (QA) samples are collected and analyzed. These three samples include a duplicate sample, an equipment blank of zero grade air (zero grade air is a common term for air that is certified to be free from VOC contamination) or nitrogen drawn through the sampling apparatus in the working area, and a performance evaluation sample/calibration gas sample taken from a tank of a certified gas mixture. Laboratory QA for EPA Method TO-14 includes internal standards, surrogates, replicates, blanks, laboratory control samples, and reference standards.

1.2 Sampling Purpose

The purpose of the pore-gas sampling at TA-54 MDAs L and G is three-fold:

- to identify changes in contaminant concentrations at the perimeter of the relatively well-characterized plume at MDA L as an indicator of outward plume expansion (i.e., extent),
- to monitor for contaminants and changes in contaminant concentration distributions within the plumes at MDAs L and G as an indicator of changes warranting further attention (i.e., nature), and
- to monitor wells for data gap needs for future modeling and trend analyses.

The purpose of pore-gas sampling at TA-50 is to gather data on the nature and extent of a VOC plume.

2.0 THIRD QUARTER SAMPLING

2.1 Sampling Event

The sampling for the third quarter of FY 2002 was conducted from May 2, 2002, to May 29, 2002. Table 1 identifies the wells sampled (from the list of all wells available) and lists the port at each well from which the SUMMA canister sample was drawn. Thirteen wells were sampled in accordance with the scheduled sampling plan. Eight wells at MDA L were sampled, including seven from the defined list in the sampling plan, four MDA G wells were sampled, one well at MDA C was sampled at four depths. These four samples at MDA C were taken from well 50-10131. The three QA samples (field duplicate, equipment blank, and performance evaluation) were collected as planned. In total, 19 samples were collected for laboratory analysis.

2.2 Sampling Results

Field-screening results for the second quarter are available on request. Analytical results are reported in Attachment A. Table 2 presents the trichloroethane (TCA) results analyzed by EPA Method TO-14. The following issues were noted.

- The initial calibration for chloromethane exceeded the method required percent difference of 30%. All reporting limits are qualified as estimated (UJ).
- The laboratory control sample was low for 1,2,4-trichlorobenzene, hexachlorobutadiene, and vinyl acetate. There were no positive results for these samples, so the reporting limits are qualified as estimated (UJ).
- The equipment blank had positive results for a single compound, acetone, present in the samples.

2.3 Evaluation of Quality Assurance Samples

Field duplicate sample. A field duplicate sample is drawn from the same port on a well immediately after the original sample. The field duplicate was collected on well 54-2029 at the 100-ft sampling port. Table 3 presents the relative percent differences (RPDs) between the original sample MD54-02-45578 and the field duplicate MD54-02-45586.

Field equipment blank. A field equipment blank sample documents the effectiveness of equipment purges between samples. A sample was collected by drawing zero-grade air through the sample train after the normal purge performed before each sample. Only one compound was detected. The field equipment blank was taken in the immediate vicinity of 54-2029 at ground level.

Calibration gas sample (performance evaluation sample). A calibration gas sample was drawn into a SUMMA canister and submitted to the analytical laboratory for analysis. The calibration gas contained 100 ppmv of TCA, 50 ppmv of trichloroethylene (TCE), and 10 ppmv of tetrachloroethene (PCE). The results of the analysis for sample MD54-02-45587 were 49 ppmv (49%) for TCA, 22 ppmv (44%) for TCE, and 5 ppmv (50%) for PCE.

Table 1. Summary of Sampling Event, Third Quarter of FY 2002

Well ID	Site	Defined List (Y/N)	Number of Ports Screened	Depths of Screened Ports (ft)	Depth of Port Sampled (ft)	Sample ID
54-1015	MDA L	N	7	45, 187, 350, 385, 435, 485, 525	385	MD54-02-45580
54-1016	MDA L	N	7	36, 188, 318, 390, 481, 533, 601	—	n/a[a]
54-1018	MDA L	N	n/a	Well needs repair[b]	—[c]	n/a
54-1107	PAMG	N	n/a	Well needs repair[b]	—	n/a
54-1111	PAMG	N	7	20, 40, 50, 70, 78, 100, 139	20	MD54-02-45575
54-1117	PAMG	N	6	20, 32, 55, 73, 82, 85	—	n/a
54-1121	PAMG	N	7	20, 26, 62, 70, 76, 98, 121	76	MD54-02-45576
54-2002	MDA L	Y	10	20, 40, 60, 80, 100, 120, 140, 157, 180, 200	180	MD54-02-45581
54-2009	MDA G	Y	4	37, 62, 79, 92	62	MD54-02-45574
54-2010	MDA G	Y	3	30, 53, 95	—	n/a
54-2012	MDA L	Y	3	8, 28, 42	—	n/a
54-2013	MDA L	N	3	20, 43, 63	—	n/a
54-2014	MDA L	N	4	13, 31, 46, 86	—	n/a
54-2016	MDA L	N	3	18, 31, 82	—	n/a
54-2020	MDA L	N	10	20, 40, 60, 80, 95, 120, 140, 160, 180, 200	—	n/a
54-2021	MDA L	Y	10	20, 40, 60, 80, 100, 120, 140, 160, 180, 200	100	MD54-02-45582
54-2022	MDA L	Y	10	20, 40, 60, 80, 100, 120, 140, 160, 180, 200	—	n/a
54-2023	MDA L	Y	9	20, 40, 60, 80, 100, 120, 140, 159, 180, 200	159	MD54-02-45583
54-2024	MDA L	N	10	20, 40, 60, 80, 100, 120, 140, 160, 180, 200	—	n/a
54-2025	MDA L	N	5	20, 60, 100, 160, 180	—	n/a
54-2026	MDA L	Y	6	20, 60, 100, 160, 200, 215	160	MD54-02-45584
54-2027	MDA L	N	6	20, 60, 100, 160, 200, 220	—	n/a
54-2028	MDA L	N	7	20, 60, 100, 160, 200, 220, 250	—	n/a
54-2029	MDA L	Y	8	20, 60, 100, 160, 200, 220, 260, 288	100 100 (FD)[d] 0 (PE) 0 (EB)	MD54-02-45578 MD54-02-45586 MD54-02-45587 MD54-02-45588
54-2030	MDA L	Y	7	20, 60, 100, 160, 200, 220, 243	100	MD54-02-45579
54-2031	MDA L	Y	7	20, 60, 100, 160, 200, 220, 260	—	n/a
54-2032	MDA G	Y	5	20, 60, 100, 130, 156	—	n/a
54-2033	MDA G	Y	8	20, 60, 100, 160, 200, 220, 260, 277	100	MD54-02-45577
54-2034	MDA L	Y	7	20, 40, 60, 80, 100, 160, 200, 220, 260	60	MD54-02-45585
54-2087	MDA L	N	4	13, 31, 46, 86	—	n/a
54-2088	MDA L	N	4	13, 31, 46, 86	—	n/a
54-2089	MDA L	N	4	13, 31, 46, 86	—	n/a
50-9100	MDA C	N	10	20, 50, 90, 103, 129, 160, 200, 233, 260, 315	—	n/a
50-10131	MDA C	N	11	25, 50, 75, 100, 125, 130, 150, 175, 200, 225, 250	50 125 200 260	MD50-02-45570 MD50-02-45571 MD50-02-45572 MD50-02-45573
Total wells sampled					13	
MDA L wells sampled (8 expected)					8	
MDA G wells sampled (4 expected)					4	
MDA C wells sampled					1	
QA samples taken				1 field duplicate, 1 performance evaluation, and 1 equipment blank		

[a] n/a = not applicable.

[b] This well has been taken out of service because of failure of positive pressure membranes or irreparable damage to ports

[c] A dash indicates that the port was not sampled.

[d] (EB) = Equipment Blank , (FD) = Field Duplicate, (PE) = Performance Evaluation

Table 2. Summary of SUMMA Canister Results for TCA (ppmv*)

Well ID	FY97 1Q	FY97 2Q	FY97 3Q	FY97 4Q	FY98 1Q	FY98 2Q	FY98 3Q	FY98 4Q	FY99 1Q	FY99 2Q	FY99 3Q	FY99 4Q	FY2000 1Q	FY2000 2Q	FY2000 3Q	FY2000 4Q	Average		Std Dev
54-1003		12.7							Out of service				Out of service				12.7		
54-1004		82.1	106.0			90.9	82.9		Out of service				Out of service				90.5	+/-	11.1
54-1005		21.9							Out of service				Out of service				21.9		
54-1015					0.9		0.1			0.0	0.2		0.1	42/3.9	0.0	**0.1**	0.2	+/-	0.3
54-1016							19.2		14.0		1.1			22.0		**0.0**	11.3	+/-	10.2
54-1018		37.5							Out of service				Out of service				37.5		
54-2001									Well needs repair				Well needs repair						
54-2002				358.0	398.0	291.0	424.0			370.0	520.0		400.0	780.0	370.0	**260.0**	417.1	+/-	145.9
54-2009			104.0	69.2		46.5			110.0		120.0		140.0	140.0		**61.0**	98.8	+/-	35.9
54-2010			18.8		14.5		167.0	19.0		22.0				20.0		**15.0**	39.5	+/-	56.3
54-2012					100.0	2830.0			2500.0	3500.0			3500.0			**2200.0**	2438.3	+/-	1260
54-2013																			
54-2014	1000.0	837.0							1400.0								1079.0	+/-	289.7
54-2016								1300.0		670.0							985.0		445.5
54-2020	38.3			95.6			70.1		73.0								69.3	+/-	23.6
54-2021			125.0			29.5		50.0		54.0	64.0			71.0	34.0		61.1	+/-	31.9
54-2022				98.4	76.3	56.6	819.0		110.0		120.0		140.0	140.0	100.0	**76.0**	173.6	+/-	228.4
54-2023	12.0		20.0	27.7			216.0	22.0	22.0		20.0		25.0	27.0	26.0		41.8	+/-	61.4
54-2024		59.2					492.0	45.0									198.7	+/-	254.1
54-2025	216.0	163.0		136.0			159.0									**81.0**	151.0	+/-	48.9
54-2026	2.7	1.5	2.8		2.7			4.2		3.4			5.1	5.7	26.0	**2.1**	5.6	+/-	7.3
54-2027	14.2	24.5			514.0			23.0							380.0		191.1	+/-	238.4
54-2028	3.9		3.0					4.9								**3.2**	3.7	+/-	0.9
54-2029			0.8		0.4	16.9	15.8	1.0	1.1	1.0			0.6		0.6/0.5	**0.9**	4.3	+/-	6.9
54-2030	1.8		2.1	1.3		15.9	37.2	1.4		2.3	2.6		5.3			**1.8**	7.2	+/-	11.4
54-2031				24.9	345.0		240.0	20.0	27.0		29.0			36.0	15.0	**25.0**	84.7	+/-	120.9
54-2032			29.7	15.4		10.9		13.0		14.0					14.0		16.2	+/-	6.8
54-2033			0.2		0.1		0.0		0.0		0.0		7.5		0.0		1.1	+/-	2.8
54-2034			3.6	2.7		7.5	41.5		4.9	0.2	7.3		9.4	7.6			9.4	+/-	12.3
54-2087	2540.0	3110.0		3610.0													3086.7	+/-	535.4
54-2088	1410.0	6970.0								2400.0			2700.0				3370.0	+/-	2462.5
54-2089	1760.0	1910.0	5540.0														3070.0	+/-	2140.4

* ppmv = parts per million by volume.

Table 2. Summary of SUMMA Canister Results for TCA (ppmv*) (continued)

Well ID	FY01 1Q	FY01 2Q	FY01 3Q	FY01 4Q	FY02 1Q	FY02 2Q	FY02 3Q	FY02 4Q			Average		Std Dev
54-1003											12.7		
54-1004											90.48	+/-	11.1
54-1005											21.9		
54-1015	0.22		0.044	0.073	0.56		0.052	0.042			0.18	+/-	0.3
54-1016		0.0072		0.036		0.075		0.052			6.27	+/-	9.3
54-1018											37.5		
54-2001													
54-2002	320	260	330	260	390	280	270	250			362.83	+/-	126.9
54-2009	73	74	58	61	97	53	46	0.21			78.31	+/-	37.7
54-2010	16			13	16			11			30.21	+/-	45.5
54-2012		2200		2200		1300		2700			2303	+/-	1012.7
54-2013													
54-2014											1079.0	+/-	289.7
54-2016											985.0		445.5
54-2020											69.25	+/-	23.6
54-2021	51	58	45		71	64	53				59.19	+/-	23.4
54-2022		110		76		94		100			151.16	+/-	193.7
54-2023	14		14		17		14				34.05	+/-	52.6
54-2024											198.73	+/-	254.1
54-2025				81				77			130.43	+/-	53.2
54-2026	3.1	2.7	1.1	2.1	3.2	3.9	2.6	2.2			4.28	+/-	5.5
54-2027											191.14	+/-	238.4
54-2028				3.2				2.6			3.47	+/-	0.8
54-2029	1.3	1.1	0.89	0.92		0.86	1.0	0.77			2.83	+/-	5.3
54-2030			2.4	1.8	1.2		2.1	2.2			5.43	+/-	9.5
54-2031		0.26		25		31		24			64.78	+/-	103.7
54-2032		9.9				3.8					13.84	+/-	7.4
54-2033			0.23				0.042				0.9	+/-	2.5
54-2034	4.7		4.1		5.6		3.9				7.92	+/-	10.4
54-2087											3086.6	+/-	535.4
54-2088											3370.0	+/-	2462.5
54-2089											3070.0	+/-	2140.4

Table 3. Field Duplicate Sample Results Comparison (Well 54-2029, 100 ft)

Compound	Sample MD54-02-45578[a] (ppmv[b])	Sample MD54-02-45586[c] (ppmv)	RPD[d]
Freon-11	ND[e]	ND	n/a[f]
Dichloroethene [1,1-]	0.042	0.051	19.4
Freon-113	0.23	0.18	24.3
Methylene chloride	0.01	0.0047	72.1
Dichloroethane[1,1-]	0.0089	0.016	57
Chloroform	0.028	0.022	24
Trichloroethane[1,1,1-]	1	0.88	12.7
Carbon tetrachloride	0.0081	0.006	29.7
Benzene	ND	ND	n/a
Dichloroethane[1,2-]	2.3	2.2	4.4
Trichloroethene	0.24	0.19	23.2
Dichloropropane[1,2-]	0.37	0.490	27.9
Toluene	ND	ND	n/a
Tetrachloroethene	0.028	0.022	24
Xylene[m&p]	ND	ND	n/a
Xylene[o-]	ND	ND	n/a
Tetrahydrofuran	ND	ND	n/a

[a] Detection limit = 0.35 ppmv.
[b] ppmv = Parts per million by volume.
[c] Detection limit = 0.340 ppmv.
[d] Relative percent difference
[e] ND = Not detected
[f] n/a = Not applicable

3.0 FOURTH-QUARTER SAMPLING

3.1 Sampling Event

The sampling for the fourth quarter of FY 2002 was conducted from July 9, 2002, to August 2, 2002. Table 4 identifies the wells sampled (from the list of all wells available) and lists the port at each well from which the SUMMA canister sample was drawn. Sixteen wells were sampled in accordance with the approved sampling plan. Eleven wells at MDA L were sampled, including 7 from the defined list in the sampling plan, three MDA G wells were sampled, and two wells at MDA C were sampled at two depths per well. The two QA samples (field duplicate, and performance evaluation) were collected; however, the equipment blank was not taken. In total, 20 samples were collected for laboratory analysis.

3.2 Sampling Results

Field-screening results for the second quarter are available on request. Analytical results are reported in Attachment B. Table 2 presents the TCA results analyzed by EPA Method TO-14. The initial calibration for chloromethane exceeded the method required percent difference of 20%. All reporting limits are qualified as estimated (UJ).

3.2 Evaluation of Quality Assurance Samples

Field duplicate sample. A field duplicate sample is drawn from the same port on a well immediately after the original sample. The field duplicate was collected on well 2022 at the 80-ft sampling port. Table 5 presents the RPDs between the original sample MD54-02-47985 and the field duplicate MD54-02-47992.

Field equipment blank. The field equipment blank was not collected in the fourth quarter.

Calibration gas sample (performance evaluation sample). A calibration gas sample was drawn into a SUMMA canister and submitted to the analytical laboratory for analysis. The calibration gas contained 100 ppmv of TCA, 50 ppmv of TCE, and 10 ppmv of PCE. The results of the analysis for sample MD54-02-47990 were 56 ppmv (56%) for TCA, 28 ppmv (56%) for TCE, and 6.2 ppmv (62%) for PCE.

Table 4. Summary of Sampling Event, Fourth Quarter of FY 2002

Well ID	Site	Defined List (Y/N)	Number of Ports Screened	Depths of Screened Ports (ft)	Depth of Port Sampled (ft)	Sample ID
54-1015	MDA L	N	7	45, 187, 350, 385, 435, 485, 525	385	MD54-02-47979
54-1016	MDA L	N	7	36, 188, 318, 390, 481, 533, 601	390	MD54-02-47980
54-1018	MDA L	N	n/a	Well needs repair[a]	—[b]	n/a[c]
54-1107	PAMG	N	n/a	Well needs repair[a]	—	n/a
54-1111	PAMG	N	7	20, 40, 50, 70, 78, 100, 139	—	n/a
54-1117	PAMG	N	6	20, 32, 55, 73, 82, 85	—	n/a
54-1121	PAMG	N	7	20, 26, 62, 70, 76, 98, 121	76	MD54-02-47989
54-2002	MDA L	Y	10	20, 40, 60, 80, 100, 120, 140, 157, 180, 200	100	MD54-02-47991
54-2009	MDA G	Y	4	37, 62, 79, 92	62	MD54-02-47982
54-2010	MDA G	N	3	30, 53, 95	95	MD54-02-47983
54-2012	MDA L	Y	3	8, 28, 42	28	MD54-02-47984
54-2013	MDA L	N	3	20, 43, 63	—	n/a
54-2014	MDA L	N	4	13, 31, 46, 86	—	n/a
54-2016	MDA L	N	3	18, 31, 82	—	n/a
54-2020	MDA L	N	10	20, 40, 60, 80, 95, 120, 140, 160, 180, 200	—	n/a
54-2021	MDA L	Y	10	20, 40, 60, 80, 100, 120, 140, 160, 180, 200	—	n/a
54-2022	MDA L	Y	10	20, 40, 60, 80, 100, 120, 140, 160, 180, 200	80 80 (FD)[d] 0 (PE)	MD54-02-47985 MD54-02-47992 MD54-02-47990
54-2023	MDA L	Y	9	20, 40, 60, 80, 100, 120, 140, 159, 180, 200	—	n/a
54-2024	MDA L	N	10	20, 40, 60, 80, 100, 120, 140, 160, 180, 200	—	n/a
54-2025	MDA L	N	5	20, 60, 100, 160, 180	100	MD54-02-47986
54-2026	MDA L	Y	6	20, 60, 100, 160, 200, 215	160	MD54-02-47987
54-2027	MDA L	N	6	20, 60, 100, 160, 200, 220	—	n/a
54-2028	MDA L	N	7	20, 60, 100, 160, 200, 220, 250	100	MD54-02-47975
54-2029	MDA L	Y	8	20, 60, 100, 160, 200, 220, 260, 288	100	MD54-02-47976
54-2030	MDA L	Y	7	20, 60, 100, 160, 200, 220, 243	100	MD54-02-47977
54-2031	MDA L	Y	7	20, 60, 100, 160, 200, 220, 260	100	MD54-02-47978
54-2032	MDA G	Y	5	20, 60, 100, 130, 156	—	n/a
54-2033	MDA G	Y	8	20, 60, 100, 160, 200, 220, 260, 277	—	n/a
54-2034	MDA L	Y	7	20, 40, 60, 80, 100, 160, 200, 220, 260	—	n/a
54-2087	MDA L	N	4	13, 31, 46, 86	—	n/a
54-2088	MDA L	N	4	13, 31, 46, 86	—	n/a
54-2089	MDA L	N	4	13, 31, 46, 86	—	n/a
50-9100	MDA C	N	10	20, 50, 90, 103, 129, 160, 200, 233, 260, 315	90 260	MD50-02-48069 MD50-02-48070
50-10131	MDA C	N	11	25, 50, 75, 100, 125, 130, 150, 175, 200, 225, 250	20 125	MD50-02-48071 MD50-02-48072
Total wells sampled					16	
	MDA L wells sampled (8 expected)				11	
	MDA G wells sampled (4 expected)				3	
	MDA C wells sampled				2	
	QA samples taken				1 field duplicate, 1 performance evaluation	

[a] This well has been taken out of service because of failure of positive pressure membranes or irreparable damage to ports.

[b] A dash indicates that the port was not sampled.

[c] n/a = not applicable.

[d] (PE) = Performance Evaluation, (FD) =Field Duplicate

Table 5. Field Duplicate Sample Results Comparison (Well 54-2022, 80 ft)

Compound	Sample MD54-02-47985[a] (ppmv[b])	Sample MD54-02-47992[c] (ppmv)	RPD[d]
Freon-11	ND[e]	0.41	n/a[f]
Dichloroethene [1,1-]	1.1	1.1	0
Freon-113	1.0	0.96	4.1
Methylene chloride	1.5	1.2	22.2
Dichloroethane[1,1-]	2.4	2.2	8.7
Chloroform	ND	0.48	n/a
Trichloroethane[1,1,1-]	100	88	12.8
Carbon tetrachloride	ND	ND	n/a
Benzene	ND	ND	n/a
Dichloroethane[1,2-]	2.3	2.2	4.4
Trichloroethene	23	21	9.1
Dichloropropane[1,2-]	0.37	0.490	27.9
Toluene	ND	ND	n/a
Tetrachloroethene	1.7	1.5	12.5
Xylene[m&p]	ND	ND	n/a
Xylene[o-]	ND	ND	n/a
Tetrahydrofuran	ND	ND	n/a

[a] Detection limit = 0.35 ppmv.
[b] ppmv = Parts per million by volume.
[c] Detection limit = 0.340 ppmv.
[d] Relative percent difference
[e] ND = Not detected
[f] n/a = Not applicable

4.0 REVIEW OF SCREENING DATA FOR PREVIOUS 16 QUARTERS

All available ports were screened with the B & K multigas monitor every quarter during the last 16 quarters. Analytical laboratory results and field-screening measurements indicated higher concentrations of TCA near the source area and at the plume boundaries than any other VOC. Therefore, B & K screening results of TCA concentrations have been used to develop three-dimensional visualizations representative of VOC plume extent.

Figures C-1 through C-15 display quarterly results of the three-dimensional visualization for MDA L for FY 1999 through FY 2002. Note that there is no figure for the first quarter of 2002 due to equipment failure. Complete screening of all available boreholes began for FY 1999; earlier screening data sets lack sufficient spatial measurements to allow meaningful interpolation for visualization.

TCA concentration contours for 10, 100, and 500 parts per million volume (ppmv) are represented on the figures. The 10-ppmv contour represents the lower limit of the field-screening data reliability (5 ppmv to 10 ppmv). The first figure of each set displays an aerial view of the plume contours at 60 ft below the mesa top; borehole locations are identified. Cross section A-A' is perpendicular to the mesa, and cross

section B-B' is along the middle of the mesa parallel to the sides. Structures are the current operational facilities. The second and third figures of each set depict the plume contours across transects A-A' and B-B'.

The figures indicate that the VOC plume, as represented by TCA screening data, has been near a steady condition since the first quarter of FY 1999. The extent of the plume along transect A-A' is bounded by the mesa sides. The screening results also indicate that the 10-ppmv contour remained relatively constant at a depth, nominally 650 ft above the regional groundwater table. The maximum TCA concentrations, represented by the 500-ppmv contour, is coincident with the disposal shafts and pits of MDA L and have remained steady since FY 1999. The aerial figures show that the lateral extent of the MDA L plume is borehole constrained by the extensive array of vapor-monitoring boreholes.

Figures C-16 through C-19 display results of the three-dimensional visualizations of 16 quarters for MDA G for FY 1999 through FY 2002. A three-dimensional visualization similar to that shown for MDA L was initiated to evaluate the extent of VOCs at MDA G. However, to date, insufficient data exist spatially and through time to show a meaningful three-dimensional interpretation. Further sampling of all the MDA G boreholes is anticipated to fill this data need.

5.0 MDA C, TA-50 PORE-GAS ACTIVITIES FOR FY 2002

MDA C at TA-50 was used for disposal of classified materials, inorganic chemicals, hazardous compounds, and radioactive waste from 1948 to 1994. The disposal area consisted of 7 pits and 108 shafts excavated from Bandelier Tuff; the pits and shafts are distributed across the 11.8-acre site. All the pits and shafts were filled to capacity and subsequently covered with a crushed tuff and a top-soil cap in 1984. RCRA facility investigations from 1993 to 1995 consisted of surface and subsurface soil and core sampling. Samples were analyzed for the potential chemicals of concern defined in the OU 1147 RFI work plan; these included inorganic, organic, and radiological constituents. No samples of subsurface soil vapor were collected during these investigations, and based upon information from other site investigations, this was identified as a potential data gap.

The extensive vapor sampling at TA-54, MDA L, has identified that the VOCs disposed in Bandelier Tuff are present in the subsurface in the form of organic vapors. The very low organic and moisture content of the Bandelier Tuff greatly limits or excludes sorption of VOCs to the matrix. Therefore, traditional fixed analytical laboratory analysis of core samples will likely not detect VOCs, which are present primarily as vapor in the pore space. Therefore, to characterize the nature and extent of potential vapor phase contamination at TA-50, MDA C, the ER Project initiated a pore-gas investigation utilizing technologies successful at MDA L.

Two boreholes at MDA C are equipped with positive pressure membranes for sampling. Boreholes 50-9100 and 50-10131 are located in areas of elevated surface flux of VOCs as determined by the EMFLUX soil-gas surveys, the likely areas of maximum vertical extent. The limited number of samples collected to date at MDA C are insufficient for meaningful trend analysis. However, concentrations are in the ppm range near the depth of disposal and diffuse with depth, indicating a diminished historical source.

6.0 REFERENCES

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LANL (Los Alamos National Laboratory), May 1992. "RFI Work Plan for Operable Unit 1148," Los Alamos National Laboratory report LA-UR-92-855, Los Alamos, New Mexico. (LANL 1992, 7669)

ATTACHMENT A:
THIRD-QUARTER ANALYTICAL RESULTS FOR FISCAL YEAR 2002

Well:	**54-2009**	**FY2002 3rd Quarter**
Depth:	**62**	**MDA G**
Date:	**5/14/02**	
Sample ID:	**MD54-02-45574**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-35-4	1,1-Dichloroethene	2.2	0.17
75-34-3	1,1-Dichloroethane	2.1	0.17
71-55-6	1,1,1-Trichloroethane	46	0.17
79-01-6	Trichloroethene	0.3	0.17
127-18-4	Tetrachloroethene	0.66	0.17

Well:	**54-1111**	**FY2002 3rd Quarter**
Depth:	**20**	**PAMG**
Date:	**5/22/02**	
Sample ID:	**MD54-02-45575**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	0.11	0.0034
75-69-4	Trichlorofluoromethane	0.027	0.0034
75-35-4	1,1-Dichloroethene	0.13	0.0034
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	0.28	0.0034
75-09-2	Methylene Chloride	0.0096	0.0034
75-34-3	1,1-Dichloroethane	0.037	0.0034
67-66-3	Chloroform	0.0036	0.0034
71-55-6	1,1,1-Trichloroethane	1.2	0.0034
79-01-6	Trichloroethene	0.052	0.0034
127-18-4	Tetrachloroethene	0.041	0.0034
64-17-5	Ethanol	0.029	0.013

Well:	**54-1121**	**FY2002 3rd Quarter**
Depth:	**76**	**PAMG**
Date:	**5/17/02**	
Sample ID:	**MD54-02-45576**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-35-4	1,1-Dichloroethene	4.9	0.17
75-34-3	1,1-Dichloroethane	2.8	0.17
71-55-6	1,1,1-Trichloroethane	35	0.17
79-01-6	Trichloroethene	1.3	0.17
127-18-4	Tetrachloroethene	0.62	0.17

Well:	**54-2033**	**FY2002 3rd Quarter**
Depth:	**100**	**MDA G**
Date:	**5/17/02**	
Sample ID:	**MD54-02-45577**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	0.032	0.00084
75-69-4	Trichlorofluoromethane	0.039	0.00084
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	0.018	0.00084
75-09-2	Methylene Chloride	0.0021	0.00084
67-66-3	Chloroform	0.0014	0.00084
71-55-6	1,1,1-Trichloroethane	0.042	0.00084
79-01-6	Trichloroethene	0.0049	0.00084
127-18-4	Tetrachloroethene	0.014	0.00084
67-64-1	Acetone	0.0044	0.0034

Well:	**54-2029**	**FY2002 3rd Quarter**
Depth:	**100**	**MDA G**
Date:	**5/14/02**	
Sample ID:	**MD54-02-45578**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	0.012	0.0034
75-69-4	Trichlorofluoromethane	0.033	0.0034
75-35-4	1,1-Dichloroethene	0.042	0.0034
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	0.23	0.0034
75-09-2	Methylene Chloride	0.01	0.0034
75-34-3	1,1-Dichloroethane	0.0089	0.0034
67-66-3	Chloroform	0.028	0.0034
71-55-6	1,1,1-Trichloroethane	1	0.0034
56-23-5	Carbon Tetrachloride	0.0081	0.0034
107-06-2	1,2-Dichloroethane	0.0034	0.0034
79-01-6	Trichloroethene	0.24	0.0034
78-87-5	1,2-Dichloropropane	0.0087	0.0034
108-88-3	Tolulene	0.0042	0.0034
127-18-4	Tetrachloroethene	0.028	0.0034

Well:	**54-2030**	**FY2002 3rd Quarter**
Depth:	**100**	**MDA G**
Date:	**5/22/02**	
Sample ID:	**MD54-02-45579**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	0.028	0.0067
75-69-4	Trichlorofluoromethane	0.069	0.0067
75-35-4	1,1-Dichloroethene	0.1	0.0067
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	0.5	0.0067
75-34-3	1,1-Dichloroethane	0.016	0.0067
67-66-3	Chloroform	0.082	0.0067
71-55-6	1,1,1-Trichloroethane	2.1	0.0067
56-23-5	Carbon Tetrachloride	0.018	0.0067
79-01-6	Trichloroethene	0.44	0.0067
127-18-4	Tetrachloroethene	0.065	0.0067

Well:	**54-1015**	**FY2002 3rd Quarter**
Depth:	**385**	**MDA L**
Date:	**5/21/02**	
Sample ID:	**MD54-02-45580**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	0.0039	0.00088
75-69-4	Trichlorofluoromethane	0.0025	0.00088
75-35-4	1,1-Dichloroethene	0.018	0.00088
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	0.01	0.00088
75-34-3	1,1-Dichloroethane	0.0025	0.00088
71-55-6	1,1,1-Trichloroethane	0.052	0.00088
79-01-6	Trichloroethene	0.0053	0.00088
127-18-4	Tetrachloroethene	0.0025	0.00088
67-64-1	Acetone	0.0049	0.0035

Well:	**54-2002**	**FY2002 3rd Quarter**
Depth:	**180**	**MDA L**
Date:	**5/14/02**	
Sample ID:	**MD54-02-45581**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-69-4	Trichlorofluoromethane	12	0.86
75-35-4	1,1-Dichloroethene	7.5	0.86
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	37	0.86
75-09-2	Methylene Chloride	24	0.86
75-34-3	1,1-Dichloroethane	5	0.86
67-66-3	Chloroform	7.8	0.86
71-55-6	1,1,1-Trichloroethane	270	0.86
56-23-5	Carbon Tetrachloride	1.3	0.86
71-43-2	Benzene	1.3	0.86
107-06-2	1,2-Dichloroethane	7	0.86
79-01-6	Trichloroethene	62	0.86
78-87-5	1,2-Dichloropropane	12	0.86
108-88-3	Tolulene	3.1	0.86
127-18-4	Tetrachloroethene	5.8	0.86
106-42-3	m,p-Xylene	1.2	0.86
95-47-6	o-Xylene	0.94	0.86
67-63-0	2-Propanol	23	3.4

Well:	**54-2021**	**FY2002 3rd Quarter**
Depth:	**100**	**MDA L**
Date:	**5/22/02**	
Sample ID:	**MD54-02-45582**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	0.25	0.18
75-69-4	Trichlorofluoromethane	0.17	0.18
75-35-4	1,1-Dichloroethene	0.81	0.18
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	0.83	0.18
75-09-2	Methylene Chloride	0.82	0.18
75-34-3	1,1-Dichloroethane	1.4	0.18
67-66-3	Chloroform	0.22	0.18
71-55-6	1,1,1-Trichloroethane	53	0.18
107-06-2	1,2-Dichloroethane	1.2	0.18
79-01-6	Trichloroethene	13	0.18
78-87-5	1,2-Dichloropropane	0.18	0.18
127-18-4	Tetrachloroethene	0.98	0.18

Well:	**54-2023**	**FY2002 3rd Quarter**
Depth:	**159**	**MDA L**
Date:	**5/23/02**	
Sample ID:	**MD54-02-45583**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	0.12	0.084
75-69-4	Trichlorofluoromethane	0.4	0.084
75-35-4	1,1-Dichloroethene	0.87	0.084
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	3	0.084
75-09-2	Methylene Chloride	0.11	0.084
75-34-3	1,1-Dichloroethane	0.15	0.084
67-66-3	Chloroform	0.38	0.084
71-55-6	1,1,1-Trichloroethane	14	0.084
56-23-5	Carbon Tetrachloride	0.11	0.084
79-01-6	Trichloroethene	3.7	0.084
127-18-4	Tetrachloroethene	0.026	0.084

Well:	**54-2026**	**FY2002 3rd Quarter**
Depth:	**160**	**MDA G**
Date:	**5/14/02**	
Sample ID:	**MD54-02-45584**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	0.042	0.0067
75-69-4	Trichlorofluoromethane	0.1	0.0067
75-35-4	1,1-Dichloroethene	0.19	0.0067
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	0.72	0.0067
75-09-2	Methylene Chloride	0.044	0.0067
75-34-3	1,1-Dichloroethane	0.02	0.0067
67-66-3	Chloroform	0.077	0.0067
71-55-6	1,1,1-Trichloroethane	2.6	0.0067
56-23-5	Carbon Tetrachloride	0.028	0.0067
79-01-6	Trichloroethene	0.6	0.0067
127-18-4	Tetrachloroethene	0.07	0.0067
67-64-1	Acetone	0.063	0.027

Well:	**54-2034**	**FY2002 3rd Quarter**
Depth:	**60**	**MDA L**
Date:	**5/17/02**	
Sample ID:	**MD54-02-45585**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	0.028	0.017
75-69-4	Trichlorofluoromethane	0.023	0.017
75-35-4	1,1-Dichloroethene	0.076	0.017
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	0.055	0.017
75-09-2	Methylene Chloride	0.025	0.017
75-34-3	1,1-Dichloroethane	0.076	0.017
67-66-3	Chloroform	0.2	0.017
71-55-6	1,1,1-Trichloroethane	3.9	0.017
107-06-2	1,2-Dichloroethane	0.025	0.017
79-01-6	Trichloroethene	0.73	0.017
127-18-4	Tetrachloroethene	0.033	0.017

Well:	**54-2029**	**FY2002 3rd Quarter**
Depth:	**100**	**MDA G**
Date:	**5/17/02**	
Sample ID:	**MD54-02-45586**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	0.0098	0.0034
75-69-4	Trichlorofluoromethane	0.027	0.0034
75-35-4	1,1-Dichloroethene	0.051	0.0034
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	0.18	0.0034
75-09-2	Methylene Chloride	0.0047	0.0034
75-34-3	1,1-Dichloroethane	0.016	0.0034
67-66-3	Chloroform	0.022	0.0034
71-55-6	1,1,1-Trichloroethane	0.88	0.0034
56-23-5	Carbon Tetrachloride	0.006	0.0034
79-01-6	Trichloroethene	0.19	0.0034
127-18-4	Tetrachloroethene	0.022	0.0034

Well:	**54-2029**	**FY2002 3rd Quarter**
Depth:	**0**	**MDA G**
Date:	**5/17/02**	
Sample ID:	**MD54-02-45587**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
71-55-6	1,1,1-Trichloroethane	49	0.17
79-01-6	Trichloroethene	22	0.17
127-18-4	Tetrachloroethene	5	0.17

Well:	**54-2029**	**FY2002 3rd Quarter**
Depth:	**0**	**MDA G**
Date:	**5/17/02**	
Sample ID:	**MD54-02-45588**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
67-64-1	Acetone	0.019	0.0034

Well:	**50-10131**	**FY2002 3rd Quarter**
Depth:	**125**	**MDA C**
Date:	**5/29/02**	
Sample ID:	**MD50-02-45571**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	0.057	0.007
75-69-4	Trichlorofluoromethane	0.0084	0.007
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	0.064	0.007
75-09-2	Methylene Chloride	0.022	0.007
156-59-2	cis-1,2-Dichloroethene	0.014	0.007
67-66-3	Chloroform	0.2	0.007
71-55-6	1,1,1-Trichloroethane	0.041	0.007
56-23-5	Carbon Tetrachloride	0.044	0.007
107-06-2	1,2-Dichloroethane	0.017	0.007
79-01-6	Trichloroethene	1.9	0.007
78-87-5	1,2-Dichloropropane	0.089	0.007
127-18-4	Tetrachloroethene	1.1	0.007

Well:	**50-10131**	**FY2002 3rd Quarter**
Depth:	**50**	**MDA C**
Date:	**2/29/02**	
Sample ID:	**MD50-02-45570**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	0.032	0.007
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	0.028	0.007
75-09-2	Methylene Chloride	0.011	0.007
156-59-2	cis-1,2-Dichloroethene	0.0075	0.007
67-66-3	Chloroform	0.32	0.007
71-55-6	1,1,1-Trichloroethane	0.035	0.007
56-23-5	Carbon Tetrachloride	0.02	0.007
107-06-2	1,2-Dichloroethane	0.018	0.007
79-01-6	Trichloroethene	2.2	0.007
78-87-5	1,2-Dichloropropane	0.052	0.007
127-18-4	Tetrachloroethene	2	0.007

Well:	**50-10131**	**FY2002 3rd Quarter**
Depth:	**200**	**MDA C**
Date:	**2/29/02**	
Sample ID:	**MD50-02-45572**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	0.052	0.007
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	0.038	0.007
75-09-2	Methylene Chloride	0.023	0.007
156-59-2	cis-1,2-Dichloroethene	0.013	0.007
67-66-3	Chloroform	0.096	0.007
71-55-6	1,1,1-Trichloroethane	0.028	0.007
56-23-5	Carbon Tetrachloride	0.051	0.007
107-06-2	1,2-Dichloroethane	0.0079	0.007
79-01-6	Trichloroethene	1.6	0.007
78-87-5	1,2-Dichloropropane	0.061	0.007
127-18-4	Tetrachloroethene	0.81	0.007

Well:	**50-10131**	**FY2002 3rd Quarter**
Depth:	**260**	**MDA C**
Date:	**2/29/02**	
Sample ID:	**MD50-02-45573**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	0.073	
75-69-4	Trichlorofluoromethane	0.0072	0.007
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	0.03	0.007
75-09-2	Methylene Chloride	0.026	0.007
156-59-2	cis-1,2-Dichloroethene	0.014	0.007
67-66-3	Chloroform	0.066	0.007
71-55-6	1,1,1-Trichloroethane	0.025	0.007
56-23-5	Carbon Tetrachloride	0.078	0.007
79-01-6	Trichloroethene	1.9	0.007
78-87-5	1,2-Dichloropropane	0.05	0.007
127-18-4	Tetrachloroethene	0.81	0.007

ATTACHMENT B:
FOURTH-QUARTER ANALYTICAL RESULTS FOR FISCAL YEAR 2002

Well:	**54-2028**	**FY2002 4th Quarter**
Depth:	**100**	**MDA L**
Date:	**7/17/2002**	
Sample ID:	**MD54-02-47975**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	0.026	0.011
75-69-4	Trichlorofluoromethane	0.11	0.011
75-35-4	1,1-Dichloroethene	0.12	0.011
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	0.59	0.011
75-09-2	Methylene Chloride	0.025	0.011
75-34-3	1,1-Dichloroethane	0.026	0.011
67-66-3	Chloroform	0.087	0.011
71-55-6	1,1,1-Trichloroethane	2.6	0.011
79-01-6	Trichloroethene	0.64	0.011
127-18-4	1,2-Dichlropropane	0.012	0.011
127-18-4	Tetrachlroethene	0.064	0.011

Well:	**54-2029**	**FY2002 4th Quarter**
Depth:	**100**	**MDA L**
Date:	**7/16/2002**	
Sample ID:	**MD54-02-47976**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	0.011	0.0034
75-69-4	Trichlorofluoromethane	0.036	0.0034
75-35-4	1,1-Dichloroethene	0.036	0.0034
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	0.21	0.0034
75-09-2	Methylene Chloride	0.0018	0.0034
75-34-3	1,1-Dichloroethane	0.0057	0.0034
67-66-3	Chloroform	0.0021	0.0034
71-55-6	1,1,1-Trichloroethane	0.77	0.0034
79-01-6	Trichloroethene	0.18	0.0034
127-18-4	Tetrachloroethene	0.2	0.0034

Well:	**54-2030**	**FY2002 4th Quarter**
Depth:	**100**	**MDA L**
Date:	**7/18/2002**	
Sample ID:	**MD54-02-47977**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	0.031	0.007
75-69-4	Trichlorofluoromethane	0.093	0.007
75-35-4	1,1-Dichloroethene	0.11	0.007
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	0.56	0.007
75-34-3	1,1-Dichloroethane	0.014	0.007
67-66-3	Chloroform	0.084	0.007
71-55-6	1,1,1-Trichloroethane	2.2	0.007
79-01-6	Trichloroethene	0.45	0.007
127-18-4	Tetrachloroethene	0.069	0.007

Well:	**54-2031**	**FY2002 4th Quarter**
Depth:	**100**	**MDA L**
Date:	**7/19/2002**	
Sample ID:	**MD54-02-47978**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	0.19	0.11
75-69-4	Trichlorofluoromethane	0.28	0.11
75-35-4	1,1-Dichloroethene	0.8	0.11
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	1.7	0.11
75-09-2	Methylene Chloride	0.3	0.11
75-34-3	1,1-Dichloroethane	0.46	0.11
67-66-3	Chloroform	0.25	0.11
71-55-6	1,1,1-Trichloroethane	24	0.11
107-06-2	1,2-Dichloroethane	0.23	0.11
79-01-6	Trichloroethene	6.2	0.11
127-18-4	Tetrachloroethene	1	0.11

Well:	**54-1015**	**FY2002 4th Quarter**
Depth:	**385**	**MDA L**
Date:	**7/25/2002**	
Sample ID:	**MD54-02-47979**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	0.0044	0.00084
75-69-4	Trichlorofluoromethane	0.003	0.00084
75-35-4	1,1-Dichloroethene	0.017	0.00084
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	0.0098	0.00084
75-09-2	Methylene Chloride	0.0012	0.00084
75-34-3	1,1-Dichloroethane	0.0021	0.00084
71-55-6	1,1,1-Trichloroethane	0.042	0.00084
79-01-6	Trichloroethene	0.0067	0.00084
108-88-3	Tolulene	0.0012	0.00084
127-18-4	Tetrachloroethene	0.0023	0.00084
67-64-1	Acetone	0.0093	0.00084

Well:	**54-1016**	**FY2002 4th Quarter**
Depth:	**390**	**MDA L**
Date:	**7/25/2002**	
Sample ID:	**MD54-02-47980**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	0.0046	0.0067
75-69-4	Trichlorofluoromethane	0.0034	0.0067
75-35-4	1,1-Dichloroethene	0.019	0.0067
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	0.011	0.0067
75-09-2	Methylene Chloride	0.0016	0.0067
75-34-3	1,1-Dichloroethane	0.0023	0.0067
71-55-6	1,1,1-Trichloroethane	0.052	0.0067
79-01-6	Trichloroethene	0.012	0.0067
127-18-4	Tetrachloroethene	0.0033	0.0067
67-64-1	Acetone	0.0036	0.0067

Well:	**54-2009**	**FY2002 4th Quarter**
Depth:	**62**	**MDA G**
Date:	**7/18/2002**	
Sample ID:	**MD54-02-47982**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-35-4	1,1-Dichloroethene	0.01	0.00086
75-34-3	1,1-Dichloroethane	0.0081	0.00086
71-55-6	1,1,1-Trichloroethane	0.21	0.00086
75-09-2	Methylene Chloride	0.0011	0.00086
127-18-4	Tetrachloroethene	0.0026	0.00086

Well:	**54-2010**	**FY2002 4th Quarter**
Depth:	**95**	**MDA L**
Date:	**7/17/2002**	
Sample ID:	**MD54-02-47983**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	0.21	0.18
75-69-4	Trichlorofluoromethane	0.39	0.18
75-35-4	1,1-Dichloroethene	0.37	0.18
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	0.96	0.18
75-34-3	1,1-Dichloroethane	0.44	0.18
71-55-6	1,1,1-Trichloroethane	11	0.18
79-01-6	Trichloroethene	0.18	0.18
127-18-4	Tetrachloroethene	0.16	0.18

Well:	**54-1121**	**FY2002 4th Quarter**
Depth:	**76**	**PAMG**
Date:	**7/22/2002**	
Sample ID:	**MD54-02-47989**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-35-4	1,1-Dichloroethene	4.6	0.17
75-34-3	1,1-Dichloroethane	2.3	0.17
71-55-6	1,1,1-Trichloroethane	31	0.17
79-01-6	Trichloroethene	1.2	0.17
127-18-4	Tetrachloroethene	0.75	0.17

Well:	**54-2012**	**FY2002 4th Quarter**
Depth:	**28**	**MDA L**
Date:	**7/23/2002**	
Sample ID:	**MD54-02-47984**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	15	8.4
75-35-4	1,1-Dichloroethene	10	8.4
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	13	8.4
75-09-2	Methylene Chloride	200	8.4
75-34-3	1,1-Dichloroethane	54	8.4
67-66-3	Chloroform	2700	8.4
107-06-2	1,2-Dichloroethane	100	8.4
79-01-6	Trichloroethene	520	8.4
127-18-4	Tetrachloroethene	52	8.4

Well:	**54-2022**	**FY2002 4th Quarter**
Depth:	**80**	**MDA L**
Date:	**8/1/2002**	
Sample ID:	**MD54-02-47985**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	0.41	0.0067
75-35-4	1,1-Dichloroethene	1.1	0.0067
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	1	0.0067
75-09-2	Methylene Chloride	1.5	0.0067
75-34-3	1,1-Dichloroethane	2.4	0.0067
71-55-6	1,1,1-Trichloroethane	100	0.0067
107-06-2	1,2-Dichloroethane	2.3	0.0067
79-01-6	Trichloroethene	23	0.0067
78-87-5	1,2-Dichloropropane	0.37	0.0067
127-18-4	Tetrachloroethene	1.7	0.0067

Well:	**54-2025**	**FY2002 4th Quarter**
Depth:	**100**	**MDA L**
Date:	**7/19/2002**	
Sample ID:	**MD54-02-47986**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-69-4	Trichlorofluoromethane	3.7	.34
75-35-4	1,1-Dichloroethene	2.2	.34
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	1.4	.34
75-09-2	Methylene Chloride	6.6	.34
75-34-3	1,1-Dichloroethane	1.2	.34
67-66-3	Chloroform	3	.34
71-55-6	1,1,1-Trichloroethane	77	.34
71-43-2	Benzene	0.37	.34
56-23-5	Carbon Tetrachloride	1.8	.34
79-01-6	Trichloroethene	17	.34
78-87-5	1,2-Dichloropropane	2.8	.34
108-88-3	Tolulene	0.44	.34
127-18-4	Tetrachloroethene	2.7	.34

Well:	**54-2026**	**FY2002 4th Quarter**
Depth:	**160**	**MDA L**
Date:	**7/18/2002**	
Sample ID:	**MD54-02-47987**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	0.045	0.011
75-69-4	Trichlorofluoromethane	0.13	0.011
75-35-4	1,1-Dichloroethene	0.18	0.011
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	0.73	0.011
75-09-2	Methylene Chloride	0.064	0.011
75-34-3	1,1-Dichloroethane	0.015	0.011
67-66-3	Chloroform	0.066	0.011
71-55-6	1,1,1-Trichloroethane	2.2	0.011
56-23-5	Carbon Tetrachloride	0.021	0.011
79-01-6	Trichloroethene	0.43	0.011
127-18-4	Tetrachloroethene	0.055	0.011

Well:	**54-2022**	**FY2002 4th Quarter**
Depth:	**PE**	**MDA C**
Date:	**8/2/2002**	
Sample ID:	**MD54-02-47990**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	0.57	0.34
76-14-2	1,2-Dichlorotetrafluoroethane	0.53	0.34
74-87-3	Chloromethane	0.63	0.34
75-01-4	Vinyl Chloride	0.57	0.34
74-83-9	Bromomethane	0.38	0.34
75-00-3	Chloroethane	0.5	0.34
75-69-4	Trichlorofluoromethane	0.51	0.34
75-35-4	1,1-Dichloroethene	0.79	0.34
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	0.46	0.34
75-09-2	Methylene Chloride	0.47	0.34
75-34-3	1,1-Dichloroethane	0.6	0.34
156-59-2	cis-1,2-Dichloroethene	0.47	0.34
67-66-3	Chloroform	0.55	0.34
71-55-6	1,1,1-Trichloroethane	56	0.34
56-23-5	Carbon Tetrachloride	0.56	0.34
71-43-2	Benzene	0.56	0.34
107-06-2	1,2-Dichloroethane	0.78	0.34
79-01-6	Trichloroethene	28	0.34
78-87-5	1,2-Dichloropropane	0.43	0.34
542-75-6	cis-1,3-Dichloropropene	0.39	0.34
108-88-3	Toluene	0.55	0.34
10061-02-6	trans-1,3-Dichloropropene	0.39	0.34
79-00-5	1,1,2-Trichloroethane	0.49	0.34
127-18-4	Tetrachloroethene	6.2	0.34
106-93-4	1,2-Dibromomethane	0.44	0.34
108-90-7	Chlorobenzene	0.53	0.34
100-41-4	Ethyl Benzene	0.49	0.34
108-38-3	m,p-Xylene	0.9	0.34
95-47-6	o-Xylene	0.44	0.34
100-42-5	Styrene	0.37	0.34
79-34-5	1,1,2,2-Tetrachloroethane	0.44	0.34

Well:	54-2002	FY2002 4th Quarter
Depth:	100	MDA L
Date:	7/19/2002	
Sample ID:	MD54-02-47991	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	1.6	0.7
76-14-2	1,2-Dichlorotetrafluoroethane	1.1	0.7
74-87-3	Chloromethane	1.4	0.7
75-01-4	Vinyl Chloride	1.2	0.7
74-83-9	Bromomethane	0.77	0.7
75-00-3	Chloroethane	1.1	0.7
75-69-4	Trichlorofluoromethane	17	0.7
75-35-4	1,1-Dichloroethene	6.4	0.7
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	31	0.7
75-09-2	Methylene Chloride	15	0.7
75-34-3	1,1-Dichloroethane	2	0.7
67-66-3	Chloroform	7.1	0.7
71-55-6	1,1,1-Trichloroethane	250	0.7
56-23-5	Carbon Tetrachloride	2.2	0.7
71-43-2	Benzene	2.1	0.7
107-06-2	1,2-Dichloroethane	7.5	0.7
79-01-6	Trichloroethene	57	0.7
78-87-5	1,2-Dichloropropane	11	0.7
542-75-6	cis-1,3-Dichloropropene	0.8	0.7
108-88-3	Toluene	6.2	0.7
10061-02-6	trans-1,3-Dichloropropene	0.8	0.7
79-00-5	1,1,2-Trichloroethane	1.2	0.7
127-18-4	Tetrachloroethene	6.8	0.7
106-93-4	1,2-Dibromomethane	0.93	0.7
108-90-7	Chlorobenzene	1.5	0.7
100-41-4	Ethyl Benzene	1.3	0.7
108-38-3	m,p-Xylene	3.7	0.7
95-47-6	o-Xylene	2.1	0.7
100-42-5	Styrene	0.84	0.7
79-34-5	1,1,2,2-Tetrachloroethane	0.95	0.7
95-63-6	1,2,4-Trimethylbenzene	0.78	0.7
109-99-9	Tetrahydrofuran	9	0.7

Well:	**54-2022**	**FY2002 4th Quarter**
Depth:	**80**	**MDA L**
Date:	**8/1/2002**	
Sample ID:	**MD54-02-47992**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	0.52	.34
75-69-4	Trichlorofluoromethane	0.41	.34
75-35-4	1,1-Dichloroethene	1.1	.34
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	0.96	.34
75-09-2	Methylene Chloride	1.2	.34
156-59-2	cis-1,2-Dichloroethene	2.2	.34
67-66-3	Chloroform	0.48	.34
71-55-6	1,1,1-Trichloroethane	88	.34
107-06-2	1,2-Dichloroethane	2.2	.34
79-01-6	Trichloroethene	21	.34
78-87-5	1,2-Dichloropropane	0.49	.34
127-18-4	Tetrachloroethene	1.5	.34

Well:	**50-9100**	**FY2002 4th Quarter**
Depth:	**260**	**MDA C**
Date:	**7/24/2002**	
Sample ID:	**MD50-02-48070**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	0.02	0.007
75-00-3	Chloroethane	0.0083	0.007
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	0.014	0.007
75-09-2	Methylene Chloride	0.065	0.007
156-59-2	cis-1,2-Dichloroethene	0.023	0.007
67-66-3	Chloroform	0.047	0.007
71-55-6	1,1,1-Trichloroethane	0.6	0.007
56-23-5	Carbon Tetrachloride	0.01	0.007
107-06-2	1,2-Dichloroethane	0.027	0.007
79-01-6	Trichloroethene	1.4	0.007
127-18-4	Tetrachloroethene	0.065	0.007
67-64-1	Acetone	0.031	0.007

Well:	**50-9100**	**FY2002 4th Quarter**
Depth:	**90**	**MDA C**
Date:	**7/24/2002**	
Sample ID:	**MD50-02-48069**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	0.056	.023
76-14-2	1,2-Dichlorotetrafluoroethane	0.03	.023
74-87-3	Chloromethane	0.051	.023
75-01-4	Vinyl Chloride	0.029	.023
75-00-3	Chloroethane	0.029	.023
75-69-4	Trichlorofluoromethane	0.04	.023
75-35-4	1,1-Dichloroethene	0.036	.023
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	0.044	.023
75-09-2	Methylene Chloride	0.27	.023
75-34-3	1,1-Dichloroethane	0.095	.023
156-59-2	cis-1,2-Dichloroethene	0.027	.023
67-66-3	Chloroform	0.037	.023
71-55-6	1,1,1-Trichloroethane	3.8	.023
56-23-5	Carbon Tetrachloride	0.035	.023
71-43-2	Benzene	0.034	.023
107-06-2	1,2-Dichloroethane	0.18	.023
79-01-6	Trichloroethene	0.83	.023
78-87-5	1,2-Dichloropropane	0.035	.023
108-88-3	Toluene	0.03	.023
79-00-5	1,1,2-Trichloroethane	0.025	.023
127-18-4	Tetrachloroethene	0.11	.023
108-90-7	Chlorobenzene	0.03	.023
100-41-4	Ethyl Benzene	0.029	.023
108-38-3	m,p-Xylene	0.046	.023
95-47-6	o-Xylene	0.023	.023
79-34-5	1,1,2,2-Tetrachloroethane	0.024	.023

Well:	**50-10131**	**FY2002 4th Quarter**
Depth:	**20**	**MDA C**
Date:	**7/24/2002**	
Sample ID:	**MD50-02-48071**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	0.022	0.0088
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	0.016	0.0088
67-66-3	Chloroform	0.24	0.0088
71-55-6	1,1,1-Trichloroethane	0.037	0.0088
56-23-5	Carbon Tetrachloride	0.014	0.0088
107-06-2	1,2-Dichloroethane	0.011	0.0088
79-01-6	Trichloroethene	2.1	0.0088
78-87-5	1,2-Dichloropropane	0.022	0.0088
127-18-4	Tetrachloroethene	2.4	0.0088

Well:	**50-10131**	**FY2002 4th Quarter**
Depth:	**125**	**MDA C**
Date:	**7/24/2002**	
Sample ID:	**MD50-02-48072**	

CAS Analyte Code	Compound Analyte Code Desc	Result [ppmv]	Reporting Limit [ppmv]
75-71-8	Dichlorodifluoromethane	0.022	0.0088
76-13-1	Trichloro-1,2,2-triflouroethane(R-113)	0.016	0.0088
67-66-3	Chloroform	0.24	0.0088
71-55-6	1,1,1-Trichloroethane	0.037	0.0088
56-23-5	Carbon Tetrachloride	0.014	0.0088
107-06-2	1,2-Dichloroethane	0.011	0.0088
79-01-6	Trichloroethene	2.1	0.0088
78-87-5	1,2-Dichloropropane	0.022	0.0088
127-18-4	Tetrachloroethene	2.4	0.0088

ATTACHMENT C:
QUARTERLY FIELD-SCREENING RESULTS

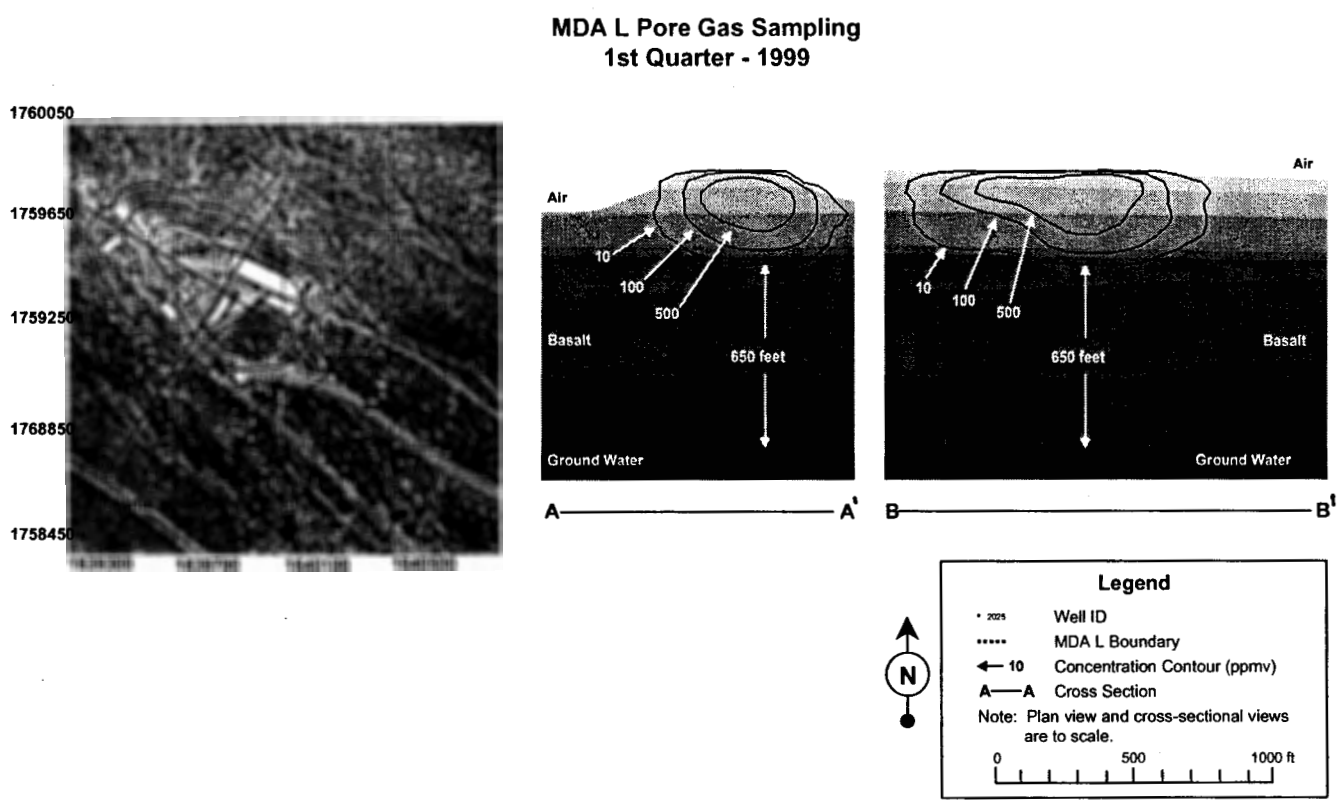


Figure C-1: MDA L Pore-Gas Sampling, 1st Quarter 1999

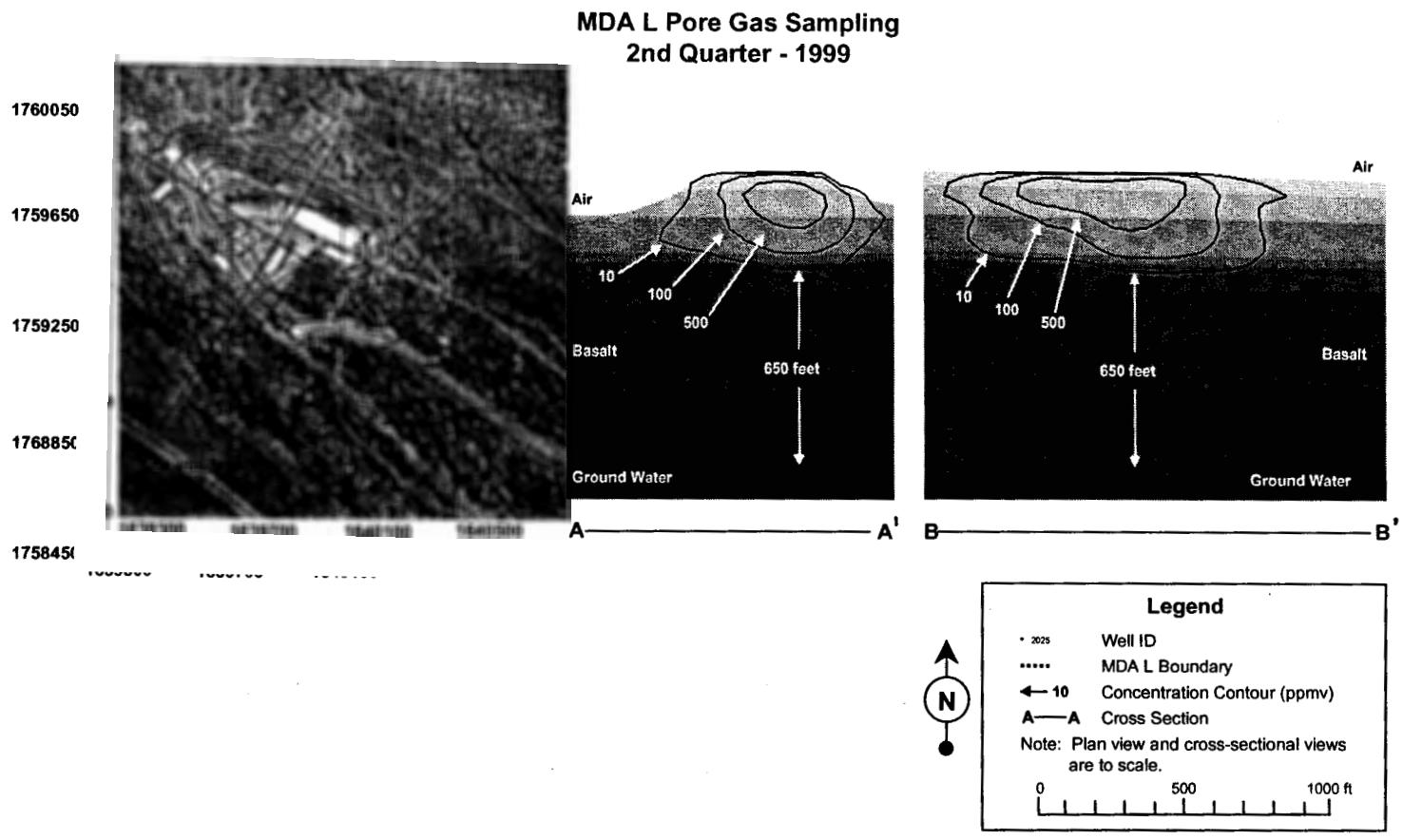


Figure C-2: MDA L Pore-Gas Sampling, 2nd Quarter 1999

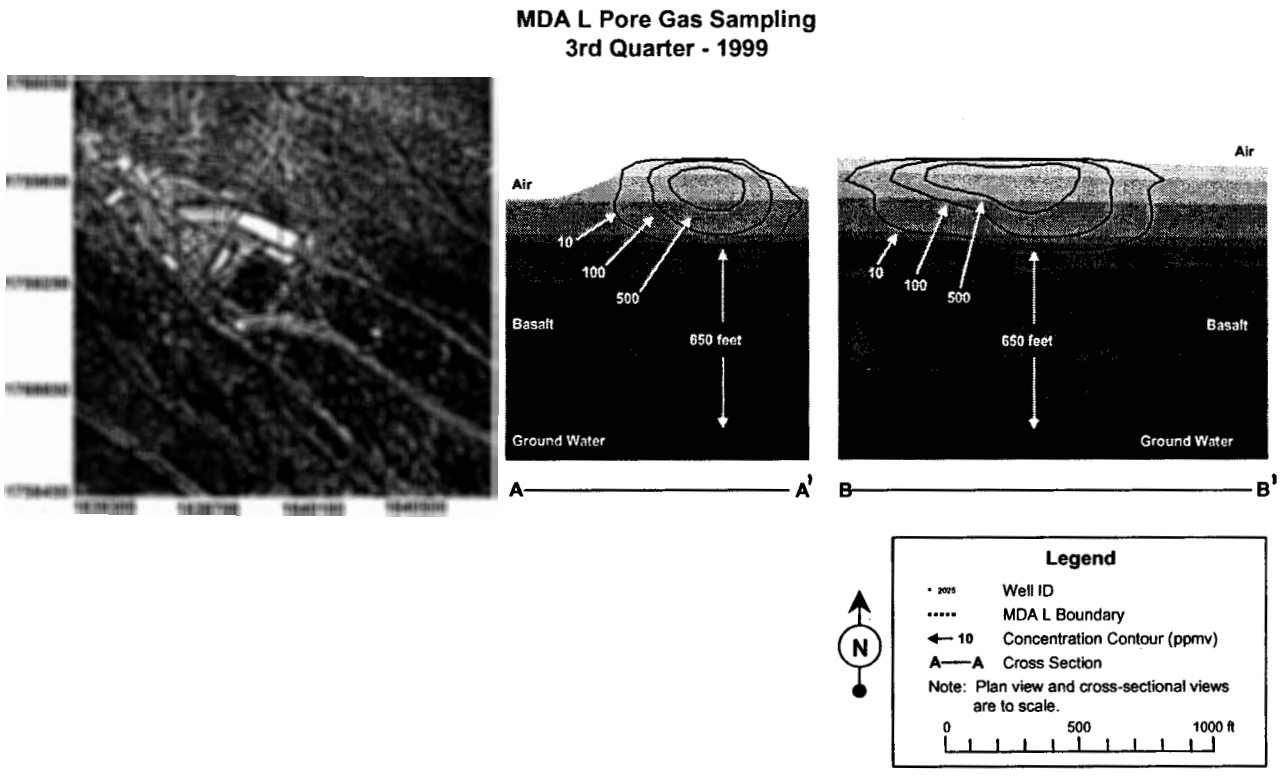


Figure C-3: MDA L Pore Gas Sampling, 3rd Quarter 1999

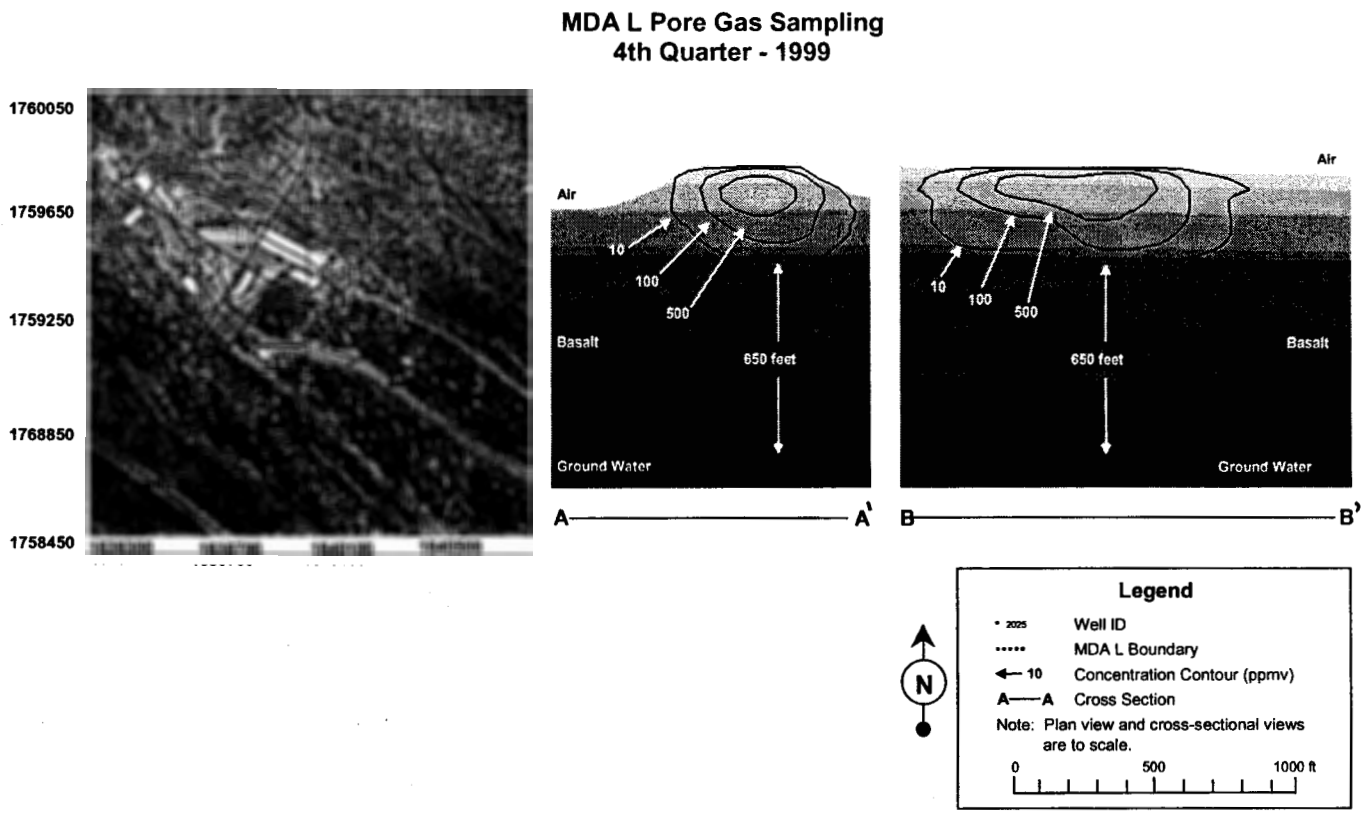


Figure C-4: MDA L Pore Gas Sampling, 4th Quarter 1999

MDA L Pore Gas Sampling
1st Quarter - 2000

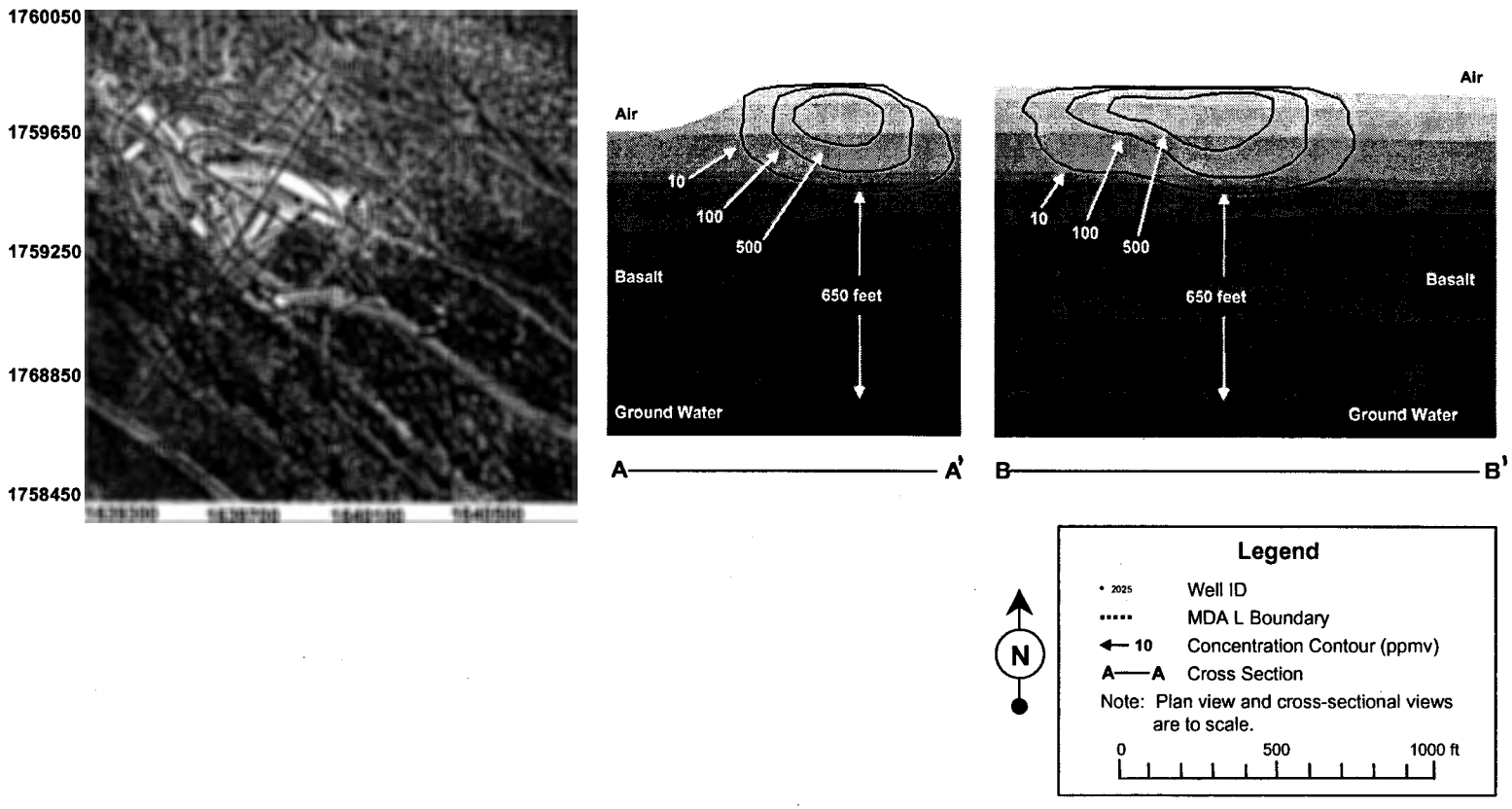


Figure C-5: MDA L Pore Gas Sampling, 1st Quarter 2000

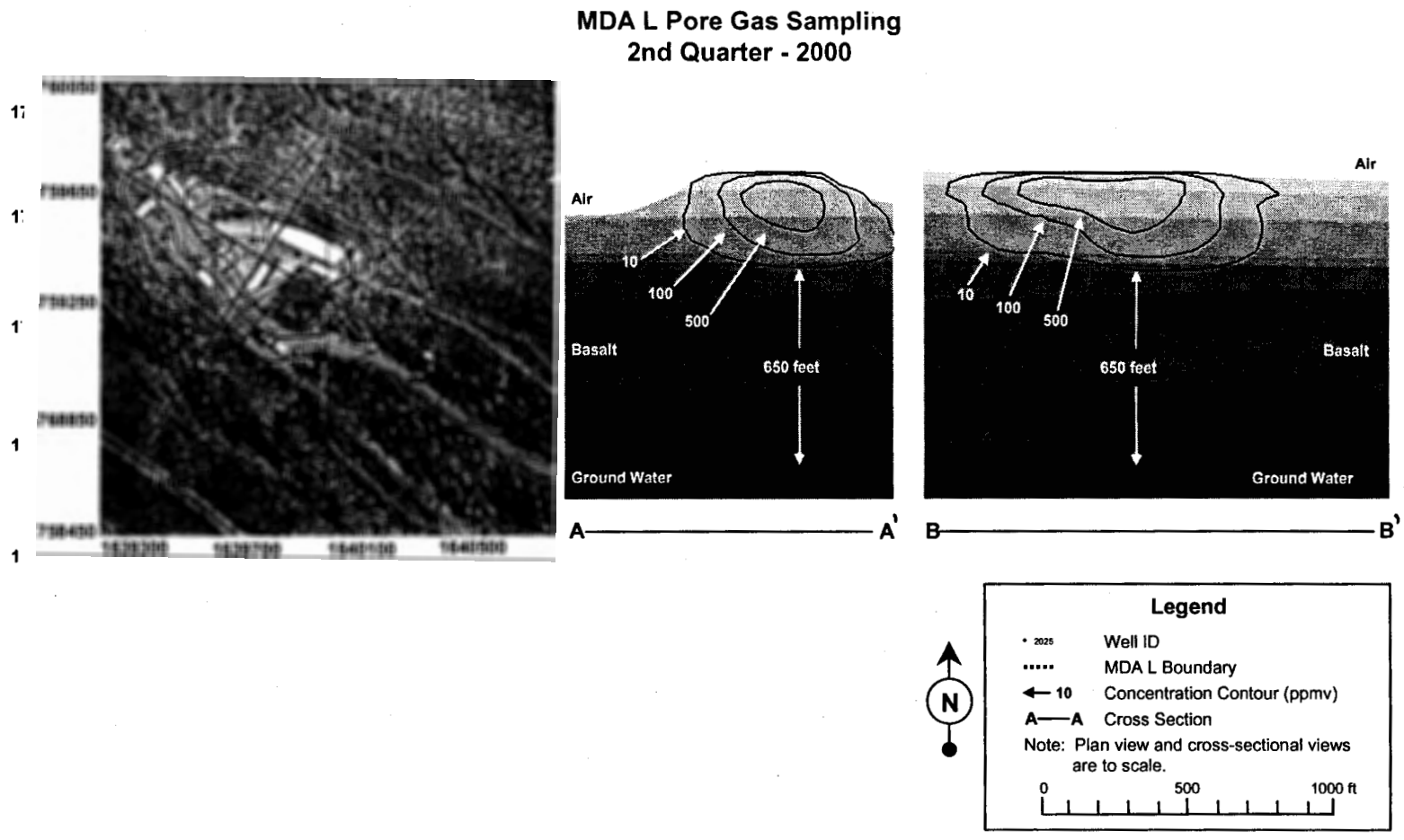


Figure C-6: MDA L Pore Gas Sampling, 2nd Quarter 2000

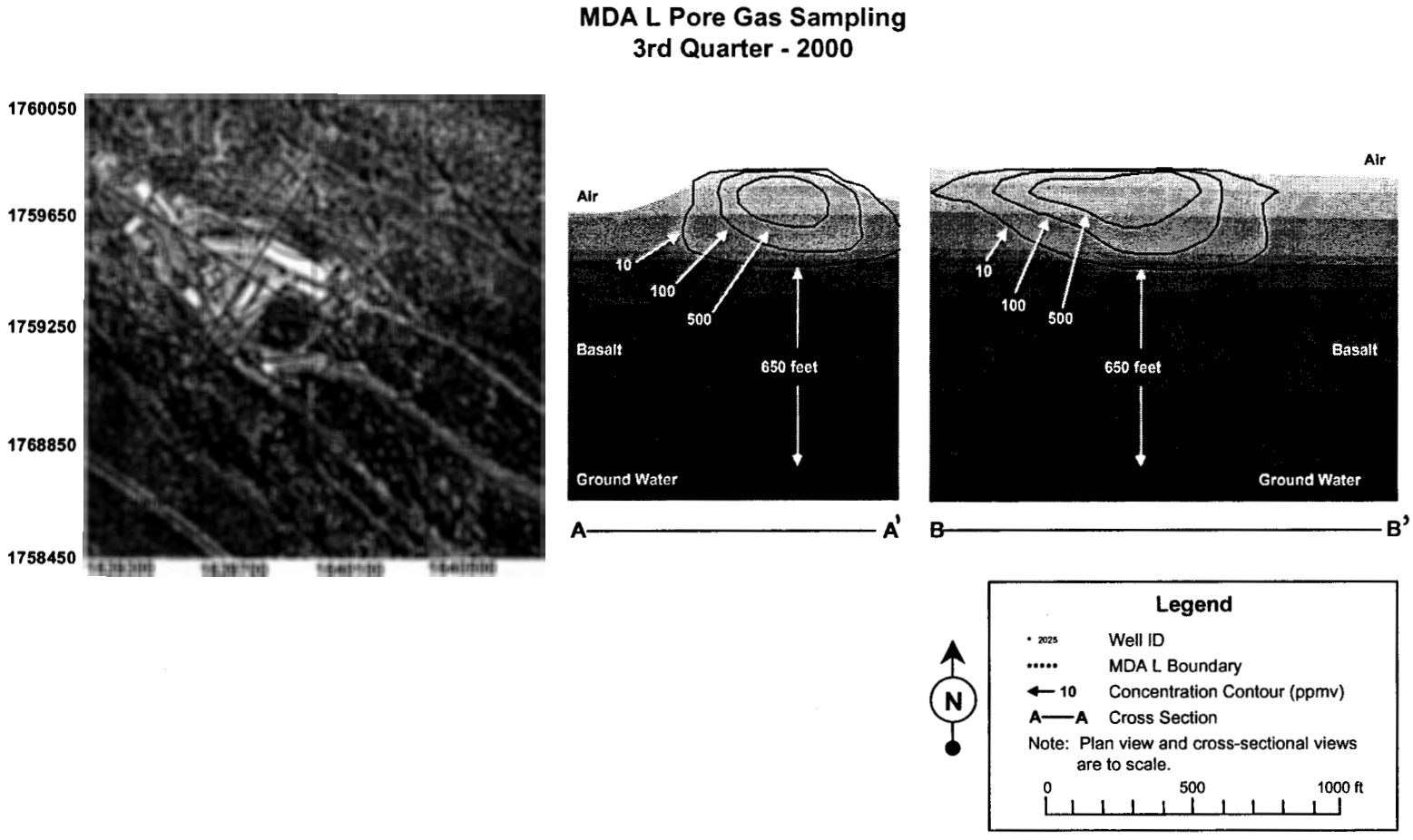


Figure C-7: MDA L Pore Gas Sampling, 3rd Quarter 2000

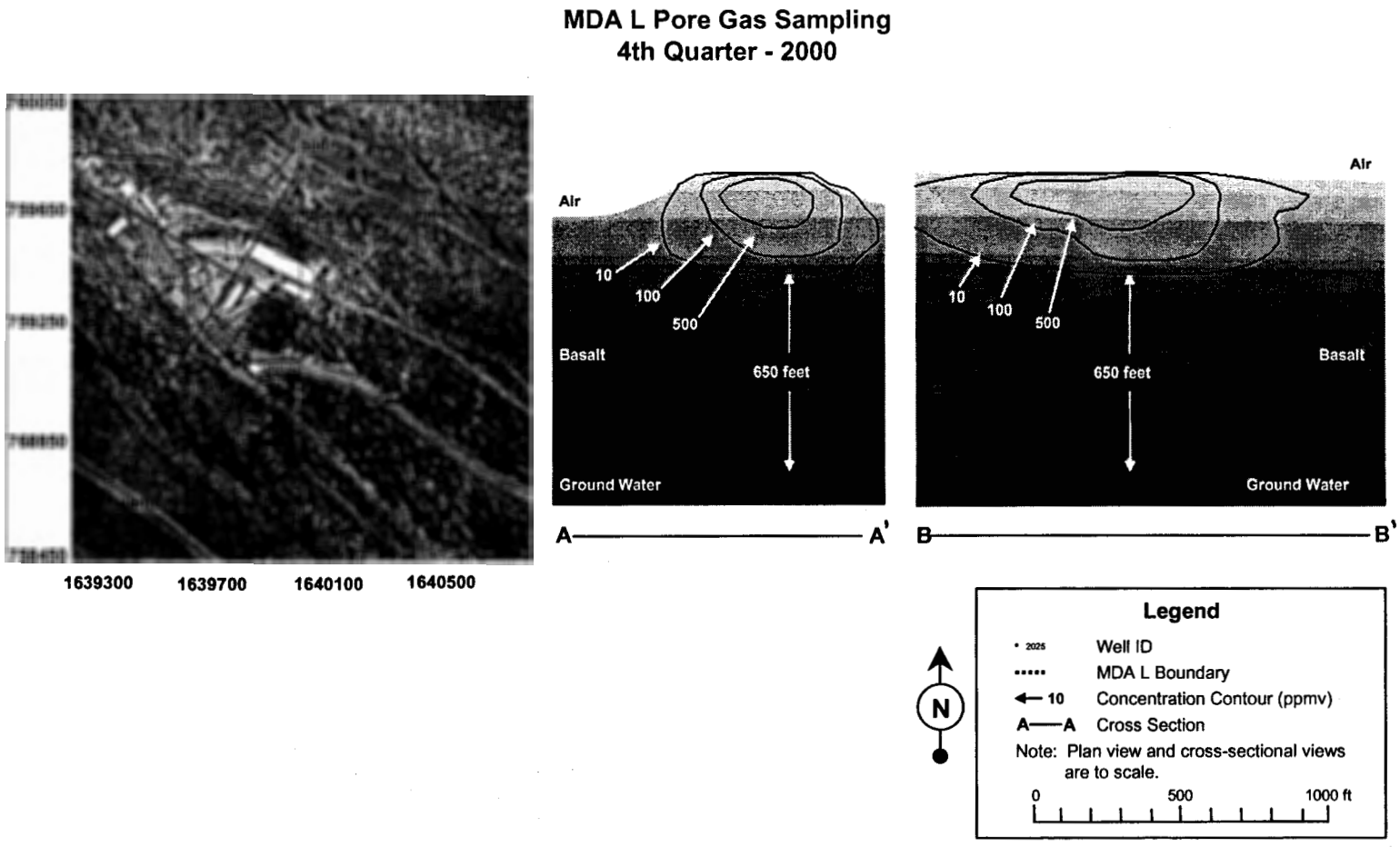


Figure C-8: MDA L Pore Gas Sampling, 4th Quarter 2000

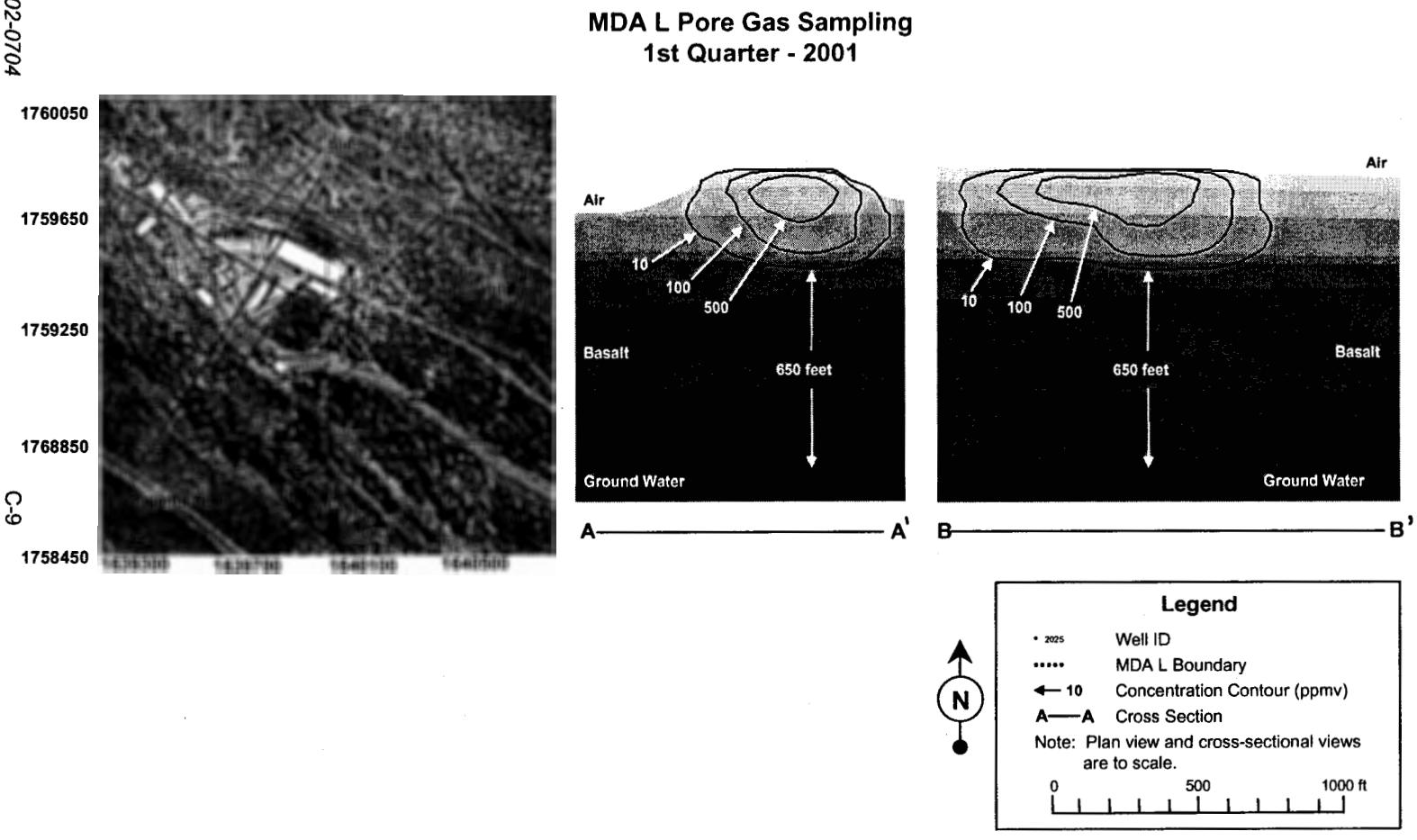
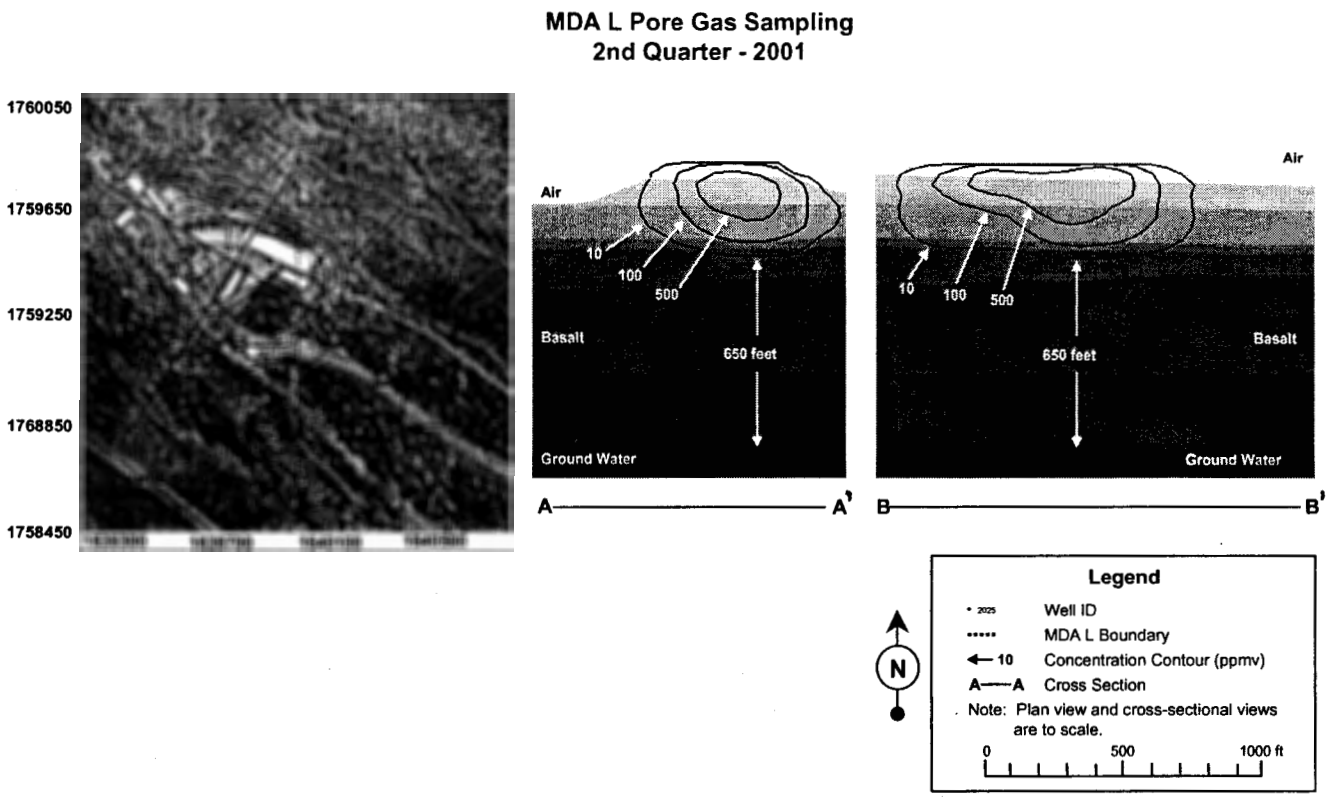
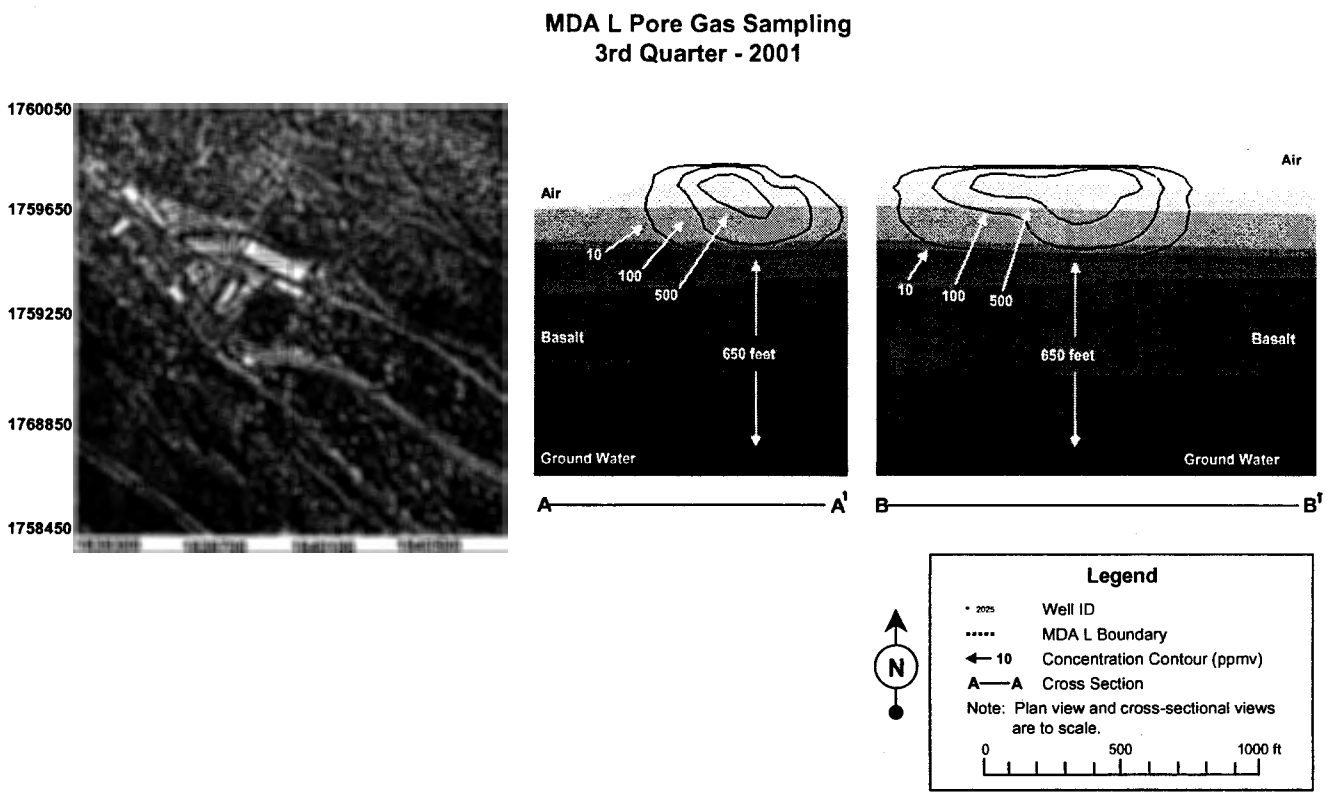


Figure C-9: MDA L Pore Gas Sampling, 1st Quarter 2001



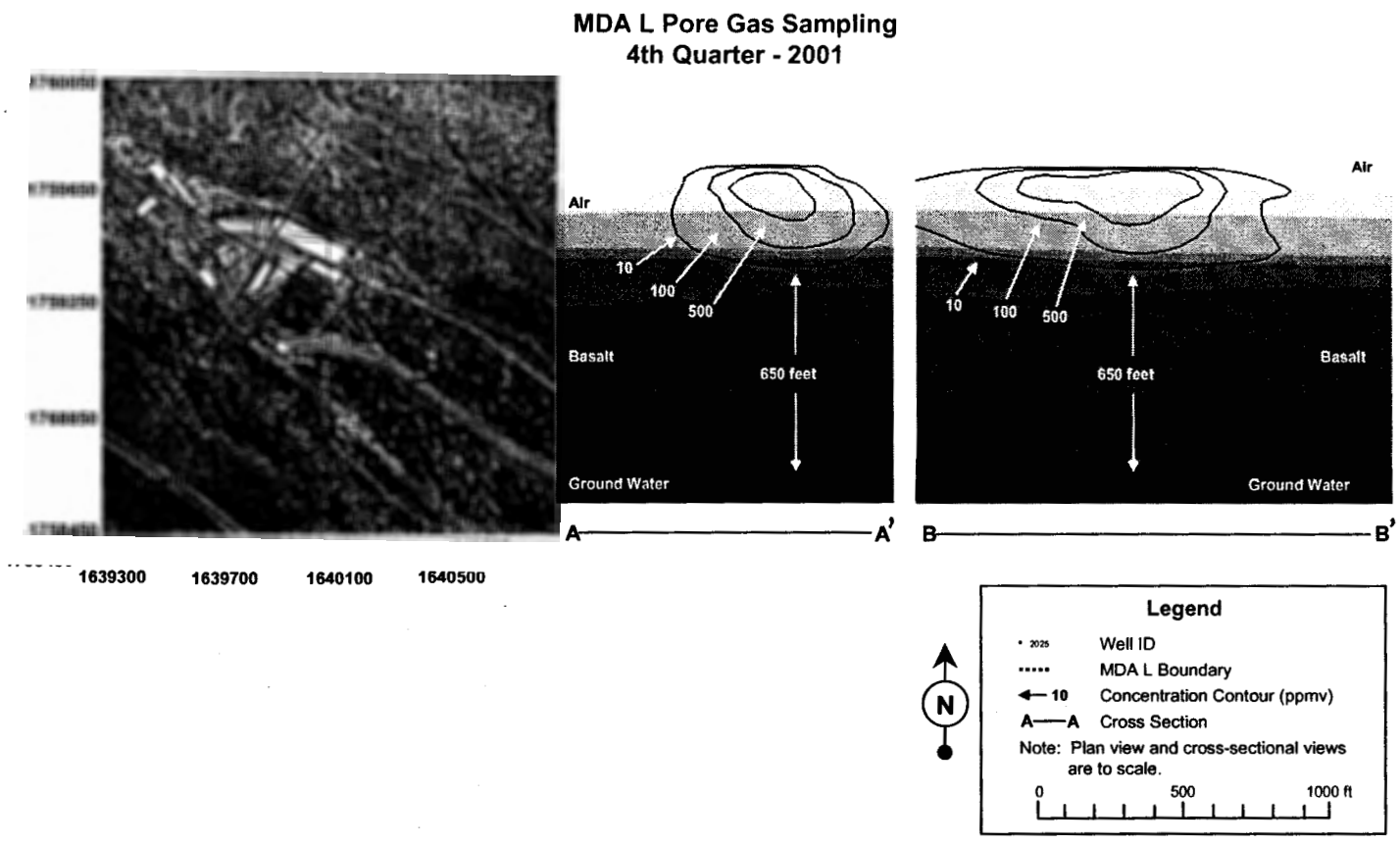
Data from boreholes 2087, 2088, and 2089 will be omitted from the pore gas sampling analysis from Q2-2002 forward. It was determined that these wells had soil gas interaction from port to port in addition to interaction from the subsurface to the atmosphere because of the way the wells were constructed. Well 2014, which is located in close proximity to 2087, 2088, and 2089 can be used in the future to capture the soil gas data for that same location.

Figure C-10: MDA L Pore Gas Sampling, 2nd Quarter 2001



Data from boreholes 2087, 2088, and 2089 will be omitted from the pore gas sampling analysis from Q2-2002 forward. It was determined that these wells had soil gas interaction from port to port in addition to interaction from the subsurface to the atmosphere because of the way the wells were constructed. Well 2014, which is located in close proximity to 2087, 2088, and 2089 can be used in the future to capture the soil gas data for that same location.

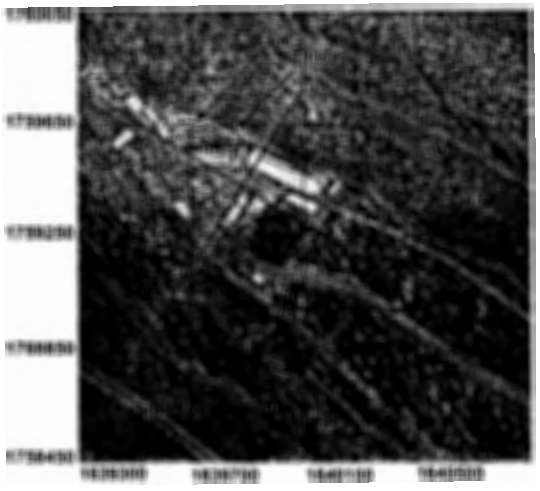
Figure C-11: MDA L Pore Gas Sampling, 3rd Quarter 2001

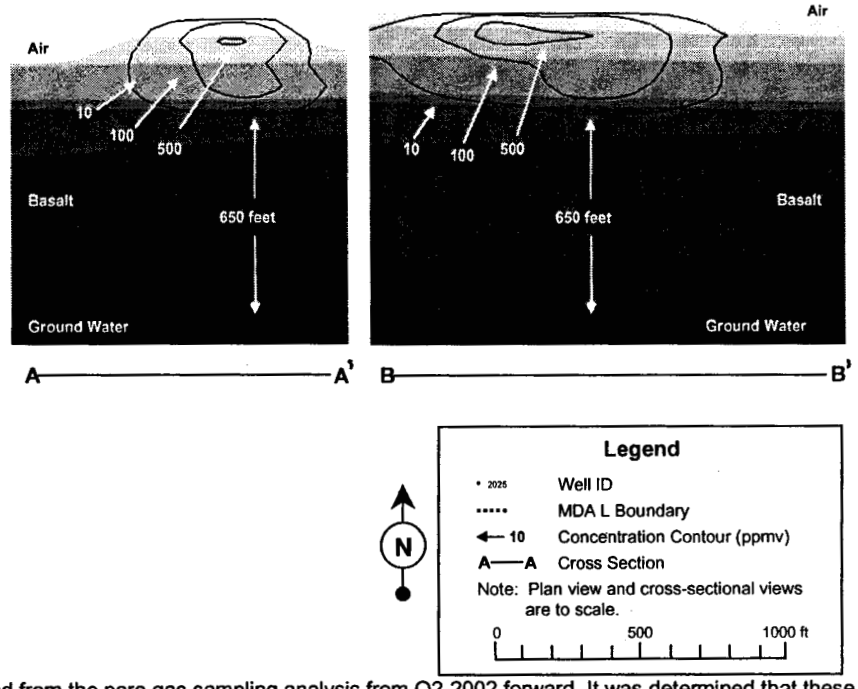


Data from boreholes 2087, 2088, and 2089 will be omitted from the pore gas sampling analysis from Q2-2002 forward. It was determined that these wells had soil gas interaction from port to port in addition to interaction from the subsurface to the atmosphere because of the way the wells were constructed. Well 2014, which is located in close proximity to 2087, 2088, and 2089 can be used in the future to capture the soil gas data for that same location

Figure C-12: MDA L Pore Gas Sampling, 4th Quarter 2001

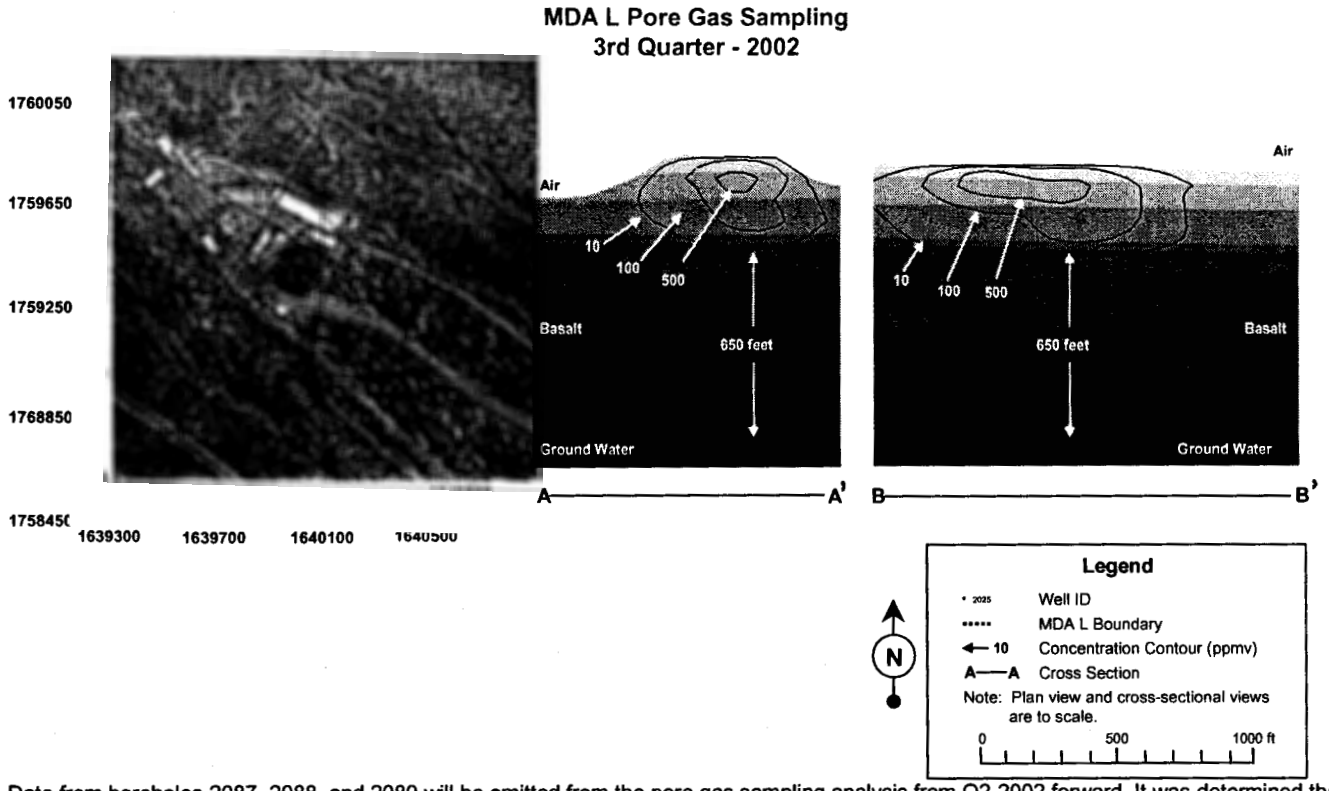
MDA L Pore Gas Sampling
2nd Quarter - 2002





Data from boreholes 2087, 2088, and 2089 will be omitted from the pore gas sampling analysis from Q2-2002 forward. It was determined that these wells had soil gas interaction from port to port in addition to interaction from the subsurface to the atmosphere because of the way the wells were constructed. Well 2014, which is located in close proximity to 2087, 2088, and 2089 can be used in the future to capture the soil gas data for that same location.

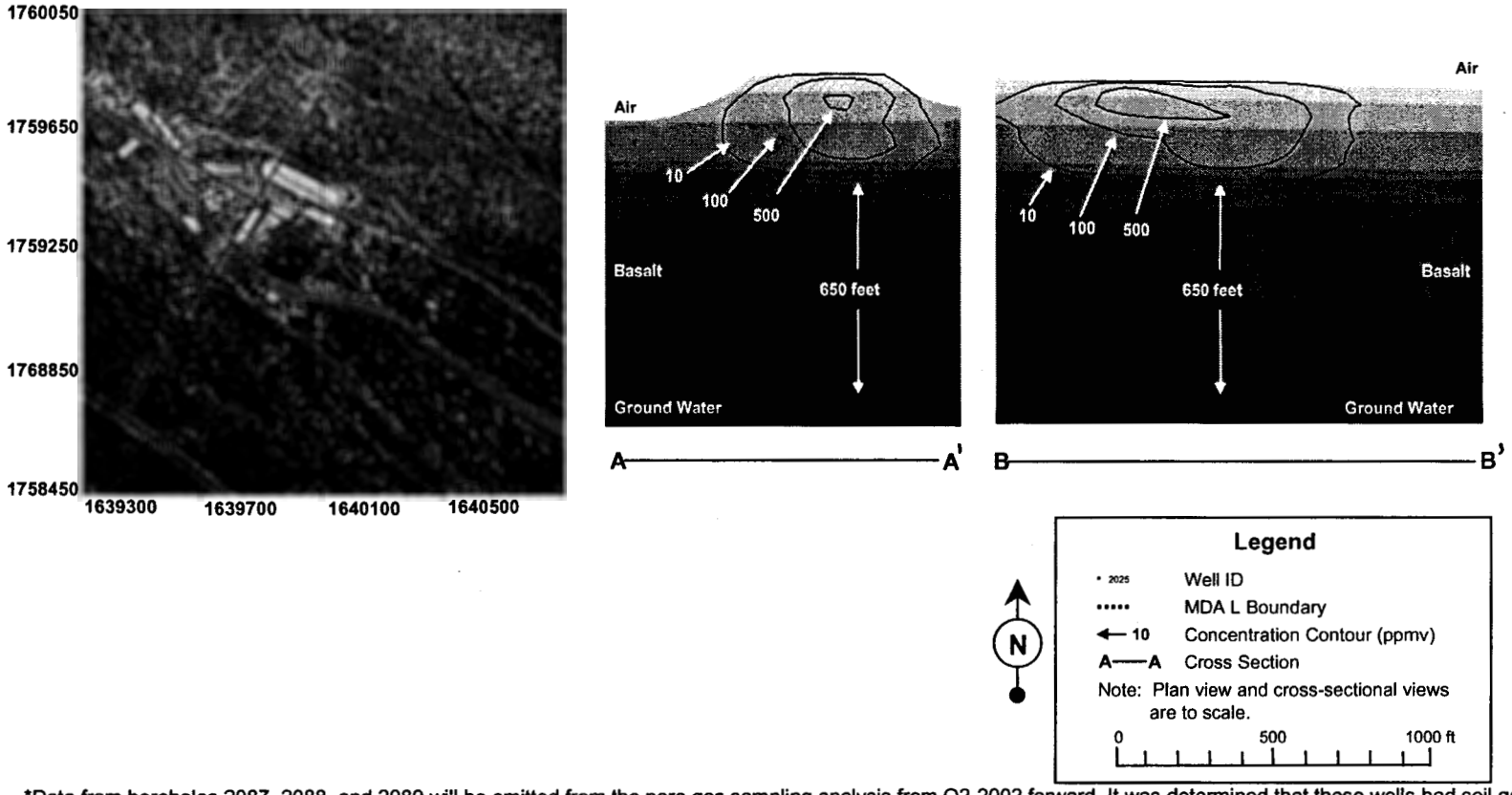
Figure C-13: MDA L Pore Gas Sampling, 2nd Quarter 2002



Data from boreholes 2087, 2088, and 2089 will be omitted from the pore gas sampling analysis from Q2-2002 forward. It was determined that these wells had soil gas interaction from port to port in addition to interaction from the subsurface to the atmosphere because of the way the wells were constructed. Well 2014, which is located in close proximity to 2087, 2088, and 2089 can be used in the future to capture the soil gas data for that same location.

Figure C-14: MDA L Pore Gas Sampling, 3rd Quarter 2002

MDA L Pore Gas Sampling
4th Quarter - 2002



*Data from boreholes 2087, 2088, and 2089 will be omitted from the pore gas sampling analysis from Q2-2002 forward. It was determined that these wells had soil gas interaction from port to port in addition to interaction from the subsurface to the atmosphere because of the way the wells were constructed. Well 2014, which is located in close proximity to 2087, 2088, and 2089 can be used in the future to capture the soil gas data for that same location

Figure C-15: MDA L Pore Gas Sampling, 4th Quarter 2002

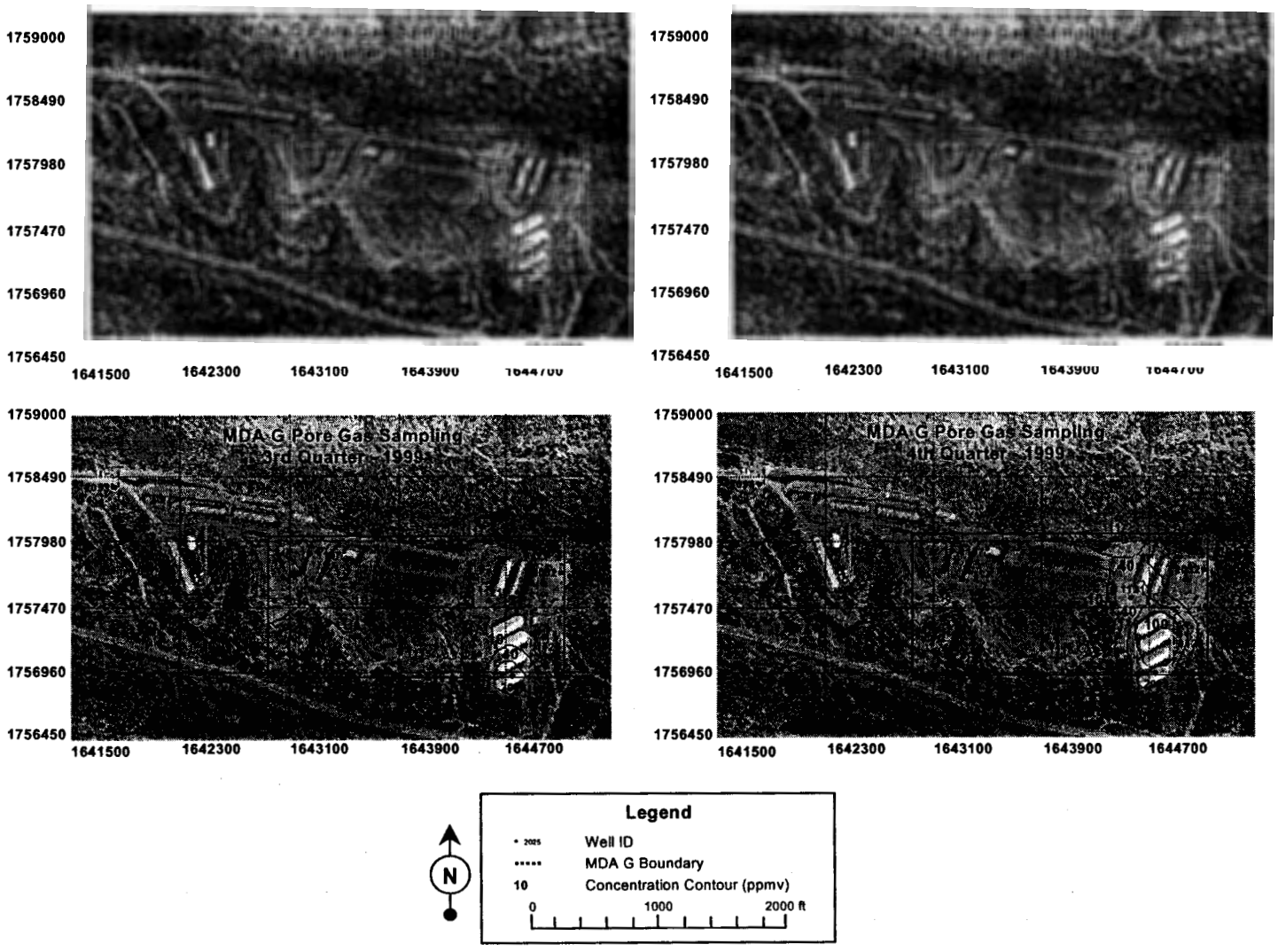
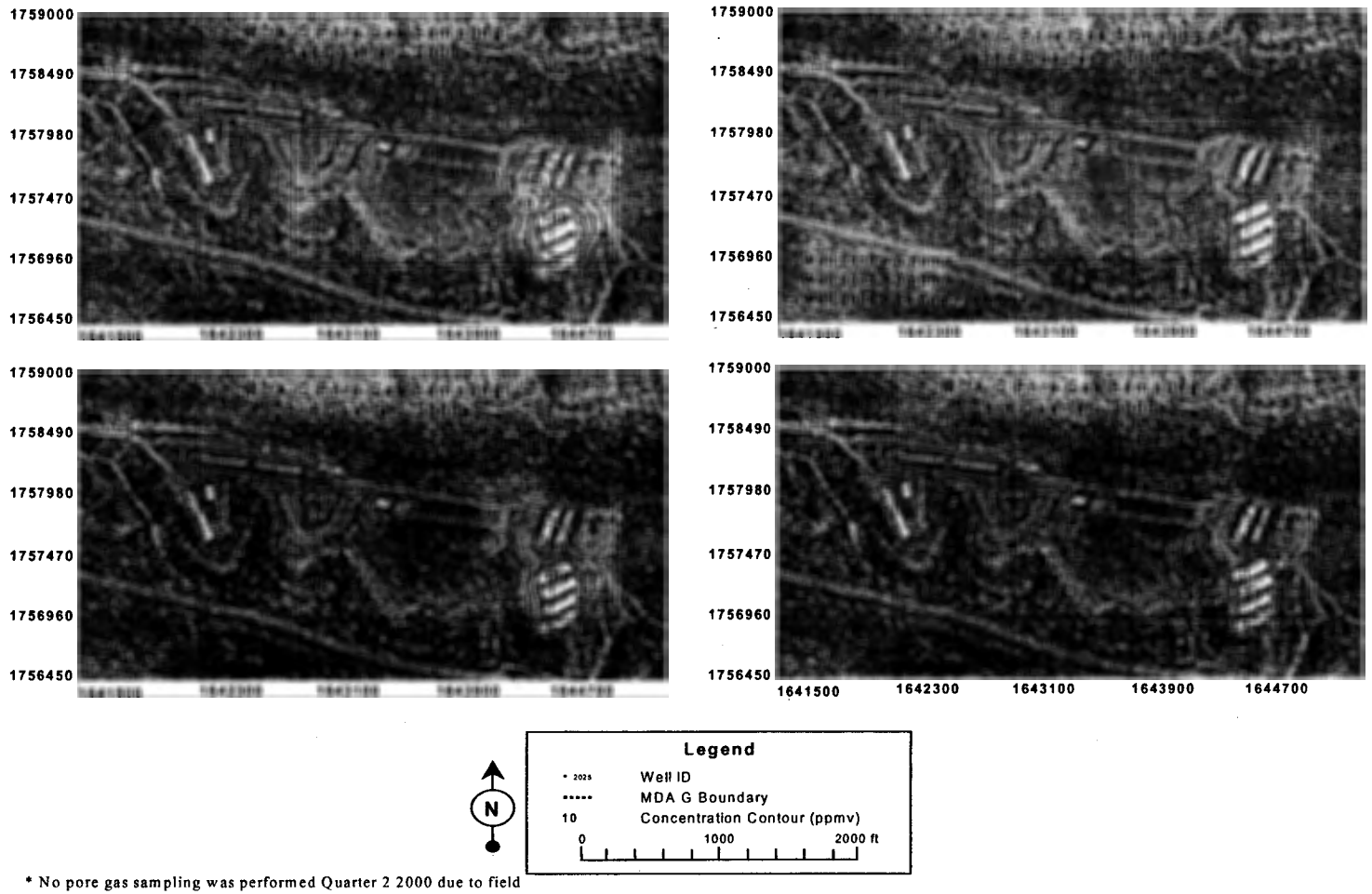


Figure C-16: MDA G Pore Gas Sampling, 1999



* No pore gas sampling was performed Quarter 2 2000 due to field instrument problems.

Figure C-17: MDA G Pore Gas Sampling, 2000

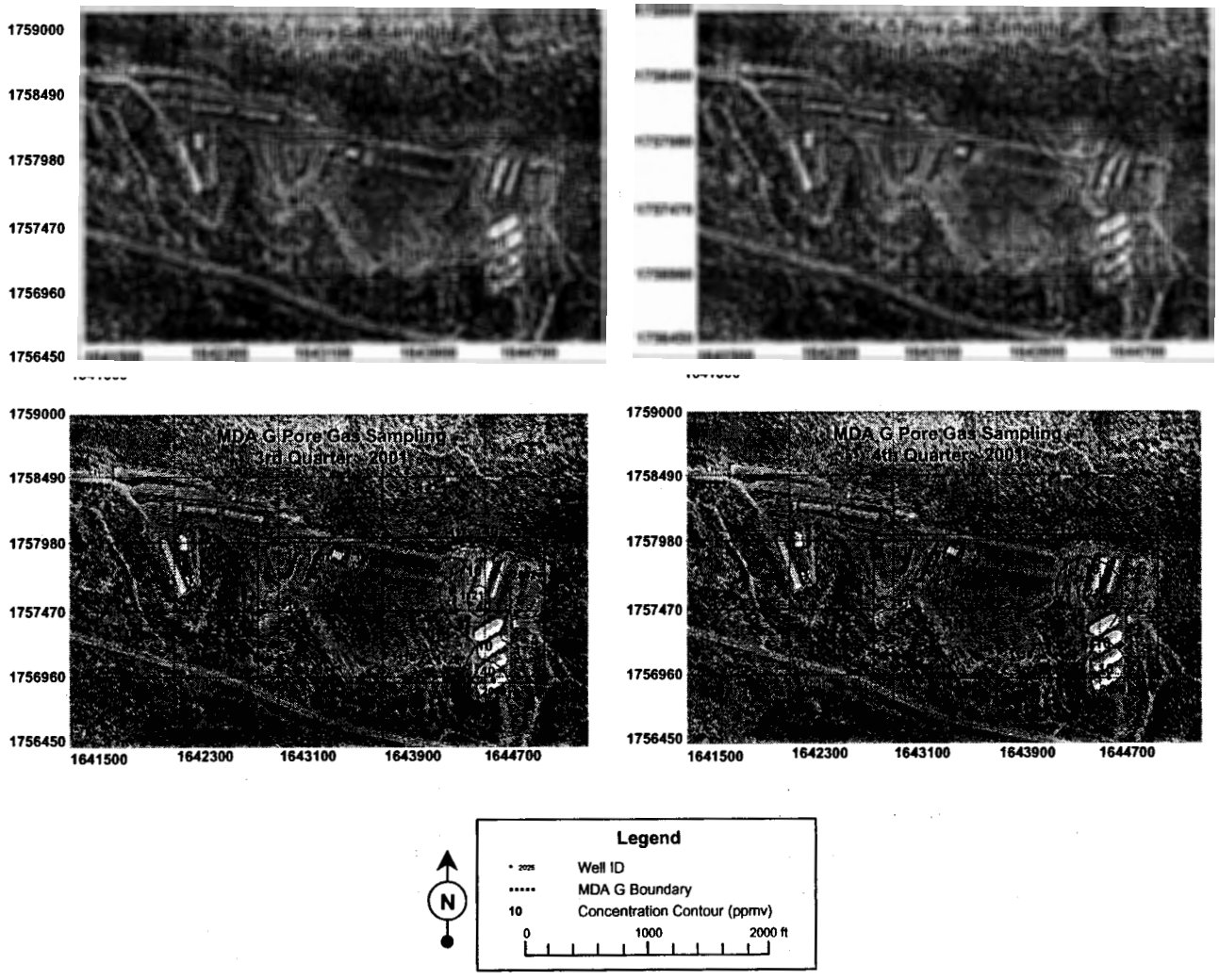
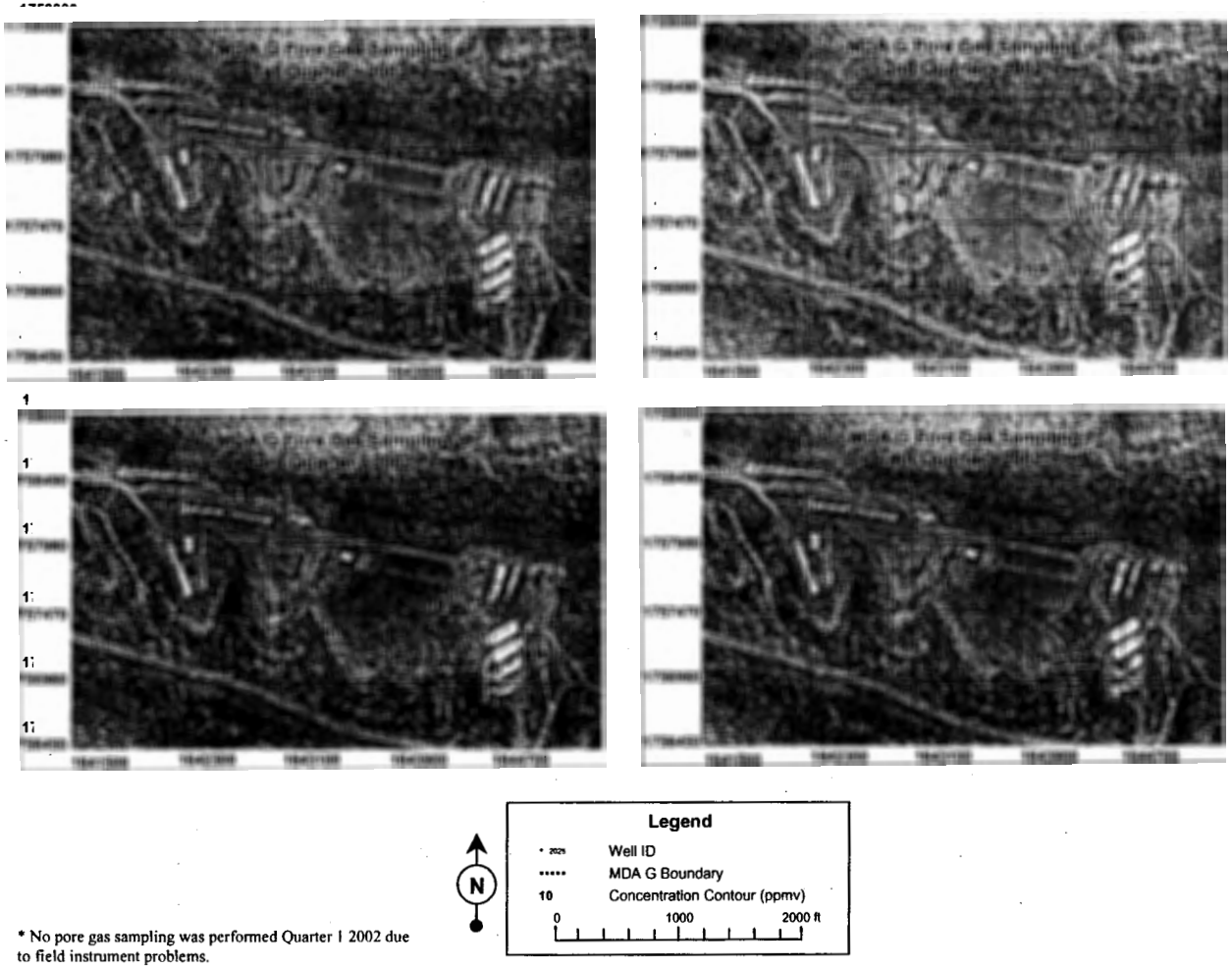


Figure C-18: MDA G Pore Gas Sampling, 2001



* No pore gas sampling was performed Quarter 1 2002 due to field instrument problems.

Figure C-19: MDA G Pore Gas Sampling, 2002

Appendix D

Groundwater Sampling Results,
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Table D-1
Samples Taken at Wells

Sample ID	Sample Round	Field Preparation	Depth (ft)	Media	Alkalinity	Ammonia	Anions[a]	Cyanide	Metals	Non-TAL Metals	Phosphorus	Stable Isotopes	TAL Metals
R-07													
GW07-02-0002	4	F	378	Groundwater, intermediate depth, perched	581S	581S	583S	—[b]	585S	581S	581S	—	585S
GW07-02-0004	4	F	915	Groundwater, regional	593S	593S	594S	—	595S	593S	593S	—	595S
GW07-02-0001	4	NF	378	Groundwater, intermediate depth, perched	—	—	—	581S	585S	581S	—	587S	585S
GW07-02-0003	4	NF	915	Groundwater, regional	—	—	—	593S	595S	593S	—	605S	595S
CdV-15													
GW15-02-0007	5	NF	1254	Groundwater, regional	—	—	—	420S	422S	420S	—	438S	422S
GW15-02-0008	5	F	1254	Groundwater, regional	420S	420S	421S	—	422S	420S	420S	—	422S
GW15-02-0009	5	NF	1350	Groundwater, regional	—	—	—	432S	434S	432S	—	441S	434S
GW15-02-0010	5	F	1350	Groundwater, regional	432S	432S	433S	—	434S	432S	432S	—	434S
GW15-02-0011	5	NF	1640	Groundwater, regional	—	—	—	446S	448S	446S	—	451S	448S
GW15-02-0012	5	F	1640	Groundwater, regional	446S	446S	447S	—	448S	446S	446S	—	448S
GW15-02-45526	6	NF	1254	Groundwater, regional	—	—	—	—	—	—	—	719S	713S
GW15-02-45527	6	NF	1350	Groundwater, regional	—	—	—	—	—	—	—	722S	715S
GW15-02-45528	6	NF	1640	Groundwater, regional	—	—	—	—	—	—	—	736S	725S
GW15-02-45532	6	F	1254	Groundwater, regional	713S	713S	713S	—	—	—	713S	—	713S
GW15-02-45533	6	F	1350	Groundwater, regional	715S	715S	715S	—	—	—	715S	—	715S
GW15-02-45534	6	F	1640	Groundwater, regional	725S	725S	725S	—	—	—	725S	—	725S
R-22													
GW22-01-0027	3	NF	906	Groundwater, regional	—	—	—	302S	304S	—	—	317S	—
GW22-01-0028	3	F	906	Groundwater, regional	302S	302S	303S	—	302S	—	302S	—	—
GW22-01-0029	3	NF	962	Groundwater, regional	—	—	—	309S	311S	—	—	320S	—
GW22-01-0030	3	F	962	Groundwater, regional	309S	309S	310S	—	309S	—	309S	—	—
GW22-01-0031	3	NF	1273	Groundwater, regional	—	—	—	329S	331S	—	—	362S	—
GW22-01-0032	3	F	1273	Groundwater, regional	329S	329S	330S	—	329S	—	329S	—	—

Table D-1 (continued)

Sample ID	Sample Round	Field Preparation	Depth (ft)	Media	Alkalinity	Ammonia	Anions[a]	Cyanide	Metals	Non-TAL Metals	Phosphorus	Stable Isotopes	TAL Metals
GW22-01-0033	3	NF	1379	Groundwater, regional	—	—	—	337S	339S	—	—	366S	—
GW22-01-0034	3	F	1379	Groundwater, regional	337S	337S	338S	—	337S	—	337S	—	—
GW22-01-0035	3	NF	1449	Groundwater, regional	—	—	—	344S	346S	—	—	369S	—
GW22-01-0036	3	F	1449	Groundwater, regional	344S	344S	345S	—	344S	—	344S	—	—
GW22-02-44961	4	NF	906	Groundwater, regional	—	—	—	610S	610S	—	—	612S	—
GW22-02-44962	4	F	906	Groundwater, regional	610S	610S	610S	—	610S	—	610S	—	—
GW22-02-44963	4	NF	962	Groundwater, regional	—	—	—	616S	616S	—	—	625S	—
GW22-02-44964	4	F	962	Groundwater, regional	616S	616S	616S	—	616S	—	616S	—	—
GW22-02-44965	4	NF	1273	Groundwater, regional	—	—	—	619S	619S	—	—	628S	—
GW22-02-44966	4	F	1273	Groundwater, regional	619S	619S	619S	—	619S	—	619S	—	—
GW22-02-44967	4	NF	1379	Groundwater, regional	—	—	—	631S	631S	—	—	634S	—
GW22-02-44968	4	F	1379	Groundwater, regional	631S	631S	631S	—	631S	—	631S	—	—
GW22-02-44969	4	NF	1449	Groundwater, regional	—	—	—	641S	641S	—	—	650S	—
GW22-02-44970	4	F	1449	Groundwater, regional	641S	641S	641S	—	641S	—	641S	—	—
R-25													
GW25-01-0017	3	NF	755	Groundwater, intermediate depth, perched	—	—	—	9576R	9576R	—	—	9573R	—
GW25-01-0018	3	F	755	Groundwater, intermediate depth, perched	9576R	9576R	9576R	—	9576R	—	9576R	—	—
GW25-01-0019	3	NF	892	Groundwater, intermediate depth, perched	—	—	—	9581R	9583R	—	—	9585R	—
GW25-01-0020	3	F	892	Groundwater, intermediate depth, perched	9581R	9581R	9582R	—	9583R	—	9581R	—	—
GW25-01-0023	3	NF	1192	Groundwater, intermediate depth, perched	—	—	—	9591R	9593R	—	—	9595R	—
GW25-01-0024	3	F	1192	Groundwater, intermediate depth, perched	9591R	9591R	9592R	—	9593R	—	9591R	—	—
GW25-01-0025	3	NF	1303	Groundwater, regional	—	—	—	—	9602R	—	—	9606R	—
GW25-01-0026	3	F	1303	Groundwater, regional	9602R	9602R	9603R	—	9602R	—	9602R	—	—
GW25-01-0027	3	NF	1406	Groundwater, regional	—	—	—	9602R	9604R	—	—	9606R	—
GW25-01-0028	3	F	1406	Groundwater, regional	9602R	9602R	9603R	—	9604R	—	9602R	—	—

Table D-1 (continued)

Sample ID	Sample Round	Field Preparation	Depth (ft)	Media	Alkalinity	Ammonia	Anions[a]	Cyanide	Metals	Non-TAL Metals	Phosphorus	Stable Isotopes	TAL Metals
GW25-01-0029	3	NF	1605	Groundwater, regional	—	—	—	9612R	9614R	—	—	9616R	—
GW25-01-0030	3	F	1605	Groundwater, regional	9612R	9612R	9613R	—	9614R	—	9612R	—	—
GW25-01-0031	3	NF	1796	Groundwater, regional	—	—	—	9625R	9627R	—	—	9629R	—
GW25-01-0032	3	F	1796	Groundwater, regional	9625R	9625R	9626R	—	9627R	—	9625R	—	—
GW25-02-0001	4	NF	755	Groundwater, intermediate depth, perched	—	—	—	491S	494S	491S	—	506S	491S
GW25-02-0002	4	F	755	Groundwater, intermediate depth, perched	491S	491S	492S	—	494S	491S	491S	—	491S
GW25-02-0003	4	NF	892	Groundwater, intermediate depth, perched	—	—	—	499S	501S	499S	—	509S	499S
GW25-02-0004	4	F	892	Groundwater, intermediate depth, perched	499S	499S	500S	—	501S	499S	499S	—	499S
GW25-02-0005	4	NF	1192	Groundwater, intermediate depth, perched	—	—	—	514S	517S	514S	—	519S	514S
GW25-02-0006	4	F	1192	Groundwater, intermediate depth, perched	514S	514S	515S	—	517S	514S	514S	—	514S
GW25-02-0007	4	NF	1303	Groundwater, regional	—	—	—	525S	527S	525S	—	554S	525S
GW25-02-0008	4	F	1303	Groundwater, regional	525S	525S	526S	—	527S	525S	525S	—	525S
GW25-02-0009	4	NF	1406	Groundwater, regional	—	—	—	534S	536S	534S	—	557S	534S
GW25-02-0010	4	F	1406	Groundwater, regional	534S	534S	535S	—	536S	534S	534S	—	534S
GW25-02-0011	4	NF	1605	Groundwater, regional	—	—	—	547S	549S	547S	—	560S	547S
GW25-02-0012	4	F	1605	Groundwater, regional	547S	547S	548S	—	549S	547S	547S	—	547S
GW25-02-0013	4	NF	1796	Groundwater, regional	—	—	—	567S	569S	567S	—	572S	567S
GW25-02-0014	4	F	1796	Groundwater, regional	567S	567S	568S	—	569S	567S	567S	—	567S

Table D-1 (continued)

Sample ID	Sample Round	Field Preparation	Depth (ft)	Media	Thermal Ionization Mass Spectrometry	Total Kjeldahl Nitrogen	High-Explosive	Humic Acids	Polychlorinated Biphenyls	Pesticides	Semivolatile Organic Compounds	Total Organic Carbon	Volatile Organic Compounds
R-07													
GW07-02-0002	4	F	378	Groundwater, intermediate depth, perched	—	581S	—	584S	—	—	—	—	—
GW07-02-0004	4	F	915	Groundwater, regional	—	593S	—	596S	—	—	—	—	—
GW07-02-0001	4	NF	378	Groundwater, intermediate depth, perched	—	581S	580S	—	578S	578S	578S	578S	578S
GW07-02-0003	4	NF	915	Groundwater, regional	—	593S	592S	—	590S	590S	590S	590S	590S
CdV-15													
GW15-02-0007	5	NF	1254	Groundwater, regional	—	—	419S	—	417S	417S	417S	417S	417S
GW15-02-0008	5	F	1254	Groundwater, regional	—	420S	—	423S	—	—	—	—	—
GW15-02-0009	5	NF	1350	Groundwater, regional	—	—	431S	—	429S	429S	429S	429S	429S
GW15-02-0010	5	F	1350	Groundwater, regional	—	432S	—	435S	—	—	—	—	—
GW15-02-0011	5	NF	1640	Groundwater, regional	—	—	445S	—	443S	443S	443S	443S	443S
GW15-02-0012	5	F	1640	Groundwater, regional	—	446S	—	449S	—	—	—	—	—
GW15-02-45526	6	NF	1254	Groundwater, regional	—	—	712S	—	—	—	—	713S	—
GW15-02-45527	6	NF	1350	Groundwater, regional	—	—	714S	—	—	—	—	715S	—
GW15-02-45528	6	NF	1640	Groundwater, regional	—	—	724S	—	—	—	—	725S	—
GW15-02-45532	6	F	1254	Groundwater, regional	—	713S	—	—	—	—	—	—	—
GW15-02-45533	6	F	1350	Groundwater, regional	—	715S	—	—	—	—	—	—	—
GW15-02-45534	6	F	1640	Groundwater, regional	—	725S	—	—	—	—	—	—	—
R-22													
GW22-01-0027	3	NF	906	Groundwater, regional	—	—	301S	—	300S	300S	300S	300S	300S
GW22-01-0028	3	F	906	Groundwater, regional	—	302S	—	—	—	—	—	—	—
GW22-01-0029	3	NF	962	Groundwater, regional	—	—	308S	—	307S	307S	307S	307S	307S
GW22-01-0030	3	F	962	Groundwater, regional	—	309S	—	—	—	—	—	—	—
GW22-01-0031	3	NF	1273	Groundwater, regional	364S	—	328S	—	327S	327S	327S	327S	327S
GW22-01-0032	3	F	1273	Groundwater, regional	364S	329S	—	—	—	—	—	—	—
GW22-01-0033	3	NF	1379	Groundwater, regional	—	—	336S	—	335S	335S	335S	335S	335S

Table D-1 (continued)

Sample ID	Sample Round	Field Preparation	Depth (ft)	Media	Thermal Ionization Mass Spectrometry	Total Kjeldahl Nitrogen	High-Explosive	Humic Acids	Polychlorinated Biphenyls	Pesticides	Semivolatile Organic Compounds	Total Organic Carbon	Volatile Organic Compounds
GW22-01-0034	3	F	1379	Groundwater, regional	—	337S	—	—	—	—	—	—	—
GW22-01-0035	3	NF	1449	Groundwater, regional	—	—	343S	—	342S	342S	342S	342S	342S
GW22-01-0036	3	F	1449	Groundwater, regional	—	344S	—	—	—	—	—	—	—
GW22-02-44961	4	NF	906	Groundwater, regional	—	—	609S	—	609S	609S	609S	610S	609S
GW22-02-44962	4	F	906	Groundwater, regional	—	610S	—	—	—	—	—	—	—
GW22-02-44963	4	NF	962	Groundwater, regional	—	—	615S	—	615S	615S	615S	616S	615S
GW22-02-44964	4	F	962	Groundwater, regional	—	616S	—	—	—	—	—	—	—
GW22-02-44965	4	NF	1273	Groundwater, regional	—	—	618S	—	618S	618S	618S	619S	618S
GW22-02-44966	4	F	1273	Groundwater, regional	—	619S	—	—	—	—	—	—	—
GW22-02-44967	4	NF	1379	Groundwater, regional	—	—	630S	—	630S	630S	630S	631S	630S
GW22-02-44968	4	F	1379	Groundwater, regional	—	631S	—	—	—	—	—	—	—
GW22-02-44969	4	NF	1449	Groundwater, regional	—	—	640S	—	640S	640S	640S	641S	640S
GW22-02-44970	4	F	1449	Groundwater, regional	—	641S	—	—	—	—	—	—	—
R-25													
GW25-01-0017	3	NF	755	Groundwater, intermediate depth, perched	—	—	9569R	—	—	—	—	9575R	9575R
GW25-01-0018	3	F	755	Groundwater, intermediate depth, perched	—	—	—	—	—	—	—	—	—
GW25-01-0019	3	NF	892	Groundwater, intermediate depth, perched	—	—	9580R	—	—	—	—	9578R	9578R
GW25-01-0020	3	F	892	Groundwater, intermediate depth, perched	—	—	—	—	—	—	—	—	—
GW25-01-0023	3	NF	1192	Groundwater, intermediate depth, perched	—	—	9590R	—	—	—	—	9588R	9588R
GW25-01-0024	3	F	1192	Groundwater, intermediate depth, perched	—	—	—	—	—	—	—	—	—
GW25-01-0025	3	NF	1303	Groundwater, regional	—	—	9601R	—	—	—	—	—	9599R
GW25-01-0026	3	F	1303	Groundwater, regional	—	—	—	—	—	—	—	—	—
GW25-01-0027	3	NF	1406	Groundwater, regional	—	—	9601R	—	—	—	—	9599R	9599R
GW25-01-0028	3	F	1406	Groundwater, regional	—	—	—	—	—	—	—	—	—
GW25-01-0029	3	NF	1605	Groundwater, regional	—	—	9611R	—	—	—	—	9609R	9609R
GW25-01-0030	3	F	1605	Groundwater, regional	—	—	—	—	—	—	—	—	—

Table D-1 (continued)

Sample ID	Sample Round	Field Preparation	Depth (ft)	Media	Thermal Ionization Mass Spectrometry	Total Kjeldahl Nitrogen	High-Explosive	Humic Acids	Polychlorinated Biphenyls	Pesticides	Semivolatile Organic Compounds	Total Organic Carbon	Volatile Organic Compounds
GW25-01-0031	3	NF	1796	Groundwater, regional	—	—	9624R	—	—	—	—	9622R	9622R
GW25-01-0032	3	F	1796	Groundwater, regional	—	—	—	—	—	—	—	—	—
GW25-02-0001	4	NF	755	Groundwater, intermediate depth, perched	—	—	490S	—	—	—	—	488S	488S
GW25-02-0002	4	F	755	Groundwater, intermediate depth, perched	—	491S	—	493S	—	—	—	—	—
GW25-02-0003	4	NF	892	Groundwater, intermediate depth, perched	—	—	498S	—	—	—	—	496S	496S
GW25-02-0004	4	F	892	Groundwater, intermediate depth, perched	—	499S	—	502S	—	—	—	—	—
GW25-02-0005	4	NF	1192	Groundwater, intermediate depth, perched	—	—	513S	—	—	—	—	511S	511S
GW25-02-0006	4	F	1192	Groundwater, intermediate depth, perched	—	514S	—	516S	—	—	—	—	—
GW25-02-0007	4	NF	1303	Groundwater, regional	—	—	524S	—	—	—	—	522S	522S
GW25-02-0008	4	F	1303	Groundwater, regional	—	525S	—	528S	—	—	—	—	—
GW25-02-0009	4	NF	1406	Groundwater, regional	—	—	533S	—	—	—	—	531S	531S
GW25-02-0010	4	F	1406	Groundwater, regional	—	534S	—	537S	—	—	—	—	—
GW25-02-0011	4	NF	1605	Groundwater, regional	—	—	546S	—	—	—	—	544S	544S
GW25-02-0012	4	F	1605	Groundwater, regional	—	547S	—	550S	—	—	—	—	—
GW25-02-0013	4	NF	1796	Groundwater, regional	—	—	566S	—	—	—	—	564S	564S
GW25-02-0014	4	F	1796	Groundwater, regional	—	567S	—	570S	—	—	—	—	—

Table D-1 (continued)

Sample ID	Sample Round	Field Preparation	Depth (ft)	Media	Americium-241	Gamma Spectroscopy	Gross Alpha/Beta	Tritium	Iodine-129	Isotopic Plutonium	Isotopic Uranium	Strontium-90	Technetium-99 by ICPMS
R-07													
GW07-02-0002	4	F	378	Groundwater, intermediate depth, perched	589S	589S	—	—	—	589S	589S	589S	—
GW07-02-0004	4	F	915	Groundwater, regional	597S	—	—	—	—	597S	597S	597S	—
GW07-02-0001	4	NF	378	Groundwater, intermediate depth, perched	589S	589S	589S	588S	—	589S	589S	589S	589S
GW07-02-0003	4	NF	915	Groundwater, regional	597S	597S	597S	606S	—	597S	597S	597S	597S
CdV-15													
GW15-02-0007	5	NF	1254	Groundwater, regional	—	424S	424S	439S	—	—	—	—	—
GW15-02-0008	5	F	1254	Groundwater, regional	—	—	—	—	—	—	—	—	—
GW15-02-0009	5	NF	1350	Groundwater, regional	—	436S	436S	442S	—	—	—	—	—
GW15-02-0010	5	F	1350	Groundwater, regional	—	—	—	—	—	—	—	—	—
GW15-02-0011	5	NF	1640	Groundwater, regional	—	453S	453S	452S	—	—	—	—	—
GW15-02-0012	5	F	1640	Groundwater, regional	—	—	—	—	—	—	—	—	—
GW15-02-45526	6	NF	1254	Groundwater, regional	—	—	—	720S	—	—	—	—	—
GW15-02-45527	6	NF	1350	Groundwater, regional	—	—	—	723S	—	—	—	—	—
GW15-02-45528	6	NF	1640	Groundwater, regional	—	—	—	737S	—	—	—	—	—
GW15-02-45532	6	F	1254	Groundwater, regional	—	—	—	—	—	—	—	—	—
GW15-02-45533	6	F	1350	Groundwater, regional	—	—	—	—	—	—	—	—	—
GW15-02-45534	6	F	1640	Groundwater, regional	—	—	—	—	—	—	—	—	—
R-22													
GW22-01-0027	3	NF	906	Groundwater, regional	305S	305S	—	318S	—	305S	305S	305S	305S
GW22-01-0028	3	F	906	Groundwater, regional	—	—	—	—	—	—	—	—	—
GW22-01-0029	3	NF	962	Groundwater, regional	312S	312S	—	321S	—	312S	—	312S	312S
GW22-01-0030	3	F	962	Groundwater, regional	—	—	—	—	—	—	—	—	—
GW22-01-0031	3	NF	1273	Groundwater, regional	332S	332S	—	363S	332S	332S	332S	332S	332S
GW22-01-0032	3	F	1273	Groundwater, regional	—	—	—	—	—	—	—	—	—
GW22-01-0033	3	NF	1379	Groundwater, regional	340S	340S	—	367S	340S	340S	340S	340S	340S

Table D-1 (continued)

Sample ID	Sample Round	Field Preparation	Depth (ft)	Media	Americium-241	Gamma Spectroscopy	Gross Alpha/Beta	Tritium	Iodine-129	Isotopic Plutonium	Isotopic Uranium	Strontium-90	Technetium-99 by ICPMS
GW22-01-0034	3	F	1379	Groundwater, regional	—	—	—	—	—	—	—	—	—
GW22-01-0035	3	NF	1449	Groundwater, regional	347S	347S	—	370S	347S	347S	347S	347S	347S
GW22-01-0036	3	F	1449	Groundwater, regional	—	—	—	—	—	—	—	—	—
GW22-02-44961	4	NF	906	Groundwater, regional	614S	614S	—	613S	614S	614S	614S	614S	614S
GW22-02-44962	4	F	906	Groundwater, regional	—	—	—	—	—	—	—	—	—
GW22-02-44963	4	NF	962	Groundwater, regional	—	—	—	626S	617S	—	—	—	617S
GW22-02-44964	4	F	962	Groundwater, regional	—	—	—	—	—	—	—	—	—
GW22-02-44965	4	NF	1273	Groundwater, regional	620S	620S	—	629S	620S	620S	620S	620S	620S
GW22-02-44966	4	F	1273	Groundwater, regional	—	—	—	—	—	—	—	—	—
GW22-02-44967	4	NF	1379	Groundwater, regional	632S	632S	—	635S	632S	632S	632S	632S	632S
GW22-02-44968	4	F	1379	Groundwater, regional	—	—	—	—	—	—	—	—	—
GW22-02-44969	4	NF	1449	Groundwater, regional	642S	642S	—	651S	642S	642S	642S	642S	642S
GW22-02-44970	4	F	1449	Groundwater, regional	—	—	—	—	—	—	—	—	—
R-25													
GW25-01-0017	3	NF	755	Groundwater, intermediate depth, perched	—	9577R	9577R	9574R	—	—	9577R	—	—
GW25-01-0018	3	F	755	Groundwater, intermediate depth, perched	—	—	—	—	—	—	9577R	—	—
GW25-01-0019	3	NF	892	Groundwater, intermediate depth, perched	—	9587R	9587R	9586R	—	—	9587R	—	—
GW25-01-0020	3	F	892	Groundwater, intermediate depth, perched	—	—	—	—	—	—	9587R	—	—
GW25-01-0023	3	NF	1192	Groundwater, intermediate depth, perched	—	9597R	9597R	9596R	—	—	9597R	—	—
GW25-01-0024	3	F	1192	Groundwater, intermediate depth, perched	—	—	—	—	—	—	9597R	—	—
GW25-01-0025	3	NF	1303	Groundwater, regional	—	—	—	—	—	—	—	—	—
GW25-01-0026	3	F	1303	Groundwater, regional	—	—	—	—	—	—	—	—	—
GW25-01-0027	3	NF	1406	Groundwater, regional	—	9608R	9608R	9607R	—	—	9608R	—	—
GW25-01-0028	3	F	1406	Groundwater, regional	—	—	—	—	—	—	9608R	—	—
GW25-01-0029	3	NF	1605	Groundwater, regional	—	9618R	9618R	9617R	—	—	9618R	—	—
GW25-01-0030	3	F	1605	Groundwater, regional	—	—	—	—	—	—	9618R	—	—

Table D-1 (continued)

Sample ID	Sample Round	Field Preparation	Depth (ft)	Media	Americium-241	Gamma Spectroscopy	Gross Alpha/Beta	Tritium	Iodine-129	Isotopic Plutonium	Isotopic Uranium	Strontium-90	Technetium-99 by ICPMS
GW25-01-0031	3	NF	1796	Groundwater, regional	—	9631R	9631R	9630R	—	—	9631R	—	—
GW25-01-0032	3	F	1796	Groundwater, regional	—	—	—	—	—	—	9631R	—	—
GW25-02-0001	4	NF	755	Groundwater, intermediate depth, perched	—	495S	495S	507S	—	—	495S	—	—
GW25-02-0002	4	F	755	Groundwater, intermediate depth, perched	—	—	—	—	—	—	495S	—	—
GW25-02-0003	4	NF	892	Groundwater, intermediate depth, perched	—	503S	503S	510S	—	—	503S	—	—
GW25-02-0004	4	F	892	Groundwater, intermediate depth, perched	—	—	—	—	—	—	503S	—	—
GW25-02-0005	4	NF	1192	Groundwater, intermediate depth, perched	—	—	521S	520S	—	—	521S	—	—
GW25-02-0006	4	F	1192	Groundwater, intermediate depth, perched	—	—	—	—	—	—	521S	—	—
GW25-02-0007	4	NF	1303	Groundwater, regional	—	—	529S	555S	—	—	—	—	—
GW25-02-0008	4	F	1303	Groundwater, regional	—	—	—	—	—	—	—	—	—
GW25-02-0009	4	NF	1406	Groundwater, regional	—	—	538S	558S	—	—	538S	—	—
GW25-02-0010	4	F	1406	Groundwater, regional	—	—	—	—	—	—	538S	—	—
GW25-02-0011	4	NF	1605	Groundwater, regional	—	—	551S	561S	—	—	551S	—	—
GW25-02-0012	4	F	1605	Groundwater, regional	—	—	—	—	—	—	551S	—	—
GW25-02-0013	4	NF	1796	Groundwater, regional	—	—	574S	573S	—	—	574S	—	—
GW25-02-0014	4	F	1796	Groundwater, regional	—	—	—	—	—	—	574S	—	—

[a] Anions = Ammonia, bromide, chloride, fluoride, nitrate/nitrite, oxalate, perchlorate, sulfate.

[b] — = Not available or applicable.

Table D-2
Well R-7 Screen 1 Fourth Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	1	378	02/19/02	NF[e]	1	1	46000	—[f]	—	—	—	—
Dissolved Oxygen	1	378	02/19/02	NF	1	1	—	—	—	—	—	—
pH	1	378	02/19/02	NF	1	1	7.43	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	1	378	02/19/02	NF	1	1	97	—	—	0/1	—	0/1
Temperature (°C)	1	378	02/19/02	NF	1	1	10.0	—	—	0/1	—	0/1
Turbidity (NTU[g])	1	378	02/19/02	NF	1	1	0.56	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	1	378	02/19/02	F[h]	1	1	20700	—	—	—	—	—
Aluminum	1	378	02/19/02	F	1	0	—	[50]	50	0/1	5000	0/1
Aluminum	1	378	02/19/02	NF	1	0	—	[50]	—	—	—	—
Ammonia (as N)	1	378	02/19/02	F	1	0	—	[50]	—	—	—	—
Antimony	1	378	02/19/02	F	1	1	0.21	—	6	0/2	—	—
Antimony	1	378	02/19/02	NF	1	1		[0.2]	—	—	—	—
Arsenic	1	378	02/19/02	F	1	0	—	[5]	50	0/1	100	0/1
Arsenic	1	378	02/19/02	NF	1	0	—	[5]	—	—	—	—
Barium	1	378	02/19/02	F	1	1	56	—	2000	0/1	1000	0/1
Barium	1	378	02/19/02	NF	1	1	54.8	—	—	—	—	—
Beryllium	1	378	02/19/02	F	1	0	—	[0.2]	4	0/2	—	—
Beryllium	1	378	02/19/02	NF	1	0	—	[0.2]	—	—	—	—
Boron	1	378	02/19/02	F	1	0	—	[50]	—	—	750	0/1
Boron	1	378	02/19/02	NF	1	0	—	[50]	—	—	—	—
Bromide	1	378	02/19/02	F	1	0	—	[200]	—	—	—	—
Cadmium	1	378	02/19/02	F	1	0	—	[1]	5	0/2	10	0/2

Table D-2 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Cadmium	1	378	02/19/02	NF	1	0	—	[1]	—	—	—	—
Calcium	1	378	02/19/02	F	1	1	7150	—	—	—	—	—
Calcium	1	378	02/19/02	NF	1	1	6870	—	—	—	—	—
Chloride	1	378	02/19/02	F	1	1	1560	—	250000	0/1	250000	0/1
Chromium	1	378	02/19/02	F	1	1	2.91	—	100	0/1	50	0/1
Chromium	1	378	02/19/02	NF	1	1	48.8	—	—	—	—	—
Cobalt	1	378	02/19/02	F	1	0	—	[5]	—	—	50	0/1
Cobalt	1	378	02/19/02	NF	1	0	—	[5]	—	—	—	—
Copper	1	378	02/19/02	F	1	0	—	[5]	1300	0/1	1000	0/1
Copper	1	378	02/19/02	NF	1	0	—	[5]	—	—	—	—
Cyanide (total)	1	378	02/19/02	NF	1	0	—	[5]	—	—	—	—
Fluoride	1	378	02/19/02	F	1	1	76	—	4000	0/1	1600	0/1
Iron	1	378	02/19/02	F	1	0	—	[50]	300	0/1	1000	0/1
Iron	1	378	02/19/02	NF	1	1	184	184	—	—	—	—
Lead	1	378	02/19/02	F	1	0	—	[2]	15	0/2	50	0/2
Lead	1	378	02/19/02	NF	1	1	—	[2]	—	—	—	—
Magnesium	1	378	02/19/02	F	1	1	1430	—	—	—	—	—
Magnesium	1	378	02/19/02	NF	1	1	1380	—	—	—	—	—
Manganese	1	378	02/19/02	F	1	1	50.1	—	50	1/1	200	0/1
Manganese	1	378	02/19/02	NF	1	1	51.1	—	—	—	—	—
Mercury	1	378	02/19/02	F	1	0	—	[0.2]	2	0/1	—	—
Mercury	1	378	02/19/02	NF	1	0	—	[0.2]	—	—	2	0/1
Molybdenum	1	378	02/19/02	F	1	1	1.65	1.65	—	—	—	—
Molybdenum	1	378	02/19/02	NF	1	1	3	—	—	—	—	—
Nickel	1	378	02/19/02	F	1	0	—	[5]	100	0/1	200	0/1
Nickel	1	378	02/19/02	NF	1	1	28.4	—	—	—	—	—
Nitrate + Nitrite (as N)	1	378	02/19/02	F	1	1	270	—	10000	0/1	—	—

Table D-2 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Oxalate	1	378	02/19/02	F	1	0	—	[600]	—	—	—	—
Perchlorate	1	378	02/19/02	F	1	0	—	[4]	—	—	—	—
Phosphorus (total)	1	378	02/19/02	F	1	0	—	[50]	—	—	—	—
Potassium	1	378	02/19/02	F	1	1	3180	—	—	—	—	—
Potassium	1	378	02/19/02	NF	1	1	3070	—	—	—	—	—
Selenium	1	378	02/19/02	F	1	0	—	[5]	50	0/1	50	0/1
Selenium	1	378	02/19/02	NF	1	0	—	[5]	—	—	—	—
Silica	1	378	02/19/02	F	1	1	57352	—	—	—	—	—
Silica	1	378	02/19/02	NF	1	1	51360	—	—	—	—	—
Silver	1	378	02/19/02	F	1	0	—	[5]	100	0/1	50	0/1
Silver	1	378	02/19/02	NF	1	0	—	[5]	—	—	—	—
Sodium	1	378	02/19/02	F	1	1	6290	—	—	—	—	—
Sodium	1	378	02/19/02	NF	1	1	6090	—	—	—	—	—
Strontium	1	378	02/19/02	F	1	1	37.8	—	—	—	—	—
Strontium	1	378	02/19/02	NF	1	1	36.6	—	—	—	—	—
Sulfate	1	378	02/19/02	F	1	1	2270	—	250000	0/1	600000	0/1
Thallium	1	378	02/19/02	F	1	1	0.04	—	2	0/2	—	—
Thallium	1	378	02/19/02	NF	1	1	0.08	—	—	—	—	—
Total Kjeldahl Nitrogen	1	378	02/19/02	F	1	0	—	[100]	—	—	—	—
Total Kjeldahl Nitrogen	1	378	02/19/02	NF	1	0	—	[100]	—	—	—	—
Uranium	1	378	02/19/02	F	1	0	—	[0.2]	20	0/1	5000	0/1
Uranium	1	378	02/19/02	NF	1	0	—	[0.2]	—	—	—	—
Vanadium	1	378	02/19/02	F	1	0	—	[5]	—	—	—	—
Vanadium	1	378	02/19/02	NF	1	1	1.34	—	—	—	—	—
Zinc	1	378	02/19/02	F	1	1	13.6	—	5000	0/1	10000	0/1
Zinc	1	378	02/19/02	NF	1	1	14.3	—	—	—	—	—

Table D-2 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Stable Isotope (‰)												
δD	1	378	02/19/02	NF	1	1	-80	—	—	—	—	—
$\delta^{15}N$ (NO_3)	1	378	02/19/02	NF	1	1	ISV[i]	—	—	—	—	—
$\delta^{18}O$	1	378	02/19/02	NF	1	1	-11.5	—	—	—	—	—

[a] The static water level for the regional aquifer at R-7 was 902.8 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

[i] ISV = Insufficient sample volume.

Table D-3
Well R-7 Screen 3 Fourth Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	3	915	02/21/02	NF[e]	1	1	114000	—[f]	—	—	—	—
Dissolved Oxygen	3	915	02/21/02	NF	1	1	—	—	—	—	—	—
pH	3	915	02/21/02	NF	1	1	7.28	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	3	915	02/21/02	NF	1	1	187	—	—	0/1	—	0/1
Temperature (°C)	3	915	02/21/02	NF	1	1	13.3	—	—	0/1	—	0/1
Turbidity (NTU[g])	3	915	02/21/02	NF	1	1	2.79	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	3	915	02/21/02	F[h]	1	1	54200	—	—	—	—	—
Aluminum	3	915	02/21/02	F	1	0	—	[50]	50	0/1	5000	0/1
Aluminum	3	915	02/21/02	NF	1	0	—	[50]	—	—	—	—
Ammonia (as N)	3	915	02/21/02	F	1	1	380	—	—	—	—	—
Antimony	3	915	02/21/02	F	1	0	—	[0.73]	6	0/2	—	—
Antimony	3	915	02/21/02	NF	1	0	—	[0.24]	—	—	—	—
Arsenic	3	915	02/21/02	F	1	1	5.79	—	50	0/1	100	0/1
Arsenic	3	915	02/21/02	NF	1	1	8.12	—	—	—	—	—
Barium	3	915	02/21/02	F	1	1	172	—	2000	0/1	1000	0/1
Barium	3	915	02/21/02	NF	1	1	167	—	—	—	—	—
Beryllium	3	915	02/21/02	F	1	1	0.05	—	4	0/2	—	—
Beryllium	3	915	02/21/02	NF	1	0	—	[0.2]	—	—	—	—
Boron	3	915	02/21/02	F	1	1	4.51	—	—	—	750	0/1
Boron	3	915	02/21/02	NF	1	1	5.24	—	—	—	—	—
Bromide	3	915	02/21/02	F	1	0	—	[200]	—	—	—	—
Cadmium	3	915	02/21/02	F	1	0	—	[1]	5	0/2	10	0/2

Table D-3 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Cadmium	3	915	02/21/02	NF	1	0	—	[1]	—	—	—	—
Calcium	3	915	02/21/02	F	1	1	15200	—	—	—	—	—
Calcium	3	915	02/21/02	NF	1	1	14600	—	—	—	—	—
Chloride	3	915	02/21/02	F	1	1	1980	—	250000	0/1	250000	0/1
Chromium	3	915	02/21/02	F	1	0	—	[5]	100	0/1	50	0/1
Chromium	3	915	02/21/02	NF	1	1	2.1	—	—	—	—	—
Cobalt	3	915	02/21/02	F	1	1	3.28	—	—	—	50	0/1
Cobalt	3	915	02/21/02	NF	1	1	3.23	—	—	—	—	—
Copper	3	915	02/21/02	F	1	0	—	[5]	1300	0/1	1000	0/1
Copper	3	915	02/21/02	NF	1	0	—	[5]	—	—	—	—
Cyanide (total)	3	915	02/21/02	NF	1	0	—	[5]	—	—	—	—
Fluoride	3	915	02/21/02	F	1	1	330	—	4000	0/1	1600	0/1
Iron	3	915	02/21/02	F	1	1	8750	—	300	1/1	1000	1/1
Iron	3	915	02/21/02	NF	1	1	8640	—	—	—	—	—
Lead	3	915	02/21/02	F	1	0	—	[2]	15	0/2	50	0/2
Lead	3	915	02/21/02	NF	1	1	—	[0.18]	—	—	—	—
Magnesium	3	915	02/21/02	F	1	1	4310	—	—	—	—	—
Magnesium	3	915	02/21/02	NF	1	1	4120	—	—	—	—	—
Manganese	3	915	02/21/02	F	1	1	2320	—	50	1/1	200	1/1
Manganese	3	915	02/21/02	NF	1	1	2050	—	—	—	—	—
Mercury	3	915	02/21/02	F	1	0	—	[0.2]	2	0/1	—	—
Mercury	3	915	02/21/02	NF	1	0	—	[0.2]	—	—	2	0/1
Molybdenum	3	915	02/21/02	F	1	1	11.6	—	—	—	—	—
Molybdenum	3	915	02/21/02	NF	1	1	11.8	—	—	—	—	—
Nickel	3	915	02/21/02	F	1	1	27.7	—	100	0/1	200	0/1
Nickel	3	915	02/21/02	NF	1	1	28.3	—	—	—	—	—
Nitrate + Nitrite (as N)	3	915	02/21/02	F	1	0	—	[50]	10000	0/1	—	—

Table D-3 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Oxalate	3	915	02/21/02	F	1	0	—	[600]	—	—	—	—
Perchlorate	3	915	02/21/02	F	1	0	—	[4]	—	—	—	—
Phosphorus (total)	3	915	02/21/02	F	1	1	20	—	—	—	—	—
Potassium	3	915	02/21/02	F	1	1	2260	—	—	—	—	—
Potassium	3	915	02/21/02	NF	1	1	2180	—	—	—	—	—
Selenium	3	915	02/21/02	F	1	0	—	[5]	50	0/1	50	0/1
Selenium	3	915	02/21/02	NF	1	0	—	[5]	—	—	—	—
Silica	3	915	02/21/02	F	1	1	53286	—	—	—	—	—
Silica	3	915	02/21/02	NF	1	1	50290	—	—	—	—	—
Silver	3	915	02/21/02	F	1	0	—	[5]	100	0/1	50	0/1
Silver	3	915	02/21/02	NF	1	0	—	[5]	—	—	—	—
Sodium	3	915	02/21/02	F	1	1	11800	—	—	—	—	—
Sodium	3	915	02/21/02	NF	1	1	11100	—	—	—	—	—
Strontium	3	915	02/21/02	F	1	1	91.6	—	—	—	—	—
Strontium	3	915	02/21/02	NF	1	1	87.4	—	—	—	—	—
Sulfate	3	915	02/21/02	F	1	1	409	—	250000	0/1	600000	0/1
Thallium	3	915	02/21/02	F	1	0	—	[0.02]	2	0/2	—	—
Thallium	3	915	02/21/02	NF	1	1	—	[0.5]	—	—	—	—
Total Kjeldahl Nitrogen	3	915	02/21/02	F	1	1	1060	—	—	—	—	—
Total Kjeldahl Nitrogen	3	915	02/21/02	NF	1	1	910	—	—	—	—	—
Uranium	3	915	02/21/02	F	1	0	—	[0.12]	20	0/1	5000	0/1
Uranium	3	915	02/21/02	NF	1	0	—	[0.14]	—	—	—	—
Vanadium	3	915	02/21/02	F	1	0	—	[5]	—	—	—	—
Vanadium	3	915	02/21/02	NF	1	0	—	[5]	—	—	—	—
Zinc	3	915	02/21/02	F	1	1	11.6	—	5000	0/1	10000	0/1
Zinc	3	915	02/21/02	NF	1	1	19.9	—	—	—	—	—

Table D-3 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Stable Isotope (‰)												
δD	3	915	02/21/02	NF	1	1	-83	—	—	—	—	—
$\delta^{15}N$ (NO_3)	3	915	02/21/02	NF	1	1	ISV[i]	—	—	—	—	—
$\delta^{18}O$	3	915	02/21/02	NF	1	1	-11.5	—	—	—	—	—

[a] The static water level for the regional aquifer at R-7 was 902.8 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

[i] ISV = Insufficient sample volume.

Table D-4
Well R-7 Screen 1 Fourth Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Bis(2-ethylhexyl)phthalate	1	378	02/19/02	NF	1	1	18.7	—	6	1/1	—	—
Dissolved Organic Carbon	1	378	02/19/02	F[g]	1	1	670	—	—	—	—	—
Methylene Chloride	1	378	02/19/02	NF	1	1	4.4	—	5	0/1	100	0/1
Total Organic Carbon	1	378	02/19/02	NF	1	1	237	—	—	—	—	—

[a] The static water level for the regional aquifer at R-7 was 902.8 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] F = Filtered.

Table D-5
Well R-7 Screen 3 Fourth Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Acetone	3	915	02/21/02	NF[e]	1	1	5.6	—[f]	—	—	—	—
Dissolved Organic Carbon	3	915	02/21/02	F[g]	1	1	3200	—	—	—	—	—
Humic Substances, Hydrophilic Acids	3	915	02/21/02	F	1	1	1400	—	—	—	—	—
Humic Substances, Hydrophilic Bases	3	915	02/21/02	F	1	1	100	—	—	—	—	—
Humic Substances, Hydrophilic Neutrals	3	915	02/21/02	F	1	1	200	—	—	—	—	—
Humic Substances, Hydrophilic Total	3	915	02/21/02	F	1	1	1700	—	—	—	—	—
Humic Substances, Hydrophobic Acids	3	915	02/21/02	F	1	1	700	—	—	—	—	—
Humic Substances, Hydrophobic Bases	3	915	02/21/02	F	1	1	—	[100]	—	—	—	—
Humic Substances, Hydrophobic Neutrals	3	915	02/21/02	F	1	1	800	—	—	—	—	—
Humic Substances, Hydrophobic Total	3	915	02/21/02	F	1	1	1500	—	—	—	—	—
Isopropylbenzene	3	915	02/21/02	NF	1	1	0.94	—	—	—	—	—
Nitrosodiphenylamine[N-]	3	915	02/21/02	NF	1	1	9.6	—	—	—	—	—
Total Organic Carbon	3	915	02/21/02	NF	1	1	3690	—	—	—	—	—

[a] The static water level for the regional aquifer at R-7 was 902.8 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] F = Filtered.

Table D-6
Well R-7 Screen 1 Fourth Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Americium-241	1	378	02/19/02	F[c]	1	0	—[d]	[0.0186]	15[e]	0/1
Americium-241	1	378	02/19/02	NF[f]	1	0	—	[0.00803]	—	—
Cesium-134	1	378	02/19/02	F	1	0	—	[-0.341]	—	—
Cesium-134	1	378	02/19/02	NF	1	0	—	[0.452]	—	—
Cesium-137	1	378	02/19/02	F	1	0	—	[0.0294]	—	—
Cesium-137	1	378	02/19/02	NF	1	0	—	[0.703]	—	—
Cobalt-60	1	378	02/19/02	F	1	0	—	[0.825]	—	—
Cobalt-60	1	378	02/19/02	NF	1	0	—	[-0.175]	—	—
Europium-152	1	378	02/19/02	F	1	0	—	[-0.927]	—	—
Europium-152	1	378	02/19/02	NF	1	0	—	[-1.33]	—	—
Gross Alpha Radiation	1	378	02/19/02	NF	1	0	—	[0.478]	—	—
Gross Beta Radiation	1	378	02/19/02	NF	1	1	3.02	—	—	—
Plutonium-238	1	378	02/19/02	F	1	0	—	[-0.0008]	15	0/1
Plutonium-238	1	378	02/19/02	NF	1	0	—	[0.00867]	—	—
Plutonium-239,240	1	378	02/19/02	F	1	0	—	[-0.0008]	—	—
Plutonium-239,240	1	378	02/19/02	NF	1	0	—	[0.00217]	—	—
Ruthenium-106	1	378	02/19/02	F	1	0	—	[2.59]	—	—
Ruthenium-106	1	378	02/19/02	NF	1	0	—	[5.08]	—	—
Sodium-22	1	378	02/19/02	F	1	0	—	[0.145]	—	—
Sodium-22	1	378	02/19/02	NF	1	0	—	[-0.953]	—	—
Strontium-90	1	378	02/19/02	F	1	0	—	[-0.0499]	8	0/1
Strontium-90	1	378	02/19/02	NF	1	0	—	[-0.0001]	—	—
Technetium-99	1	378	02/19/02	NF	1	0	—	[-3.8]	—	—
Tritium	1	378	02/19/02	NF	1	1	3.26	—	20000	0/1
Uranium-234	1	378	02/19/02	F	1	1	0.0478	—	—	—
Uranium-234	1	378	02/19/02	NF	1	0	—	[0.0275]	—	—
Uranium-235	1	378	02/19/02	F	1	0	—	[0.00533]	—	—

Table D-6 (continued)

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Uranium-235	1	378	02/19/02	NF	1	0	—	[0]	—	—
Uranium-238	1	378	02/19/02	F	1	0	—	[0.0106]	—	—
Uranium-238	1	378	02/19/02	NF	1	0	—	[0.0138]	—	—

[a] The static water level for the regional aquifer at R-7 was 902.8 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] F = Filtered.

[d] — = Not available or not applicable.

[e] Based on an MCL of 15 pCi/L (including radium-226, but excluding radon and uranium).

[f] NF = Nonfiltered.

Table D-7
Well R-7 Screen 3 Fourth Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Americium-241	3	915	02/21/02	F[c]	1	0	—[d]	[0.00373]	15[e]	0/1
Americium-241	3	915	02/21/02	NF[f]	1	1	0.0253	—	—	—
Cesium-134	3	915	02/21/02	NF	1	0	—	[0.467]	—	—
Cesium-137	3	915	02/21/02	NF	1	0	—	[-0.682]	—	—
Cobalt-60	3	915	02/21/02	NF	1	0	—	[0.166]	—	—
Europium-152	3	915	02/21/02	NF	1	0	—	[1.2]	—	—
Gross Alpha Radiation	3	915	02/21/02	NF	1	0	—	[1.5]	—	—
Gross Beta Radiation	3	915	02/21/02	NF	1	1	2.59	—	—	—
Plutonium-238	3	915	02/21/02	F	1	0	—	[0.00477]	15	0/1
Plutonium-238	3	915	02/21/02	NF	1	0	—	[0.00419]	—	—
Plutonium-239,240	3	915	02/21/02	F	1	0	—	[0.00716]	—	—
Plutonium-239,240	3	915	02/21/02	NF	1	0	—	[0.0168]	—	—
Ruthenium-106	3	915	02/21/02	NF	1	0	—	[1.02]	—	—
Sodium-22	3	915	02/21/02	NF	1	0	—	[1.42]	—	—
Strontium-90	3	915	02/21/02	F	1	0	—	[-0.0447]	8	0/1
Strontium-90	3	915	02/21/02	NF	1	0	—	[-0.0427]	—	—
Technetium-99	3	915	02/21/02	NF	1	0	—	[-3.35]	—	—
Tritium	3	915	02/21/02	NF	1	1	1.34	—	20000	0/1
Uranium-234	3	915	02/21/02	F	1	1	0.0664	—	—	—
Uranium-234	3	915	02/21/02	NF	1	1	0.0765	—	—	—
Uranium-235	3	915	02/21/02	F	1	0	—	[0.0074]	—	—
Uranium-235	3	915	02/21/02	NF	1	0	—	[0.00823]	—	—

Table D-7 (continued)

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Uranium-238	3	915	02/21/02	F	1	0	—	[0.0344]	—	—
Uranium-238	3	915	02/21/02	NF	1	1	0.0601	—	—	—

[a] The static water level for the regional aquifer at R-7 was 902.8 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] F = Filtered.

[d] — = Not available or not applicable.

[e] Based on an MCL of 15 pCi/L (including radium-226, but excluding radon and uranium).

[f] NF = Nonfiltered.

Table D-8
Well R-7 Screen 3 Third Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Americium-241	3	915	11/27/01	F[c]	1	0	—[d]	[0.0118]	15[e]	0/1
Americium-241	3	915	11/27/01	NF[f]	1	0	—	[0.0111]	—	—
Cesium-134	3	915	11/27/01	F	1	0	—	[-0.935]	—	—
Cesium-134	3	915	11/27/01	NF	1	0	—	[0.465]	—	—
Cesium-137	3	915	11/27/01	F	1	0	—	[0.414]	—	—
Cesium-137	3	915	11/27/01	NF	1	0	—	[0.608]	—	—
Cobalt-60	3	915	11/27/01	F	1	0	—	[-0.275]	—	—
Cobalt-60	3	915	11/27/01	NF	1	0	—	[-0.0653]	—	—
Europium-152	3	915	11/27/01	F	1	0	—	[-0.291]	—	—
Europium-152	3	915	11/27/01	NF	1	0	—	[-1.08]	—	—
Gross Alpha Radiation	3	915	11/27/01	NF	1	1	2.32	—	—	—
Gross Beta Radiation	3	915	11/27/01	NF	1	1	3.25	—	—	—
Plutonium-238	3	915	11/27/01	F	1	0	—	[-0.00448]	15[e]	0/1
Plutonium-238	3	915	11/27/01	NF	1	0	—	[0]	—	—
Plutonium-239	3	915	11/27/01	F	1	0	—	[0.00447]	15[e]	0/1
Plutonium-239	3	915	11/27/01	NF	1	0	—	[0.00336]	—	—
Ruthenium-106	3	915	11/27/01	F	1	0	—	[2.16]	—	—
Ruthenium-106	3	915	11/27/01	NF	1	0	—	[-0.923]	—	—
Strontium-90	3	915	11/27/01	F	1	0	—	[0.0329]	8	0/1
Strontium-90	3	915	11/27/01	NF	1	0	—	[-0.0204]	—	—
Technetium-99	3	915	11/27/01	NF	1	0	—	[0.457]	—	—
Tritium	3	915	11/27/01	NF	1	1	1.72	—	20000	0/1
Uranium-234	3	915	11/27/01	F	1	1	0.0602	—	—	—
Uranium-234	3	915	11/27/01	NF	1	1	0.0691	—	—	—
Uranium-235	3	915	11/27/01	F	1	0	—	[0.00787]	—	—
Uranium-235	3	915	11/27/01	NF	1	0	—	[0.0077]	—	—

Table D-8 (continued)

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Uranium-238	3	915	11/27/01	F	1	0	—	[0.0262]	—	—
Uranium-238	3	915	11/27/01	NF	1	1	0.0358	—	—	—

[a] The static water level for the regional aquifer at R-7 was 902.8 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] F = Filtered.

[d] — = Not available or not applicable.

[e] Based on an MCL of 15 pCi/L (including radium-226, but excluding radon and uranium).

[f] NF = Nonfiltered.

Table D-9
Well CdV-R-15-3 Screen 4 Fifth Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	4	1254	01/14/02	NF[e]	1	1	—[f]	—	—	—	—	—
Dissolved Oxygen	4	1254	01/14/02	NF	1	1	2800	—	—	—	—	—
pH	4	1254	01/14/02	NF	1	1	8.59	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	4	1254	01/14/02	NF	1	1	122	—	—	0/1	—	0/1
Temperature (°C)	4	1254	01/14/02	NF	1	1	14.2	—	—	0/1	—	0/1
Turbidity (NTU[g])	4	1254	01/14/02	NF	1	1	0.85	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	4	1254	01/14/02	F[h]	1	1	50500	—	—	—	—	—
Aluminum	4	1254	01/14/02	F	1	0	—	[50]	50	0/1	5000	0/1
Aluminum	4	1254	01/14/02	NF	1	0	—	[50]	—	—	—	—
Ammonia (as N)	4	1254	01/14/02	F	1	0	—	[50]	—	—	—	—
Antimony	4	1254	01/14/02	F	1	0	—	[2]	6	0/2	—	—
Antimony	4	1254	01/14/02	NF	1	0	—	[2]	—	—	—	—
Arsenic	4	1254	01/14/02	F	1	0	—	[5]	50	0/1	100	0/1
Arsenic	4	1254	01/14/02	NF	1	0	—	[5]	—	—	—	—
Barium	4	1254	01/14/02	F	1	1	20.9	—	2000	0/1	1000	0/1
Barium	4	1254	01/14/02	NF	1	1	120	—	—	—	—	—
Beryllium	4	1254	01/14/02	F	1	0	—	[0.2]	4	0/2	—	—
Beryllium	4	1254	01/14/02	NF	1	0	—	[0.2]	—	—	—	—
Boron	4	1254	01/14/02	F	1	0	—	[50]	—	—	750	0/1
Boron	4	1254	01/14/02	NF	1	1	5.23	—	—	—	—	—
Bromide	4	1254	01/14/02	F	1	0	—	[100]	—	—	—	—
Cadmium	4	1254	01/14/02	F	1	0	—	[1]	5	0/1	10	0/1

Table D-9 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Cadmium	4	1254	01/14/02	NF	1	0	—	[1]	—	—	—	—
Calcium	4	1254	01/14/02	F	1	1	10900	—	—	—	—	—
Calcium	4	1254	01/14/02	NF	1	1	16300	—	—	—	—	—
Chloride	4	1254	01/14/02	F	1	1	1500	—	250000	0/1	250000	0/1
Chromium	4	1254	01/14/02	F	1	0	—	[5]	100	0/1	50	0/1
Chromium	4	1254	01/14/02	NF	1	1	2.71	—	—	—	—	—
Cobalt	4	1254	01/14/02	F	1	0	—	[5]	—	—	50	0/1
Cobalt	4	1254	01/14/02	NF	1	0	—	[5]	—	—	—	—
Copper	4	1254	01/14/02	F	1	0	—	[5]	1300	0/1	1000	0/1
Copper	4	1254	01/14/02	NF	1	0	—	[5]	—	—	—	—
Cyanide (total)	4	1254	01/14/02	NF	1	0	—	[5]	—	—	—	—
Fluoride	4	1254	01/14/02	F	1	1	277	—	4000	0/1	1600	0/1
Iron	4	1254	01/14/02	F	1	0	—	[50]	300	0/1	1000	0/1
Iron	4	1254	01/14/02	NF	1	1	211	—	—	—	—	—
Lead	4	1254	01/14/02	F	1	0	—	[2]	15	0/1	50	0/1
Lead	4	1254	01/14/02	NF	1	0	—	[2]	—	—	—	—
Magnesium	4	1254	01/14/02	F	1	1	3540	—	—	—	—	—
Magnesium	4	1254	01/14/02	NF	1	1	2170	—	—	—	—	—
Manganese	4	1254	01/14/02	F	1	1	5.04	—	50	0/1	200	0/1
Manganese	4	1254	01/14/02	NF	1	1	8.05	—	—	—	—	—
Mercury	4	1254	01/14/02	F	1	0	—	[0.2]	2	0/1	—	—
Mercury	4	1254	01/14/02	NF	1	0	—	[0.2]	—	—	2	0/1
Molybdenum	4	1254	01/14/02	F	1	1	0.48	—	—	—	—	—
Molybdenum	4	1254	01/14/02	NF	1	1	3.36	—	—	—	—	—
Nickel	4	1254	01/14/02	F	1	0	—	[5]	100	0/1	200	0/1
Nickel	4	1254	01/14/02	NF	1	1	3.33	—	—	—	—	—
Nitrate + Nitrite (as N)	4	1254	01/14/02	F	1	1	110	—	10000	0/1	—	—

Table D-9 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Perchlorate	4	1254	01/14/02	F	1	0	—	[4]	—	—	—	—
Phosphorus	4	1254	01/14/02	F	1	0	—	[50]	—	—	—	—
Potassium	4	1254	01/14/02	F	1	1	1570	—	—	—	—	—
Potassium	4	1254	01/14/02	NF	1	1	1920	—	—	—	—	—
Selenium	4	1254	01/14/02	F	1	0	—	[5]	50	0/1	50	0/1
Selenium	4	1254	01/14/02	NF	1	0	—	[5]	—	—	—	—
Silica	4	1254	01/14/02	F	1	1	130326	—	—	—	—	—
Silica	4	1254	01/14/02	NF	1	1	110852	—	—	—	—	—
Silver	4	1254	01/14/02	F	1	0	—	[5]	100	0/1	50	0/1
Silver	4	1254	01/14/02	NF	1	0	—	[5]	—	—	—	—
Sodium	4	1254	01/14/02	F	1	1	10400	—	—	—	—	—
Sodium	4	1254	01/14/02	NF	1	1	18300	—	—	—	—	—
Strontium	4	1254	01/14/02	F	1	1	55.8	—	—	—	—	—
Strontium	4	1254	01/14/02	NF	1	1	51.4	—	—	—	—	—
Sulfate	4	1254	01/14/02	F	1	1	1580	—	250000	0/1	600000	0/1
Thallium	4	1254	01/14/02	F	1	0	—	[0.5]	2	0/2	—	—
Thallium	4	1254	01/14/02	NF	1	1	0.22	—	—	—	—	—
Total Kjeldahl Nitrogen	4	1254	01/14/02	F	1	1	740	—	—	—	—	—
Uranium	4	1254	01/14/02	F	1	1	0.36	—	20	0/1	5000	0/1
Uranium	4	1254	01/14/02	NF	1	1	0.35	—	—	—	—	—
Vanadium	4	1254	01/14/02	F	1	1	3.23	—	—	—	—	—
Vanadium	4	1254	01/14/02	NF	1	0	—	[5]	—	—	—	—
Zinc	4	1254	01/14/02	F	1	1	2.97	—	5000	0/1	10000	0/1
Zinc	4	1254	01/14/02	NF	1	1	1.91	—	—	—	—	—

Table D-9 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Stable Isotope (‰)												
δD	4	1254	01/14/02	NF	1	1	-82	—	—	—	—	—
$\delta^{15}N$ (NO_3)	4	1254	01/14/02	NF	1	1	ISV[i]	—	—	—	—	—
$\delta^{18}O$	4	1254	01/14/02	NF	1	1	-12	—	—	—	—	—

[a] The static water level for the regional aquifer at CdV-R-15-3 was 1245 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

[i] ISV = Insufficient sample volume.

Table D-10
Well CdV-R-15-3 Screen 5 Fifth Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	5	1350	01/15/02	NF[e]	1	1	—[f]	—	—	—	—	—
Dissolved Oxygen	5	1350	01/15/02	NF	1	1	4700	—	—	—	—	—
pH	5	1350	01/15/02	NF	1	1	7.80	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	5	1350	01/15/02	NF	1	1	161	—	—	0/1	—	0/1
Temperature (°C)	5	1350	01/15/02	NF	1	1	14.1	—	—	0/1	—	0/1
Turbidity (NTU[g])	5	1350	01/15/02	NF	1	1	0.71	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	5	1350	01/15/02	F[h]	1	1	106000	—	—	—	—	—
Aluminum	5	1350	01/15/02	F	1	0	—	[50]	50	0/1	5000	0/1
Aluminum	5	1350	01/15/02	NF	1	0	—	[50]	—	—	—	—
Ammonia (as N)	5	1350	01/15/02	F	1	1	140	—	—	—	—	—
Antimony	5	1350	01/15/02	F	1	0	—	[2]	6	0/2	—	—
Antimony	5	1350	01/15/02	NF	1	0	—	[2]	—	—	—	—
Arsenic	5	1350	01/15/02	F	1	0	—	[5]	50	0/1	100	0/1
Arsenic	5	1350	01/15/02	NF	1	0	—	[5]	—	—	—	—
Barium	5	1350	01/15/02	F	1	1	118	—	2000	0/1	1000	0/1
Barium	5	1350	01/15/02	NF	1	1	120	—	—	—	—	—
Beryllium	5	1350	01/15/02	F	1	0	—	[0.2]	4	0/2	—	—
Beryllium	5	1350	01/15/02	NF	1	0	—	[0.2]	—	—	—	—
Boron	5	1350	01/15/02	F	1	0	—	[50]	—	—	750	0/1
Boron	5	1350	01/15/02	NF	1	1	4.71	—	—	—	—	—
Bromide	5	1350	01/15/02	F	1	1	87	—	—	—	—	—
Cadmium	5	1350	01/15/02	F	1	0	—	[1]	5	0/1	10	0/1

Table D-10 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Cadmium	5	1350	01/15/02	NF	1	0	—	[1]	—	—	—	—
Calcium	5	1350	01/15/02	F	1	1	15900	—	—	—	—	—
Calcium	5	1350	01/15/02	NF	1	1	16400	—	—	—	—	—
Chloride	5	1350	01/15/02	F	1	1	1980	—	250000	0/1	250000	0/1
Chromium	5	1350	01/15/02	F	1	0	—	[5]	100	0/1	50	0/1
Chromium	5	1350	01/15/02	NF	1	1	2.16	—	—	—	—	—
Cobalt	5	1350	01/15/02	F	1	0	—	[5]	—	—	50	0/1
Cobalt	5	1350	01/15/02	NF	1	0	—	[5]	—	—	—	—
Copper	5	1350	01/15/02	F	1	0	—	[5]	1300	0/1	1000	0/1
Copper	5	1350	01/15/02	NF	1	0	—	[5]	—	—	—	—
Cyanide (total)	5	1350	01/15/02	NF	1	0	—	[5]	—	—	—	—
Fluoride	5	1350	01/15/02	F	1	1	426	—	4000	0/1	1600	0/1
Iron	5	1350	01/15/02	F	1	1	200	—	300	0/1	1000	0/1
Iron	5	1350	01/15/02	NF	1	1	408	—	—	—	—	—
Lead	5	1350	01/15/02	F	1	0	—	[2]	15	0/1	50	0/1
Lead	5	1350	01/15/02	NF	1	1	0.06	—	—	—	—	—
Magnesium	5	1350	01/15/02	F	1	1	2140	—	—	—	—	—
Magnesium	5	1350	01/15/02	NF	1	1	2190	—	—	—	—	—
Manganese	5	1350	01/15/02	F	1	1	268	—	50	1/1	200	1/1
Manganese	5	1350	01/15/02	NF	1	1	265	—	—	—	—	—
Mercury	5	1350	01/15/02	F	1	0	—	[0.2]	2	0/1	—	—
Mercury	5	1350	01/15/02	NF	1	0	—	[0.2]	—	—	2	0/1
Molybdenum	5	1350	01/15/02	F	1	1	1.9	—	—	—	—	—
Molybdenum	5	1350	01/15/02	NF	1	1	2.16	—	—	—	—	—
Nickel	5	1350	01/15/02	F	1	0	—	[5]	100	0/1	200	0/1
Nickel	5	1350	01/15/02	NF	1	1	1.45	—	—	—	—	—
Nitrate + Nitrite (as N)	5	1350	01/15/02	F	1	1	30	—	10000	0/1	—	—

Table D-10 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Oxalate	5	1350	01/15/02	F	1	0	—	[600]	—	—	—	—
Perchlorate	5	1350	01/15/02	F	1	0	—	[4]	—	—	—	—
Phosphorus (total)	5	1350	01/15/02	F	1	0	—	[50]	—	—	—	—
Potassium	5	1350	01/15/02	F	1	1	1920	—	—	—	—	—
Potassium	5	1350	01/15/02	NF	1	1	1940	—	—	—	—	—
Selenium	5	1350	01/15/02	F	1	0	—	[5]	50	0/1	50	0/1
Selenium	5	1350	01/15/02	NF	1	0	—	[10]	—	—	—	—
Silica	5	1350	01/15/02	F	1	1	115990	—	—	—	—	—
Silica	5	1350	01/15/02	NF	1	1	117270	—	—	—	—	—
Silver	5	1350	01/15/02	F	1	0	—	[5]	100	0/1	50	0/1
Silver	5	1350	01/15/02	NF	1	0	—	[5]	—	—	—	—
Sodium	5	1350	01/15/02	F	1	1	17700	—	—	—	—	—
Sodium	5	1350	01/15/02	NF	1	1	18400	—	—	—	—	—
Strontium	5	1350	01/15/02	F	1	1	489	—	—	—	—	—
Strontium	5	1350	01/15/02	NF	1	1	515	—	—	—	—	—
Sulfate	5	1350	01/15/02	F	1	1	1090	—	250000	0/1	600000	0/1
Thallium	5	1350	01/15/02	F	1	0	—	[0.5]	2	0/2	—	—
Thallium	5	1350	01/15/02	NF	1	1	0.08	—	—	—	—	—
Total Kjeldahl Nitrogen	5	1350	01/15/02	F	1	1	430	—	—	—	—	—
Uranium	5	1350	01/15/02	F	1	2	0.1	—	20	0/2	5000	0/2
Uranium	5	1350	01/15/02	NF	1	1	0.07	—	—	—	—	—
Vanadium	5	1350	01/15/02	F	1	0	—	[5]	—	—	—	—
Vanadium	5	1350	01/15/02	NF	1	0	—	[5]	—	—	—	—
Zinc	5	1350	01/15/02	F	1	1	1.96	—	5000	0/1	10000	0/1
Zinc	5	1350	01/15/02	NF	1	1	2.25	—	—	—	—	—

Table D-10 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Stable Isotope (‰)												
δD	5	1350	01/15/02	NF	1	1	-84	—	—	—	—	—
$\delta^{15}N$ (NO_3)	5	1350	01/15/02	NF	1	1	+5.6	—	—	—	—	—
$\delta^{18}O$	5	1350	01/15/02	NF	1	1	-11.6	—	—	—	—	—

[a] The static water level for the regional aquifer at CdV-R-15-3 was 1245 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

Table D-11
Well CdV-R-15-3 Screen 6 Fifth Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	6	1640	01/16/02	NF[e]	1	1	—[f]	—	—	—	—	—
Dissolved Oxygen	6	1640	01/16/02	NF	1	1	8300	—	—	—	—	—
pH	6	1640	01/16/02	NF	1	1	7.64	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	6	1640	01/16/02	NF	1	1	141	—	—	0/1	—	0/1
Temperature (°C)	6	1640	01/16/02	NF	1	1	14.6	—	—	0/1	—	0/1
Turbidity (NTU[g])	6	1640	01/16/02	NF	1	1	0.56	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	6	1640	01/16/02	F[h]	1	1	80800	—	—	—	—	—
Aluminum	6	1640	01/16/02	F	1	0	—	[50]	50	0/1	5000	0/1
Aluminum	6	1640	01/16/02	NF	1	0	—	[50]	—	—	—	—
Ammonia (as N)	6	1640	01/16/02	F	1	2	60	—	—	—	—	—
Antimony	6	1640	01/16/02	F	1	0	—	[2]	6	0/2	—	—
Antimony	6	1640	01/16/02	NF	1	0	—	[2]	—	—	—	—
Arsenic	6	1640	01/16/02	F	1	0	—	[5]	50	0/1	100	0/1
Arsenic	6	1640	01/16/02	NF	1	0	—	[5]	—	—	—	—
Barium	6	1640	01/16/02	F	1	1	26.6	—	2000	0/1	1000	0/1
Barium	6	1640	01/16/02	NF	1	1	26.7	—	—	—	—	—
Beryllium	6	1640	01/16/02	F	1	0	—	[0.2]	4	0/2	—	—
Beryllium	6	1640	01/16/02	NF	1	1	0.01	—	—	—	—	—
Boron	6	1640	01/16/02	F	1	0	—	[50]	—	—	750	0/1
Boron	6	1640	01/16/02	NF	1	0	—	[50]	—	—	—	—
Bromide	6	1640	01/16/02	F	1	1	77	—	—	—	—	—
Cadmium	6	1640	01/16/02	F	1	0	—	[1]	5	0/1	10	0/1

Table D-11 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Cadmium	6	1640	01/16/02	NF	1	0	—	[1]	—	—	—	—
Calcium	6	1640	01/16/02	F	1	1	10300	—	—	—	—	—
Calcium	6	1640	01/16/02	NF	1	1	10500	—	—	—	—	—
Chloride	6	1640	01/16/02	F	1	1	1730	—	250000	0/1	250000	0/1
Chromium	6	1640	01/16/02	F	1	0	—	[5]	100	0/1	50	0/1
Chromium	6	1640	01/16/02	NF	1	1	11.6	—	—	—	—	—
Cobalt	6	1640	01/16/02	F	1	0	—	[5]	—	—	50	0/1
Cobalt	6	1640	01/16/02	NF	1	0	—	[5]	—	—	—	—
Copper	6	1640	01/16/02	F	1	0	—	[5]	1300	0/1	1000	0/1
Copper	6	1640	01/16/02	NF	1	0	—	[5]	—	—	—	—
Cyanide (total)	6	1640	01/16/02	NF	1	0	—	[5]	—	—	—	—
Fluoride	6	1640	01/16/02	F	1	1	273	—	4000	0/1	1600	0/1
Iron	6	1640	01/16/02	F	1	1	1110	—	300	1/1	1000	1/1
Iron	6	1640	01/16/02	NF	1	1	1140	—	—	—	—	—
Lead	6	1640	01/16/02	F	1	0	—	[0.09]	15	0/1	50	0/1
Lead	6	1640	01/16/02	NF	1	0	—	[0.15]	—	—	—	—
Magnesium	6	1640	01/16/02	F	1	1	3120	—	—	—	—	—
Magnesium	6	1640	01/16/02	NF	1	1	3180	—	—	—	—	—
Manganese	6	1640	01/16/02	F	1	1	386	—	50	1/1	200	1/1
Manganese	6	1640	01/16/02	NF	1	1	397	—	—	—	—	—
Mercury	6	1640	01/16/02	F	1	0	—	[0.2]	2	0/1	—	—
Mercury	6	1640	01/16/02	NF	1	0	—	[0.2]	—	—	2	0/1
Molybdenum	6	1640	01/16/02	F	1	1	2.21	—	—	—	—	—
Molybdenum	6	1640	01/16/02	NF	1	1	6.35	—	—	—	—	—
Nickel	6	1640	01/16/02	F	1	0	—	[2]	100	0/1	200	0/1
Nickel	6	1640	01/16/02	NF	1	1	7.31	—	—	—	—	—
Nitrate + Nitrite (as N)	6	1640	01/16/02	F	1	2	20	—	10000	0/2	—	—

Table D-11 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Perchlorate	6	1640	01/16/02	F	1	0	—	[4]	—	—	—	—
Phosphorus (total)	6	1640	01/16/02	F	1	1	50	—	—	—	—	—
Potassium	6	1640	01/16/02	F	1	1	2170	—	—	—	—	—
Potassium	6	1640	01/16/02	NF	1	1	2170	—	—	—	—	—
Selenium	6	1640	01/16/02	F	1	0	—	[5]	50	0/1	50	0/1
Selenium	6	1640	01/16/02	NF	1	0	—	[5]	—	—	—	—
Silica	6	1640	01/16/02	F	1	1	137602	—	—	—	—	—
Silica	6	1640	01/16/02	NF	1	1	139956	—	—	—	—	—
Silver	6	1640	01/16/02	F	1	0	—	[1]	100	0/1	50	0/1
Silver	6	1640	01/16/02	NF	1	0	—	[1]	—	—	—	—
Sodium	6	1640	01/16/02	F	1	1	15300	—	—	—	—	—
Sodium	6	1640	01/16/02	NF	1	1	15400	—	—	—	—	—
Strontium	6	1640	01/16/02	F	1	1	70.4	—	—	—	—	—
Strontium	6	1640	01/16/02	NF	1	1	70.7	—	—	—	—	—
Sulfate	6	1640	01/16/02	F	1	0	—	[400]	250000	0/1	600000	0/1
Thallium	6	1640	01/16/02	F	1	1	0.23	—	2	0/2	—	—
Thallium	6	1640	01/16/02	NF	1	0	—	[0.5]	—	—	—	—
Total Kjeldahl Nitrogen	6	1640	01/16/02	F	1	2	330	—	—	—	—	—
Uranium	6	1640	01/16/02	F	1	0	—	[0.14]	20	0/1	5000	0/1
Uranium	6	1640	01/16/02	NF	1	0	—	[0.14]	—	—	—	—
Vanadium	6	1640	01/16/02	F	1	0	—	[5]	—	—	—	—
Vanadium	6	1640	01/16/02	NF	1	0	—	[5]	—	—	—	—
Zinc	6	1640	01/16/02	F	1	1	2.01	—	5000	0/1	10000	0/1
Zinc	6	1640	01/16/02	NF	1	1	17.9	—	—	—	—	—

Table D-11 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Stable Isotope (‰)												
δD	6	1640	01/16/02	NF	1	1	-81	—	—	—	—	—
$\delta^{15}N$ (NO_3)	6	1640	01/16/02	NF	1	1	ISV[i]	—	—	—	—	—
$\delta^{18}O$	6	1640	01/16/02	NF	1	1	-11.7	—	—	—	—	—

[a] The static water level for the regional aquifer at CdV-R-15-3 was 1245 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

[i] ISV = Insufficient sample volume.

Table D-12
Well CdV-R-15-3 Screen 4 Fifth Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Bis(2-ethylhexyl)phthalate	4	1254	01/14/02	NF[e]	1	1	0.25	—[f]	6	0/1	—	—
Total Organic Carbon	4	1254	01/14/02	F[g]	1	1	700	—	—	—	—	—
Total Organic Carbon	4	1254	01/14/02	NF	1	1	592	—	—	—	—	—

[a] The static water level for the regional aquifer at CdV-R-15-3 was 1245 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] F = Filtered.

Table D-13
Well CdV-R-15-3 Screen 5 Fifth Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Bis(2-ethylhexyl)phthalate	5	1350	01/15/02	NF[e]	1	1	0.54	—[f]	6	0/1	—	—
DDT[4,4'-]	5	1350	01/15/02	NF	1	1	0.05	—	—	—	—	—
Dissolved Organic Carbon	5	1350	01/15/02	F[g]	1	1	3400	—	—	—	—	—
Humic Substances, Hydrophilic Acids	5	1350	01/15/02	F	1	1	500	—	—	—	—	—
Humic Substances, Hydrophilic Bases	5	1350	01/15/02	F	1	1	100	—	—	—	—	—
Humic Substances, Hydrophilic Neutrals	5	1350	01/15/02	F	1	1	100	—	—	—	—	—
Humic Substances, Hydrophilic Total	5	1350	01/15/02	F	1	1	700	—	—	—	—	—
Humic Substances, Hydrophobic Acids	5	1350	01/15/02	F	1	1	1600	—	—	—	—	—
Humic Substances, Hydrophobic Bases	5	1350	01/15/02	F	1	1	—	[100]	—	—	—	—
Humic Substances, Hydrophobic Neutrals	5	1350	01/15/02	F	1	1	1100	—	—	—	—	—
Humic Substances, Hydrophobic Total	5	1350	01/15/02	F	1	1	2700	—	—	—	—	—
Total Organic Carbon	5	1350	01/15/02	NF	1	1	4680	—	—	—	—	—

[a] The static water level for the regional aquifer at CdV-R-15-3 was 1245 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] F = Filtered.

Table D-14
Well CdV-R-15-3 Screen 6 Fifth Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Bis(2-ethylhexyl)phthalate	6	1640	01/16/02	NF[e]	1	1	0.31	—[f]	6	0/1	—	—
DDT[4,4'-]	6	1640	01/16/02	NF	1	1	0.047	—	—	—	—	—
Dissolved Organic Carbon	6	1640	01/16/02	F[g]	1	1	1600	—	—	—	—	—
Humic Substances, Hydrophilic Acids	6	1640	01/16/02	F	1	1	—	[100]	—	—	—	—
Humic Substances, Hydrophilic Bases	6	1640	01/16/02	F	1	1	—	[100]	—	—	—	—
Humic Substances, Hydrophilic Neutrals	6	1640	01/16/02	F	1	1	400	—	—	—	—	—
Humic Substances, Hydrophilic Total	6	1640	01/16/02	F	1	1	400	—	—	—	—	—
Humic Substances, Hydrophobic Acids	6	1640	01/16/02	F	1	1	600	—	—	—	—	—
Humic Substances, Hydrophobic Bases	6	1640	01/16/02	F	1	1	—	[100]	—	—	—	—
Humic Substances, Hydrophobic Neutrals	6	1640	01/16/02	F	1	1	500	—	—	—	—	—
Humic Substances, Hydrophobic Total	6	1640	01/16/02	F	1	1	1200	—	—	—	—	—
Toluene	6	1640	01/16/02	NF	1	1	0.18	—	1000	0/1	750	0/1
Total Organic Carbon	6	1640	01/16/02	NF	1	1	1410	—	—	—	—	—

[a] The static water level for the regional aquifer at CdV-R-15-3 was 1245 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] F = Filtered.

Table D-15
Well CdV-R-15-3 Screen 4 Fifth Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Americium-241	4	1254	01/14/02	NF[c]	1	0	—[d]	[0]	—	—
Cesium-134	4	1254	01/14/02	NF	1	0	—	[0.259]	—	—
Cesium-137	4	1254	01/14/02	NF	1	0	—	[0]	—	—
Cobalt-60	4	1254	01/14/02	NF	1	0	—	[0.368]	—	—
Europium-152	4	1254	01/14/02	NF	1	0	—	[4.62]	—	—
Gross Alpha Radiation	4	1254	01/14/02	NF	1	0	—	[0.225]	—	—
Gross Beta Radiation	4	1254	01/14/02	NF	1	0	—	[3.67]	—	—
Ruthenium-106	4	1254	01/14/02	NF	1	0	—	[-5.91]	—	—
Sodium-22	4	1254	01/14/02	NF	1	0	—	[0.204]	—	—
Tritium	4	1254	01/14/02	NF	1	0	—	[0.29]	20000	0/1
Uranium-235	4	1254	01/14/02	NF	1	0	—	[10.7]	—	—

[a] The static water level for the regional aquifer at CdV-R-15-3 was 1245 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NF = Nonfiltered.

[d] — = Not available or not applicable.

Table D-16
Well CdV-R-15-3 Screen 5 Fifth Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Americium-241	5	1350	01/15/02	NF[c]	1	0	—[d]	[-0.97]	—	—
Cesium-134	5	1350	01/15/02	NF	1	0	—	[-0.171]	—	—
Cesium-137	5	1350	01/15/02	NF	1	0	—	[-0.836]	—	—
Cobalt-60	5	1350	01/15/02	NF	1	0	—	[1.14]	—	—
Europium-152	5	1350	01/15/02	NF	1	0	—	[-0.295]	—	—
Gross Alpha Radiation	5	1350	01/15/02	NF	1	0	—	[1.67]	—	—
Gross Beta Radiation	5	1350	01/15/02	NF	1	0	—	[3.04]	—	—
Ruthenium-106	5	1350	01/15/02	NF	1	0	—	[0.856]	—	—
Sodium-22	5	1350	01/15/02	NF	1	0	—	[0.142]	—	—
Tritium	5	1350	01/15/02	NF	1	0	—	[0.29]	20000	0/1
Uranium-235	5	1350	01/15/02	NF	1	0	—	[7.38]	—	—

[a] The static water level for the regional aquifer at CdV-R-15-3 was 1245 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NF = Nonfiltered.

[d] — = Not available or not applicable.

Table D-17
Well CdV-R-15-3 Screen 6 Fifth Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Americium-241	6	1640	01/16/02	NF[c]	1	0	—[d]	[-7.29]	—	—
Cesium-134	6	1640	01/16/02	NF	1	0	—	[-0.628]	—	—
Cesium-137	6	1640	01/16/02	NF	1	0	—	[-0.95]	—	—
Cobalt-60	6	1640	01/16/02	NF	1	0	—	[-0.048]	—	—
Europium-152	6	1640	01/16/02	NF	1	0	—	[3.51]	—	—
Gross Alpha Radiation	6	1640	01/16/02	NF	1	0	—	[1.37]	—	—
Gross Beta Radiation	6	1640	01/16/02	NF	1	1	4.65	—	—	—
Ruthenium-106	6	1640	01/16/02	NF	1	0	—	[-7.94]	—	—
Sodium-22	6	1640	01/16/02	NF	1	0	—	[0.358]	—	—
Tritium	6	1640	01/16/02	NF	1	0	—	[-0.03]	20000	0/1
Uranium-235	6	1640	01/16/02	NF	1	0	—	[4.13]	—	—

[a] The static water level for the regional aquifer at CdV-R-15-3 was 1245 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NF = Nonfiltered.

[d] — = Not available or not applicable.

Table D-18
Well CdV-R-15-3 Screen 4 Sixth Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	4	1254	04/15/02	NF[e]	1	1	63000	—[f]	—	—	—	—
Dissolved Oxygen	4	1254	04/15/02	NF	1	1	2600	—	—	—	—	—
pH	4	1254	04/15/02	NF	1	1	8.32	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	4	1254	04/15/02	NF	1	1	122	—	—	0/1	—	0/1
Temperature (°C)	4	1254	04/15/02	NF	1	1	16.8	—	—	0/1	—	0/1
Turbidity (NTU[g])	4	1254	04/15/02	NF	1	1	0.68	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	4	1254	04/15/02	F[h]	1	1	52500	—	—	—	—	—
Aluminum	4	1254	04/15/02	F	1	0	—	[50]	50	0/1	5000	0/1
Aluminum	4	1254	04/15/02	NF	1	0	—	[50]	—	—	—	—
Ammonia (as N)	4	1254	04/15/02	F	1	0	—	[50]	—	—	—	—
Antimony	4	1254	04/15/02	F	1	0	—	[2]	6	0/1	—	—
Antimony	4	1254	04/15/02	NF	1	0	—	[0.217]	—	—	—	—
Arsenic	4	1254	04/15/02	F	1	0	—	[5]	50	0/1	100	0/1
Arsenic	4	1254	04/15/02	NF	1	0	—	[5]	—	—	—	—
Barium	4	1254	04/15/02	F	1	1	21.7	—	2000	0/1	1000	0/1
Barium	4	1254	04/15/02	NF	1	1	22.6	—	—	—	—	—
Beryllium	4	1254	04/15/02	F	1	0	—	[0.2]	4	0/1	—	—
Beryllium	4	1254	04/15/02	NF	1	0	—	[0.2]	—	—	—	—
Bromide	4	1254	04/15/02	F	1	0	—	[200]	—	—	—	—
Cadmium	4	1254	04/15/02	F	1	0	—	[1]	5	0/1	10	0/1
Cadmium	4	1254	04/15/02	NF	1	0	—	[1]	—	—	—	—
Calcium	4	1254	04/15/02	F	1	1	10400	—	—	—	—	—

Table D-18 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Calcium	4	1254	04/15/02	NF	1	1	10600	—	—	—	—	—
Chloride	4	1254	04/15/02	F	1	1	1390	—	250000	0/1	250000	0/1
Chromium	4	1254	04/15/02	F	1	1	0.899	—	100	0/1	50	0/1
Chromium	4	1254	04/15/02	NF	1	1	1.89	—	—	—	—	—
Cobalt	4	1254	04/15/02	F	1	0	—	[5]	—	—	50	0/1
Cobalt	4	1254	04/15/02	NF	1	0	—	[5]	—	—	—	—
Copper	4	1254	04/15/02	F	1	0	—	[5]	1300	0/1	1000	0/1
Copper	4	1254	04/15/02	NF	1	0	—	[5]	—	—	—	—
Fluoride	4	1254	04/15/02	F	1	1	154	—	4000	0/1	1600	0/1
Iron	4	1254	04/15/02	F	1	0	—	[50]	300	0/1	1000	0/1
Iron	4	1254	04/15/02	NF	1	1	204	—	—	—	—	—
Lead	4	1254	04/15/02	F	1	0	—	[2]	15	0/1	50	0/1
Lead	4	1254	04/15/02	NF	1	0	—	[2]	—	—	—	—
Magnesium	4	1254	04/15/02	F	1	1	3310	—	—	—	—	—
Magnesium	4	1254	04/15/02	NF	1	1	3350	—	—	—	—	—
Manganese	4	1254	04/15/02	F	1	1	5.65	—	50	0/1	200	0/1
Manganese	4	1254	04/15/02	NF	1	1	8.91	—	—	—	—	—
Mercury	4	1254	04/15/02	F	1	0	—	[0.2]	2	0/1	—	—
Mercury	4	1254	04/15/02	NF	1	0	—	[0.2]	—	—	2	0/1
Nickel	4	1254	04/15/02	F	1	0	—	[5]	100	0/1	200	0/1
Nickel	4	1254	04/15/02	NF	1	0	—	[1.23]	—	—	—	—
Nitrate + Nitrite (as N)	4	1254	04/15/02	F	1	1	150	—	10000	0/1	—	—
Oxalate	4	1254	04/15/02	F	1	0	—	[1000]	—	—	—	—
Phosphorus (total)	4	1254	04/15/02	F	1	0	—	[40]	—	—	—	—
Potassium	4	1254	04/15/02	F	1	1	1510	—	—	—	—	—
Potassium	4	1254	04/15/02	NF	1	1	1560	—	—	—	—	—
Selenium	4	1254	04/15/02	F	1	0	—	[5]	50	0/1	50	0/1

Table D-18 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Selenium	4	1254	04/15/02	NF	1	0	—	[5]	—	—	—	—
Silver	4	1254	04/15/02	F	1	0	—	[5]	100	0/1	50	0/1
Silver	4	1254	04/15/02	NF	1	0	—	[5]	—	—	—	—
Sodium	4	1254	04/15/02	F	1	1	10400	—	—	—	—	—
Sodium	4	1254	04/15/02	NF	1	1	10800	—	—	—	—	—
Sulfate	4	1254	04/15/02	F	1	1	1650	—	250000	0/1	600000	0/1
Thallium	4	1254	04/15/02	F	1	1	0.081	—	2	0/1	—	—
Thallium	4	1254	04/15/02	NF	1	0	—	[0.5]	—	—	—	—
Total Kjeldahl Nitrogen	4	1254	04/15/02	F	1	0	—	[100]	—	—	—	—
Vanadium	4	1254	04/15/02	F	1	1	4.96	—	—	—	—	—
Vanadium	4	1254	04/15/02	NF	1	1	4.81	—	—	—	—	—
Zinc	4	1254	04/15/02	F	1	1	3.27	—	5000	0/1	10000	0/1
Zinc	4	1254	04/15/02	NF	1	1	6.33	—	—	—	—	—
Stable Isotope (‰)												
δD	4	1254	04/15/02	NF	1	1	-81	—	—	—	—	—
$\delta^{15}N$ (NO_3)	4	1254	04/15/02	NF	1	1	ISV[i]	—	—	—	—	—
$\delta^{18}O$	4	1254	04/15/02	NF	1	1	-11.5	—	—	—	—	—

[a] The static water level for the regional aquifer at CdV-R-15-3 was 1245 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

[i] ISV = Insufficient sample volume.

Table D-19
Well CdV-R-15-3 Screen 5 Sixth Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	5	1350	04/16/02	NF[e]	1	1	95000	—[f]	—	—	—	—
Dissolved Oxygen	5	1350	04/16/02	NF	1	1	3900	—	—	—	—	—
pH	5	1350	04/16/02	NF	1	1	7.40	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	5	1350	04/16/02	NF	1	1	170	—	—	0/1	—	0/1
Temperature (°C)	5	1350	04/16/02	NF	1	1	15.6	—	—	0/1	—	0/1
Turbidity (NTU[g])	5	1350	04/16/02	NF	1	1	0.52	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	5	1350	04/16/02	F[h]	1	1	78800	—	—	—	—	—
Aluminum	5	1350	04/16/02	F	1	0	—	[50]	50	0/1	5000	0/1
Aluminum	5	1350	04/16/02	NF	1	0	—	[50]	—	—	—	—
Ammonia (as N)	5	1350	04/16/02	F	1	1	210	—	—	—	—	—
Antimony	5	1350	04/16/02	F	1	0	—	[2]	6	0/1	—	—
Antimony	5	1350	04/16/02	NF	1	0	—	[2]	—	—	—	—
Arsenic	5	1350	04/16/02	F	1	0	—	[5]	50	0/1	100	0/1
Arsenic	5	1350	04/16/02	NF	1	0	—	[5]	—	—	—	—
Barium	5	1350	04/16/02	F	1	1	118	—	2000	0/1	1000	0/1
Barium	5	1350	04/16/02	NF	1	1	124	—	—	—	—	—
Beryllium	5	1350	04/16/02	F	1	0	—	[0.2]	4	0/1	—	—
Beryllium	5	1350	04/16/02	NF	1	0	—	[0.2]	—	—	—	—
Bromide	5	1350	04/16/02	F	1	0	—	[200]	—	—	—	—
Cadmium	5	1350	04/16/02	F	1	0	—	[1]	5	0/1	10	0/1
Cadmium	5	1350	04/16/02	NF	1	0	—	[1]	—	—	—	—
Calcium	5	1350	04/16/02	F	1	1	15400	—	—	—	—	—

Table D-19 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Calcium	5	1350	04/16/02	NF	1	1	16400	—	—	—	—	—
Chloride	5	1350	04/16/02	F	1	1	7780	—	250000	0/1	250000	0/1
Chromium	5	1350	04/16/02	F	1	0	—	[5]	100	0/1	50	0/1
Chromium	5	1350	04/16/02	NF	1	1	1.48	—	—	—	—	—
Cobalt	5	1350	04/16/02	F	1	0	—	[5]	—	—	50	0/1
Cobalt	5	1350	04/16/02	NF	1	0	—	[5]	—	—	—	—
Copper	5	1350	04/16/02	F	1	0	—	[5]	1300	0/1	1000	0/1
Copper	5	1350	04/16/02	NF	1	0	—	[5]	—	—	—	—
Fluoride	5	1350	04/16/02	F	1	1	648	—	4000	0/1	1600	0/1
Iron	5	1350	04/16/02	F	1	1	171	—	300	0/1	1000	0/1
Iron	5	1350	04/16/02	NF	1	1	190	—	—	—	—	—
Lead	5	1350	04/16/02	F	1	0	—	[2]	15	0/1	50	0/1
Lead	5	1350	04/16/02	NF	1	0	—	[2]	—	—	—	—
Magnesium	5	1350	04/16/02	F	1	1	1950	—	—	—	—	—
Magnesium	5	1350	04/16/02	NF	1	1	2000	—	—	—	—	—
Manganese	5	1350	04/16/02	F	1	1	244	—	50	1/1	200	1/1
Manganese	5	1350	04/16/02	NF	1	1	227	—	—	—	—	—
Mercury	5	1350	04/16/02	F	1	0	—	[0.2]	2	0/1	—	—
Mercury	5	1350	04/16/02	NF	1	0	—	[0.2]	—	—	2	0/1
Nickel	5	1350	04/16/02	F	1	0	—	[5]	100	0/1	200	0/1
Nickel	5	1350	04/16/02	NF	1	0	—	[1.67]	—	—	—	—
Nitrate + Nitrite (as N)	5	1350	04/16/02	F	1	0	—	[20]	10000	0/1	—	—
Oxalate	5	1350	04/16/02	F	1	0	—	[1000]	—	—	—	—
Phosphorus (total)	5	1350	04/16/02	F	1	0	—	[100]	—	—	—	—
Potassium	5	1350	04/16/02	F	1	1	1760	—	—	—	—	—
Potassium	5	1350	04/16/02	NF	1	1	1870	—	—	—	—	—
Selenium	5	1350	04/16/02	F	1	0	—	[5]	50	0/1	50	0/1

Table D-19 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Selenium	5	1350	04/16/02	NF	1	0	—	[5]	—	—	—	—
Silver	5	1350	04/16/02	F	1	1	0.446	—	100	0/1	50	0/1
Silver	5	1350	04/16/02	NF	1	0	—	[5]	—	—	—	—
Sodium	5	1350	04/16/02	F	1	1	16600	—	—	—	—	—
Sodium	5	1350	04/16/02	NF	1	1	18500	—	—	—	—	—
Sulfate	5	1350	04/16/02	F	1	1	1110	—	250000	0/1	600000	0/1
Thallium	5	1350	04/16/02	F	1	1	0.024	—	2	0/1	—	—
Thallium	5	1350	04/16/02	NF	1	1	0.046	—	—	—	—	—
Total Kjeldahl Nitrogen	5	1350	04/16/02	F	1	1	250	—	—	—	—	—
Vanadium	5	1350	04/16/02	F	1	0	—	[5]	—	—	—	—
Vanadium	5	1350	04/16/02	NF	1	0	—	[5]	—	—	—	—
Zinc	5	1350	04/16/02	F	1	1	3.79	—	5000	0/1	10000	0/1
Zinc	5	1350	04/16/02	NF	1	1	7.39	—	—	—	—	—
Stable Isotope (‰)												
δD	5	1350	04/16/02	NF	1	1	-82	—	—	—	—	—
$\delta^{15}N$ (NH_3)	5	1350	04/16/02	NF	1	1	ISV[i]	—	—	—	—	—
$\delta^{18}O$	5	1350	04/16/02	NF	1	1	-11.8	—	—	—	—	—

[a] The static water level for the regional aquifer at CdV-R-15-3 was 1245 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

[i] ISV = Insufficient sample volume.

Table D-20
Well CdV-R-15-3 Screen 6 Sixth Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	6	1640	04/17/02	NF[e]	1	1	78000	—[f]	—	—	—	—
Dissolved Oxygen	6	1640	04/17/02	NF	1	1	7200	—	—	—	—	—
pH	6	1640	04/17/02	NF	1	1	7.21	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	6	1640	04/17/02	NF	1	1	142	—	—	0/1	—	0/1
Temperature (°C)	6	1640	04/17/02	NF	1	1	17.4	—	—	0/1	—	0/1
Turbidity (NTU[g])	6	1640	04/17/02	NF	1	1	0.56	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	6	1640	04/17/02	F[h]	1	1	62300	—	—	—	—	—
Aluminum	6	1640	04/17/02	F	1	0	—	[50]	50	0/1	5000	0/1
Aluminum	6	1640	04/17/02	NF	1	0	—	[50]	—	—	—	—
Ammonia (as N)	6	1640	04/17/02	F	1	1	150	—	—	—	—	—
Antimony	6	1640	04/17/02	F	1	0	—	[2]	6	0/1	—	—
Antimony	6	1640	04/17/02	NF	1	0	—	[2]	—	—	—	—
Arsenic	6	1640	04/17/02	F	1	0	—	[5]	50	0/1	100	0/1
Arsenic	6	1640	04/17/02	NF	1	0	—	[5]	—	—	—	—
Barium	6	1640	04/17/02	F	1	1	24.8	—	2000	0/1	1000	0/1
Barium	6	1640	04/17/02	NF	1	1	24.5	—	—	—	—	—
Beryllium	6	1640	04/17/02	F	1	0	—	[0.2]	4	0/1	—	—
Beryllium	6	1640	04/17/02	NF	1	0	—	[0.2]	—	—	—	—
Bromide	6	1640	04/17/02	F	1	0	—	[200]	—	—	—	—
Cadmium	6	1640	04/17/02	F	1	0	—	[1]	5	0/1	10	0/1
Cadmium	6	1640	04/17/02	NF	1	0	—	[1]	—	—	—	—
Calcium	6	1640	04/17/02	F	1	1	9810	—	—	—	—	—

Table D-20 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Calcium	6	1640	04/17/02	NF	1	1	9800	—	—	—	—	—
Chloride	6	1640	04/17/02	F	1	1	8640	—	250000	0/1	250000	0/1
Chromium	6	1640	04/17/02	F	1	0	—	[5]	100	0/1	50	0/1
Chromium	6	1640	04/17/02	NF	1	1	6.45	—	—	—	—	—
Cobalt	6	1640	04/17/02	F	1	0	—	[5]	—	—	50	0/1
Cobalt	6	1640	04/17/02	NF	1	0	—	[5]	—	—	—	—
Copper	6	1640	04/17/02	F	1	0	—	[5]	1300	0/1	1000	0/1
Copper	6	1640	04/17/02	NF	1	0	—	[5]	—	—	—	—
Fluoride	6	1640	04/17/02	F	1	1	570	—	4000	0/1	1600	0/1
Iron	6	1640	04/17/02	F	1	1	897	—	300	1/1	1000	0/1
Iron	6	1640	04/17/02	NF	1	1	968	—	—	—	—	—
Lead	6	1640	04/17/02	F	1	0	—	[2]	15	0/1	50	0/1
Lead	6	1640	04/17/02	NF	1	0	—	[2]	—	—	—	—
Magnesium	6	1640	04/17/02	F	1	1	2910	—	—	—	—	—
Magnesium	6	1640	04/17/02	NF	1	1	2900	—	—	—	—	—
Manganese	6	1640	04/17/02	F	1	1	450	—	50	1/1	200	1/1
Manganese	6	1640	04/17/02	NF	1	1	443	—	—	—	—	—
Mercury	6	1640	04/17/02	F	1	0	—	[0.2]	2	0/1	—	—
Mercury	6	1640	04/17/02	NF	1	0	—	[0.2]	—	—	2	0/1
Nickel	6	1640	04/17/02	F	1	0	—	[3.75]	100	0/1	200	0/1
Nickel	6	1640	04/17/02	NF	1	1	4.7	—	—	—	—	—
Nitrate + Nitrite (as N)	6	1640	04/17/02	F	1	0	—	[10]	10000	0/1	—	—
Oxalate	6	1640	04/17/02	F	1	0	—	[1000]	—	—	—	—
Phosphorus (total)	6	1640	04/17/02	F	1	0	—	[70]	—	—	—	—
Potassium	6	1640	04/17/02	F	1	1	1960	—	—	—	—	—
Potassium	6	1640	04/17/02	NF	1	1	1980	—	—	—	—	—
Selenium	6	1640	04/17/02	F	1	0	—	[5]	50	0/1	50	0/1

Table D-20 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Selenium	6	1640	04/17/02	NF	1	0	—	[5]	—	—	—	—
Silver	6	1640	04/17/02	F	1	0	—	[5]	100	0/1	50	0/1
Silver	6	1640	04/17/02	NF	1	0	—	[5]	—	—	—	—
Sodium	6	1640	04/17/02	F	1	1	14400	—	—	—	—	—
Sodium	6	1640	04/17/02	NF	1	1	14600	—	—	—	—	—
Sulfate	6	1640	04/17/02	F	1	1	492	—	250000	0/1	600000	0/1
Thallium	6	1640	04/17/02	F	1	0	—	[0.5]	2	0/1	—	—
Thallium	6	1640	04/17/02	NF	1	1	0.019	—	—	—	—	—
Total Kjeldahl Nitrogen	6	1640	04/17/02	F	1	1	240	—	—	—	—	—
Vanadium	6	1640	04/17/02	F	1	0	—	[5]	—	—	—	—
Vanadium	6	1640	04/17/02	NF	1	0	—	[5]	—	—	—	—
Zinc	6	1640	04/17/02	F	1	1	3.41	—	5000	0/1	10000	0/1
Zinc	6	1640	04/17/02	NF	1	1	8.97	—	—	—	—	—
Stable Isotope (‰)												
δD	6	1640	04/17/02	NF	1	1	-80	—	—	—	—	—
$\delta^{15}N$ (NO_3)	6	1640	04/17/02	NF	1	1	3	—	—	—	—	—
$\delta^{18}O$	6	1640	04/17/02	NF	1	1	-11.7	—	—	—	—	—

[a] The static water level for the regional aquifer at CdV-R-15-3 was 1245 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

Table D-21
Well CdV-R-15-3 Screen 4 Sixth Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Total Organic Carbon	4	1254	04/15/02	NF[e]	1	1	413	—[f]	—	—	—	—

[a] The static water level for the regional aquifer at CdV-R-15-3 was 1245 ft when the well was drilled.
[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.
[c] NMED = New Mexico Environment Department.
[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.
[e] NF = Nonfiltered.
[f] — = Not available or not applicable.

Table D-22
Well CdV-R-15-3 Screen 5 Sixth Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Total Organic Carbon	5	1350	04/16/02	NF[e]	1	1	3880	—[f]	—	—	—	—

[a] The static water level for the regional aquifer at CdV-R-15-3 was 1245 ft when the well was drilled.
[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.
[c] NMED = New Mexico Environment Department.
[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.
[e] NF = Nonfiltered.
[f] — = Not available or not applicable.

Table D-23
Well CdV-R-15-3 Screen 6 Sixth Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Total Organic Carbon	6	1640	04/17/02	NF[e]	1	1	1130	—[f]	—	—	—	—

[a] The static water level for the regional aquifer at CdV-R-15-3 was 1245 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

Table D-24
Well CdV-R-15-3 Screen 4 Sixth Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Tritium	4	1254	04/15/02	NF[c]	1	0	—[d]	[-0.06]	20000	0/1

[a] The static water level for the regional aquifer at CdV-R-15-3 was 1245 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NF = Nonfiltered.

[d] — = Not available or not applicable.

Table D-25
Well CdV-R-15-3 Screen 5 Sixth Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Tritium	5	1350	04/16/02	NF[c]	1	0	—[d]	[-0.10]	20000	0/1

[a] The static water level for the regional aquifer at CdV-R-15-3 was 1245 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NF = Nonfiltered.

[d] — = Not available or not applicable.

Table D-26
Well CdV-R-15-3 Screen 6 Sixth Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Tritium	6	1640	04/17/02	NF[c]	1	0	—[d]	[0]	20000	0/1

[a] The static water level for the regional aquifer at CdV-R-15-3 was 1245 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NF = Nonfiltered.

[d] — = Not available or not applicable.

Table D-27
Well R-22 Screen 1 Third Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	1	907	11/30/01	NF[e]	1	1	243000	—[f]	—	—	—	—
Dissolved Oxygen	1	907	11/30/01	NF	0	0	—	—	—	—	—	—
pH	1	907	11/30/01	NF	1	1	7.16	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	1	907	11/30/01	NF	1	1	558	—	—	0/1	—	0/1
Temperature (°C)	1	907	11/30/01	NF	1	1	18.0	—	—	0/1	—	0/1
Turbidity (NTU[g])	1	907	11/30/01	NF	1	1	39.5	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	1	907	11/30/01	F[h]	1	1	242000	—	—	—	—	—
Aluminum	1	907	11/30/01	F	1	0	—	[50]	50	0/1	5000	0/1
Aluminum	1	907	11/30/01	NF	1	0	—	[50]	—	—	—	—
Ammonia (as N)	1	907	11/30/01	F	1	0	—	[50]	—	—	—	—
Antimony	1	907	11/30/01	F	1	0	—	[0.06]	6	0/1	—	—
Antimony	1	907	11/30/01	NF	1	0	—	[0.27]	—	—	—	—
Arsenic	1	907	11/30/01	F	1	0	—	[5]	50	0/1	100	0/1
Arsenic	1	907	11/30/01	NF	1	0	—	[5]	—	—	—	—
Barium	1	907	11/30/01	F	1	1	181	—	2000	0/1	1000	0/1
Barium	1	907	11/30/01	NF	1	1	209	—	—	—	—	—
Beryllium	1	907	11/30/01	F	1	0	—	[0.2]	4	0/1	—	—
Beryllium	1	907	11/30/01	NF	1	1	0.01	—	—	—	—	—
Boron	1	907	11/30/01	F	1	1	20.1	—	—	—	750	0/1
Boron	1	907	11/30/01	NF	1	1	21.6	—	—	—	—	—
Bromide	1	907	11/30/01	F	1	0	—	[50]	—	—	—	—
Cadmium	1	907	11/30/01	F	1	0	—	[1]	5	0/1	10	0/1

Table D-27 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Cadmium	1	907	11/30/01	NF	1	0	—	[1]	—	—	—	—
Calcium	1	907	11/30/01	F	1	1	60800	—	—	—	—	—
Calcium	1	907	11/30/01	NF	1	1	60300	—	—	—	—	—
Chloride	1	907	11/30/01	F	1	1	2850	—	250000	0/1	250000	0/1
Chromium	1	907	11/30/01	F	1	0	—	[5]	100	0/1	50	0/1
Chromium	1	907	11/30/01	NF	1	1	0.755	—	—	—	—	—
Cobalt	1	907	11/30/01	F	1	1	1.03	—	—	—	50	0/1
Cobalt	1	907	11/30/01	NF	1	1	0.745	—	—	—	—	—
Copper	1	907	11/30/01	F	1	0	—	[5]	1300	0/1	1000	0/1
Copper	1	907	11/30/01	NF	1	1	1.1	—	—	—	—	—
Cyanide (total)	1	907	11/30/01	NF	1	0	—	[5]	—	—	—	—
Fluoride	1	907	11/30/01	F	1	0	—	[50]	4000	0/1	1600	0/1
Iron	1	907	11/30/01	F	1	1	9460	—	300	1/1	1000	1/1
Iron	1	907	11/30/01	NF	1	1	16700	—	—	—	—	—
Lead	1	907	11/30/01	F	1	0	—	[2]	15	0/1	50	0/1
Lead	1	907	11/30/01	NF	1	0	—	[2]	—	—	—	—
Magnesium	1	907	11/30/01	F	1	1	16500	—	—	—	—	—
Magnesium	1	907	11/30/01	NF	1	1	16200	—	—	—	—	—
Manganese	1	907	11/30/01	F	1	1	3410	—	50	1/1	200	1/1
Manganese	1	907	11/30/01	NF	1	1	3800	—	—	—	—	—
Mercury	1	907	11/30/01	F	1	0	—	[0.2]	2	0/1	—	—
Mercury	1	907	11/30/01	NF	1	0	—	[0.2]	—	—	2	0/1
Molybdenum	1	907	11/30/01	F	1	1	25.2	—	—	—	—	—
Molybdenum	1	907	11/30/01	NF	1	1	27.9	—	—	—	—	—
Nickel	1	907	11/30/01	F	1	0	—	[11.9]	100	0/1	200	0/1
Nickel	1	907	11/30/01	NF	1	0	—	[11.2]	—	—	—	—
Nitrate + Nitrite (as N)	1	907	11/30/01	F	1	1	60	—	10000	0/1	—	—

Table D-27 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Oxalate	1	907	11/30/01	F	1	0	—	[600]	—	—	—	—
Perchlorate	1	907	11/30/01	F	1	0	—	[4]	—	—	—	—
Phosphorus (total)	1	907	11/30/01	F	1	1	160	—	—	—	—	—
Potassium	1	907	11/30/01	F	1	1	4160	—	—	—	—	—
Potassium	1	907	11/30/01	NF	1	1	4090	—	—	—	—	—
Selenium	1	907	11/30/01	F	1	1	4.36	—	50	0/1	50	0/1
Selenium	1	907	11/30/01	NF	1	0	—	[5]	—	—	—	—
Silver	1	907	11/30/01	F	1	0	—	[5]	100	0/1	50	0/1
Silver	1	907	11/30/01	NF	1	0	—	[5]	—	—	—	—
Silica	1	907	11/30/01	F	1	1	44080	—	—	—	—	—
Silica	1	907	11/30/01	NF	1	1	43660	—	—	—	—	—
Sodium	1	907	11/30/01	F	1	1	24800	—	—	—	—	—
Sodium	1	907	11/30/01	NF	1	1	24600	—	—	—	—	—
Strontium	1	907	11/30/01	F	1	1	324	—	—	—	—	—
Strontium	1	907	11/30/01	NF	1	1	323	—	—	—	—	—
Sulfate	1	907	11/30/01	F	1	1	352	—	250000	0/1	600000	0/1
Thallium	1	907	11/30/01	F	1	0	—	[0.5]	2	0/1	—	—
Thallium	1	907	11/30/01	F	1	0	—	[0.5]	—	—	—	—
Total Kjeldahl Nitrogen	1	907	11/30/01	F	1	1	1310	—	—	—	—	—
Uranium	1	907	11/30/01	F	1	0	—	[0.2]	—	—	—	—
Vanadium	1	907	11/30/01	F	1	0	—	[5]	—	—	—	—
Vanadium	1	907	11/30/01	NF	1	0	—	[0.623]	—	—	—	—
Zinc	1	907	11/30/01	F	1	0	—	[2.94]	5000	0/1	10000	0/1
Zinc	1	907	11/30/01	NF	1	0	—	[4.18]	—	—	—	—

Table D-27 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Stable Isotope (‰)												
δD	1	907	11/30/01	NF	1	1	-77	—	—	—	—	—
$\delta^{15}N$ (NH_3)	1	907	11/30/01	NF	1	1	+1.4	—	—	—	—	—
$\delta^{18}O$	1	907	11/30/01	NF	1	1	-11	—	—	—	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

Table D-28
Well R-22 Screen 2 Third Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	2	962	12/03/01	NF[e]	1	1	65000	—[f]	—	—	—	—
Dissolved Oxygen	2	962	12/03/01	NF	0	0	—	—	—	—	—	—
pH	2	962	12/03/01	NF	1	1	8.36	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	2	962	12/03/01	NF	1	1	153	—	—	0/1	—	0/1
Temperature (°C)	2	962	12/03/01	NF	1	1	18.9	—	—	0/1	—	0/1
Turbidity (NTU[g])	2	962	12/03/01	NF	1	1	0.95	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	2	962	12/03/01	F[h]	1	1	84700	—	—	—	—	—
Aluminum	2	962	12/03/01	F	1	0	—	[50]	50	0/1	5000	0/1
Aluminum	2	962	12/03/01	NF	1	0	—	[50]	—	—	—	—
Ammonia (as N)	2	962	12/03/01	F	1	1	1020	—	—	—	—	—
Antimony	2	962	12/03/01	F	1	0	—	[0.08]	6	0/1	—	—
Antimony	2	962	12/03/01	NF	1	0	—	[0.13]	—	—	—	—
Arsenic	2	962	12/03/01	F	1	0	—	[5]	50	0/1	100	0/1
Arsenic	2	962	12/03/01	NF	1	0	—	[5]	—	—	—	—
Barium	2	962	12/03/01	F	1	1	16.7	—	2000	0/1	1000	0/1
Barium	2	962	12/03/01	NF	1	1	171	—	—	—	—	—
Beryllium	2	962	12/03/01	F	1	0	—	[0.2]	4	0/1	—	—
Beryllium	2	962	12/03/01	NF	1	0	—	[0.2]	—	—	—	—
Boron	2	962	12/03/01	F	1	1	19.5	—	—	—	750	0/1
Boron	2	962	12/03/01	NF	1	0	—	[50]	—	—	—	—
Bromide	2	962	12/03/01	F	1	0	—	[50]	—	—	—	—
Cadmium	2	962	12/03/01	F	1	0	—	[1]	5	0/1	10	0/1

Table D-28 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Cadmium	2	962	12/03/01	NF	1	0	—	[1]	—	—	—	—
Calcium	2	962	12/03/01	F	1	1	10600	—	—	—	—	—
Calcium	2	962	12/03/01	NF	1	1	58800	—	—	—	—	—
Chloride	2	962	12/03/01	F	1	1	1860	—	250000	0/1	250000	0/1
Chromium	2	962	12/03/01	F	1	0	—	[5]	100	0/1	50	0/1
Chromium	2	962	12/03/01	NF	1	1	20.1	—	—	—	—	—
Cobalt	2	962	12/03/01	F	1	1	0.868	—	—	—	50	0/1
Cobalt	2	962	12/03/01	NF	1	0	—	[5]	—	—	—	—
Copper	2	962	12/03/01	F	1	0	—	[5]	1300	0/1	1000	0/1
Copper	2	962	12/03/01	NF	1	0	—	[5]	—	—	—	—
Cyanide (total)	2	962	12/03/01	NF	1	0	—	[5]	—	—	—	—
Fluoride	2	962	12/03/01	F	1	0	—	[50]	4000	0/1	1600	0/1
Iron	2	962	12/03/01	F	1	1	114	—	300	1/1	1000	1/1
Iron	2	962	12/03/01	NF	1	1	7840	—	—	—	—	—
Lead	2	962	12/03/01	F	1	0	—	[2]	15	0/1	50	0/1
Lead	2	962	12/03/01	NF	1	1	0.02	—	—	—	—	—
Magnesium	2	962	12/03/01	F	1	1	5070	—	—	—	—	—
Magnesium	2	962	12/03/01	NF	1	1	15900	—	—	—	—	—
Manganese	2	962	12/03/01	F	1	1	20.5	—	50	1/1	200	1/1
Manganese	2	962	12/03/01	NF	1	1	3430	—	—	—	—	—
Mercury	2	962	12/03/01	F	1	0	—	[0.2]	2	0/1	—	—
Mercury	2	962	12/03/01	NF	1	0	—	[0.2]	—	—	2	0/1
Molybdenum	2	962	12/03/01	F	1	1	1.75	—	—	—	—	—
Molybdenum	2	962	12/03/01	NF	1	1	24.8	—	—	—	—	—
Nickel	2	962	12/03/01	F	1	0	—	[11.8]	100	0/1	200	0/1
Nickel	2	962	12/03/01	NF	1	0	—	[11]	—	—	—	—
Nitrate + Nitrite (as N)	2	962	12/03/01	F	1	1	580	—	10000	0/1	—	—

Table D-28 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Oxalate	2	962	12/03/01	F	1	0	—	[600]	—	—	—	—
Perchlorate	2	962	12/03/01	F	1	1	—	[4]	—	—	—	—
Phosphorus (total)	2	962	12/03/01	F	1	1	80	—	—	—	—	—
Potassium	2	962	12/03/01	F	1	1	3150	—	—	—	—	—
Potassium	2	962	12/03/01	NF	1	1	3990	—	—	—	—	—
Selenium	2	962	12/03/01	F	1	0	—	[5]	50	0/1	50	0/1
Selenium	2	962	12/03/01	NF	1	0	—	[5]	—	—	—	—
Silver	2	962	12/03/01	F	1	0	—	[5]	100	0/1	50	0/1
Silver	2	962	12/03/01	NF	1	0	—	[5]	—	—	—	—
Silica	2	962	12/03/01	F	1	1	68270	—	—	—	—	—
Silica	2	962	12/03/01	NF	1	1	42160	—	—	—	—	—
Sodium	2	962	12/03/01	F	1	1	12600	—	—	—	—	—
Sodium	2	962	12/03/01	NF	1	1	23900	—	—	—	—	—
Strontium	2	962	12/03/01	F	1	1	53.9	—	—	—	—	—
Strontium	2	962	12/03/01	NF	1	1	311	—	—	—	—	—
Sulfate	2	962	12/03/01	F	1	1	2810	—	250000	0/1	600000	0/1
Thallium	2	962	12/03/01	F	1	0	—	[0.5]	2	0/1	—	—
Thallium	2	962	12/03/01	NF	1	0	—	[0.5]	—	—	—	—
Total Kjeldahl Nitrogen	2	962	12/03/01	F	1	1	180	—	—	—	—	—
Uranium	2	962	12/03/01	F	1	1	0.21	—	—	—	—	—
Vanadium	2	962	12/03/01	F	1	0	—	[5]	—	—	—	—
Vanadium	2	962	12/03/01	NF	1	1	5.7	—	—	—	—	—
Zinc	2	962	12/03/01	F	1	0	—	[4.47]	5000	0/1	10000	0/1
Zinc	2	962	12/03/01	NF	1	0	—	[4.72]	—	—	—	—

Table D-28 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Stable Isotope (‰)												
δD	2	962	12/03/01	NF	1	1	-77	—	—	—	—	—
$\delta^{15}N$ (NO_3)	2	962	12/03/01	NF	1	1	+2.7	—	—	—	—	—
$\delta^{18}O$	2	962	12/03/01	NF	1	1	-11.2	—	—	—	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

Table D-29
Well R-22 Screen 3 Third Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	3	1273	12/04/01	NF[e]	1	1	108000	—[f]	—	—	—	—
Dissolved Oxygen	3	1273	12/04/01	NF	0	0	—	—	—	—	—	—
pH	3	1273	12/04/01	NF	1	1	9.22	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	3	1273	12/04/01	NF	1	1	285	—	—	0/1	—	0/1
Temperature (°C)	3	1273	12/04/01	NF	1	1	19.8	—	—	0/1	—	0/1
Turbidity (NTU[g])	3	1273	12/04/01	NF	1	1	1.55	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	3	1273	12/04/01	F[h]	1	1	125000	—	—	—	—	—
Aluminum	3	1273	12/04/01	F	1	0	—	[50]	50	0/1	5000	0/1
Aluminum	3	1273	12/04/01	NF	1	0	—	[50]	—	—	—	—
Ammonia (as N)	3	1273	12/04/01	F	1	0	—	[50]	—	—	—	—
Antimony	3	1273	12/04/01	F	1	0	—	[0.19]	6	0/1	—	—
Antimony	3	1273	12/04/01	NF	1	0	—	[0.21]	—	—	—	—
Arsenic	3	1273	12/04/01	F	1	0	—	[5]	50	0/1	100	0/1
Arsenic	3	1273	12/04/01	NF	1	0	—	[5]	—	—	—	—
Barium	3	1273	12/04/01	F	1	1	50.6	—	2000	0/1	1000	0/1
Barium	3	1273	12/04/01	NF	1	1	84.8	—	—	—	—	—
Beryllium	3	1273	12/04/01	F	1	0	—	[0.2]	4	0/1	—	—
Beryllium	3	1273	12/04/01	NF	1	0	—	[0.2]	—	—	—	—
Boron	3	1273	12/04/01	F	1	1	44.6	—	—	—	750	0/1
Boron	3	1273	12/04/01	NF	1	1	50.5	—	—	—	—	—
Bromide	3	1273	12/04/01	F	1	0	—	[100]	—	—	—	—
Cadmium	3	1273	12/04/01	F	1	0	—	[1]	5	0/1	10	0/1

Table D-29 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Cadmium	3	1273	12/04/01	NF	1	0	—	[1]	—	—	—	—
Calcium	3	1273	12/04/01	F	1	1	9140	—	—	—	—	—
Calcium	3	1273	12/04/01	NF	1	1	15100	—	—	—	—	—
Chloride	3	1273	12/04/01	F	1	1	4360	—	250000	0/1	250000	0/1
Chromium	3	1273	12/04/01	F	1	1	1.08	—	100	0/1	50	0/1
Chromium	3	1273	12/04/01	NF	1	1	3.42	—	—	—	—	—
Cobalt	3	1273	12/04/01	F	1	0	—	[5]	—	—	50	0/1
Cobalt	3	1273	12/04/01	NF	1	0	—	[5]	—	—	—	—
Copper	3	1273	12/04/01	F	1	1	1.48	—	1300	0/1	1000	0/1
Copper	3	1273	12/04/01	NF	1	1	1.02	—	—	—	—	—
Cyanide (total)	3	1273	12/04/01	NF	1	0	—	[5]	—	—	—	—
Fluoride	3	1273	12/04/01	F	1	1	675	—	4000	0/1	1600	0/1
Iron	3	1273	12/04/01	F	1	0	—	[33.5]	300	0/1	1000	0/1
Iron	3	1273	12/04/01	NF	1	0	—	[56.3]	—	—	—	—
Lead	3	1273	12/04/01	F	1	1	0.09	—	15	0/1	50	0/1
Lead	3	1273	12/04/01	NF	1	1	0.07	—	—	—	—	—
Magnesium	3	1273	12/04/01	F	1	1	3210	—	—	—	—	—
Magnesium	3	1273	12/04/01	NF	1	1	4480	—	—	—	—	—
Manganese	3	1273	12/04/01	F	1	1	13.8	—	50	0/1	200	0/1
Manganese	3	1273	12/04/01	NF	1	1	13.4	—	—	—	—	—
Mercury	3	1273	12/04/01	F	1	0	—	[0.2]	2	0/1	—	—
Mercury	3	1273	12/04/01	NF	1	0	—	[0.2]	—	—	2	0/1
Molybdenum	3	1273	12/04/01	F	1	1	12.3	—	—	—	—	—
Molybdenum	3	1273	12/04/01	NF	1	1	15.7	—	—	—	—	—
Nickel	3	1273	12/04/01	F	1	0	—	[5]	100	0/1	200	0/1
Nickel	3	1273	12/04/01	NF	1	1	2.69	—	—	—	—	—
Nitrate + Nitrite (as N)	3	1273	12/04/01	F	1	1	250	—	10000	0/1	—	—

Table D-29 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Oxalate	3	1273	12/04/01	F	1	0	—	[600]	—	—	—	—
Perchlorate	3	1273	12/04/01	F	1	0	—	[4]	—	—	—	—
Phosphorus (total)	3	1273	12/04/01	F	1	1	120	—	—	—	—	—
Potassium	3	1273	12/04/01	F	1	1	7220	—	—	—	—	—
Potassium	3	1273	12/04/01	NF	1	1	6350	—	—	—	—	—
Selenium	3	1273	12/04/01	F	1	0	—	[5]	50	0/1	50	0/1
Selenium	3	1273	12/04/01	NF	1	0	—	[5]	—	—	—	—
Silver	3	1273	12/04/01	F	1	0	—	[5]	100	0/1	50	0/1
Silver	3	1273	12/04/01	NF	1	0	—	[5]	—	—	—	—
Silica	3	1273	12/04/01	F	1	1	26750	—	—	—	—	—
Silica	3	1273	12/04/01	NF	1	1	36000	—	—	—	—	—
Sodium	3	1273	12/04/01	F	1	1	39100	—	—	—	—	—
Sodium	3	1273	12/04/01	NF	1	1	42000	—	—	—	—	—
Strontium	3	1273	12/04/01	F	1	1	578	—	—	—	—	—
Strontium	3	1273	12/04/01	NF	1	1	433	—	—	—	—	—
Sulfate	3	1273	12/04/01	F	1	1	12900	—	250000	0/1	600000	0/1
Thallium	3	1273	12/04/01	F	1	0	—	[0.5]	2	0/1	—	—
Thallium	3	1273	12/04/01	NF	1	1	0.03	—	—	—	—	—
Total Kjeldahl Nitrogen	3	1273	12/04/01	F	1	1	1150	—	—	—	—	—
Uranium	3	1273	12/04/01	NF	1	1	1.92	—	—	—	—	—
Uranium (TIMS isotopic ratio)	3	1273	12/04/01	F	1	1	2.264	—	—	—	—	—
Uranium (TIMS isotopic ratio)	3	1273	12/04/01	NF	1	1	2.173	—	—	—	—	—
Uranium-234/238 (TIMS isotopic ratio)	3	1273	12/04/01	F	1	1	9.4 ± 0.24 (E-05)	—	—	—	—	—

Table D-29 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Uranium-234/238 (TIMS isotopic ratio)	3	1273	12/04/01	NF	1	1	9.39 ± 0.21 (E-05)	—	—	—	—	—
Uranium-238/233 (TIMS isotopic ratio)	3	1273	12/04/01	F	1	1	123.63	—	—	—	—	—
Uranium-238/233 (TIMS isotopic ratio)	3	1273	12/04/01	NF	1	1	157.47	—	—	—	—	—
Uranium-238/235 (TIMS isotopic ratio)	3	1273	12/04/01	F	1	1	137.97	—	—	—	—	—
Uranium-238/235 (TIMS isotopic ratio)	3	1273	12/04/01	NF	1	1	137.79	—	—	—	—	—
Vanadium	3	1273	12/04/01	F	1	1	3.28	—	—	—	—	—
Vanadium	3	1273	12/04/01	NF	1	1	2.43	—	—	—	—	—
Zinc	3	1273	12/04/01	F	1	0	—	[5.96]	5000	0/1	10000	0/1
Zinc	3	1273	12/04/01	NF	1	0	—	[6.08]	—	—	—	—
Stable Isotope (‰)												
δD	3	1273	12/04/01	NF	1	1	-73	—	—	—	—	—
$\delta^{15}N$ (NO_3)	3	1273	12/04/01	NF	1	1	+1.2	—	—	—	—	—
$\delta^{18}O$	3	1273	12/04/01	NF	1	1	-10.9	—	—	—	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

Table D-30
Well R-22 Screen 4 Third Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	4	1378	12/05/01	NF[e]	1	1	255000	—[f]	—	—	—	—
Dissolved Oxygen	4	1378	12/05/01	NF	0	0	—	—	—	—	—	—
pH	4	1378	12/05/01	NF	1	1	7.18	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	4	1378	12/05/01	NF	1	1	509	—	—	0/1	—	0/1
Temperature (°C)	4	1378	12/05/01	NF	1	1	20.3	—	—	0/1	—	0/1
Turbidity (NTU[g])	4	1378	12/05/01	NF	1	1	14.4	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	4	1378	12/05/01	F[h]	1	1	304000	—	—	—	—	—
Aluminum	4	1378	12/05/01	F	1	0	—	[50]	50	0/1	5000	0/1
Aluminum	4	1378	12/05/01	NF	1	0	—	[50]	—	—	—	—
Ammonia (as N)	4	1378	12/05/01	F	1	1	990	—	—	—	—	—
Antimony	4	1378	12/05/01	F	1	0	—	[0.23]	6	0/1	—	—
Antimony	4	1378	12/05/01	NF	1	0	—	[0.76]	—	—	—	—
Arsenic	4	1378	12/05/01	F	1	0	—	[5]	50	0/1	100	0/1
Arsenic	4	1378	12/05/01	NF	1	0	—	[5]	—	—	—	—
Barium	4	1378	12/05/01	F	1	1	310	—	2000	0/1	1000	0/1
Barium	4	1378	12/05/01	NF	1	1	359	—	—	—	—	—
Beryllium	4	1378	12/05/01	F	1	0	—	[0.2]	4	0/1	—	—
Beryllium	4	1378	12/05/01	NF	1	0	—	[0.2]	—	—	—	—
Boron	4	1378	12/05/01	F	1	1	91.3	—	—	—	750	0/1
Boron	4	1378	12/05/01	NF	1	1	94.9	—	—	—	—	—
Bromide	4	1378	12/05/01	F	1	0	—	[100]	—	—	—	—
Cadmium	4	1378	12/05/01	F	1	0	—	[1]	5	0/1	10	0/1

Table D-30 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Cadmium	4	1378	12/05/01	NF	1	0	—	[1]	—	—	—	—
Calcium	4	1378	12/05/01	F	1	1	48500	—	—	—	—	—
Calcium	4	1378	12/05/01	NF	1	1	50300	—	—	—	—	—
Chloride	4	1378	12/05/01	F	1	1	8100	—	250000	0/1	250000	0/1
Chromium	4	1378	12/05/01	F	1	0	—	[5]	100	0/1	50	0/1
Chromium	4	1378	12/05/01	NF	1	1	0.953	—	—	—	—	—
Cobalt	4	1378	12/05/01	F	1	1	2.17	—	—	—	50	0/1
Cobalt	4	1378	12/05/01	NF	1	1	1.65	—	—	—	—	—
Copper	4	1378	12/05/01	F	1	0	—	[5]	1300	0/1	1000	0/1
Copper	4	1378	12/05/01	NF	1	0	—	[5]	—	—	—	—
Cyanide (total)	4	1378	12/05/01	NF	1	0	—	[5]	—	—	—	—
Fluoride	4	1378	12/05/01	F	1	1	634	—	4000	0/1	1600	0/1
Iron	4	1378	12/05/01	F	1	1	3230	—	300	1/1	1000	1/1
Iron	4	1378	12/05/01	NF	1	1	7070	—	—	—	—	—
Lead	4	1378	12/05/01	F	1	0	—	[2]	15	0/1	50	0/1
Lead	4	1378	12/05/01	NF	1	0	—	[2]	—	—	—	—
Magnesium	4	1378	12/05/01	F	1	1	12900	—	—	—	—	—
Magnesium	4	1378	12/05/01	NF	1	1	13300	—	—	—	—	—
Manganese	4	1378	12/05/01	F	1	1	1180	—	50	1/1	200	1/1
Manganese	4	1378	12/05/01	NF	1	1	1210	—	—	—	—	—
Mercury	4	1378	12/05/01	F	1	0	—	[0.2]	2	0/1	—	—
Mercury	4	1378	12/05/01	NF	1	0	—	[0.2]	—	—	2	0/1
Molybdenum	4	1378	12/05/01	F	1	1	12.6	—	—	—	—	—
Molybdenum	4	1378	12/05/01	NF	1	1	12.9	—	—	—	—	—
Nickel	4	1378	12/05/01	F	1	1	3.73	—	100	0/1	200	0/1
Nickel	4	1378	12/05/01	NF	1	1	5.39	—	—	—	—	—
Nitrate + Nitrite (as N)	4	1378	12/05/01	F	1	1	50	—	10000	0/1	—	—

Table D-30 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Oxalate	4	1378	12/05/01	F	1	0	—	[600]	—	—	—	—
Perchlorate	4	1378	12/05/01	F	1	1	—	[4]	—	—	—	—
Phosphorus (total)	4	1378	12/05/01	F	1	1	140	—	—	—	—	—
Potassium	4	1378	12/05/01	F	1	1	4880	—	—	—	—	—
Potassium	4	1378	12/05/01	NF	1	1	5140	—	—	—	—	—
Selenium	4	1378	12/05/01	F	1	0	—	[5]	50	0/1	50	0/1
Selenium	4	1378	12/05/01	NF	1	0	—	[25]	—	—	—	—
Silver	4	1378	12/05/01	F	1	0	—	[5]	100	0/1	50	0/1
Silver	4	1378	12/05/01	NF	1	0	—	[5]	—	—	—	—
Silica	4	1378	12/05/01	F	1	1	47720	—	—	—	—	—
Silica	4	1378	12/05/01	NF	1	1	48360	—	—	—	—	—
Sodium	4	1378	12/05/01	F	1	1	42500	—	—	—	—	—
Sodium	4	1378	12/05/01	NF	1	1	44600	—	—	—	—	—
Strontium	4	1378	12/05/01	F	1	1	973	—	—	—	—	—
Strontium	4	1378	12/05/01	NF	1	1	1020	—	—	—	—	—
Sulfate	4	1378	12/05/01	F	1	1	892	—	250000	0/1	600000	0/1
Thallium	4	1378	12/05/01	F	1	1	0.03	—	2	0/1	—	—
Thallium	4	1378	12/05/01	NF	1	1	0.12	—	—	—	—	—
Total Kjeldahl Nitrogen	4	1378	12/05/01	F	1	1	1170	—	—	—	—	—
Uranium	4	1378	12/05/01	NF	1	1	0.02	—	—	—	—	—
Vanadium	4	1378	12/05/01	F	1	0	—	[5]	—	—	—	—
Vanadium	4	1378	12/05/01	NF	1	0	—	[5]	—	—	—	—
Zinc	4	1378	12/05/01	F	1	0	—	[2.6]	5000	0/1	10000	0/1
Zinc	4	1378	12/05/01	NF	1	0	—	[7.97]	—	—	—	—

Table D-30 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Stable Isotope (‰)												
δD	4	1378	12/05/01	NF	1	1	-72	—	—	—	—	—
$\delta^{15}N$ (NO_3)	4	1378	12/05/01	NF	1	1	+5.5	—	—	—	—	—
$\delta^{18}O$	4	1378	12/05/01	NF	1	1	-10.5	—	—	—	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

Table D-31
Well R-22 Screen 5 Third Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	5	1448	12/10/01	NF[e]	1	1	147000	—[f]	—	—	—	—
Dissolved Oxygen	5	1448	12/10/01	NF	0	0	—	—	—	—	—	—
pH	5	1448	12/10/01	NF	1	1	7.36	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	5	1448	12/10/01	NF	1	1	317	—	—	0/1	—	0/1
Temperature (°C)	5	1448	12/10/01	NF	1	1	19.8	—	—	0/1	—	0/1
Turbidity (NTU[g])	5	1448	12/10/01	NF	1	1	1.21	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	5	1448	12/10/01	F[h]	1	1	179000	—	—	—	—	—
Aluminum	5	1448	12/10/01	F	1	1	[50]	—	50	1/1	5000	0/1
Aluminum	5	1448	12/10/01	NF	1	0	—	175	—	—	—	—
Ammonia (as N)	5	1448	12/10/01	F	1	1	630	—	—	—	—	—
Antimony	5	1448	12/10/01	F	1	0	—	[0.14]	6	0/1	—	—
Antimony	5	1448	12/10/01	NF	1	0	—	[0.36]	—	—	—	—
Arsenic	5	1448	12/10/01	F	1	0	—	[5]	50	0/1	100	0/1
Arsenic	5	1448	12/10/01	NF	1	0	—	[5]	—	—	—	—
Barium	5	1448	12/10/01	F	1	1	144	—	2000	0/1	1000	0/1
Barium	5	1448	12/10/01	NF	1	1	141	—	—	—	—	—
Beryllium	5	1448	12/10/01	F	1	0	—	[0.2]	4	0/1	—	—
Beryllium	5	1448	12/10/01	NF	1	0	—	[0.2]	—	—	—	—
Boron	5	1448	12/10/01	F	1	1	20.5	—	—	—	750	0/1
Boron	5	1448	12/10/01	NF	1	1	21.2	—	—	—	—	—
Bromide	5	1448	12/10/01	F	1	0	—	[100]	—	—	—	—
Cadmium	5	1448	12/10/01	F	1	0	—	[1]	5	0/1	10	0/1

Table D-31 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Cadmium	5	1448	12/10/01	NF	1	1	0.09	—	—	—	—	—
Calcium	5	1448	12/10/01	F	1	1	37600	—	—	—	—	—
Calcium	5	1448	12/10/01	NF	1	1	36600	—	—	—	—	—
Chloride	5	1448	12/10/01	F	1	1	2690	—	250000	0/1	250000	0/1
Chromium	5	1448	12/10/01	F	1	1	2.78	—	100	0/1	50	0/1
Chromium	5	1448	12/10/01	NF	1	0	—	[5]	—	—	—	—
Cobalt	5	1448	12/10/01	F	1	0	—	[5]	—	—	50	0/1
Cobalt	5	1448	12/10/01	NF	1	0	—	[5]	—	—	—	—
Copper	5	1448	12/10/01	F	1	0	—	[5]	1300	0/1	1000	0/1
Copper	5	1448	12/10/01	NF	1	0	—	[5]	—	—	—	—
Cyanide (total)	5	1448	12/10/01	NF	1	0	—	[5]	—	—	—	—
Fluoride	5	1448	12/10/01	F	1	1	405	—	4000	0/1	1600	0/1
Iron	5	1448	12/10/01	F	1	1	2210	—	300	1/1	1000	1/1
Iron	5	1448	12/10/01	NF	1	1	2340	—	—	—	—	—
Lead	5	1448	12/10/01	F	1	1	0.06	—	15	0/1	50	0/1
Lead	5	1448	12/10/01	NF	1	1	0.03	—	—	—	—	—
Magnesium	5	1448	12/10/01	F	1	1	5710	—	—	—	—	—
Magnesium	5	1448	12/10/01	NF	1	1	7260	—	—	—	—	—
Manganese	5	1448	12/10/01	F	1	1	546	—	50	1/1	200	1/1
Manganese	5	1448	12/10/01	NF	1	1	461	—	—	—	—	—
Mercury	5	1448	12/10/01	F	1	0	—	[0.2]	2	0/1	—	—
Mercury	5	1448	12/10/01	NF	1	0	—	[0.2]	—	—	2	0/1
Molybdenum	5	1448	12/10/01	F	1	1	30.8	—	—	—	—	—
Molybdenum	5	1448	12/10/01	NF	1	1	26.9	—	—	—	—	—
Nickel	5	1448	12/10/01	F	1	0	—	[5]	100	0/1	200	0/1
Nickel	5	1448	12/10/01	NF	1	1	1.48	—	—	—	—	—
Nitrate + Nitrite (as N)	5	1448	12/10/01	F	1	1	10	—	10000	0/1	—	—

Table D-31 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Oxalate	5	1448	12/10/01	F	1	0	—	[600]	—	—	—	—
Perchlorate	5	1448	12/10/01	F	1	1	—	[4]	—	—	—	—
Phosphorus (total)	5	1448	12/10/01	F	1	1	190	—	—	—	—	—
Potassium	5	1448	12/10/01	F	1	1	4430	—	—	—	—	—
Potassium	5	1448	12/10/01	NF	1	1	4820	—	—	—	—	—
Selenium	5	1448	12/10/01	F	1	0	—	[5]	50	0/1	50	0/1
Selenium	5	1448	12/10/01	NF	1	0	—	[5]	—	—	—	—
Silver	5	1448	12/10/01	F	1	0	—	[5]	100	0/1	50	0/1
Silver	5	1448	12/10/01	NF	1	0	—	[5]	—	—	—	—
Silica	5	1448	12/10/01	F	1	1	46870	—	—	—	—	—
Silica	5	1448	12/10/01	NF	1	1	48150	—	—	—	—	—
Sodium	5	1448	12/10/01	F	1	1	18200	—	—	—	—	—
Sodium	5	1448	12/10/01	NF	1	1	19000	—	—	—	—	—
Strontium	5	1448	12/10/01	F	1	1	312	—	—	—	—	—
Strontium	5	1448	12/10/01	NF	1	1	321	—	—	—	—	—
Sulfate	5	1448	12/10/01	F	1	1	527	—	250000	0/1	600000	0/1
Thallium	5	1448	12/10/01	F	1	0	—	[0.5]	2	0/1	—	—
Thallium	5	1448	12/10/01	NF	1	0	—	[0.5]	—	—	—	—
Total Kjeldahl Nitrogen	5	1448	12/10/01	F	1	1	1220	—	—	—	—	—
Uranium	5	1448	12/10/01	NF	1	1	0.07	—	—	—	—	—
Vanadium	5	1448	12/10/01	F	1	0	—	[5]	—	—	—	—
Vanadium	5	1448	12/10/01	NF	1	0	—	[5]	—	—	—	—
Zinc	5	1448	12/10/01	F	1	0	—	[3.99]	5000	0/1	10000	0/1
Zinc	5	1448	12/10/01	NF	1	0	—	[7.11]	—	—	—	—

Table D-31 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Stable Isotope (‰)												
δD	5	1448	12/10/01	NF	1	1	-74	—	—	—	—	—
$\delta^{15}N$ (NO_3)	5	1448	12/10/01	NF	1	1	4.2	—	—	—	—	—
$\delta^{18}O$	5	1448	12/10/01	NF	1	1	-10.7	—	—	—	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

Table D-32
Well R-22 Screen 1 Third Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
DDT[4,4'-]	1	907	11/30/01	NF[e]	1	1	0.02	—[f]	—	—	—	—
Isopropylbenzene	1	907	11/30/01	NF	1	1	0.54	—	—	—	—	—
Total Organic Carbon	1	907	11/30/01	NF	1	1	6200	—	—	—	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

Table D-33
Well R-22 Screen 2 Third Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
DDT[4,4'-]	2	962	12/03/01	NF[e]	1	1	0.008	—[f]	—	—	—	—
Methylene Chloride	2	962	12/03/01	NF	1	1	0.62	—	5	0/1	100	0/1
Total Organic Carbon	2	962	12/03/01	NF	1	1	890	—	—	—	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

Table D-34
Well R-22 Screen 3 Third Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
DDT[4,4'-]	3	1273	12/04/01	NF[e]	1	1	0.017	—[f]	—	—	—	—
Total Organic Carbon	3	1273	12/04/01	NF	1	1	4110	—	—	—	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.
[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.
[c] NMED = New Mexico Environment Department.
[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.
[e] NF = Nonfiltered.
[f] — = Not available or not applicable.

Table D-35
Well R-22 Screen 4 Third Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Acetone	4	1378	12/05/01	NF[e]	2	2	12.4	—[f]	—	—	—	—
DDT[4,4'-]	4	1378	12/05/01	NF	2	2	0.02	—	—	—	—	—
1,3,5,7-tetranitro-1,3,5,7-tetrazacyclo-octane	4	1378	12/05/01	NF	1	1	1.3	—	—	—	—	—
Toluene	4	1378	12/05/01	NF	2	2	0.2	—	1000	0/2	750	0/2
Total Organic Carbon	4	1378	12/05/01	NF	2	2	20100	—	—	—	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.
[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.
[c] NMED = New Mexico Environment Department.
[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.
[e] NF = Nonfiltered.
[f] — = Not available or not applicable.

Table D-36
Well R-22 Screen 5 Third Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Acenaphthene	5	1448	12/10/01	NF[e]	1	1	0.42	—[f]	—	—	—	—
Acenaphthylene	5	1448	12/10/01	NF	1	1	0.4	—	—	—	—	—
Anthracene	5	1448	12/10/01	NF	1	1	0.36	—	—	—	—	—
Benzo(a)pyrene	5	1448	12/10/01	NF	1	1	0.24	—	0.2	1/1	0.7	0/1
Benzo(b)fluoranthene	5	1448	12/10/01	NF	1	1	0.41	—	—	—	—	—
Benzo(k)fluoranthene	5	1448	12/10/01	NF	1	1	0.38	—	—	—	—	—
Bis(2-ethylhexyl)phthalate	5	1448	12/10/01	NF	1	1	1	—	6	0/1	—	—
Chloronaphthalene[2-]	5	1448	12/10/01	NF	1	1	0.46	—	—	—	—	—
DDT[4,4'-]	5	1448	12/10/01	NF	1	1	0.024	—	—	—	—	—
Diethylphthalate	5	1448	12/10/01	NF	1	1	1.3	—	—	—	—	—
Fluoranthene	5	1448	12/10/01	NF	1	1	0.38	—	—	—	—	—
Fluorene	5	1448	12/10/01	NF	1	1	0.42	—	—	—	—	—
Methylnaphthalene[2-]	5	1448	12/10/01	NF	1	1	0.42	—	—	—	—	—
Pentachlorophenol	5	1448	12/10/01	NF	1	1	6.2	—	1	1/1	—	—
Phenanthrene	5	1448	12/10/01	NF	1	1	0.4	—	—	—	—	—
Pyrene	5	1448	12/10/01	NF	1	1	0.49	—	—	—	—	—
Toluene	5	1448	12/10/01	NF	1	1	0.76	—	1000	0/1	750	0/1
Total Organic Carbon	5	1448	12/10/01	NF	1	1	4880	—	—	—	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

Table D-37
Well R-22 Screen 1 Third Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Americium-241	1	907	11/30/01	F[c]	1	0	—[d]	[0.022]	—	—
Cesium-134	1	907	11/30/01	F	1	0	—	[0.352]	—	—
Cesium-137	1	907	11/30/01	F	1	0	—	[0.504]	—	—
Cobalt-60	1	907	11/30/01	F	1	0	—	[-0.984]	—	—
Europium-152	1	907	11/30/01	F	1	0	—	[-5.58]	—	—
Plutonium-238	1	907	11/30/01	F	1	0	—	[0]	—	—
Plutonium-239,240	1	907	11/30/01	F	1	0	—	[0.0201]	—	—
Ruthenium-106	1	907	11/30/01	F	1	0	—	[2.79]	—	—
Sodium-22	1	907	11/30/01	F	1	0	—	[-0.961]	—	—
Strontium-90	1	907	11/30/01	F	1	0	—	[0.001]	—	—
Technetium-99	1	907	11/30/01	NF[e]	1	0	—	[-1.15]	—	—
Tritium	1	907	11/30/01	NF	1	1	2.30	—	20000	0/1
Uranium-234	1	907	11/30/01	F	1	1	0.0332	—	—	—
Uranium-235	1	907	11/30/01	F	1	0	—	[0.00392]	—	—
Uranium-238	1	907	11/30/01	F	1	0	—	[0.0156]	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] F = Filtered.

[d] — = Not available or not applicable.

[e] NF = Nonfiltered.

Table D-38
Well R-22 Screen 2 Third Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Americium-241	2	962	12/03/01	F[c]	1	0	—[d]	[0.0125]	—	—
Cesium-134	2	962	12/03/01	F	1	0	—	[-1.05]	—	—
Cesium-137	2	962	12/03/01	F	1	0	—	[1.02]	—	—
Cobalt-60	2	962	12/03/01	F	1	0	—	[0.311]	—	—
Europium-152	2	962	12/03/01	F	1	0	—	[1.2]	—	—
Plutonium-238	2	962	12/03/01	F	1	0	—	[0]	—	—
Plutonium-239,240	2	962	12/03/01	F	1	0	—	[0.00797]	—	—
Ruthenium-106	2	962	12/03/01	F	1	0	—	[-9.48]	—	—
Sodium-22	2	962	12/03/01	F	1	0	—	[0.245]	—	—
Strontium-90	2	962	12/03/01	F	1	0	—	[0.009]	—	—
Technetium-99	2	962	12/03/01	NF[e]	1	0	—	[1.04]	—	—
Tritium	2	962	12/03/01	NF	1	0	—	[-0.3192]	20000	0/1
Uranium-234	2	962	12/03/01	F	1	1	0.268	—	—	—
Uranium-235	2	962	12/03/01	F	1	0	—	[0.0096]	—	—
Uranium-238	2	962	12/03/01	F	1	1	0.115	—	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] F = Filtered.

[d] — = Not available or not applicable.

[e] NF = Nonfiltered.

Table D-39
Well R-22 Screen 3 Third Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Americium-241	3	1273	12/04/01	F[c]	1	1	0.0325	—[d]	—	—
Cesium-134	3	1273	12/04/01	F	1	0	—	[-0.743]	—	—
Cesium-137	3	1273	12/04/01	F	1	0	—	[0.29]	—	—
Cobalt-60	3	1273	12/04/01	F	1	0	—	[0.599]	—	—
Europium-152	3	1273	12/04/01	F	1	0	—	[-1.46]	—	—
Iodine-129	3	1273	12/04/01	NF[e]	1	0	—	[0.512]	—	—
Plutonium-238	3	1273	12/04/01	F	1	0	—	[0.0025]	—	—
Plutonium-239,240	3	1273	12/04/01	F	1	0	—	[0.0025]	—	—
Ruthenium-106	3	1273	12/04/01	F	1	0	—	[-8.2]	—	—
Sodium-22	3	1273	12/04/01	F	1	0	—	[0.125]	—	—
Strontium-90	3	1273	12/04/01	F	1	0	—	[0.052]	—	—
Technetium-99	3	1273	12/04/01	NF	1	0	—	[-0.919]	—	—
Tritium	3	1273	12/04/01	NF	1	0	—	[0.22]	20000	0/1
Uranium-234	3	1273	12/04/01	F	1	1	0.994	—	—	—
Uranium-235	3	1273	12/04/01	F	1	1	0.0405	—	—	—
Uranium-238	3	1273	12/04/01	F	1	1	0.616	—	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] F = Filtered.

[d] — = Not available or not applicable.

[e] NF = Nonfiltered.

Table D-40
Well R-22 Screen 4 Third Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Americium-241	4	1379	12/5/2001	F[c]	1	0	—[d]	[0.0118]	—	—
Cesium-134	4	1379	12/5/2001	F	1	0	—	[0.254]	—	—
Cesium-137	4	1379	12/5/2001	F	1	0	—	[0.232]	—	—
Cobalt-60	4	1379	12/5/2001	F	1	0	—	[0.76]	—	—
Europium-152	4	1379	12/5/2001	F	1	0	—	[-1.72]	—	—
Iodine-129	4	1379	12/5/2001	NF[e]	1	0	—	[0.26]	—	—
Plutonium-238	4	1379	12/5/2001	F	1	0	—	[-0.002]	—	—
Plutonium-239,240	4	1379	12/5/2001	F	1	0	—	[0.00399]	—	—
Ruthenium-106	4	1379	12/5/2001	F	1	0	—	[3.1]	—	—
Sodium-22	4	1379	12/5/2001	F	1	0	—	[-0.51]	—	—
Strontium-90	4	1379	12/5/2001	F	1	0	—	[0.0152]	—	—
Technetium-99	4	1379	12/5/2001	NF	1	0	—	[-0.112]	—	—
Tritium	4	1379	12/5/2001	NF	1	0	—	[0.26]	20000	0/1
Uranium-234	4	1379	12/5/2001	F	1	1	0.072	—	—	—
Uranium-235	4	1379	12/5/2001	F	1	0	—	[0.022]	—	—
Uranium-238	4	1379	12/5/2001	F	1	0	—	[0.0375]	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] F = Filtered.

[d] — = Not available or not applicable.

[e] NF = Nonfiltered.

Table D-41
Well R-22 Screen 5 Third Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Americium-241	5	1448	12/10/01	F[c]	1	0	—[d]	[0.0139]	—	—
Cesium-134	5	1448	12/10/01	F	1	0	—	[0.866]	—	—
Cesium-137	5	1448	12/10/01	F	1	0	—	[-1.67]	—	—
Cobalt-60	5	1448	12/10/01	F	1	0	—	[-0.447]	—	—
Europium-152	5	1448	12/10/01	F	1	0	—	[-3.14]	—	—
Iodine-129	5	1448	12/10/01	NF[e]	1	0	—	[0.378]	—	—
Plutonium-238	5	1448	12/10/01	F	1	0	—	[0.0138]	—	—
Plutonium-239,240	5	1448	12/10/01	F	1	0	—	[0.0277]	—	—
Ruthenium-106	5	1448	12/10/01	F	1	0	—	[4.84]	—	—
Sodium-22	5	1448	12/10/01	F	1	0	—	[1.06]	—	—
Strontium-90	5	1448	12/10/01	F	1	0	—	[-0.0455]	—	—
Technetium-99	5	1448	12/10/01	NF	1	0	—	[0.0898]	—	—
Tritium	5	1448	12/10/01	NF	1	1	18.45	—	20000	0/1
Uranium-234	5	1448	12/10/01	F	1	1	0.069	—	—	—
Uranium-235	5	1448	12/10/01	F	1	0	—	[0.0154]	—	—
Uranium-238	5	1448	12/10/01	F	1	0	—	[0.023]	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] F = Filtered.

[d] — = Not available or not applicable.

[e] NF = Nonfiltered.

Table D-42
Well R-22 Screen 1 Fourth Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	1	907	02/27/02	NF[e]	1	1	344000	—[f]	—	—	—	—
Dissolved Oxygen	1	907	02/27/02	NF	1	1	2000	—	—	—	—	—
pH	1	907	02/27/02	NF	1	1	7.08	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	1	907	02/27/02	NF	1	1	549	—	—	0/1	—	0/1
Temperature (°C)	1	907	02/27/02	NF	1	1	19.3	—	—	0/1	—	0/1
Turbidity (NTU[g])	1	907	02/27/02	NF	1	1	23.7	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	1	907	02/27/02	F[h]	1	1	291000	—	—	—	—	—
Aluminum	1	907	02/27/02	F	1	0	—	[50]	50	0/1	5000	0/1
Aluminum	1	907	02/27/02	NF	1	0	—	[50]	—	—	—	—
Ammonia (as N)	1	907	02/27/02	F	1	1	1060	—	—	—	—	—
Antimony	1	907	02/27/02	F	1	1	0.13	—	6	0/1	—	—
Antimony	1	907	02/27/02	NF	1	0	—	[2]	—	—	—	—
Arsenic	1	907	02/27/02	F	1	0	—	[5]	50	0/1	100	0/1
Arsenic	1	907	02/27/02	NF	1	0	—	[5]	—	—	—	—
Barium	1	907	02/27/02	F	1	1	190	—	2000	0/1	1000	0/1
Barium	1	907	02/27/02	NF	1	1	214	—	—	—	—	—
Beryllium	1	907	02/27/02	F	1	0	—	[0.2]	4	0/1	—	—
Beryllium	1	907	02/27/02	NF	1	0	—	[0.2]	—	—	—	—
Boron	1	907	02/27/02	F	1	0	—	[22.7]	—	—	750	0/1
Boron	1	907	02/27/02	NF	1	0	—	[23.3]	—	—	—	—
Bromide	1	907	02/27/02	F	1	0	—	[200]	—	—	—	—

Table D-42 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Cadmium	1	907	02/27/02	F	1	0	—	[1]	5	0/1	10	0/1
Cadmium	1	907	02/27/02	NF	1	0	—	[1]	—	—	—	—
Calcium	1	907	02/27/02	F	1	1	63300	—	—	—	—	—
Calcium	1	907	02/27/02	NF	1	1	62900	—	—	—	—	—
Chloride	1	907	02/27/02	F	1	1	10200	—	250000	0/1	250000	0/1
Chromium	1	907	02/27/02	F	1	0	—	[5]	100	0/1	50	0/1
Chromium	1	907	02/27/02	NF	1	0	—	[5]	—	—	—	—
Cobalt	1	907	02/27/02	F	1	1	0.771	—	—	—	50	0/1
Cobalt	1	907	02/27/02	NF	1	1	1.14	—	—	—	—	—
Copper	1	907	02/27/02	F	1	0	—	[5]	1300	0/1	1000	0/1
Copper	1	907	02/27/02	NF	1	0	—	[5]	—	—	—	—
Cyanide (total)	1	907	02/27/02	NF	1	0	—	[5]	—	—	—	—
Fluoride	1	907	02/27/02	F	1	1	624	—	4000	0/1	1600	0/1
Iron	1	907	02/27/02	F	1	1	14900	—	300	1/1	1000	1/1
Iron	1	907	02/27/02	NF	1	1	19300	—	—	—	—	—
Lead	1	907	02/27/02	F	1	0	—	[2]	15	0/1	50	0/1
Lead	1	907	02/27/02	NF	1	0	—	[2]	—	—	—	—
Magnesium	1	907	02/27/02	F	1	1	17400	—	—	—	—	—
Magnesium	1	907	02/27/02	NF	1	1	17100	—	—	—	—	—
Manganese	1	907	02/27/02	F	1	1	4410	—	50	1/1	200	1/1
Manganese	1	907	02/27/02	NF	1	1	4320	—	—	—	—	—
Mercury	1	907	02/27/02	F	1	0	—	[0.2]	2	0/1	—	—
Mercury	1	907	02/27/02	NF	1	0	—	[0.2]	—	—	2	0/1
Molybdenum	1	907	02/27/02	F	1	1	26.2	—	—	—	—	—
Molybdenum	1	907	02/27/02	NF	1	1	25.1	—	—	—	—	—
Nickel	1	907	02/27/02	F	1	1	10	—	100	0/1	200	0/1
Nickel	1	907	02/27/02	NF	1	1	10.9	—	—	—	—	—

Table D-42 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Nitrate + Nitrite (as N)	1	907	02/27/02	F	1	1	20	—	10000	0/1	—	—
Oxalate	1	907	02/27/02	F	1	0	—	[600]	—	—	—	—
Perchlorate	1	907	02/27/02	F	1	0	—	[4]	—	—	—	—
Phosphorus	1	907	02/27/02	F	1	0	—	[50]	—	—	—	—
Potassium	1	907	02/27/02	F	1	1	4680	—	—	—	—	—
Potassium	1	907	02/27/02	NF	1	1	4660	—	—	—	—	—
Selenium	1	907	02/27/02	F	1	0	—	[5]	50	0/1	50	0/1
Selenium	1	907	02/27/02	NF	1	1	4.97	—	—	—	—	—
Silica	1	907	02/27/02	F	1	1	47510	—	—	—	—	—
Silica	1	907	02/27/02	NF	1	1	47720	—	—	—	—	—
Silver	1	907	02/27/02	F	1	0	—	[5]	100	0/1	50	0/1
Silver	1	907	02/27/02	NF	1	0	—	[5]	—	—	—	—
Sodium	1	907	02/27/02	F	1	1	25900	—	—	—	—	—
Sodium	1	907	02/27/02	NF	1	1	25700	—	—	—	—	—
Strontium	1	907	02/27/02	F	1	1	336	—	—	—	—	—
Strontium	1	907	02/27/02	NF	1	1	337	—	—	—	—	—
Sulfate	1	907	02/27/02	F	1	1	257	—	250000	0/1	600000	0/1
Thallium	1	907	02/27/02	F	1	0	—	[0.5]	2	0/1	—	—
Thallium	1	907	02/27/02	NF	1	0	—	[0.5]	—	—	—	—
Total Kjeldahl Nitrogen	1	907	02/27/02	F	1	1	1620	—	—	—	—	—
Uranium	1	907	02/27/02	F	1	0	—	[0.2]	20	0/1	5000	0/1
Uranium	1	907	02/27/02	NF	1	0	—	[0.2]	—	—	—	—
Vanadium	1	907	02/27/02	F	1	1	1.16	—	—	—	—	—
Vanadium	1	907	02/27/02	NF	1	0	—	[5]	—	—	—	—
Zinc	1	907	02/27/02	F	1	0	—	[5]	5000	0/1	10000	0/1
Zinc	1	907	02/27/02	NF	1	0	—	[5]	—	—	—	—

Table D-42 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Stable Isotope (‰)												
δD	1	907	02/27/02	NF	1	1	-79	—	—	—	—	—
$\delta^{15}N$ (NH_3)	1	907	02/27/02	NF	1	1	+3.3	—	—	—	—	—
$\delta^{18}O$	1	907	02/27/02	NF	1	1	-10.8	—	—	—	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

Table D-43
Well R-22 Screen 2 Fourth Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	2	962	02/28/02	NF[e]	1	1	71000	—[f]	—	—	—	—
Dissolved Oxygen	2	962	02/28/02	NF	1	1	6400	—	—	—	—	—
pH	2	962	02/28/02	NF	1	1	8.13	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	2	962	02/28/02	NF	1	1	149	—	—	0/1	—	0/1
Temperature (°C)	2	962	02/28/02	NF	1	1	18.1	—	—	0/1	—	0/1
Turbidity (NTU[g])	2	962	02/28/02	NF	1	1	0.33	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	2	962	02/28/02	F[h]	1	1	78800	—	—	—	—	—
Aluminum	2	962	02/28/02	F	1	0	—	[50]	50	0/1	5000	0/1
Aluminum	2	962	02/28/02	NF	1	0	—	[50]	—	—	—	—
Ammonia (as N)	2	962	02/28/02	F	1	0	—	[50]	—	—	—	—
Antimony	2	962	02/28/02	F	1	0	—	[0.169]	6	0/1	—	—
Antimony	2	962	02/28/02	NF	1	0	—	[2]	—	—	—	—
Arsenic	2	962	02/28/02	F	1	0	—	[5]	50	0/1	100	0/1
Arsenic	2	962	02/28/02	NF	1	0	—	[5]	—	—	—	—
Barium	2	962	02/28/02	F	1	1	15.4	—	2000	0/1	1000	0/1
Barium	2	962	02/28/02	NF	1	1	15.7	—	—	—	—	—
Beryllium	2	962	02/28/02	F	1	0	—	[0.2]	4	0/1	—	—
Beryllium	2	962	02/28/02	NF	1	0	—	[0.2]	—	—	—	—
Boron	2	962	02/28/02	F	1	0	—	[50]	—	—	750	0/1
Boron	2	962	02/28/02	NF	1	0	—	[50]	—	—	—	—
Bromide	2	962	02/28/02	F	1	0	—	[200]	—	—	—	—

Table D-43 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Cadmium	2	962	02/28/02	F	1	0	—	[0.08]	5	0/1	10	0/1
Cadmium	2	962	02/28/02	NF	1	0	—	[0.14]	—	—	—	—
Calcium	2	962	02/28/02	F	1	1	10800	—	—	—	—	—
Calcium	2	962	02/28/02	NF	1	1	10800	—	—	—	—	—
Chloride	2	962	02/28/02	F	1	1	2420	—	250000	0/1	250000	0/1
Chromium	2	962	02/28/02	F	1	0	—	[5]	100	0/1	50	0/1
Chromium	2	962	02/28/02	NF	1	1	2.88	—	—	—	—	—
Cobalt	2	962	02/28/02	F	1	0	—	[5]	—	—	50	0/1
Cobalt	2	962	02/28/02	NF	1	0	—	[5]	—	—	—	—
Copper	2	962	02/28/02	F	1	0	—	[5]	1300	0/1	1000	0/1
Copper	2	962	02/28/02	NF	1	0	—	[5]	—	—	—	—
Cyanide (total)	2	962	02/28/02	NF	1	0	—	[5]	—	—	—	—
Fluoride	2	962	02/28/02	F	1	1	364	—	4000	0/1	1600	0/1
Iron	2	962	02/28/02	F	1	0	—	[50]	300	0/1	1000	0/1
Iron	2	962	02/28/02	NF	1	1	23.5	—	—	—	—	—
Lead	2	962	02/28/02	F	1	0	—	[0.023]	15	0/1	50	0/1
Lead	2	962	02/28/02	NF	1	0	—	[0.037]	—	—	—	—
Magnesium	2	962	02/28/02	F	1	1	5130	—	—	—	—	—
Magnesium	2	962	02/28/02	NF	1	1	5130	—	—	—	—	—
Manganese	2	962	02/28/02	F	1	1	4.6	—	50	0/1	200	0/1
Manganese	2	962	02/28/02	NF	1	1	6.99	—	—	—	—	—
Mercury	2	962	02/28/02	F	1	0	—	[0.097]	2	0/1	—	—
Mercury	2	962	02/28/02	NF	1	0	—	[0.105]	—	—	2	0/1
Molybdenum	2	962	02/28/02	F	1	1	1.3	—	—	—	—	—
Molybdenum	2	962	02/28/02	NF	1	1	1.9	—	—	—	—	—
Nickel	2	962	02/28/02	F	1	0	—	[5]	100	0/1	200	0/1
Nickel	2	962	02/28/02	NF	1	0	—	[5]	—	—	—	—

Table D-43 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Nitrate + Nitrite (as N)	2	962	02/28/02	F	1	1	580	—	10000	0/1	—	—
Oxalate	2	962	02/28/02	F	1	0	—	[600]	—	—	—	—
Perchlorate	2	962	02/28/02	F	1	0	—	[4]	—	—	—	—
Phosphorus	2	962	02/28/02	F	1	1	40	—	—	—	—	—
Potassium	2	962	02/28/02	F	1	1	3190	—	—	—	—	—
Potassium	2	962	02/28/02	NF	1	1	3170	—	—	—	—	—
Selenium	2	962	02/28/02	F	1	0	—	[5]	50	0/1	50	0/1
Selenium	2	962	02/28/02	NF	1	0	—	[5]	—	—	—	—
Silica	2	962	02/28/02	F	1	1	67840	—	—	—	—	—
Silica	2	962	02/28/02	NF	1	1	66980	—	—	—	—	—
Silver	2	962	02/28/02	F	1	0	—	[5]	100	0/1	50	0/1
Silver	2	962	02/28/02	NF	1	0	—	[5]	—	—	—	—
Sodium	2	962	02/28/02	F	1	1	12200	—	—	—	—	—
Sodium	2	962	02/28/02	NF	1	1	12300	—	—	—	—	—
Strontium	2	962	02/28/02	F	1	1	54.7	—	—	—	—	—
Strontium	2	962	02/28/02	NF	1	1	55.5	—	—	—	—	—
Sulfate	2	962	02/28/02	F	1	1	3220	—	250000	0/1	600000	0/1
Thallium	2	962	02/28/02	F	1	0	—	[0.5]	2	0/1	—	—
Thallium	2	962	02/28/02	NF	1	1	0.249	—	—	—	—	—
Total Kjeldahl Nitrogen	2	962	02/28/02	F	1	1	160	—	—	—	—	—
Uranium	2	962	02/28/02	F	1	1	0.393	—	20	0/1	5000	0/1
Uranium	2	962	02/28/02	NF	1	1	0.395	—	—	—	—	—
Vanadium	2	962	02/28/02	F	1	1	5.29	—	—	—	—	—
Vanadium	2	962	02/28/02	NF	1	1	5.69	—	—	—	—	—
Zinc	2	962	02/28/02	F	1	0	—	[5]	5000	0/1	10000	0/1
Zinc	2	962	02/28/02	NF	1	1	4.16	—	—	—	—	—

Table D-43 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Stable Isotope (‰)												
δD	2	962	02/28/02	NF	1	1	-77	—	—	—	—	—
$\delta^{15}N$ (NO_3)	2	962	02/28/02	NF	1	1	+5.6	—	—	—	—	—
$\delta^{18}O$	2	962	02/28/02	NF	1	1	-11	—	—	—	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

Table D-44
Well R-22 Screen 3 Fourth Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	3	1273	03/04/02	NF[e]	1	1	142000	—[f]	—	—	—	—
Dissolved Oxygen	3	1273	03/04/02	NF	0	0	7600	—	—	—	—	—
pH	3	1273	03/04/02	NF	1	1	8.50	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	3	1273	03/04/02	NF	1	1	264	—	—	0/1	—	0/1
Temperature (°C)	3	1273	03/04/02	NF	1	1	21.6	—	—	0/1	—	0/1
Turbidity (NTU[g])	3	1273	03/04/02	NF	1	1	0.92	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	3	1273	03/04/02	F[h]	1	1	128000	—	—	—	—	—
Aluminum	3	1273	03/04/02	F	1	0	—	[50]	50	0/1	5000	0/1
Aluminum	3	1273	03/04/02	NF	1	0	—	[50]	—	—	—	—
Ammonia (as N)	3	1273	03/04/02	F	1	0	—	[50]	—	—	—	—
Antimony	3	1273	03/04/02	F	1	0	—	[2]	6	0/1	—	—
Antimony	3	1273	03/04/02	NF	1	0	—	[0.155]	—	—	—	—
Arsenic	3	1273	03/04/02	F	1	0	—	[5]	50	0/1	100	0/1
Arsenic	3	1273	03/04/02	NF	1	0	—	[5]	—	—	—	—
Barium	3	1273	03/04/02	F	1	1	98.6	—	2000	0/1	1000	0/1
Barium	3	1273	03/04/02	NF	1	1	108	—	—	—	—	—
Beryllium	3	1273	03/04/02	F	1	0	—	[0.2]	4	0/1	—	—
Beryllium	3	1273	03/04/02	NF	1	0	—	[0.2]	—	—	—	—
Boron	3	1273	03/04/02	F	1	1	32.3	—	—	—	750	0/1
Boron	3	1273	03/04/02	NF	1	1	31	—	—	—	—	—
Bromide	3	1273	03/04/02	F	1	0	—	[200]	—	—	—	—

Table D-44 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Cadmium	3	1273	03/04/02	F	1	0	—	[0.16]	5	0/1	10	0/1
Cadmium	3	1273	03/04/02	NF	1	0	—	[0.19]	—	—	—	—
Calcium	3	1273	03/04/02	F	1	1	17700	—	—	—	—	—
Calcium	3	1273	03/04/02	NF	1	1	19800	—	—	—	—	—
Chloride	3	1273	03/04/02	F	1	1	4270	—	250000	0/1	250000	0/1
Chromium	3	1273	03/04/02	F	1	0	—	[5]	100	0/1	50	0/1
Chromium	3	1273	03/04/02	NF	1	1	7.13	—	—	—	—	—
Cobalt	3	1273	03/04/02	F	1	0	—	[5]	—	—	50	0/1
Cobalt	3	1273	03/04/02	NF	1	0	—	[5]	—	—	—	—
Copper	3	1273	03/04/02	F	1	0	—	[5]	1300	0/1	1000	0/1
Copper	3	1273	03/04/02	NF	1	0	—	[5]	—	—	—	—
Cyanide (total)	3	1273	03/04/02	NF	1	0	—	[5]	—	—	—	—
Fluoride	3	1273	03/04/02	F	1	1	582	—	4000	0/1	1600	0/1
Iron	3	1273	03/04/02	F	1	0	—	[50]	300	0/1	1000	0/1
Iron	3	1273	03/04/02	NF	1	1	42	—	—	—	—	—
Lead	3	1273	03/04/02	F	1	0	—	[2]	15	0/1	50	0/1
Lead	3	1273	03/04/02	NF	1	1	0.149	—	—	—	—	—
Magnesium	3	1273	03/04/02	F	1	1	4920	—	—	—	—	—
Magnesium	3	1273	03/04/02	NF	1	1	5200	—	—	—	—	—
Manganese	3	1273	03/04/02	F	1	1	21.5	—	50	0/1	200	0/1
Manganese	3	1273	03/04/02	NF	1	1	30.5	—	—	—	—	—
Mercury	3	1273	03/04/02	F	1	0	—	[0.098]	2	0/1	—	—
Mercury	3	1273	03/04/02	NF	1	0	—	[0.101]	—	—	2	0/1
Molybdenum	3	1273	03/04/02	F	1	1	9.39	—	—	—	—	—
Molybdenum	3	1273	03/04/02	NF	1	1	10.5	—	—	—	—	—
Nickel	3	1273	03/04/02	F	1	0	—	[5]	100	0/1	200	0/1
Nickel	3	1273	03/04/02	NF	1	1	3.2	—	—	—	—	—

Table D-44 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Nitrate + Nitrite (as N)	3	1273	03/04/02	F	1	1	180	—	10000	0/1	—	—
Oxalate	3	1273	03/04/02	F	1	0	—	[600]	—	—	—	—
Perchlorate	3	1273	03/04/02	F	1	0	—	[4]	—	—	—	—
Phosphorus	3	1273	03/04/02	F	1	1	20	—	—	—	—	—
Potassium	3	1273	03/04/02	F	1	1	7070	—	—	—	—	—
Potassium	3	1273	03/04/02	NF	1	1	6990	—	—	—	—	—
Selenium	3	1273	03/04/02	F	1	0	—	[5]	50	0/1	50	0/1
Selenium	3	1273	03/04/02	NF	1	1	3.23	—	—	—	—	—
Silica	3	1273	03/04/02	F	1	1	45800	—	—	—	—	—
Silica	3	1273	03/04/02	NF	1	1	46870	—	—	—	—	—
Silver	3	1273	03/04/02	F	1	0	—	[5]	100	0/1	50	0/1
Silver	3	1273	03/04/02	NF	1	0	—	[5]	—	—	—	—
Sodium	3	1273	03/04/02	F	1	1	31100	—	—	—	—	—
Sodium	3	1273	03/04/02	NF	1	1	29900	—	—	—	—	—
Strontium	3	1273	03/04/02	F	1	1	584	—	—	—	—	—
Strontium	3	1273	03/04/02	NF	1	1	595	—	—	—	—	—
Sulfate	3	1273	03/04/02	F	1	1	7020	—	250000	0/1	600000	0/1
Thallium	3	1273	03/04/02	F	1	1	0.04	—	2	0/1	—	—
Thallium	3	1273	03/04/02	NF	1	1	0.07	—	—	—	—	—
Total Kjeldahl Nitrogen	3	1273	03/04/02	F	1	1	680	—	—	—	—	—
Uranium	3	1273	03/04/02	F	1	1	2.48	—	20	0/1	5000	0/1
Uranium	3	1273	03/04/02	NF	1	1	2.77	—	—	—	—	—
Vanadium	3	1273	03/04/02	F	1	1	2.71	—	—	—	—	—
Vanadium	3	1273	03/04/02	NF	1	1	3.39	—	—	—	—	—
Zinc	3	1273	03/04/02	F	1	0	—	[5]	5000	0/1	10000	0/1
Zinc	3	1273	03/04/02	NF	1	1	3.96	—	—	—	—	—

Table D-44 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Stable Isotope (‰)												
δD	3	1273	03/04/02	NF	1	1	-78	—	—	—	—	—
$\delta^{15}N$ (NO_3)	3	1273	03/04/02	NF	1	1	+6.4	—	—	—	—	—
$\delta^{18}O$	3	1273	03/04/02	NF	1	1	-10.7	—	—	—	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

Table D-45
Well R-22 Screen 4 Fourth Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	4	1378	03/05/02	NF[e]	1	1	285000	—[f]	—	—	—	—
Dissolved Oxygen	4	1378	03/05/02	NF	0	0	3600	—	—	—	—	—
pH	4	1378	03/05/02	NF	1	1	7.22	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	4	1378	03/05/02	NF	1	1	456	—	—	0/1	—	0/1
Temperature (°C)	4	1378	03/05/02	NF	1	1	22.9	—	—	0/1	—	0/1
Turbidity (NTU[g])	4	1378	03/05/02	NF	1	1	11.7	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	4	1378	03/05/02	F[h]	1	1	300000	—	—	—	—	—
Aluminum	4	1378	03/05/02	F	1	0	—	[50]	50	0/1	5000	0/1
Aluminum	4	1378	03/05/02	NF	1	0	—	[50]	—	—	—	—
Ammonia (as N)	4	1378	03/05/02	F	1	1	760	—	—	—	—	—
Antimony	4	1378	03/05/02	F	1	1	0.19	—	6	0/1	—	—
Antimony	4	1378	03/05/02	NF	1	1	0.14	—	—	—	—	—
Arsenic	4	1378	03/05/02	F	1	0	—	[5]	50	0/1	100	0/1
Arsenic	4	1378	03/05/02	NF	1	0	—	[5]	—	—	—	—
Barium	4	1378	03/05/02	F	1	1	314	—	2000	0/1	1000	0/1
Barium	4	1378	03/05/02	NF	1	1	335	—	—	—	—	—
Beryllium	4	1378	03/05/02	F	1	0	—	[0.2]	4	0/1	—	—
Beryllium	4	1378	03/05/02	NF	1	0	—	[0.2]	—	—	—	—
Boron	4	1378	03/05/02	F	1	1	96.6	—	—	—	750	0/1
Boron	4	1378	03/05/02	NF	1	1	99.2	—	—	—	—	—
Bromide	4	1378	03/05/02	F	1	0	—	[200]	—	—	—	—

Table D-45 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Cadmium	4	1378	03/05/02	F	1	0	—	[0.11]	5	0/1	10	0/1
Cadmium	4	1378	03/05/02	NF	1	0	—	[0.19]	—	—	—	—
Calcium	4	1378	03/05/02	F	1	1	44800	—	—	—	—	—
Calcium	4	1378	03/05/02	NF	1	1	43100	—	—	—	—	—
Chloride	4	1378	03/05/02	F	1	1	7520	—	250000	0/1	250000	0/1
Chromium	4	1378	03/05/02	F	1	0	—	[5]	100	0/1	50	0/1
Chromium	4	1378	03/05/02	NF	1	1	2.15	—	—	—	—	—
Cobalt	4	1378	03/05/02	F	1	0	—	[5]	—	—	50	0/1
Cobalt	4	1378	03/05/02	NF	1	1	0.322	—	—	—	—	—
Copper	4	1378	03/05/02	F	1	0	—	[5]	1300	0/1	1000	0/1
Copper	4	1378	03/05/02	NF	1	0	—	[5]	—	—	—	—
Cyanide (total)	4	1378	03/05/02	NF	1	0	—	[5]	—	—	—	—
Fluoride	4	1378	03/05/02	F	1	1	617	—	4000	0/1	1600	0/1
Iron	4	1378	03/05/02	F	1	1	2470	—	300	1/1	1000	1/1
Iron	4	1378	03/05/02	NF	1	1	4810	—	—	—	—	—
Lead	4	1378	03/05/02	F	1	1	0.09	—	15	0/1	50	0/1
Lead	4	1378	03/05/02	NF	1	0	—	[2]	—	—	—	—
Magnesium	4	1378	03/05/02	F	1	1	12000	—	—	—	—	—
Magnesium	4	1378	03/05/02	NF	1	1	11400	—	—	—	—	—
Manganese	4	1378	03/05/02	F	1	1	1200	—	50	1/1	200	1/1
Manganese	4	1378	03/05/02	NF	1	1	1060	—	—	—	—	—
Mercury	4	1378	03/05/02	F	1	1	0.084	—	2	0/1	—	—
Mercury	4	1378	03/05/02	NF	1	1	0.088	—	—	—	2	0/1
Molybdenum	4	1378	03/05/02	F	1	1	10.2	—	—	—	—	—
Molybdenum	4	1378	03/05/02	NF	1	1	10.6	—	—	—	—	—
Nickel	4	1378	03/05/02	F	1	1	2.87	—	100	0/1	200	0/1
Nickel	4	1378	03/05/02	NF	1	1	5.22	—	—	—	—	—

Table D-45 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Nitrate + Nitrite (as N)	4	1378	03/05/02	F	1	0	—	[50]	10000	0/1	—	—
Oxalate	4	1378	03/05/02	F	1	0	—	[600]	—	—	—	—
Perchlorate	4	1378	03/05/02	F	1	0	—	[4]	—	—	—	—
Phosphorus	4	1378	03/05/02	F	1	0	—	[50]	—	—	—	—
Potassium	4	1378	03/05/02	F	1	1	4730	—	—	—	—	—
Potassium	4	1378	03/05/02	NF	1	1	4570	—	—	—	—	—
Selenium	4	1378	03/05/02	F	1	0	—	[5]	50	0/1	50	0/1
Selenium	4	1378	03/05/02	NF	1	0	—	[5]	—	—	—	—
Silica	4	1378	03/05/02	F	1	1	55640	—	—	—	—	—
Silica	4	1378	03/05/02	NF	1	1	56280	—	—	—	—	—
Silver	4	1378	03/05/02	F	1	0	—	[5]	100	0/1	50	0/1
Silver	4	1378	03/05/02	NF	1	0	—	[5]	—	—	—	—
Sodium	4	1378	03/05/02	F	1	1	44900	—	—	—	—	—
Sodium	4	1378	03/05/02	NF	1	1	42500	—	—	—	—	—
Strontium	4	1378	03/05/02	F	1	1	958	—	—	—	—	—
Strontium	4	1378	03/05/02	NF	1	1	925	—	—	—	—	—
Sulfate	4	1378	03/05/02	F	1	1	1120	—	250000	0/1	600000	0/1
Thallium	4	1378	03/05/02	F	1	0	—	[0.12]	2	0/1	—	—
Thallium	4	1378	03/05/02	NF	1	0	—	[0.28]	—	—	—	—
Total Kjeldahl Nitrogen	4	1378	03/05/02	F	1	1	1170	—	—	—	—	—
Uranium	4	1378	03/05/02	F	1	1	0.29	—	20	0/1	5000	0/1
Uranium	4	1378	03/05/02	NF	1	1	0.26	—	—	—	—	—
Vanadium	4	1378	03/05/02	F	1	0	—	[5]	—	—	—	—
Vanadium	4	1378	03/05/02	NF	1	0	—	[5]	—	—	—	—
Zinc	4	1378	03/05/02	F	1	1	3.37	—	5000	0/1	10000	0/1
Zinc	4	1378	03/05/02	NF	1	1	4.95	—	—	—	—	—

Table D-45 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Stable Isotope (‰)												
δD	4	1378	03/05/02	NF	1	1	-74	—	—	—	—	—
$\delta^{15}N$ (NH_3)	4	1378	03/05/02	NF	1	1	+3.7	—	—	—	—	—
$\delta^{18}O$	4	1378	03/05/02	NF	1	1	-10.5	—	—	—	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

Table D-46
Well R-22 Screen 5 Fourth Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	5	1448	03/07/02	NF[e]	1	1	185000	—[f]	—	—	—	—
Dissolved Oxygen	5	1448	03/07/02	NF	0	0	5900	—	—	—	—	—
pH	5	1448	03/07/02	NF	1	1	7.23	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	5	1448	03/07/02	NF	1	1	311	—	—	0/1	—	0/1
Temperature (°C)	5	1448	03/07/02	NF	1	1	22.1	—	—	0/1	—	0/1
Turbidity (NTU[g])	5	1448	03/07/02	NF	1	1	5.9	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	5	1448	03/07/02	F[h]	1	1	163000	—	—	—	—	—
Aluminum	5	1448	03/07/02	F	1	0	—	[50]	50	0/1	5000	0/1
Aluminum	5	1448	03/07/02	NF	1	0	—	[50]	—	—	—	—
Ammonia (as N)	5	1448	03/07/02	F	1	1	520	—	—	—	—	—
Antimony	5	1448	03/07/02	F	1	0	—	[2]	6	0/1	—	—
Antimony	5	1448	03/07/02	NF	1	0	—	[2]	—	—	—	—
Arsenic	5	1448	03/07/02	F	1	0	—	[5]	50	0/1	100	0/1
Arsenic	5	1448	03/07/02	NF	1	0	—	[5]	—	—	—	—
Barium	5	1448	03/07/02	F	1	1	137	—	2000	0/1	1000	0/1
Barium	5	1448	03/07/02	NF	1	1	136	—	—	—	—	—
Beryllium	5	1448	03/07/02	F	1	0	—	[0.2]	4	0/1	—	—
Beryllium	5	1448	03/07/02	NF	1	0	—	[0.2]	—	—	—	—
Boron	5	1448	03/07/02	F	1	1	18.7	—	—	—	750	0/1
Boron	5	1448	03/07/02	NF	1	1	18.5	—	—	—	—	—
Bromide	5	1448	03/07/02	F	1	0	—	[200]	—	—	—	—

Table D-46 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Cadmium	5	1448	03/07/02	F	1	0	—	[0.13]	5	0/1	10	0/1
Cadmium	5	1448	03/07/02	NF	1	0	—	[0.16]	—	—	—	—
Calcium	5	1448	03/07/02	F	1	1	36600	—	—	—	—	—
Calcium	5	1448	03/07/02	NF	1	1	36300	—	—	—	—	—
Chloride	5	1448	03/07/02	F	1	1	2500	—	250000	0/1	250000	0/1
Chromium	5	1448	03/07/02	F	1	0	—	[5]	100	0/1	50	0/1
Chromium	5	1448	03/07/02	NF	1	1	1.16	—	—	—	—	—
Cobalt	5	1448	03/07/02	F	1	0	—	[5]	—	—	50	0/1
Cobalt	5	1448	03/07/02	NF	1	0	—	[5]	—	—	—	—
Copper	5	1448	03/07/02	F	1	0	—	[5]	1300	0/1	1000	0/1
Copper	5	1448	03/07/02	NF	1	0	—	[5]	—	—	—	—
Cyanide (total)	5	1448	03/07/02	NF	1	0	—	[5]	—	—	—	—
Fluoride	5	1448	03/07/02	F	1	1	408	—	4000	0/1	1600	0/1
Iron	5	1448	03/07/02	F	1	1	1530	—	300	1/1	1000	1/1
Iron	5	1448	03/07/02	NF	1	1	1630	—	—	—	—	—
Lead	5	1448	03/07/02	F	1	1	0.12	—	15	0/1	50	0/1
Lead	5	1448	03/07/02	NF	1	1	0.21	—	—	—	—	—
Magnesium	5	1448	03/07/02	F	1	1	6590	—	—	—	—	—
Magnesium	5	1448	03/07/02	NF	1	1	6370	—	—	—	—	—
Manganese	5	1448	03/07/02	F	1	1	540	—	50	1/1	200	1/1
Manganese	5	1448	03/07/02	NF	1	1	505	—	—	—	—	—
Mercury	5	1448	03/07/02	F	1	0	—	[0.2]	2	0/1	—	—
Mercury	5	1448	03/07/02	NF	1	0	—	[0.2]	—	—	2	0/1
Molybdenum	5	1448	03/07/02	F	1	1	26.9	—	—	—	—	—
Molybdenum	5	1448	03/07/02	NF	1	1	26.2	—	—	—	—	—
Nickel	5	1448	03/07/02	F	1	1	1.26	—	100	0/1	200	0/1
Nickel	5	1448	03/07/02	NF	1	1	1.79	—	—	—	—	—

Table D-46 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Nitrate + Nitrite (as N)	5	1448	03/07/02	F	1	0	—	[50]	10000	0/1	—	—
Oxalate	5	1448	03/07/02	F	1	0	—	[600]	—	—	—	—
Perchlorate	5	1448	03/07/02	F	1	0	—	[4]	—	—	—	—
Phosphorous	5	1448	03/07/02	F	1	1	20	—	—	—	—	—
Potassium	5	1448	03/07/02	F	1	1	4750	—	—	—	—	—
Potassium	5	1448	03/07/02	NF	1	1	4710	—	—	—	—	—
Selenium	5	1448	03/07/02	F	1	0	—	[5]	50	0/1	50	0/1
Selenium	5	1448	03/07/02	NF	1	0	—	[5]	—	—	—	—
Silica	5	1448	03/07/02	F	1	1	53500	—	—	—	—	—
Silica	5	1448	03/07/02	NF	1	1	53930	—	—	—	—	—
Silver	5	1448	03/07/02	F	1	0	—	[5]	100	0/1	50	0/1
Silver	5	1448	03/07/02	NF	1	0	—	[5]	—	—	—	—
Sodium	5	1448	03/07/02	F	1	1	20700	—	—	—	—	—
Sodium	5	1448	03/07/02	NF	1	1	20400	—	—	—	—	—
Strontium	5	1448	03/07/02	F	1	1	306	—	—	—	—	—
Strontium	5	1448	03/07/02	NF	1	1	306	—	—	—	—	—
Sulfate	5	1448	03/07/02	F	1	1	513	—	250000	0/1	600000	0/1
Thallium	5	1448	03/07/02	F	1	0	—	[0.07]	2	0/1	—	—
Thallium	5	1448	03/07/02	NF	1	0	—	[0.1]	—	—	—	—
Total Kjeldahl Nitrogen	5	1448	03/07/02	F	1	1	980	—	—	—	—	—
Uranium	5	1448	03/07/02	F	1	0	—	[0.2]	20	0/1	5000	0/1
Uranium	5	1448	03/07/02	NF	1	0	—	[0.22]	—	—	—	—
Vanadium	5	1448	03/07/02	F	1	0	—	[5]	—	—	—	—
Vanadium	5	1448	03/07/02	NF	1	0	—	[5]	—	—	—	—
Zinc	5	1448	03/07/02	F	1	1	3.9	—	5000	0/1	10000	0/1
Zinc	5	1448	03/07/02	NF	1	1	5.29	—	—	—	—	—

Table D-46 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Stable Isotope (‰)												
δD	5	1448	03/07/02	NF	1	1	-77	—	—	—	—	—
$\delta^{15}N$ (NO_3)	5	1448	03/07/02	NF	1	1	ISV[i]	—	—	—	—	—
$\delta^{18}O$	5	1448	03/07/02	NF	1	1	-11.3	—	—	—	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

[i] ISV = Insufficient sample volume.

Table D-47
Well R-22 Screen 1 Fourth Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Amino-2,6-dinitrotoluene[4-]	1	907	02/27/02	NF[e]	1	1	0.42	—[f]	—	—	—	—
Amino-4,6-dinitrotoluene[2-]	1	907	02/27/02	NF	1	1	0.51	—	—	—	—	—
Benzoic Acid	1	907	02/27/02	NF	1	1	12.5	—	—	—	—	—
Isopropylbenzene	1	907	02/27/02	NF	1	1	0.54	—	—	—	—	—
Methylene Chloride	1	907	02/27/02	NF	1	1	2.2	—	5	0/1	100	0/1
Total Organic Carbon	1	907	02/27/02	NF	1	1	6550	—	—	—	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.
[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.
[c] NMED = New Mexico Environment Department.
[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.
[e] NF = Nonfiltered.
[f] — = Not available or not applicable.

Table D-48
Well R-22 Screen 2 Fourth Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Dichlorobenzene[1,4-]	2	962	02/28/02	NF[e]	1	1	0.23	—[f]	75	0/2	—	—
Total Organic Carbon	2	962	02/28/02	NF	1	1	297	—	—	—	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.
[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.
[c] NMED = New Mexico Environment Department.
[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.
[e] NF = Nonfiltered.
[f] — = Not available or not applicable.

Table D-49
Well R-22 Screen 3 Fourth Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Acetone	3	1273	03/04/02	NF[e]	1	1	2.5	—[f]	—	—	—	—
Bis(2-ethylhexyl)phthalate	3	1273	03/04/02	NF	1	1	0.23	—	6	0/1	—	—
DDT[4,4'-]	3	1273	03/04/02	NF	1	1	0.0088	—	—	—	—	—
Dichlorobenzene[1,4-]	3	1273	03/04/02	NF	1	1	0.21	—	75	0/2	—	—
Phenanthrene	3	1273	03/04/02	NF	1	1	0.14	—	—	—	—	—
Total Organic Carbon	3	1273	03/04/02	NF	1	1	2910	—	—	—	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

Table D-50
Well R-22 Screen 4 Fourth Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Acetone	4	1378	03/05/02	NF[e]	1	1	5.6	—[f]	—	—	—	—
Dichlorobenzene[1,4-]	4	1378	03/05/02	NF	1	1	0.16	—	75	0/2	—	—
Total Organic Carbon	4	1378	03/05/02	NF	1	1	18000	—	—	—	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

Table D-51
Well R-22 Screen 5 Fourth Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Acetone	5	1448	03/07/02	NF[e]	1	1	4.2	—[f]	—	—	—	—
Butylbenzylphthalate	5	1448	03/07/02	NF	1	1	9.8	—	—	—	—	—
Isopropylbenzene	5	1448	03/07/02	NF	1	1	0.16	—	—	—	—	—
Hexahydro-1,3,5-trinitro-1,3,5-triazine	5	1448	03/07/02	NF	1	1	0.34	—	—	—	—	—
Toluene	5	1448	03/07/02	NF	1	1	0.6	—	1000	0/1	750	0/1
Total Organic Carbon	5	1448	03/07/02	NF	1	1	3660	—	—	—	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

Table D-52
Well R-22 Screen 1 Fourth Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Americium-241	1	907	02/27/02	F[c]	1	0	—[d]	[0.0105]	—	—
Cesium-134	1	907	02/27/02	F	1	0	—	[-0.00796]	—	—
Cesium-137	1	907	02/27/02	F	1	0	—	[-0.393]	—	—
Cobalt-60	1	907	02/27/02	F	1	0	—	[1]	—	—
Europium-152	1	907	02/27/02	F	1	0	—	[0.778]	—	—
Iodine-129	1	907	02/27/02	NF[e]	1	0	—	[0.0658]	—	—
Plutonium-238	1	907	02/27/02	F	1	0	—	[-0.002]	—	—
Plutonium-239,240	1	907	02/27/02	F	1	0	—	[-0.0115]	—	—
Ruthenium-106	1	907	02/27/02	F	1	0	—	[1.56]	—	—
Sodium-22	1	907	02/27/02	F	1	0	—	[0.442]	—	—
Strontium-90	1	907	02/27/02	F	1	0	—	[0.0001]	—	—
Technetium-99	1	907	02/27/02	NF	1	0	—	[-2.53]	—	—
Tritium	1	907	02/27/02	NF	1	1	2.33	—	20000	0/1
Uranium-234	1	907	02/27/02	F	1	1	0.0427	—	—	—
Uranium-235	1	907	02/27/02	F	1	0	—	[-0.0033]	—	—
Uranium-238	1	907	02/27/02	F	1	0	—	[0.00986]	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] F = Filtered.

[d] — = Not available or not applicable.

[e] NF = Nonfiltered.

Table D-53
Well R-22 Screen 2 Fourth Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Americium-241	2	962	02/28/02	F[c]	1	0	—[d]	[0.0122]	—	—
Cesium-134	2	962	02/28/02	F	1	0	—	[-0.544]	—	—
Cesium-137	2	962	02/28/02	F	1	0	—	[0.324]	—	—
Cobalt-60	2	962	02/28/02	F	1	0	—	[-0.0486]	—	—
Europium-152	2	962	02/28/02	F	1	0	—	[-1.05]	—	—
Iodine-129	2	962	02/28/02	NF[e]	1	0	—	[0.196]	—	—
Plutonium-238	2	962	02/28/02	F	1	0	—	[-0.0066]	—	—
Plutonium-239,240	2	962	02/28/02	F	1	0	—	[0.0044]	—	—
Ruthenium-106	2	962	02/28/02	F	1	0	—	[8.39]	—	—
Sodium-22	2	962	02/28/02	F	1	0	—	[0.918]	—	—
Strontium-90	2	962	02/28/02	F	1	0	—	[-0.0042]	—	—
Technetium-99	2	962	02/28/02	NF	1	0	—	[-0.13]	—	—
Tritium	2	962	02/28/02	NF	1	1	—	[-0.16]	20000	0/1
Uranium-234	2	962	02/28/02	F	1	1	0.271	—	—	—
Uranium-235	2	962	02/28/02	F	1	0	—	[8.67]	—	—
Uranium-238	2	962	02/28/02	F	1	1	0.108	—	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] F = Filtered.

[d] — = Not available or not applicable.

[e] NF = Nonfiltered.

Table D-54
Well R-22 Screen 3 Fourth Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Americium-241	3	1273	03/04/02	F[c]	1	0	—[d]	[0.0119]	—	—
Cesium-134	3	1273	03/04/02	F	1	0	—	[0.0241]	—	—
Cesium-137	3	1273	03/04/02	F	1	0	—	[0.807]	—	—
Cobalt-60	3	1273	03/04/02	F	1	0	—	[-0.754]	—	—
Europium-152	3	1273	03/04/02	F	1	0	—	[-1.16]	—	—
Iodine-129	3	1273	03/04/02	NF[e]	1	0	—	[-0.00588]	—	—
Plutonium-238	3	1273	03/04/02	F	1	0	—	[0.00295]	—	—
Plutonium-239,240	3	1273	03/04/02	F	1	0	—	[-0.0001]	—	—
Ruthenium-106	3	1273	03/04/02	F	1	0	—	[0.825]	—	—
Sodium-22	3	1273	03/04/02	F	1	0	—	[1.35]	—	—
Strontium-90	3	1273	03/04/02	F	1	0	—	[-0.01]	—	—
Technetium-99	3	1273	03/04/02	NF	1	0	—	[0.0215]	—	—
Tritium	3	1273	03/04/02	NF	1	1	—	[-0.06]	20000	0/1
Uranium-234	3	1273	03/04/02	F	1	1	1.39	—	—	—
Uranium-235	3	1273	03/04/02	F	1	1	0.0412	—	—	—
Uranium-238	3	1273	03/04/02	F	1	1	0.829	—	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] F = Filtered.

[d] — = Not available or not applicable.

[e] NF = Nonfiltered.

Table D-55
Well R-22 Screen 4 Fourth Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Americium-241	4	1378	03/05/02	F[c]	1	1	0.0254	—[d]	—	—
Cesium-134	4	1378	03/05/02	F	1	0	—	[0.0347]	—	—
Cesium-137	4	1378	03/05/02	F	1	0	—	[-0.528]	—	—
Cobalt-60	4	1378	03/05/02	F	1	0	—	[-0.753]	—	—
Europium-152	4	1378	03/05/02	F	1	0	—	[0.493]	—	—
Iodine-129	4	1378	03/05/02	NF[e]	1	0	—	[0.383]	—	—
Plutonium-238	4	1378	03/05/02	F	1	0	—	[0.0123]	—	—
Plutonium-239	4	1378	03/05/02	F	1	0	—	[0.0123]	—	—
Ruthenium-106	4	1378	03/05/02	F	1	0	—	[-3.27]	—	—
Sodium-22	4	1378	03/05/02	F	1	0	—	[-0.127]	—	—
Strontium-90	4	1378	03/05/02	F	1	0	—	[0.0377]	—	—
Technetium-99	4	1378	03/05/02	NF	1	0	—	[-1.51]	—	—
Tritium	4	1378	03/05/02	NF	1	1	0.26	—	20000	0/1
Uranium-234	4	1378	03/05/02	F	1	1	0.0973	—	—	—
Uranium-235	4	1378	03/05/02	F	1	0	—	[0.005]	—	—
Uranium-238	4	1378	03/05/02	F	1	1	0.0497	—	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] F = Filtered.

[d] — = Not available or not applicable.

[e] NF = Nonfiltered.

Table D-56
Well R-22 Screen 5 Fourth Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Americium-241	5	1449	03/07/02	F[c]	1	0	—[d]	[0.00297]	—	—
Cesium-134	5	1449	03/07/02	F	1	0	—	[-0.00929]	—	—
Cesium-137	5	1449	03/07/02	F	1	0	—	[-0.241]	—	—
Cobalt-60	5	1449	03/07/02	F	1	0	—	[0.226]	—	—
Europium-152	5	1449	03/07/02	F	1	0	—	[0.595]	—	—
Iodine-129	5	1449	03/07/02	NF[e]	1	0	—	[0.0765]	—	—
Plutonium-238	5	1449	03/07/02	F	1	0	—	[0.00758]	—	—
Plutonium-239,240	5	1449	03/07/02	F	1	0	—	[0.0151]	—	—
Ruthenium-106	5	1449	03/07/02	F	1	0	—	[3.51]	—	—
Sodium-22	5	1449	03/07/02	F	1	0	—	[0.193]	—	—
Strontium-90	5	1449	03/07/02	F	1	0	—	[-0.0279]	—	—
Technetium-99	5	1449	03/07/02	NF	1	0	—	[-0.298]	—	—
Tritium	5	1449	03/07/02	NF	1	1	15.23	—	20000	0/1
Uranium-234	5	1449	03/07/02	F	1	1	0.0823	—	—	—
Uranium-235	5	1449	03/07/02	F	1	0	—	[0.0075]	—	—
Uranium-238	5	1449	03/07/02	F	1	1	0.0524	—	—	—

[a] The static water level for the regional aquifer at R-22 was 883 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] F = Filtered.

[d] — = Not available or not applicable.

[e] NF = Nonfiltered.

Table D-57
Well R-25 Screen 1 Third Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	1	755	08/13/01	NF[e]	1	1	64000	—[f]	—	—	—	—
pH	1	755	08/13/01	NF	1	1	7.39	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	1	755	08/13/01	NF	1	1	233	—	—	0/1	—	0/1
Temperature (°C)	1	755	08/13/01	NF	1	1	19.8	—	—	0/1	—	0/1
Turbidity (NTU[g])	1	755	08/13/01	NF	1	1	—	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	1	755	08/13/01	F[h]	1	1	87000	—	—	—	—	—
Aluminum	1	755	08/13/01	F	1	1	91	—	50	1/1	5000	0/1
Aluminum	1	755	08/13/01	NF	1	1	62	—	—	—	—	—
Ammonia (as N)	1	755	08/13/01	F	1	0	—	[100]	—	—	—	—
Antimony	1	755	08/13/01	F	1	1	—	[0.043]	6	0/2	—	—
Antimony	1	755	08/13/01	NF	1	0	—	[2.6]	—	—	—	—
Arsenic	1	755	08/13/01	F	1	0	—	[2]	50	0/1	100	0/1
Arsenic	1	755	08/13/01	NF	1	0	—	[2]	—	—	—	—
Barium	1	755	08/13/01	F	1	1	8.6	—	2000	0/1	1000	0/1
Barium	1	755	08/13/01	NF	1	1	9.2	—	—	—	—	—
Beryllium	1	755	08/13/01	F	1	1	0.067	—	4	0/2	—	—
Beryllium	1	755	08/13/01	NF	1	1	0.051	—	—	—	—	—
Boron	1	755	08/13/01	F	1	1	250	—	—	—	750	0/1
Boron	1	755	08/13/01	NF	1	1	260	—	—	—	—	—
Bromide	1	755	08/13/01	F	1	0	—	[200]	—	—	—	—
Cadmium	1	755	08/13/01	F	1	1	0.136	—	5	0/2	10	0/2
Cadmium	1	755	08/13/01	NF	1	1	0.076	—	—	—	—	—

Table D-57 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Calcium	1	755	08/13/01	F	1	1	26000	—	—	—	—	—
Calcium	1	755	08/13/01	NF	1	1	27000	—	—	—	—	—
Chloride	1	755	08/13/01	F	1	1	13000	—	250000	0/1	250000	0/1
Chromium	1	755	08/13/01	F	1	1	1.8	—	100	0/1	50	0/1
Chromium	1	755	08/13/01	NF	1	1	17	—	—	—	—	—
Cobalt	1	755	08/13/01	F	1	1	4.1	—	—	—	50	0/1
Cobalt	1	755	08/13/01	NF	1	1	5	—	—	—	—	—
Copper	1	755	08/13/01	F	1	0	—	[0.35]	1300	0/1	1000	0/1
Copper	1	755	08/13/01	NF	1	0	—	[0.35]	—	—	—	—
Cyanide (total)	1	755	08/13/01	NF	1	0	—	[10]	—	—	—	—
Fluoride	1	755	08/13/01	F	1	1	130	—	4000	0/1	1600	0/1
Iron	1	755	08/13/01	F	1	1	27	—	300	0/1	1000	0/1
Iron	1	755	08/13/01	NF	1	1	850	—	—	—	—	—
Lead	1	755	08/13/01	F	1	0	—	[1.2]	15	0/2	50	0/2
Lead	1	755	08/13/01	NF	1	0	—	[1.2]	—	—	—	—
Magnesium	1	755	08/13/01	F	1	1	6200	—	—	—	—	—
Magnesium	1	755	08/13/01	NF	1	1	6100	—	—	—	—	—
Manganese	1	755	08/13/01	F	1	1	86	—	50	1/1	200	0/1
Manganese	1	755	08/13/01	NF	1	1	110	—	—	—	—	—
Mercury	1	755	08/13/01	F	1	0	—	[0.012]	2	0/1	—	—
Mercury	1	755	08/13/01	NF	1	0	—	[0.012]	—	—	2	0/1
Molybdenum	1	755	08/13/01	F	1	0	—	[4.1]	—	—	—	—
Molybdenum	1	755	08/13/01	NF	1	0	—	[4.1]	—	—	—	—
Nickel	1	755	08/13/01	F	1	1	380	—	100	1/1	200	1/1
Nickel	1	755	08/13/01	NF	1	1	470	—	—	—	—	—
Nitrate + Nitrite (as N)	1	755	08/13/01	F	1	1	1100	—	10000	0/1	—	—
Perchlorate	1	755	08/13/01	F	1	0	—	[4]	—	—	—	—

Table D-57 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Phosphorus (total)	1	755	08/13/01	F	1	1	81	—	—	—	—	—
Potassium	1	755	08/13/01	F	1	0	—	[1500]	—	—	—	—
Potassium	1	755	08/13/01	NF	1	1	1500	—	—	—	—	—
Selenium	1	755	08/13/01	F	1	0	—	[2.1]	50	0/1	50	0/1
Selenium	1	755	08/13/01	NF	1	0	—	[2.1]	—	—	—	—
Silver	1	755	08/13/01	F	1	0	—	[0.41]	100	0/1	50	0/1
Silver	1	755	08/13/01	NF	1	0	—	[0.41]	—	—	—	—
Silica	1	755	08/13/01	F	1	1	49220	—	—	—	—	—
Silica	1	755	08/13/01	NF	1	1	49220	—	—	—	—	—
Sodium	1	755	08/13/01	F	1	1	9700	—	—	—	—	—
Sodium	1	755	08/13/01	NF	1	1	9700	—	—	—	—	—
Strontium	1	755	08/13/01	F	1	1	120	—	—	—	—	—
Strontium	1	755	08/13/01	NF	1	1	130	—	—	—	—	—
Sulfate	1	755	08/13/01	F	1	1	11000	—	250000	0/1	600000	0/1
Thallium	1	755	08/13/01	F	1	1	—	[0.021]	2	1/2	—	—
Thallium	1	755	08/13/01	NF	1	1	—	[0.021]	—	—	—	—
Uranium	1	755	08/13/01	F	1	1	1.25	—	20	0/1	5000	0/1
Uranium	1	755	08/13/01	NF	1	1	1.29	—	—	—	—	—
Vanadium	1	755	08/13/01	F	1	1	2.1	—	—	—	—	—
Vanadium	1	755	08/13/01	NF	1	1	3	—	—	—	—	—
Zinc	1	755	08/13/01	F	1	1	13	—	5000	0/1	10000	0/1
Zinc	1	755	08/13/01	NF	1	1	3.8	—	—	—	—	—

Table D-57 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Stable Isotope (‰)												
δD	1	755	08/13/01	NF	1	1	-80	—	—	—	—	—
$\delta^{15}N$	1	755	08/13/01	NF	1	1	+3.1	—	—	—	—	—
$\delta^{18}O$	1	755	08/13/01	NF	1	1	-11.8	—	—	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

Table D-58
Well R-25 Screen 2 Third Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	2	892	08/14/01	NF[e]	1	1	135000	—[f]	—	—	—	—
pH	2	892	08/14/01	NF	1	1	8.89	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	2	892	08/14/01	NF	1	1	456	—	—	0/1	—	0/1
Temperature (°C)	2	892	08/14/01	NF	1	1	17.6	—	—	0/1	—	0/1
Turbidity (NTU[g])	2	892	08/14/01	NF	1	1	18.2	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	2	892	08/14/01	F[h]	1	1	190000	—	—	—	—	—
Aluminum	2	892	08/14/01	F	1	1	270	—	50	1/1	5000	0/1
Aluminum	2	892	08/14/01	NF	1	1	1300	—	—	—	—	—
Ammonia (as N)	2	892	08/14/01	F	1	1	100	—	—	—	—	—
Antimony	2	892	08/14/01	F	1	0	—	[2.6]	6	0/2	—	—
Antimony	2	892	08/14/01	NF	1	0	—	[2.6]	—	—	—	—
Arsenic	2	892	08/14/01	F	1	1	2.1	—	50	0/1	100	0/1
Arsenic	2	892	08/14/01	NF	1	0	—	[2]	—	—	—	—
Barium	2	892	08/14/01	F	1	1	2.5	—	2000	0/1	1000	0/1
Barium	2	892	08/14/01	NF	1	1	3.9	—	—	—	—	—
Beryllium	2	892	08/14/01	F	1	1	0.061	—	4	0/2	—	—
Beryllium	2	892	08/14/01	NF	1	1	0.234	—	—	—	—	—
Boron	2	892	08/14/01	F	1	1	600	—	—	—	750	0/1
Boron	2	892	08/14/01	NF	1	1	600	—	—	—	—	—
Bromide	2	892	08/14/01	F	1	0	—	[200]	—	—	—	—
Cadmium	2	892	08/14/01	F	1	1	0.107	—	5	0/2	10	0/2
Cadmium	2	892	08/14/01	NF	1	1	0.09	—	—	—	—	—

Table D-58 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Calcium	2	892	08/14/01	F	1	1	6700	—	—	—	—	—
Calcium	2	892	08/14/01	NF	1	1	7200	—	—	—	—	—
Chloride	2	892	08/14/01	F	1	1	12000	—	250000	0/1	250000	0/1
Chromium	2	892	08/14/01	F	1	1	1.1	—	100	0/1	50	0/1
Chromium	2	892	08/14/01	NF	1	1	15	—	—	—	—	—
Cobalt	2	892	08/14/01	F	1	0	—	[0.29]	—	—	50	0/1
Cobalt	2	892	08/14/01	NF	1	1	1	—	—	—	—	—
Copper	2	892	08/14/01	F	1	1	6.6	—	1300	0/1	1000	0/1
Copper	2	892	08/14/01	NF	1	1	12	—	—	—	—	—
Cyanide (total)	2	892	08/14/01	NF	1	0	—	[10]	—	—	—	—
Fluoride	2	892	08/14/01	F	1	1	110	—	4000	0/1	1600	0/1
Iron	2	892	08/14/01	F	1	1	140	—	300	0/1	1000	0/1
Iron	2	892	08/14/01	NF	1	1	650	—	—	—	—	—
Lead	2	892	08/14/01	F	1	1	2	—	15	0/2	50	0/2
Lead	2	892	08/14/01	NF	1	1	3.35	—	—	—	—	—
Magnesium	2	892	08/14/01	F	1	1	1300	1300	—	—	—	—
Magnesium	2	892	08/14/01	NF	1	1	1600	1600	—	—	—	—
Manganese	2	892	08/14/01	F	1	1	9.5	9.5	50	0/1	200	0/1
Manganese	2	892	08/14/01	NF	1	1	18	18	—	—	—	—
Mercury	2	892	08/14/01	F	1	0	—	[0.012	2	0/1	—	—
Mercury	2	892	08/14/01	NF	1	0	—	[0.012	—	—	2	0/1
Molybdenum	2	892	08/14/01	F	1	1	16	—	—	—	—	—
Molybdenum	2	892	08/14/01	NF	1	1	18	—	—	—	—	—
Nickel	2	892	08/14/01	F	1	1	4	—	100	0/1	200	0/1
Nickel	2	892	08/14/01	NF	1	1	17	—	—	—	—	—
Nitrate + Nitrite (as N)	2	892	08/14/01	F	1	0	—	[50]	10000	0/1	—	—
Perchlorate	2	892	08/14/01	F	1	0	—	[4]	—	—	—	—

Table D-58 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Phosphorus (total)	2	892	08/14/01	F	1	1	19000	—	—	—	—	—
Potassium	2	892	08/14/01	F	1	1	4000	—	—	—	—	—
Potassium	2	892	08/14/01	NF	1	1	4100	—	—	—	—	—
Selenium	2	892	08/14/01	F	1	0	—	[2.1]	50	0/1	50	0/1
Selenium	2	892	08/14/01	NF	1	0	—	[2.1]	—	—	—	—
Silver	2	892	08/14/01	F	1	0	—	[0.41]	100	0/1	50	0/1
Silver	2	892	08/14/01	NF	1	0	—	[0.41]	—	—	—	—
Silica	2	892	08/14/01	F	1	1	36380	—	—	—	—	—
Silica	2	892	08/14/01	NF	1	1	42800	—	—	—	—	—
Sodium	2	892	08/14/01	F	1	1	90000	—	—	—	—	—
Sodium	2	892	08/14/01	NF	1	1	91000	—	—	—	—	—
Strontium	2	892	08/14/01	F	1	1	30	—	—	—	—	—
Strontium	2	892	08/14/01	NF	1	1	33	—	—	—	—	—
Sulfate	2	892	08/14/01	F	1	1	13000	—	250000	0/1	600000	0/1
Thallium	2	892	08/14/01	F	1	0	—	[2.2]	2	0/2	—	—
Thallium	2	892	08/14/01	NF	1	0	—	[2.2]	—	—	—	—
Uranium	2	892	08/14/01	F	1	1	0.594	—	20	0/1	5000	0/1
Uranium	2	892	08/14/01	NF	1	1	0.865	—	—	—	—	—
Vanadium	2	892	08/14/01	F	1	1	0.5	—	—	—	—	—
Vanadium	2	892	08/14/01	NF	1	1	3.3	—	—	—	—	—
Zinc	2	892	08/14/01	F	1	1	2.8	—	5000	0/1	10000	0/1
Zinc	2	892	08/14/01	NF	1	1	24	—	—	—	—	—

Table D-58 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Stable Isotope (‰)												
δD	2	892	08/14/01	NF	1	1	-85	—	—	—	—	—
$\delta^{15}N$	2	892	08/14/01	NF	1	1	ISV[i]	—	—	—	—	—
$\delta^{18}O$	2	892	08/14/01	NF	1	1	-11.8	—	—	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

[i] ISV = Insufficient sample volume.

Table D-59
Well R-25 Screen 4 Third Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	4	1192	08/15/01	NF[e]	1	1	43000	—[f]	—	—	—	—
pH	4	1192	08/15/01	NF	1	1	7.48	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	4	1192	08/15/01	NF	1	1	443	—	—	0/1	—	0/1
Temperature (°C)	4	1192	08/15/01	NF	1	1	19.7	—	—	0/1	—	0/1
Turbidity (NTU[g])	4	1192	08/15/01	NF	1	1	4.6	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	4	1192	08/15/01	F[h]	1	1	74000	—	—	—	—	—
Aluminum	4	1192	08/15/01	F	1	1	56	—	50	1/1	5000	0/1
Aluminum	4	1192	08/15/01	NF	1	1	320	—	—	—	—	—
Ammonia (as N)	4	1192	08/15/01	F	1	1	120	—	—	—	—	—
Antimony	4	1192	08/15/01	F	1	0	—	[2.6]	6	0/2	—	—
Antimony	4	1192	08/15/01	NF	1	0	—	[2.6]	—	—	—	—
Arsenic	4	1192	08/15/01	F	1	0	—	[2]	50	0/1	100	0/1
Arsenic	4	1192	08/15/01	NF	1	0	—	[2]	—	—	—	—
Barium	4	1192	08/15/01	F	1	1	26	—	2000	0/1	1000	0/1
Barium	4	1192	08/15/01	NF	1	1	18	—	—	—	—	—
Beryllium	4	1192	08/15/01	F	1	1	0.027	—	4	0/2	—	—
Beryllium	4	1192	08/15/01	NF	1	1	0.022	—	—	—	—	—
Boron	4	1192	08/15/01	F	1	0	—	[20]	—	—	750	0/1
Boron	4	1192	08/15/01	NF	1	0	—	[17]	—	—	—	—
Bromide	4	1192	08/15/01	F	1	0	—	[200]	—	—	—	—
Cadmium	4	1192	08/15/01	F	1	1	0.069	—	5	0/2	10	0/2
Cadmium	4	1192	08/15/01	NF	1	1	0.08	—	—	—	—	—

Table D-59 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Calcium	4	1192	08/15/01	F	1	1	82000	—	—	—	—	—
Calcium	4	1192	08/15/01	NF	1	1	45000	—	—	—	—	—
Chloride	4	1192	08/15/01	F	1	1	6200	—	250000	0/1	250000	0/1
Chromium	4	1192	08/15/01	F	1	0	—	[0.35]	100	0/1	50	0/1
Chromium	4	1192	08/15/01	NF	1	1	7.9	—	—	—	—	—
Cobalt	4	1192	08/15/01	F	1	1	1	—	—	—	50	0/1
Cobalt	4	1192	08/15/01	NF	1	0	—	[0.29]	—	—	—	—
Copper	4	1192	08/15/01	F	1	0	—	[0.35]	1300	0/1	1000	0/1
Copper	4	1192	08/15/01	NF	1	0	—	[0.35]	—	—	—	—
Cyanide (total)	4	1192	08/15/01	NF	1	0	—	[10]	—	—	—	—
Fluoride	4	1192	08/15/01	F	1	0	—	[100]	4000	0/1	1600	0/1
Iron	4	1192	08/15/01	F	1	1	1200	—	300	1/1	1000	1/1
Iron	4	1192	08/15/01	NF	1	1	220	—	—	—	—	—
Lead	4	1192	08/15/01	F	1	1	0.082	—	15	0/2	50	0/2
Lead	4	1192	08/15/01	NF	1	1	0.233	—	—	—	—	—
Magnesium	4	1192	08/15/01	F	1	1	4800	—	—	—	—	—
Magnesium	4	1192	08/15/01	NF	1	1	4500	—	—	—	—	—
Manganese	4	1192	08/15/01	F	1	1	140	—	50	1/1	200	0/1
Manganese	4	1192	08/15/01	NF	1	1	23	—	—	—	—	—
Mercury	4	1192	08/15/01	F	1	0	—	[0.012]	2	0/1	—	—
Mercury	4	1192	08/15/01	NF	1	0	—	[0.012]	—	—	2	0/1
Molybdenum	4	1192	08/15/01	F	1	0	—	[4.1]	—	—	—	—
Molybdenum	4	1192	08/15/01	NF	1	0	—	[4.1]	—	—	—	—
Nickel	4	1192	08/15/01	F	1	1	2.5	—	100	0/1	200	0/1
Nickel	4	1192	08/15/01	NF	1	1	6.8	—	—	—	—	—
Nitrate + Nitrite (as N)	4	1192	08/15/01	F	1	0	—	[50]	10000	0/1	—	—
Perchlorate	4	1192	08/15/01	F	1	0	—	[4]	—	—	—	—

Table D-59 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Phosphorus (total)	4	1192	08/15/01	F	1	1	450	—	—	—	—	—
Potassium	4	1192	08/15/01	F	1	0	—	[1100]	—	—	—	—
Potassium	4	1192	08/15/01	NF	1	0	—	[720]	—	—	—	—
Selenium	4	1192	08/15/01	F	1	0	—	[2.1]	50	0/1	50	0/1
Selenium	4	1192	08/15/01	NF	1	0	—	[2.1]	—	—	—	—
Silver	4	1192	08/15/01	F	1	0	—	[0.41]	100	0/1	50	0/1
Silver	4	1192	08/15/01	NF	1	0	—	[0.41]	—	—	—	—
Silica	4	1192	08/15/01	F	1	1	53500	—	—	—	—	—
Silica	4	1192	08/15/01	NF	1	1	55640	—	—	—	—	—
Sodium	4	1192	08/15/01	F	1	1	8900	—	—	—	—	—
Sodium	4	1192	08/15/01	NF	1	1	8400	—	—	—	—	—
Strontium	4	1192	08/15/01	F	1	1	350	—	—	—	—	—
Strontium	4	1192	08/15/01	NF	1	1	200	—	—	—	—	—
Sulfate	4	1192	08/15/01	F	1	1	150000	—	250000	0/1	600000	0/1
Thallium	4	1192	08/15/01	F	1	1	—	[0.021]	2	1/2	—	—
Thallium	4	1192	08/15/01	NF	1	1	—	[0.021]	—	—	—	—
Uranium	4	1192	08/15/01	F	1	1	0.447	—	20	0/1	5000	0/1
Uranium	4	1192	08/15/01	NF	1	1	0.678	—	—	—	—	—
Vanadium	4	1192	08/15/01	F	1	0	—	[0.41]	—	—	—	—
Vanadium	4	1192	08/15/01	NF	1	1	0.97	—	—	—	—	—
Zinc	4	1192	08/15/01	F	1	1	6.7	—	5000	0/1	10000	0/1
Zinc	4	1192	08/15/01	NF	1	1	5.8	—	—	—	—	—

Table D-59 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Stable Isotope (‰)												
δD	4	1192	08/15/01	NF	1	1	-79	—	—	—	—	—
$\delta^{15}N$	4	1192	08/15/01	NF	1	1	+4.7	—	—	—	—	—
$\delta^{18}O$	4	1192	08/15/01	NF	1	1	-12	—	—	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

Table D-60
Well R-25 Screen 5 Third Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	5	1303	08/16/01	NF[e]	1	1	64000	—[f]	—	—	—	—
pH	5	1303	08/16/01	NF	1	1	7.32	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	5	1303	08/16/01	NF	1	1	218	—	—	0/1	—	0/1
Temperature (°C)	5	1303	08/16/01	NF	1	1	19.5	—	—	0/1	—	0/1
Turbidity (NTU[g])	5	1303	08/16/01	NF	1	1	5.8	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	5	1303	08/16/01	F[h]	1	1	100000	—	—	—	—	—
Aluminum	5	1303	08/16/01	F	1	1	5.7	—	50	0/1	5000	0/1
Aluminum	5	1303	08/16/01	NF	1	1	16	—	—	—	—	—
Ammonia (as N)	5	1303	08/16/01	F	1	0	—	[100]	—	—	—	—
Antimony	5	1303	08/16/01	F	1	0	—	[2.6]	6	0/1	—	—
Antimony	5	1303	08/16/01	NF	1	0	—	[2.6]	—	—	—	—
Arsenic	5	1303	08/16/01	F	1	0	—	[2]	50	0/1	100	0/1
Arsenic	5	1303	08/16/01	NF	1	0	—	[2]	—	—	—	—
Barium	5	1303	08/16/01	F	1	1	10	—	2000	0/1	1000	0/1
Barium	5	1303	08/16/01	NF	1	1	12	—	—	—	—	—
Beryllium	5	1303	08/16/01	F	1	0	—	[0.075]	4	0/1	—	—
Beryllium	5	1303	08/16/01	NF	1	0	—	[0.075]	—	—	—	—
Boron	5	1303	08/16/01	F	1	1	140	—	—	—	750	0/1
Boron	5	1303	08/16/01	NF	1	1	120	—	—	—	—	—
Bromide	5	1303	08/16/01	F	1	0	—	[200]	—	—	—	—
Cadmium	5	1303	08/16/01	F	1	0	—	[0.14]	5	0/1	10	0/1
Cadmium	5	1303	08/16/01	NF	1	0	—	[0.14]	—	—	—	—

Table D-60 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Calcium	5	1303	08/16/01	F	1	1	21000	—	—	—	—	—
Calcium	5	1303	08/16/01	NF	1	1	21000	—	—	—	—	—
Chloride	5	1303	08/16/01	F	1	1	4000	—	250000	0/2	250000	0/2
Chromium	5	1303	08/16/01	F	1	0	—	[0.35]	100	0/1	50	0/1
Chromium	5	1303	08/16/01	NF	1	1	7.7	—	—	—	—	—
Cobalt	5	1303	08/16/01	F	1	1	0.31	0.31	—	—	50	0/1
Cobalt	5	1303	08/16/01	NF	1	0	—	[0.29]	—	—	—	—
Copper	5	1303	08/16/01	F	1	0	—	[0.35]	1300	0/1	1000	0/1
Copper	5	1303	08/16/01	NF	1	0	—	[0.35]	—	—	—	—
Fluoride	5	1303	08/16/01	F	1	1	139	—	4000	0/2	1600	0/2
Iron	5	1303	08/16/01	F	1	0	—	[43]	300	0/1	1000	0/1
Iron	5	1303	08/16/01	NF	1	1	260	—	—	—	—	—
Lead	5	1303	08/16/01	F	1	0	—	[1.2]	15	0/1	50	0/1
Lead	5	1303	08/16/01	NF	1	0	—	[1.2]	—	—	—	—
Magnesium	5	1303	08/16/01	F	1	1	4800	—	—	—	—	—
Magnesium	5	1303	08/16/01	NF	1	1	4800	—	—	—	—	—
Manganese	5	1303	08/16/01	F	1	1	260	—	50	1/1	200	1/1
Manganese	5	1303	08/16/01	NF	1	1	270	—	—	—	—	—
Mercury	5	1303	08/16/01	F	1	0	—	[0.012]	2	0/1	—	—
Mercury	5	1303	08/16/01	NF	1	0	—	[0.012]	—	—	2	0/1
Molybdenum	5	1303	08/16/01	F	1	0	—	[4.1]	—	—	—	—
Molybdenum	5	1303	08/16/01	NF	1	1	5.4	—	—	—	—	—
Nickel	5	1303	08/16/01	F	1	1	3.8	—	100	0/1	200	0/1
Nickel	5	1303	08/16/01	NF	1	1	9	—	—	—	—	—
Nitrate + Nitrite (as N)	5	1303	08/16/01	F	1	0	—	[50]	10000	0/1	—	—
Oxalate	5	1303	08/16/01	F	1	0	—	[190]	—	—	—	—
Perchlorate	5	1303	08/16/01	F	1	0	—	[4]	—	—	—	—

Table D-60 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Phosphorus (total)	5	1303	08/16/01	F	1	1	3000	—	—	—	—	—
Potassium	5	1303	08/16/01	F	1	1	1200	—	—	—	—	—
Potassium	5	1303	08/16/01	NF	1	1	1200	—	—	—	—	—
Selenium	5	1303	08/16/01	F	1	0	—	[2.1]	50	0/1	50	0/1
Selenium	5	1303	08/16/01	NF	1	0	—	[2.1]	—	—	—	—
Silver	5	1303	08/16/01	F	1	0	—	[0.41]	100	0/1	50	0/1
Silver	5	1303	08/16/01	NF	1	0	—	[0.41]	—	—	—	—
Silica	5	1303	08/16/01	F	1	1	53500	—	—	—	—	—
Silica	5	1303	08/16/01	NF	1	1	53500	—	—	—	—	—
Sodium	5	1303	08/16/01	F	1	1	16000	—	—	—	—	—
Sodium	5	1303	08/16/01	NF	1	1	16000	—	—	—	—	—
Strontium	5	1303	08/16/01	F	1	1	140	—	—	—	—	—
Strontium	5	1303	08/16/01	NF	1	1	140	—	—	—	—	—
Sulfate	5	1303	08/16/01	F	1	1	8230	—	250000	0/2	600000	0/2
Thallium	5	1303	08/16/01	F	1	0	—	[2.2]	2	0/1	—	—
Thallium	5	1303	08/16/01	NF	1	0	—	[2.2]	—	—	—	—
Vanadium	5	1303	08/16/01	F	1	1	0.49	—	—	—	—	—
Vanadium	5	1303	08/16/01	NF	1	0	—	[0.41]	—	—	—	—
Zinc	5	1303	08/16/01	F	1	0	—	[9.3]	5000	0/1	10000	0/1
Zinc	5	1303	08/16/01	NF	1	0	—	[11]	—	—	—	—

Table D-60 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Stable Isotope (‰)												
δD	5	1303	08/16/01	NF	1	1	—	—	—	—	—	—
$\delta^{15}N$	5	1303	08/16/01	NF	1	1	ISV[i]	—	—	—	—	—
$\delta^{18}O$	5	1303	08/16/01	NF	1	1	—	—	—	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

[i] ISV = Insufficient sample volume.

Table D-61
Well R-25 Screen 6 Third Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	6	1406	08/16/01	NF[e]	1	1	52000	—[f]	—	—	—	—
pH	6	1406	08/16/01	NF	1	1	7.60	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	6	1406	08/16/01	NF	1	1	190	—	—	0/1	—	0/1
Temperature (°C)	6	1406	08/16/01	NF	1	1	17.4	—	—	0/1	—	0/1
Turbidity (NTU[g])	6	1406	08/16/01	NF	1	1	2.7	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	6	1406	08/16/01	F[h]	1	1	88000	—	—	—	—	—
Aluminum	6	1406	08/16/01	F	1	1	5.7	—	50	0/1	5000	0/1
Aluminum	6	1406	08/16/01	NF	1	1	5.7	—	—	—	—	—
Ammonia (as N)	6	1406	08/16/01	F	1	0	—	[100]	—	—	—	—
Antimony	6	1406	08/16/01	F	1	1	0.084	—	6	0/2	—	—
Antimony	6	1406	08/16/01	NF	1	1	0.079	—	—	—	—	—
Arsenic	6	1406	08/16/01	F	1	0	—	[2]	50	0/1	100	0/1
Arsenic	6	1406	08/16/01	NF	1	0	—	[2]	—	—	—	—
Barium	6	1406	08/16/01	F	1	1	16	—	2000	0/1	1000	0/1
Barium	6	1406	08/16/01	NF	1	1	16	—	—	—	—	—
Beryllium	6	1406	08/16/01	F	1	0	—	[0.075]	4	0/2	—	—
Beryllium	6	1406	08/16/01	NF	1	0	—	[0.075]	—	—	—	—
Boron	6	1406	08/16/01	F	1	1	81	81	—	—	750	0/1
Boron	6	1406	08/16/01	NF	1	1	92	92	—	—	—	—
Bromide	6	1406	08/16/01	F	1	0	—	[200]	—	—	—	—
Cadmium	6	1406	08/16/01	F	1	0	—	[0.14]	5	0/2	10	0/2
Cadmium	6	1406	08/16/01	NF	1	0	—	[0.14]	—	—	—	—

Table D-61 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Calcium	6	1406	08/16/01	F	1	1	20000	—	—	—	—	—
Calcium	6	1406	08/16/01	NF	1	1	21000	—	—	—	—	—
Chloride	6	1406	08/16/01	F	1	1	2360	—	250000	0/2	250000	0/2
Chromium	6	1406	08/16/01	F	1	0	—	[0.35]	100	0/1	50	0/1
Chromium	6	1406	08/16/01	NF	1	1	1.7	—	—	—	—	—
Cobalt	6	1406	08/16/01	F	1	0	—	[0.29]	—	—	50	0/1
Cobalt	6	1406	08/16/01	NF	1	0	—	[0.29]	—	—	—	—
Copper	6	1406	08/16/01	F	1	0	—	[0.35]	1300	0/1	1000	0/1
Copper	6	1406	08/16/01	NF	1	0	—	[0.35]	—	—	—	—
Cyanide (total)	6	1406	08/16/01	NF	1	0	—	[10]	—	—	—	—
Fluoride	6	1406	08/16/01	F	1	1	133	—	4000	0/2	1600	0/2
Iron	6	1406	08/16/01	F	1	0	—	[23]	300	0/1	1000	0/1
Iron	6	1406	08/16/01	NF	1	0	—	[42]	—	—	—	—
Lead	6	1406	08/16/01	F	1	0	—	[1.2]	15	0/2	50	0/2
Lead	6	1406	08/16/01	NF	1	0	—	[1.2]	—	—	—	—
Magnesium	6	1406	08/16/01	F	1	1	4000	—	—	—	—	—
Magnesium	6	1406	08/16/01	NF	1	1	4000	—	—	—	—	—
Manganese	6	1406	08/16/01	F	1	1	0.7	—	50	0/1	200	0/1
Manganese	6	1406	08/16/01	NF	1	1	0.94	—	—	—	—	—
Mercury	6	1406	08/16/01	F	1	0	—	[0.012]	2	0/1	—	—
Mercury	6	1406	08/16/01	NF	1	0	—	[0.012]	—	—	2	0/1
Molybdenum	6	1406	08/16/01	F	1	0	—	[4.1]	—	—	—	—
Molybdenum	6	1406	08/16/01	NF	1	0	—	[4.1]	—	—	—	—
Nickel	6	1406	08/16/01	F	1	0	—	[0.8]	100	0/1	200	0/1
Nickel	6	1406	08/16/01	NF	1	1	1.4	—	—	—	—	—
Nitrate + Nitrite (as N)	6	1406	08/16/01	F	1	1	330	—	10000	0/1	—	—
Oxalate	6	1406	08/16/01	F	1	0	—	[190]	—	—	—	—

Table D-61 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Perchlorate	6	1406	08/16/01	F	1	0	—	[4]	—	—	—	—
Phosphorus (total)	6	1406	08/16/01	F	1	1	6200	—	—	—	—	—
Potassium	6	1406	08/16/01	F	1	1	1000	—	—	—	—	—
Potassium	6	1406	08/16/01	NF	1	1	1100	—	—	—	—	—
Selenium	6	1406	08/16/01	F	1	0	—	[2.1]	50	0/1	50	0/1
Selenium	6	1406	08/16/01	NF	1	1	3.1	—	—	—	—	—
Silver	6	1406	08/16/01	F	1	0	—	[0.41]	100	0/1	50	0/1
Silver	6	1406	08/16/01	NF	1	0	—	[0.41]	—	—	—	—
Silica	6	1406	08/16/01	F	1	1	55640	—	—	—	—	—
Silica	6	1406	08/16/01	NF	1	0	—	[57780]	—	—	—	—
Sodium	6	1406	08/16/01	F	1	1	13000	—	—	—	—	—
Sodium	6	1406	08/16/01	NF	1	1	13000	—	—	—	—	—
Strontium	6	1406	08/16/01	F	1	1	140	—	—	—	—	—
Strontium	6	1406	08/16/01	NF	1	0	—	[140]	—	—	—	—
Sulfate	6	1406	08/16/01	F	1	1	4550	—	250000	0/2	600000	0/2
Thallium	6	1406	08/16/01	F	1	0	—	[2.2]	2	0/2	—	—
Thallium	6	1406	08/16/01	NF	1	1	0.341	—	—	—	—	—
Uranium	6	1406	08/16/01	F	1	1	0.848	—	20	0/1	5000	0/1
Uranium	6	1406	08/16/01	NF	1	1	0.859	—	—	—	—	—
Vanadium	6	1406	08/16/01	F	1	1	3.2	—	—	—	—	—
Vanadium	6	1406	08/16/01	NF	1	1	3.4	—	—	—	—	—
Zinc	6	1406	08/16/01	F	1	0	—	[10]	5000	0/1	10000	0/1
Zinc	6	1406	08/16/01	NF	1	0	—	[4.5]	—	—	—	—

Table D-61 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Stable Isotope (‰)												
δD	6	1406	08/16/01	NF	1	1	-84	—	—	—	—	—
$\delta^{15}N$	6	1406	08/16/01	NF	1	1	+6.2	—	—	—	—	—
$\delta^{18}O$	6	1406	08/16/01	NF	1	1	-12	—	—	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

Table D-62
Well R-25 Screen 7 Third Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	7	1606	08/17/01	NF[e]	1	1	48000	—[f]	—	—	—	—
pH	7	1606	08/17/01	NF	1	1	7.81	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	7	1606	08/17/01	NF	1	1	129	—	—	0/1	—	0/1
Temperature (°C)	7	1606	08/17/01	NF	1	1	20.4	—	—	0/1	—	0/1
Turbidity (NTU[g])	7	1606	08/17/01	NF	1	1	4.7	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	7	1606	08/17/01	F[h]	1	1	61000	—	—	—	—	—
Aluminum	7	1606	08/17/01	F	1	1	5.7	—	50	0/1	5000	0/1
Aluminum	7	1606	08/17/01	NF	1	1	81	—	—	—	—	—
Ammonia (as N)	7	1606	08/17/01	F	1	0	—	[100]	—	—	—	—
Antimony	7	1606	08/17/01	F	1	1	0.214	—	6	0/2	—	—
Antimony	7	1606	08/17/01	NF	1	1	0.276	—	—	—	—	—
Arsenic	7	1606	08/17/01	F	1	0	—	[2]	50	0/1	100	0/1
Arsenic	7	1606	08/17/01	NF	1	0	—	[2]	—	—	—	—
Barium	7	1606	08/17/01	F	1	1	24	—	2000	0/1	1000	0/1
Barium	7	1606	08/17/01	NF	1	1	24	—	—	—	—	—
Beryllium	7	1606	08/17/01	F	1	0	—	[0.075]	4	0/2	—	—
Beryllium	7	1606	08/17/01	NF	1	1	0.014	—	—	—	—	—
Boron	7	1606	08/17/01	F	1	1	83	—	—	—	750	0/1
Boron	7	1606	08/17/01	NF	1	1	78	—	—	—	—	—
Bromide	7	1606	08/17/01	F	1	0	—	[200]	—	—	—	—
Cadmium	7	1606	08/17/01	F	1	0	—	[0.14]	5	0/2	10	0/2
Cadmium	7	1606	08/17/01	NF	1	0	—	[0.14]	—	—	—	—

Table D-62 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Calcium	7	1606	08/17/01	F	1	1	11000	—	—	—	—	—
Calcium	7	1606	08/17/01	NF	1	1	11000	—	—	—	—	—
Chloride	7	1606	08/17/01	F	1	1	2700	—	250000	0/2	250000	0/2
Chromium	7	1606	08/17/01	F	1	1	0.4	—	100	0/1	50	0/1
Chromium	7	1606	08/17/01	NF	1	1	2.2	—	—	—	—	—
Cobalt	7	1606	08/17/01	F	1	0	—	[0.29]	—	—	50	0/1
Cobalt	7	1606	08/17/01	NF	1	0	—	[0.29]	—	—	—	—
Copper	7	1606	08/17/01	F	1	0	—	[0.35]	1300	0/1	1000	0/1
Copper	7	1606	08/17/01	NF	1	0	—	[0.35]	—	—	—	—
Cyanide (total)	7	1606	08/17/01	NF	1	0	—	[10]	—	—	—	—
Fluoride	7	1606	08/17/01	F	1	0	—	[100]	4000	0/2	1600	0/2
Iron	7	1606	08/17/01	F	1	0	—	[34]	300	0/1	1000	0/1
Iron	7	1606	08/17/01	NF	1	1	190	—	—	—	—	—
Lead	7	1606	08/17/01	F	1	1	0.049	—	15	0/2	50	0/2
Lead	7	1606	08/17/01	NF	1	1	0.357	—	—	—	—	—
Magnesium	7	1606	08/17/01	F	1	1	2900	—	—	—	—	—
Magnesium	7	1606	08/17/01	NF	1	1	2900	—	—	—	—	—
Manganese	7	1606	08/17/01	F	1	1	0.54	—	50	0/1	200	0/1
Manganese	7	1606	08/17/01	NF	1	1	2.3	—	—	—	—	—
Mercury	7	1606	08/17/01	F	1	0	—	[0.012]	2	0/1	—	—
Mercury	7	1606	08/17/01	NF	1	0	—	[0.012]	—	—	2	0/1
Molybdenum	7	1606	08/17/01	F	1	0	—	[4.1]	—	—	—	—
Molybdenum	7	1606	08/17/01	NF	1	0	—	[4.1]	—	—	—	—
Nickel	7	1606	08/17/01	F	1	0	—	[0.8]	100	0/1	200	0/1
Nickel	7	1606	08/17/01	NF	1	1	1.7	—	—	—	—	—
Nitrate + Nitrite (as N)	7	1606	08/17/01	F	1	1	360	—	10000	0/1	—	—
Oxalate	7	1606	08/17/01	F	1	0	—	[190]	—	—	—	—

Table D-62 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Perchlorate	7	1606	08/17/01	F	1	0	—	[4]	—	—	—	—
Phosphorus (total)	7	1606	08/17/01	F	1	1	740	—	—	—	—	—
Potassium	7	1606	08/17/01	F	1	1	1200	—	—	—	—	—
Potassium	7	1606	08/17/01	NF	1	1	1200	—	—	—	—	—
Selenium	7	1606	08/17/01	F	1	0	—	[2.1]	50	0/1	50	0/1
Selenium	7	1606	08/17/01	NF	1	0	—	[2.1]	—	—	—	—
Silver	7	1606	08/17/01	F	1	0	—	[0.41]	100	0/1	50	0/1
Silver	7	1606	08/17/01	NF	1	0	—	[0.41]	—	—	—	—
Silica	7	1606	08/17/01	F	1	1	55640	—	—	—	—	—
Silica	7	1606	08/17/01	NF	1	1	55640	—	—	—	—	—
Sodium	7	1606	08/17/01	F	1	1	9400	—	—	—	—	—
Sodium	7	1606	08/17/01	NF	1	1	9400	—	—	—	—	—
Strontium	7	1606	08/17/01	F	1	1	69	—	—	—	—	—
Strontium	7	1606	08/17/01	NF	1	1	69	—	—	—	—	—
Sulfate	7	1606	08/17/01	F	1	1	2800	—	250000	0/2	600000	0/2
Thallium	7	1606	08/17/01	F	1	0	—	[2.2]	2	0/2	—	—
Thallium	7	1606	08/17/01	NF	1	0	—	[2.2]	—	—	—	—
Uranium	7	1606	08/17/01	F	1	1	0.449	—	20	0/1	5000	0/1
Uranium	7	1606	08/17/01	NF	1	1	0.457	—	—	—	—	—
Vanadium	7	1606	08/17/01	F	1	1	3	—	—	—	—	—
Vanadium	7	1606	08/17/01	NF	1	1	3.3	—	—	—	—	—
Zinc	7	1606	08/17/01	F	1	0	—	[10]	5000	0/1	10000	0/1
Zinc	7	1606	08/17/01	NF	1	0	—	[6.6]	—	—	—	—

Table D-62 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Stable Isotope (‰)												
δD	7	1606	08/17/01	NF	1	1	-86	—	—	—	—	—
$\delta^{15}N$	7	1606	08/17/01	NF	1	1	+5.3	—	—	—	—	—
$\delta^{18}O$	7	1606	08/17/01	NF	1	1	-12	—	—	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

Table D-63
Well R-25 Screen 8 Third Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	8	1796	08/20/01	NF[e]	1	1	38000	—[f]	—	—	—	—
pH	8	1796	08/20/01	NF	1	1	8.21	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	8	1796	08/20/01	NF	1	1	140	—	—	0/1	—	0/1
Temperature (°C)	8	1796	08/20/01	NF	1	1	23.5	—	—	0/1	—	0/1
Turbidity (NTU[g])	8	1796	08/20/01	NF	1	1	8.4	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	8	1796	08/20/01	F[h]	1	1	64000	—	—	—	—	—
Aluminum	8	1796	08/20/01	F	1	0	—	[5.7]	50	0/1	5000	0/1
Aluminum	8	1796	08/20/01	NF	1	1	150	—	—	—	—	—
Ammonia (as N)	8	1796	08/20/01	F	1	0	—	[100]	—	—	—	—
Antimony	8	1796	08/20/01	F	1	1	0.35	—	6	0/2	—	—
Antimony	8	1796	08/20/01	NF	1	1	0.331	—	—	—	—	—
Arsenic	8	1796	08/20/01	F	1	1	2.8	—	50	0/1	100	0/1
Arsenic	8	1796	08/20/01	NF	1	0	—	[2]	—	—	—	—
Barium	8	1796	08/20/01	F	1	1	16	—	2000	0/1	1000	0/1
Barium	8	1796	08/20/01	NF	1	1	18	—	—	—	—	—
Beryllium	8	1796	08/20/01	F	1	0	—	[0.075]	4	0/2	—	—
Beryllium	8	1796	08/20/01	NF	1	1	0.042	—	—	—	—	—
Boron	8	1796	08/20/01	F	1	1	80	—	—	—	750	0/1
Boron	8	1796	08/20/01	NF	1	1	88	—	—	—	—	—
Bromide	8	1796	08/20/01	F	1	0	—	[200]	—	—	—	—
Cadmium	8	1796	08/20/01	F	1	0	—	[0.14]	5	0/2	10	0/2
Cadmium	8	1796	08/20/01	NF	1	0	—	[0.14]	—	—	—	—

Table D-63 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Calcium	8	1796	08/20/01	F	1	1	11000	—	—	—	—	—
Calcium	8	1796	08/20/01	NF	1	1	11000	—	—	—	—	—
Chloride	8	1796	08/20/01	F	1	1	2600	—	250000	0/1	250000	0/1
Chromium	8	1796	08/20/01	F	1	1	0.94	—	100	0/1	50	0/1
Chromium	8	1796	08/20/01	NF	1	1	21	—	—	—	—	—
Cobalt	8	1796	08/20/01	F	1	0	—	[0.29]	—	—	50	0/1
Cobalt	8	1796	08/20/01	NF	1	0	—	[0.29]	—	—	—	—
Copper	8	1796	08/20/01	F	1	0	—	[0.35]	1300	0/1	1000	0/1
Copper	8	1796	08/20/01	NF	1	0	—	[0.35]	—	—	—	—
Cyanide (total)	8	1796	08/20/01	NF	1	0	—	[10]	—	—	—	—
Fluoride	8	1796	08/20/01	F	1	0	—	[100]	4000	0/1	1600	0/1
Iron	8	1796	08/20/01	F	1	0	—	[57]	300	0/1	1000	0/1
Iron	8	1796	08/20/01	NF	1	1	610	—	—	—	—	—
Lead	8	1796	08/20/01	F	1	1	0.078	—	15	0/2	50	0/2
Lead	8	1796	08/20/01	NF	1	1	0.676	—	—	—	—	—
Magnesium	8	1796	08/20/01	F	1	1	2700	—	—	—	—	—
Magnesium	8	1796	08/20/01	NF	1	1	2700	—	—	—	—	—
Manganese	8	1796	08/20/01	F	1	1	0.62	—	50	0/1	200	0/1
Manganese	8	1796	08/20/01	NF	1	1	4.6	—	—	—	—	—
Mercury	8	1796	08/20/01	F	1	0	—	[0.012]	2	0/1	—	—
Mercury	8	1796	08/20/01	NF	1	0	—	[0.012]	—	—	2	0/1
Molybdenum	8	1796	08/20/01	F	1	0	—	[4.1]	—	—	—	—
Molybdenum	8	1796	08/20/01	NF	1	0	—	[4.1]	—	—	—	—
Nickel	8	1796	08/20/01	F	1	1	1	—	100	0/1	200	0/1
Nickel	8	1796	08/20/01	NF	1	1	14	—	—	—	—	—
Nitrate + Nitrite (as N)	8	1796	08/20/01	F	1	1	370	—	10000	0/1	—	—
Perchlorate	8	1796	08/20/01	F	1	0	—	[4]	—	—	—	—

Table D-63 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Phosphorus (total)	8	1796	08/20/01	F	1	1	880	—	—	—	—	—
Potassium	8	1796	08/20/01	F	1	1	2200	—	—	—	—	—
Potassium	8	1796	08/20/01	NF	1	1	2300	—	—	—	—	—
Selenium	8	1796	08/20/01	F	1	0	—	[2.1]	50	0/1	50	0/1
Selenium	8	1796	08/20/01	NF	1	0	—	[2.1]	—	—	—	—
Silver	8	1796	08/20/01	F	1	0	—	[0.41]	100	0/1	50	0/1
Silver	8	1796	08/20/01	NF	1	0	—	[0.41]	—	—	—	—
Silica	8	1796	08/20/01	F	1	1	53500	—	—	—	—	—
Silica	8	1796	08/20/01	NF	1	1	55640	—	—	—	—	—
Sodium	8	1796	08/20/01	F	1	1	12000	—	—	—	—	—
Sodium	8	1796	08/20/01	NF	1	1	12000	—	—	—	—	—
Strontium	8	1796	08/20/01	F	1	1	94	—	—	—	—	—
Strontium	8	1796	08/20/01	NF	1	1	96	—	—	—	—	—
Sulfate	8	1796	08/20/01	F	1	1	3100	—	250000	0/1	600000	0/1
Thallium	8	1796	08/20/01	F	1	0	—	[2.2]	2	0/2	—	—
Thallium	8	1796	08/20/01	NF	1	0	—	[2.2]	—	—	—	—
Uranium	8	1796	08/20/01	F	1	1	0.544	0.544	20	0/1	5000	0/1
Uranium	8	1796	08/20/01	NF	1	1	0.589	—	—	—	—	—
Vanadium	8	1796	08/20/01	F	1	1	3.4	—	—	—	—	—
Vanadium	8	1796	08/20/01	NF	1	1	3.8	—	—	—	—	—
Zinc	8	1796	08/20/01	F	1	1	7.1	—	5000	0/1	10000	0/1
Zinc	8	1796	08/20/01	NF	1	1	12	—	—	—	—	—

Table D-63 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Stable Isotope (‰)												
δD	8	1796	08/20/01	NF	1	1	-86	—	—	—	—	—
$\delta^{15}N$	8	1796	08/20/01	NF	1	1	ISV[i]	—	—	—	—	—
$\delta^{18}O$	8	1796	08/20/01	NF	1	1	-11.9	—	—	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

[i] ISV = Insufficient sample volume.

Table D-64
Well R-25 Screen 1 Third Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Amino-2,6-dinitrotoluene[4-]	1	755	08/13/01	NF[e]	1	1	2.8	—[f]	—	—	—	—
Amino-4,6-dinitrotoluene[2-]	1	755	08/13/01	NF	1	1	2.4	—	—	—	—	—
Dinitrotoluene[2,4-]	1	755	08/13/01	NF	1	1	0.56	—	—	—	—	—
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	1	755	08/13/01	NF	1	1	7.7	—	—	—	—	—
Hexahydro-1,3,5-trinitro-1,3,5-triazine	1	755	08/13/01	NF	1	1	58.6	—	—	—	—	—
Trichloroethene	1	755	08/13/01	NF	1	1	0.8	—	5	0/1	100	0/1
Trinitrobenzene[1,3,5-]	1	755	08/13/01	NF	1	1	0.35	—	—	—	—	—
Trinitrotoluene[2,4,6-]	1	755	08/13/01	NF	1	1	3.4	—	—	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

Table D-65
Well R-25 Screen 2 Third Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Carbon Disulfide	2	892	08/14/01	NF[e]	1	1	2.5	—[f]	—	—	—	—
Total Organic Carbon	2	892	08/14/01	NF	1	1	2200	—	—	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

Table D-66
Well R-25 Screen 4 Third Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Hexahydro-1,3,5-trinitro-1,3,5-triazine	4	1192	08/15/01	NF[e]	1	1	5.2	—[f]	—	—	—	—
Toluene	4	1192	08/15/01	NF	1	1	0.94	—	1000	0/1	750	0/1

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

Table D-67
Well R-25 Screen 5 Third Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	5	1303	08/16/01	NF[e]	1	1	1	—[f]	—	—	—	—
Hexahydro-1,3,5-trinitro-1,3,5-triazine	5	1303	08/16/01	NF	1	1	5.4	—	—	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

Table D-68
Well R-25 Screen 6 Third Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Amino-2,6-dinitrotoluene[4-]	6	1406	08/16/01	NF[e]	1	1	1.3	—[f]	—	—	—	—
Amino-4,6-dinitrotoluene[2-]	6	1406	08/16/01	NF	1	1	0.68	—	—	—	—	—
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	6	1406	08/16/01	NF	1	1	1.4	—	—	—	—	—
Hexahydro-1,3,5-trinitro-1,3,5-triazine	6	1406	08/16/01	NF	1	1	7.8	—	—	—	—	—
Trinitrotoluene[2,4,6-]	6	1406	08/16/01	NF	1	1	0.67	—	—	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

Table D-69
Well R-25 Screen 7 Third Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Amino-2,6-dinitrotoluene[4-]	7	1606	08/17/01	NF[e]	1	1	1.3	—[f]	—	—	—	—
Amino-4,6-dinitrotoluene[2-]	7	1606	08/17/01	NF	1	1	0.77	—	—	—	—	—
Dinitrotoluene[2,4-]	7	1606	08/17/01	NF	1	1	0.13	—	—	—	—	—
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	7	1606	08/17/01	NF	1	1	1.3	—	—	—	—	—
Hexahydro-1,3,5-trinitro-1,3,5-triazine	7	1606	08/17/01	NF	1	1	6.4	—	—	—	—	—
Trinitrobenzene[1,3,5-]	7	1606	08/17/01	NF	1	1	0.13	—	—	—	—	—
Trinitrotoluene[2,4,6-]	7	1606	08/17/01	NF	1	1	0.92	—	—	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

Table D-70
Well R-25 Screen 8 Third Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Amino-2,6-dinitrotoluene[4-]	8	1796	08/20/01	NF[e]	1	1	1.5	—[f]	—	—	—	—
Amino-4,6-dinitrotoluene[2-]	8	1796	08/20/01	NF	1	1	0.82	—	—	—	—	—
Dinitrotoluene[2,4-]	8	1796	08/20/01	NF	1	1	0.14	—	—	—	—	—
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	8	1796	08/20/01	NF	1	1	1.4	—	—	—	—	—
Hexahydro-1,3,5-trinitro-1,3,5-triazine	8	1796	08/20/01	NF	1	1	6.8	—	—	—	—	—
Total Organic Carbon	8	1796	08/20/01	NF	1	1	15000	—	—	—	—	—
Trinitrotoluene[2,4,6-]	8	1796	08/20/01	NF	1	1	0.72	—	—	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

Table D-71
Well R-25 Screen 1 Third Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Gross Alpha Radiation	1	755	08/13/01	NF[c]	1	0	—[d]	[1.6]	—	—
Gross Beta Radiation	1	755	08/13/01	NF	1	0	—	[0.8]	—	—
Gross Gamma Radiation	1	755	08/13/01	NF	1	1	174	—	—	—
Tritium	1	755	08/13/01	NF	1	1	52.03	—	20000	0/1
Uranium-234	1	755	08/13/01	F[e]	1	1	0.83	—	—	—
Uranium-234	1	755	08/13/01	NF	1	1	1.02	—	—	—
Uranium-235	1	755	08/13/01	F	1	0	—	[-0.008]	—	—
Uranium-235	1	755	08/13/01	NF	1	0	—	[0.112]	—	—
Uranium-238	1	755	08/13/01	F	1	1	0.53	—	—	—
Uranium-238	1	755	08/13/01	NF	1	1	0.53	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NF = Nonfiltered.

[d] — = Not available or not applicable.

[e] F = Filtered.

Table D-72
Well R-25 Screen 2 Third Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Gross Alpha Radiation	2	892	08/14/01	NF[c]	1	1	3.2	—[d]	—	—
Gross Beta Radiation	2	892	08/14/01	NF	1	1	5.3	—	—	—
Gross Gamma Radiation	2	892	08/14/01	NF	1	1	146	—	—	—
Tritium	2	892	08/14/01	NF	1	1	56.82	—	20000	0/1
Uranium-234	2	892	08/14/01	F[e]	1	1	0.31	—	—	—
Uranium-234	2	892	08/14/01	NF	1	1	0.35	—	—	—
Uranium-235	2	892	08/14/01	F	1	0	—	[0.026]	—	—
Uranium-235	2	892	08/14/01	NF	1	0	—	[0.021]	—	—
Uranium-238	2	892	08/14/01	F	1	1	0.27	—	—	—
Uranium-238	2	892	08/14/01	NF	1	1	0.45	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NF = Nonfiltered.

[d] — = Not available or not applicable.

[e] F = Filtered.

Table D-73
Well R-25 Screen 4 Third Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Gross Alpha Radiation	4	1192	08/15/01	NF[c]	1	0	—[d]	[1.6]	—	—
Gross Beta Radiation	4	1192	08/15/01	NF	1	0	—	[1.3]	—	—
Gross Gamma Radiation	4	1192	08/15/01	NF	1	1	153	—	—	—
Tritium	4	1192	08/15/01	NF	1	1	39.58	—	0/1	—
Uranium-234	4	1192	08/15/01	F[e]	1	0	—	[0.199]	—	—
Uranium-234	4	1192	08/15/01	NF	1	1	0.47	—	—	—
Uranium-235	4	1192	08/15/01	F	1	0	—	[0.036]	—	—
Uranium-235	4	1192	08/15/01	NF	1	0	—	[0.038]	—	—
Uranium-238	4	1192	08/15/01	F	1	1	0.156	—	—	—
Uranium-238	4	1192	08/15/01	NF	1	1	0.34	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.
[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.
[c] NF = Nonfiltered.
[d] — = Not available or not applicable.
[e] F = Filtered.

Table D-74
Well R-25 Screen 5 Third Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
No Rad Data Available	5	1303	08/16/01	—[c]	—	—	—	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.
[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.
[c] — = Not available or not applicable.

Table D-75
Well R-25 Screen 6 Third Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Gross Alpha Radiation	6	1406	08/16/01	NF[c]	1	0	—[d]	[1.3]	—	—
Gross Beta Radiation	6	1406	08/16/01	NF	1	1	2.6	—	—	—
Gross Gamma Radiation	6	1406	08/16/01	NF	1	1	161	—	—	—
Tritium	6	1406	08/16/01	NF	1	1	9.77	—	20000	0/1
Uranium-234	6	1406	08/16/01	F[e]	1	1	0.57	—	—	—
Uranium-234	6	1406	08/16/01	NF	1	1	0.54	—	—	—
Uranium-235	6	1406	08/16/01	F	1	0	—	[0.049]	—	—
Uranium-235	6	1406	08/16/01	NF	1	0	—	[0.032]	—	—
Uranium-238	6	1406	08/16/01	F	1	1	0.31	—	—	—
Uranium-238	6	1406	08/16/01	NF	1	1	0.38	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NF = Nonfiltered.

[d] — = Not available or not applicable.

[e] F = Filtered.

Table D-76
Well R-25 Screen 7 Third Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Gross Alpha Radiation	7	1606	08/17/01	NF[c]	1	0	—[d]	[0.6]	—	—
Gross Beta Radiation	7	1606	08/17/01	NF	1	0	—	[2.1]	—	—
Gross Gamma Radiation	7	1606	08/17/01	NF	1	1	154	—	—	—
Tritium	7	1606	08/17/01	NF	1	1	5.84	—	20000	0/1
Uranium-234	7	1606	08/17/01	F[e]	1	0	—	[0.226]	—	—
Uranium-234	7	1606	08/17/01	NF	1	0	—	[0.34]	—	—
Uranium-235	7	1606	08/17/01	F	1	0	—	[0.066]	—	—
Uranium-235	7	1606	08/17/01	NF	1	0	—	[0.038]	—	—
Uranium-238	7	1606	08/17/01	F	1	1	0.166	—	—	—
Uranium-238	7	1606	08/17/01	NF	1	1	0.232	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NF = Nonfiltered.

[d] — = Not available or not applicable.

[e] F = Filtered.

Table D-77
Well R-25 Screen 8 Third Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Gross Alpha Radiation	8	1796	08/20/01	NF[c]	1	0	—[d]	[1.3]	—	—
Gross Beta Radiation	8	1796	08/20/01	NF	1	1	2.5	—	—	—
Gross Gamma Radiation	8	1796	08/20/01	NF	1	1	165	—	—	—
Tritium	8	1796	08/20/01	NF	1	1	6.42	—	20000	0/1
Uranium-234	8	1796	08/20/01	F[e]	1	1	0.48	—	—	—
Uranium-234	8	1796	08/20/01	NF	1	1	0.49	—	—	—
Uranium-235	8	1796	08/20/01	F	1	0	—	[0.054]	—	—
Uranium-235	8	1796	08/20/01	NF	1	0	—	[0.034]	—	—
Uranium-238	8	1796	08/20/01	F	1	1	0.195	—	—	—
Uranium-238	8	1796	08/20/01	NF	1	1	0.224	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NF = Nonfiltered.

[d] — = Not available or not applicable.

[e] F = Filtered.

Table D-78
Well R-25 Screen 1 Fourth Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	1	755	02/04/02	NF[e]	1	1	95000	—[f]	—	—	—	—
Dissolved Oxygen	1	755	02/04/02	NF	1	1	5400	—	—	—	—	—
pH	1	755	02/04/02	NF	1	1	7.53	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	1	755	02/04/02	NF	1	1	228	—	—	0/1	—	0/1
Temperature (°C)	1	755	02/04/02	NF	1	1	10.3	—	—	0/1	—	0/1
Turbidity (NTU[g])	1	755	02/04/02	NF	1	1	6.18	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	1	755	02/04/02	F[h]	1	1	75200	—	—	—	—	—
Aluminum	1	755	02/04/02	F	1	0	—	[50]	50	0/1	5000	0/1
Aluminum	1	755	02/04/02	NF	1	0	—	[50]	—	—	—	—
Ammonia (as N)	1	755	02/04/02	F	1	0	—	[50]	—	—	—	—
Antimony	1	755	02/04/02	F	1	1	0.17	—	6	0/1	—	—
Antimony	1	755	02/04/02	NF	1	1	0.25	—	—	—	—	—
Arsenic	1	755	02/04/02	F	1	0	—	[5]	50	0/1	100	0/1
Arsenic	1	755	02/04/02	NF	1	0	—	[5]	—	—	—	—
Barium	1	755	02/04/02	F	1	1	8.26	—	2000	0/1	1000	0/1
Barium	1	755	02/04/02	NF	1	1	9.33	—	—	—	—	—
Beryllium	1	755	02/04/02	F	1	0	—	[0.2]	4	0/1	—	—
Beryllium	1	755	02/04/02	NF	1	0	—	[0.2]	—	—	—	—
Boron	1	755	02/04/02	F	1	1	236	—	—	—	750	0/1
Boron	1	755	02/04/02	NF	1	1	238	—	—	—	—	—
Bromide	1	755	02/04/02	F	1	0	—	[100]	—	—	—	—
Cadmium	1	755	02/04/02	F	1	0	—	[1]	5	0/1	10	0/1

Table D-78 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Cadmium	1	755	02/04/02	NF	1	0	—	[1]	—	—	—	—
Calcium	1	755	02/04/02	F	1	1	26100	—	—	—	—	—
Calcium	1	755	02/04/02	NF	1	1	26400	—	—	—	—	—
Chloride	1	755	02/04/02	F	1	1	10500	—	250000	0/1	250000	0/1
Chromium	1	755	02/04/02	F	1	1	2.14	—	100	0/1	50	0/1
Chromium	1	755	02/04/02	NF	1	1	17.5	—	—	—	—	—
Cobalt	1	755	02/04/02	F	1	1	5.11	—	—	—	50	0/1
Cobalt	1	755	02/04/02	NF	1	1	4.95	—	—	—	—	—
Copper	1	755	02/04/02	F	1	0	—	[5]	1300	0/1	1000	0/1
Copper	1	755	02/04/02	NF	1	0	—	[5]	—	—	—	—
Cyanide (total)	1	755	02/04/02	NF	1	0	—	[5]	—	—	—	—
Fluoride	1	755	02/04/02	F	1	1	158	—	4000	0/1	1600	0/1
Iron	1	755	02/04/02	F	1	1	30.3	—	300	0/1	1000	0/1
Iron	1	755	02/04/02	NF	1	1	773	—	—	—	—	—
Lead	1	755	02/04/02	F	1	0	—	[2]	15	0/1	50	0/1
Lead	1	755	02/04/02	NF	1	0	—	[2]	—	—	—	—
Magnesium	1	755	02/04/02	F	1	1	6160	—	—	—	—	—
Magnesium	1	755	02/04/02	NF	1	1	6110	—	—	—	—	—
Manganese	1	755	02/04/02	F	1	1	112	—	50	1/1	200	0/1
Manganese	1	755	02/04/02	NF	1	1	118	—	—	—	—	—
Mercury	1	755	02/04/02	F	1	0	—	[0.2]	2	0/1	—	—
Mercury	1	755	02/04/02	NF	1	0	—	[0.2]	—	—	2	0/1
Molybdenum	1	755	02/04/02	F	1	1	1.35	—	—	—	—	—
Molybdenum	1	755	02/04/02	NF	1	1	1.58	—	—	—	—	—
Nickel	1	755	02/04/02	F	1	1	460	—	100	1/1	200	1/1
Nickel	1	755	02/04/02	NF	1	1	469	—	—	—	—	—
Nitrate + Nitrite (as N)	1	755	02/04/02	F	1	1	990	—	10000	0/1	—	—

Table D-78 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Perchlorate	1	755	02/04/02	F	1	0	—	[4]	—	—	—	—
Phosphorus (total)	1	755	02/04/02	F	1	0	—	[50]	—	—	—	—
Potassium	1	755	02/04/02	F	1	1	1320	—	—	—	—	—
Potassium	1	755	02/04/02	NF	1	1	1320	—	—	—	—	—
Selenium	1	755	02/04/02	F	1	0	—	[5]	50	0/1	50	0/1
Selenium	1	755	02/04/02	NF	1	0	—	[5]	—	—	—	—
Silica	1	755	02/04/02	F	1	1	51570	—	—	—	—	—
Silica	1	755	02/04/02	NF	1	1	42800	—	—	—	—	—
Silver	1	755	02/04/02	F	1	0	—	[5]	100	0/1	50	0/1
Silver	1	755	02/04/02	NF	1	0	—	[0.445]	—	—	—	—
Sodium	1	755	02/04/02	F	1	1	10500	—	—	—	—	—
Sodium	1	755	02/04/02	NF	1	1	10400	—	—	—	—	—
Strontium	1	755	02/04/02	F	1	1	121	—	—	—	—	—
Strontium	1	755	02/04/02	NF	1	1	121	—	—	—	—	—
Sulfate	1	755	02/04/02	F	1	1	9420	—	250000	0/1	600000	0/1
Thallium	1	755	02/04/02	F	1	0	—	[0.5]	2	0/1	—	—
Thallium	1	755	02/04/02	NF	1	0	—	[0.5]	—	—	—	—
Total Kjeldahl Nitrogen	1	755	02/04/02	F	1	1	390	—	—	—	—	—
Uranium	1	755	02/04/02	F	1	1	1.19	—	20	0/1	5000	0/1
Uranium	1	755	02/04/02	NF	1	1	1.2	—	—	—	—	—
Vanadium	1	755	02/04/02	F	1	1	1.8	—	—	—	—	—
Vanadium	1	755	02/04/02	NF	1	1	2.41	—	—	—	—	—
Zinc	1	755	02/04/02	F	1	1	6.1	—	5000	0/1	10000	0/1
Zinc	1	755	02/04/02	NF	1	1	8.25	—	—	—	—	—

Table D-78 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Stable Isotope (‰)												
δD	1	755	02/04/02	NF	1	1	-80	—	—	—	—	—
$\delta^{15}N$ (NO_3)	1	755	02/04/02	NF	1	1	+7.2	—	—	—	—	—
$\delta^{18}O$	1	755	02/04/02	NF	1	1	-11.6	—	—	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

Table D-79
Well R-25 Screen 2 Fourth Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	2	892	02/05/02	NF[e]	1	1	210000	—[f]	—	—	—	—
Dissolved Oxygen	2	892	02/05/02	NF	1	1	7000	—	—	—	—	—
pH	2	892	02/05/02	NF	1	1	8.55	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	2	892	02/05/02	NF	1	1	483	—	—	0/1	—	0/1
Temperature (°C)	2	892	02/05/02	NF	1	1	10	—	—	0/1	—	0/1
Turbidity (NTU[g])	2	892	02/05/02	NF	1	1	33.3	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	2	892	02/05/02	F[h]	1	1	79100	—	—	—	—	—
Aluminum	2	892	02/05/02	F	1	1	126	—	50	1/1	5000	0/1
Aluminum	2	892	02/05/02	NF	1	1	3930	—	—	—	—	—
Ammonia (as N)	2	892	02/05/02	F	1	0	—	[50]	—	—	—	—
Antimony	2	892	02/05/02	F	1	1	0.58	—	6	0/1	—	—
Antimony	2	892	02/05/02	NF	1	1	0.18	—	—	—	—	—
Arsenic	2	892	02/05/02	F	1	1	6	—	50	0/1	100	0/1
Arsenic	2	892	02/05/02	NF	1	1	6.32	—	—	—	—	—
Barium	2	892	02/05/02	F	1	1	2.42	—	2000	0/1	1000	0/1
Barium	2	892	02/05/02	NF	1	1	10.5	—	—	—	—	—
Beryllium	2	892	02/05/02	F	1	0	—	[0.2]	4	0/1	—	—
Beryllium	2	892	02/05/02	NF	1	1	0.29	—	—	—	—	—
Boron	2	892	02/05/02	F	1	1	559	—	—	—	750	0/1
Boron	2	892	02/05/02	NF	1	1	551	—	—	—	—	—
Bromide	2	892	02/05/02	F	1	0	—	[100]	—	—	—	—
Cadmium	2	892	02/05/02	F	1	0	—	[1]	5	0/1	10	0/1

Table D-79 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Cadmium	2	892	02/05/02	NF	1	0	—	[1]	—	—	—	—
Calcium	2	892	02/05/02	F	1	1	8590	—	—	—	—	—
Calcium	2	892	02/05/02	NF	1	1	10200	—	—	—	—	—
Chloride	2	892	02/05/02	F	1	1	9890	—	250000	0/1	250000	0/1
Chromium	2	892	02/05/02	F	1	1	1.53	—	100	0/1	50	0/1
Chromium	2	892	02/05/02	NF	1	1	22.7	—	—	—	—	—
Cobalt	2	892	02/05/02	F	1	0	—	[0.54]	—	—	50	0/1
Cobalt	2	892	02/05/02	NF	1	0	—	[0.709]	—	—	—	—
Copper	2	892	02/05/02	F	1	1	4.23	—	1300	0/1	1000	0/1
Copper	2	892	02/05/02	NF	1	1	9.46	—	—	—	—	—
Cyanide (total)	2	892	02/05/02	NF	1	0	—	[5]	—	—	—	—
Fluoride	2	892	02/05/02	F	1	1	74	—	4000	0/1	1600	0/1
Iron	2	892	02/05/02	F	1	1	117	—	300	0/1	1000	0/1
Iron	2	892	02/05/02	NF	1	1	1810	—	—	—	—	—
Lead	2	892	02/05/02	F	1	1	0.45	—	15	0/1	50	0/1
Lead	2	892	02/05/02	NF	1	1	3.97	—	—	—	—	—
Magnesium	2	892	02/05/02	F	1	1	1500	—	—	—	—	—
Magnesium	2	892	02/05/02	NF	1	1	2300	—	—	—	—	—
Manganese	2	892	02/05/02	F	1	1	19.4	—	50	0/1	200	0/1
Manganese	2	892	02/05/02	NF	1	1	43	—	—	—	—	—
Mercury	2	892	02/05/02	F	1	0	—	[0.2]	2	0/1	—	—
Mercury	2	892	02/05/02	NF	1	0	—	[0.2]	—	—	2	0/1
Molybdenum	2	892	02/05/02	F	1	1	21	—	—	—	—	—
Molybdenum	2	892	02/05/02	NF	1	1	23	—	—	—	—	—
Nickel	2	892	02/05/02	F	1	1	7.63	—	100	0/1	200	0/1
Nickel	2	892	02/05/02	NF	1	1	24.1	—	—	—	—	—
Nitrate + Nitrite (as N)	2	892	02/05/02	F	1	0	—	[50]	10000	0/1	—	—

Table D-79 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Perchlorate	2	892	02/05/02	F	1	0	—	[4]	—	—	—	—
Phosphorus (total)	2	892	02/05/02	F	1	1	18100	—	—	—	—	—
Potassium	2	892	02/05/02	F	1	1	2990	—	—	—	—	—
Potassium	2	892	02/05/02	NF	1	1	3190	—	—	—	—	—
Selenium	2	892	02/05/02	F	1	0	—	[5]	50	0/1	50	0/1
Selenium	2	892	02/05/02	NF	1	0	—	[5]	—	—	—	—
Silica	2	892	02/05/02	F	1	1	42160	—	—	—	—	—
Silica	2	892	02/05/02	NF	1	1	53290	—	—	—	—	—
Silver	2	892	02/05/02	F	1	0	—	[0.267]	100	0/1	50	0/1
Silver	2	892	02/05/02	NF	1	0	—	[5]	—	—	—	—
Sodium	2	892	02/05/02	F	1	1	108000	—	—	—	—	—
Sodium	2	892	02/05/02	NF	1	1	110000	—	—	—	—	—
Strontium	2	892	02/05/02	F	1	1	35.6	—	—	—	—	—
Strontium	2	892	02/05/02	NF	1	1	45.6	—	—	—	—	—
Sulfate	2	892	02/05/02	F	1	1	11600	—	250000	0/1	600000	0/1
Thallium	2	892	02/05/02	F	1	0	—	[0.5]	2	0/1	—	—
Thallium	2	892	02/05/02	NF	1	0	—	[0.5]	—	—	—	—
Total Kjeldahl Nitrogen	2	892	02/05/02	F	1	1	240	—	—	—	—	—
Uranium	2	892	02/05/02	F	1	1	0.32	—	20	0/1	5000	0/1
Uranium	2	892	02/05/02	NF	1	1	1.26	—	—	—	—	—
Vanadium	2	892	02/05/02	F	1	0	—	[5]	—	—	—	—
Vanadium	2	892	02/05/02	NF	1	1	2.66	—	—	—	—	—
Zinc	2	892	02/05/02	F	1	1	6.01	—	5000	0/1	10000	0/1
Zinc	2	892	02/05/02	NF	1	1	22	—	—	—	—	—

Table D-79 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Stable Isotope (‰)												
δD	2	892	02/05/02	NF	1	1	-81	—	—	—	—	—
$\delta^{15}N$ (NO_3)	2	892	02/05/02	NF	1	1	ISV[i]	—	—	—	—	—
$\delta^{18}O$	2	892	02/05/02	NF	1	1	-11.9	—	—	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

[i] ISV = Insufficient sample volume.

Table D-80
Well R-25 Screen 4 Fourth Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	4	1192	02/06/02	NF[e]	1	1	71000	—[f]	—	—	—	—
Dissolved Oxygen	4	1192	02/06/02	NF	1	1	5000	—	—	—	—	—
pH	4	1192	02/06/02	NF	1	1	7.53	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	4	1192	02/06/02	NF	1	1	335	—	—	0/1	—	0/1
Temperature (°C)	4	1192	02/06/02	NF	1	1	11.2	—	—	0/1	—	0/1
Turbidity (NTU[g])	4	1192	02/06/02	NF	1	1	3.82	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	4	1192	02/06/02	F[h]	1	1	64500	—	—	—	—	—
Aluminum	4	1192	02/06/02	F	1	0	—	[50]	50	0/1	5000	0/1
Aluminum	4	1192	02/06/02	NF	1	1	135	—	—	—	—	—
Ammonia (as N)	4	1192	02/06/02	F	1	0	—	[50]	—	—	—	—
Antimony	4	1192	02/06/02	F	1	1	0.16	—	6	0/1	—	—
Antimony	4	1192	02/06/02	NF	1	0	—	[2]	—	—	—	—
Arsenic	4	1192	02/06/02	F	1	0	—	[5]	50	0/1	100	0/1
Arsenic	4	1192	02/06/02	NF	1	0	—	[5]	—	—	—	—
Barium	4	1192	02/06/02	F	1	1	19.3	—	2000	0/1	1000	0/1
Barium	4	1192	02/06/02	NF	1	1	20.9	—	—	—	—	—
Beryllium	4	1192	02/06/02	F	1	0	—	[0.2]	4	0/1	—	—
Beryllium	4	1192	02/06/02	NF	1	0	—	[0.2]	—	—	—	—
Boron	4	1192	02/06/02	F	1	0	—	[50]	—	—	750	0/1
Boron	4	1192	02/06/02	NF	1	0	—	[50]	—	—	—	—
Bromide	4	1192	02/06/02	F	1	0	—	[100]	—	—	—	—
Cadmium	4	1192	02/06/02	F	1	0	—	[1]	5	0/1	10	0/1

Table D-80 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Cadmium	4	1192	02/06/02	NF	1	0	—	[1]	—	—	—	—
Calcium	4	1192	02/06/02	F	1	1	49800	—	—	—	—	—
Calcium	4	1192	02/06/02	NF	1	1	51000	—	—	—	—	—
Chloride	4	1192	02/06/02	F	1	1	4760	—	250000	0/1	250000	0/1
Chromium	4	1192	02/06/02	F	1	1	1.88	—	100	0/1	50	0/1
Chromium	4	1192	02/06/02	NF	1	1	2.47	—	—	—	—	—
Cobalt	4	1192	02/06/02	F	1	0	—	[5]	—	—	50	0/1
Cobalt	4	1192	02/06/02	NF	1	0	—	[5]	—	—	—	—
Copper	4	1192	02/06/02	F	1	0	—	[5]	1300	0/1	1000	0/1
Copper	4	1192	02/06/02	NF	1	0	—	[5]	—	—	—	—
Cyanide (total)	4	1192	02/06/02	NF	1	0	—	[5]	—	—	—	—
Fluoride	4	1192	02/06/02	F	1	1	76	—	4000	0/1	1600	0/1
Iron	4	1192	02/06/02	F	1	1	99.9	—	300	0/1	1000	0/1
Iron	4	1192	02/06/02	NF	1	1	229	—	—	—	—	—
Lead	4	1192	02/06/02	F	1	0	—	[2]	15	0/1	50	0/1
Lead	4	1192	02/06/02	NF	1	1	0.13	—	—	—	—	—
Magnesium	4	1192	02/06/02	F	1	1	4740	—	—	—	—	—
Magnesium	4	1192	02/06/02	NF	1	1	4870	—	—	—	—	—
Manganese	4	1192	02/06/02	F	1	1	30.7	—	50	0/1	200	0/1
Manganese	4	1192	02/06/02	NF	1	1	30.5	—	—	—	—	—
Mercury	4	1192	02/06/02	F	1	0	—	[0.2]	2	0/1	—	—
Mercury	4	1192	02/06/02	NF	1	0	—	[0.2]	—	—	2	0/1
Molybdenum	4	1192	02/06/02	F	1	1	0.5	—	—	—	—	—
Molybdenum	4	1192	02/06/02	NF	1	1	0.64	—	—	—	—	—
Nickel	4	1192	02/06/02	F	1	1	1.18	—	100	0/1	200	0/1
Nickel	4	1192	02/06/02	NF	1	1	2.45	—	—	—	—	—
Nitrate + Nitrite (as N)	4	1192	02/06/02	F	1	1	620	—	10000	0/1	—	—

Table D-80 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Oxalate	4	1192	02/06/02	F	1	0	—	[600]	—	—	—	—
Perchlorate	4	1192	02/06/02	F	1	0	—	[4]	—	—	—	—
Phosphorus (total)	4	1192	02/06/02	F	1	1	100	—	—	—	—	—
Potassium	4	1192	02/06/02	F	1	1	631	—	—	—	—	—
Potassium	4	1192	02/06/02	NF	1	1	664	—	—	—	—	—
Selenium	4	1192	02/06/02	F	1	0	—	[5]	50	0/1	50	0/1
Selenium	4	1192	02/06/02	NF	1	0	—	[5]	—	—	—	—
Silica	4	1192	02/06/02	F	1	1	53070	—	—	—	—	—
Silica	4	1192	02/06/02	NF	1	1	53930	—	—	—	—	—
Silver	4	1192	02/06/02	F	1	0	—	[5]	100	0/1	50	0/1
Silver	4	1192	02/06/02	NF	1	0	—	[5]	—	—	—	—
Sodium	4	1192	02/06/02	F	1	1	8800	—	—	—	—	—
Sodium	4	1192	02/06/02	NF	1	1	8920	—	—	—	—	—
Strontium	4	1192	02/06/02	F	1	1	221	—	—	—	—	—
Strontium	4	1192	02/06/02	NF	1	1	227	—	—	—	—	—
Sulfate	4	1192	02/06/02	F	1	1	81500	—	250000	0/1	600000	0/1
Thallium	4	1192	02/06/02	F	1	0	—	[0.5]	2	0/1	—	—
Thallium	4	1192	02/06/02	NF	1	0	—	[0.5]	—	—	—	—
Total Kjeldahl Nitrogen	4	1192	02/06/02	F	1	1	290	—	—	—	—	—
Uranium	4	1192	02/06/02	F	1	1	0.6	—	20	0/1	5000	0/1
Uranium	4	1192	02/06/02	NF	1	1	0.58	—	—	—	—	—
Vanadium	4	1192	02/06/02	F	1	1	1.19	—	—	—	—	—
Vanadium	4	1192	02/06/02	NF	1	1	1.4	—	—	—	—	—
Zinc	4	1192	02/06/02	F	1	1	8.74	—	5000	0/1	10000	0/1
Zinc	4	1192	02/06/02	NF	1	1	9.51	—	—	—	—	—

Table D-80 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Stable Isotope (‰)												
δD	4	1192	02/06/02	NF	1	1	-84	—	—	—	—	—
$\delta^{15}N$ (NO_3)	4	1192	02/06/02	NF	1	1	+7.5	—	—	—	—	—
$\delta^{18}O$	4	1192	02/06/02	NF	1	1	-11.9	—	—	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

Table D-81
Well R-25 Screen 5 Fourth Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	5	1303	02/07/02	NF[e]	1	1	120000	—[f]	—	—	—	—
Dissolved Oxygen	5	1303	02/07/02	NF	1	1	3000	—	—	—	—	—
pH	5	1303	02/07/02	NF	1	1	7.75	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	5	1303	02/07/02	NF	1	1	223	—	—	0/1	—	0/1
Temperature (°C)	5	1303	02/07/02	NF	1	1	11.6	—	—	0/1	—	0/1
Turbidity (NTU[g])	5	1303	02/07/02	NF	1	1	3.4	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	5	1303	02/07/02	F[h]	1	1	91700	—	—	—	—	—
Aluminum	5	1303	02/07/02	F	1	0	—	[50]	50	0/1	5000	0/1
Aluminum	5	1303	02/07/02	NF	1	0	—	[50]	—	—	—	—
Ammonia (as N)	5	1303	02/07/02	F	1	0	—	[50]	—	—	—	—
Antimony	5	1303	02/07/02	F	1	1	0.17	—	6	0/1	—	—
Antimony	5	1303	02/07/02	NF	1	0	—	[2]	—	—	—	—
Arsenic	5	1303	02/07/02	F	1	0	—	[5]	50	0/1	100	0/1
Arsenic	5	1303	02/07/02	NF	1	0	—	[5]	—	—	—	—
Barium	5	1303	02/07/02	F	1	1	13	—	2000	0/1	1000	0/1
Barium	5	1303	02/07/02	NF	1	1	14.3	—	—	—	—	—
Beryllium	5	1303	02/07/02	F	1	0	—	[0.2]	4	0/1	—	—
Beryllium	5	1303	02/07/02	NF	1	0	—	[0.2]	—	—	—	—
Boron	5	1303	02/07/02	F	1	1	102	—	—	—	750	0/1
Boron	5	1303	02/07/02	NF	1	1	104	—	—	—	—	—
Bromide	5	1303	02/07/02	F	1	0	—	[100]	—	—	—	—
Cadmium	5	1303	02/07/02	F	1	0	—	[1]	5	0/1	10	0/1

Table D-81 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Cadmium	5	1303	02/07/02	NF	1	0	—	[1]	—	—	—	—
Calcium	5	1303	02/07/02	F	1	1	21800	—	—	—	—	—
Calcium	5	1303	02/07/02	NF	1	1	22100	—	—	—	—	—
Chloride	5	1303	02/07/02	F	1	1	2950	—	250000	0/1	250000	0/1
Chromium	5	1303	02/07/02	F	1	0	—	[5]	100	0/1	50	0/1
Chromium	5	1303	02/07/02	NF	1	1	0.854	—	—	—	—	—
Cobalt	5	1303	02/07/02	F	1	1	0.317	—	—	—	50	0/1
Cobalt	5	1303	02/07/02	NF	1	0	—	[5]	—	—	—	—
Copper	5	1303	02/07/02	F	1	0	—	[5]	1300	0/1	1000	0/1
Copper	5	1303	02/07/02	NF	1	0	—	[5]	—	—	—	—
Cyanide (total)	5	1303	02/07/02	NF	1	0	—	[5]	—	—	—	—
Fluoride	5	1303	02/07/02	F	1	1	124	—	4000	0/1	1600	0/1
Iron	5	1303	02/07/02	F	1	0	—	[50]	300	0/1	1000	0/1
Iron	5	1303	02/07/02	NF	1	0	—	[50]	—	—	—	—
Lead	5	1303	02/07/02	F	1	0	—	[2]	15	0/1	50	0/1
Lead	5	1303	02/07/02	NF	1	0	—	[2]	—	—	—	—
Magnesium	5	1303	02/07/02	F	1	1	4450	—	—	—	—	—
Magnesium	5	1303	02/07/02	NF	1	1	4530	—	—	—	—	—
Manganese	5	1303	02/07/02	F	1	1	396	—	50	1/1	200	1/1
Manganese	5	1303	02/07/02	NF	1	1	380	—	—	—	—	—
Mercury	5	1303	02/07/02	F	1	0	—	[0.2]	2	0/1	—	—
Mercury	5	1303	02/07/02	NF	1	0	—	[0.2]	—	—	2	0/1
Molybdenum	5	1303	02/07/02	F	1	1	9.87	—	—	—	—	—
Molybdenum	5	1303	02/07/02	NF	1	1	9.47	—	—	—	—	—
Nickel	5	1303	02/07/02	F	1	1	2.08	—	100	0/1	200	0/1
Nickel	5	1303	02/07/02	NF	1	1	2.86	—	—	—	—	—
Nitrate + Nitrite (as N)	5	1303	02/07/02	F	1	1	180	—	10000	0/1	—	—

Table D-81 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Oxalate	5	1303	02/07/02	F	1	0	—	[600]	—	—	—	—
Perchlorate	5	1303	02/07/02	F	1	0	—	[4]	—	—	—	—
Phosphorus (total)	5	1303	02/07/02	F	1	1	3450	—	—	—	—	—
Potassium	5	1303	02/07/02	F	1	1	1250	—	—	—	—	—
Potassium	5	1303	02/07/02	NF	1	1	1230	—	—	—	—	—
Selenium	5	1303	02/07/02	F	1	0	—	[5]	50	0/1	50	0/1
Selenium	5	1303	02/07/02	NF	1	0	—	[5]	—	—	—	—
Silica	5	1303	02/07/02	F	1	1	50930	—	—	—	—	—
Silica	5	1303	02/07/02	NF	1	1	52430	—	—	—	—	—
Silver	5	1303	02/07/02	F	1	1	0.551	—	100	0/1	50	0/1
Silver	5	1303	02/07/02	NF	1	1	0.594	—	—	—	—	—
Sodium	5	1303	02/07/02	F	1	1	23900	—	—	—	—	—
Sodium	5	1303	02/07/02	NF	1	1	24900	—	—	—	—	—
Strontium	5	1303	02/07/02	F	1	1	155	—	—	—	—	—
Strontium	5	1303	02/07/02	NF	1	1	158	—	—	—	—	—
Sulfate	5	1303	02/07/02	F	1	1	8790	—	250000	0/1	600000	0/1
Thallium	5	1303	02/07/02	F	1	0	—	[0.5]	2	0/1	—	—
Thallium	5	1303	02/07/02	NF	1	1	0.07	—	—	—	—	—
Total Kjeldahl Nitrogen	5	1303	02/07/02	F	1	1	210	—	—	—	—	—
Uranium	5	1303	02/07/02	F	1	1	0.93	—	20	0/1	5000	0/1
Uranium	5	1303	02/07/02	NF	1	1	1.19	—	—	—	—	—
Vanadium	5	1303	02/07/02	F	1	0	—	[5]	—	—	—	—
Vanadium	5	1303	02/07/02	NF	1	0	—	[5]	—	—	—	—
Zinc	5	1303	02/07/02	F	1	1	12.1	—	5000	0/1	10000	0/1
Zinc	5	1303	02/07/02	NF	1	1	6.22	—	—	—	—	—

Table D-81 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Stable Isotope (‰)												
δD	5	1303	02/07/02	NF	1	1	-83	—	—	—	—	—
$\delta^{15}N$ (NO_3)	5	1303	02/07/02	NF	1	1	ISV[i]	—	—	—	—	—
$\delta^{18}O$	5	1303	02/07/02	NF	1	1	-12	—	—	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

[i] ISV = Insufficient sample volume.

Table D-82
Well R-25 Screen 6 Fourth Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	6	1406	02/08/02	NF[e]	1	1	90000	—[f]	—	—	—	—
Dissolved Oxygen	6	1406	02/08/02	NF	1	1	6500	—	—	—	—	—
pH	6	1406	02/08/02	NF	1	1	7.79	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	6	1406	02/08/02	NF	1	1	177	—	—	0/1	—	0/1
Temperature (°C)	6	1406	02/08/02	NF	1	1	12.5	—	—	0/1	—	0/1
Turbidity (NTU[g])	6	1406	02/08/02	NF	1	1	0.43	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	6	1406	02/08/02	F[h]	1	1	98500	—	—	—	—	—
Aluminum	6	1406	02/08/02	F	1	0	—	[50]	50	0/1	5000	0/1
Aluminum	6	1406	02/08/02	NF	1	0	—	[50]	—	—	—	—
Ammonia (as N)	6	1406	02/08/02	F	1	0	—	[50]	—	—	—	—
Antimony	6	1406	02/08/02	F	1	1	0.34	—	6	0/1	—	—
Antimony	6	1406	02/08/02	NF	1	1	0.19	—	—	—	—	—
Arsenic	6	1406	02/08/02	F	1	0	—	[5]	50	0/1	100	0/1
Arsenic	6	1406	02/08/02	NF	1	0	—	[5]	—	—	—	—
Barium	6	1406	02/08/02	F	1	1	18.8	—	2000	0/1	1000	0/1
Barium	6	1406	02/08/02	NF	1	1	19.1	—	—	—	—	—
Beryllium	6	1406	02/08/02	F	1	0	—	[0.2]	4	0/1	—	—
Beryllium	6	1406	02/08/02	NF	1	0	—	[0.2]	—	—	—	—
Boron	6	1406	02/08/02	F	1	1	39.7	—	—	—	750	0/1
Boron	6	1406	02/08/02	NF	1	1	41.6	—	—	—	—	—
Bromide	6	1406	02/08/02	F	1	0	—	[100]	—	—	—	—
Cadmium	6	1406	02/08/02	F	1	0	—	[1]	5	0/1	10	0/1

Table D-82 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Cadmium	6	1406	02/08/02	NF	1	0	—	[1]	—	—	—	—
Calcium	6	1406	02/08/02	F	1	1	19000	—	—	—	—	—
Calcium	6	1406	02/08/02	NF	1	1	19100	—	—	—	—	—
Chloride	6	1406	02/08/02	F	1	1	4820	—	250000	0/1	250000	0/1
Chromium	6	1406	02/08/02	F	1	1	0.878	—	100	0/1	50	0/1
Chromium	6	1406	02/08/02	NF	1	1	6.88	—	—	—	—	—
Cobalt	6	1406	02/08/02	F	1	0	—	[5]	—	—	50	0/1
Cobalt	6	1406	02/08/02	NF	1	0	—	[5]	—	—	—	—
Copper	6	1406	02/08/02	F	1	0	—	[5]	1300	0/1	1000	0/1
Copper	6	1406	02/08/02	NF	1	0	—	[5]	—	—	—	—
Cyanide (total)	6	1406	02/08/02	NF	1	1	14.4	—	—	—	—	—
Fluoride	6	1406	02/08/02	F	1	1	172	—	4000	0/1	1600	0/1
Iron	6	1406	02/08/02	F	1	0	—	[50]	300	0/1	1000	0/1
Iron	6	1406	02/08/02	NF	1	1	32.3	—	—	—	—	—
Lead	6	1406	02/08/02	F	1	0	—	[2]	15	0/1	50	0/1
Lead	6	1406	02/08/02	NF	1	0	—	[2]	—	—	—	—
Magnesium	6	1406	02/08/02	F	1	1	3650	—	—	—	—	—
Magnesium	6	1406	02/08/02	NF	1	1	3690	—	—	—	—	—
Manganese	6	1406	02/08/02	F	1	1	1.01	—	50	0/1	200	0/1
Manganese	6	1406	02/08/02	NF	1	1	2.13	—	—	—	—	—
Mercury	6	1406	02/08/02	F	1	0	—	[0.2]	2	0/1	—	—
Mercury	6	1406	02/08/02	NF	1	0	—	[0.2]	—	—	2	0/1
Molybdenum	6	1406	02/08/02	F	1	1	1.64	—	—	—	—	—
Molybdenum	6	1406	02/08/02	NF	1	1	1.77	—	—	—	—	—
Nickel	6	1406	02/08/02	F	1	0	—	[5]	100	0/1	200	0/1
Nickel	6	1406	02/08/02	NF	1	1	4.3	—	—	—	—	—
Nitrate + Nitrite (as N)	6	1406	02/08/02	F	1	1	280	—	10000	0/1	—	—

Table D-82 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Oxalate	6	1406	02/08/02	F	1	0	—	[600]	—	—	—	—
Perchlorate	6	1406	02/08/02	F	1	0	—	[4]	—	—	—	—
Phosphorus (total)	6	1406	02/08/02	F	1	1	4200	—	—	—	—	—
Potassium	6	1406	02/08/02	F	1	1	951	—	—	—	—	—
Potassium	6	1406	02/08/02	NF	1	1	954	—	—	—	—	—
Selenium	6	1406	02/08/02	F	1	0	—	[5]	50	0/1	50	0/1
Selenium	6	1406	02/08/02	NF	1	0	—	[5]	—	—	—	—
Silica	6	1406	02/08/02	F	1	1	55210	—	—	—	—	—
Silica	6	1406	02/08/02	NF	1	1	52640	—	—	—	—	—
Silver	6	1406	02/08/02	F	1	1	0.588	—	100	0/1	50	0/1
Silver	6	1406	02/08/02	NF	1	0	—	[5]	—	—	—	—
Sodium	6	1406	02/08/02	F	1	1	12600	—	—	—	—	—
Sodium	6	1406	02/08/02	NF	1	1	13000	—	—	—	—	—
Strontium	6	1406	02/08/02	F	1	1	127	—	—	—	—	—
Strontium	6	1406	02/08/02	NF	1	1	128	—	—	—	—	—
Sulfate	6	1406	02/08/02	F	1	1	3910	—	250000	0/1	600000	0/1
Thallium	6	1406	02/08/02	F	1	1	0.61	—	2	0/1	—	—
Thallium	6	1406	02/08/02	NF	1	0	—	[0.5]	—	—	—	—
Total Kjeldahl Nitrogen	6	1406	02/08/02	F	1	0	—	[100]	—	—	—	—
Uranium	6	1406	02/08/02	F	1	1	0.73	—	20	0/1	5000	0/1
Uranium	6	1406	02/08/02	NF	1	1	0.73	—	—	—	—	—
Vanadium	6	1406	02/08/02	F	1	1	3.5	—	—	—	—	—
Vanadium	6	1406	02/08/02	NF	1	1	3.33	—	—	—	—	—
Zinc	6	1406	02/08/02	F	1	1	3.42	—	5000	0/1	10000	0/1
Zinc	6	1406	02/08/02	NF	1	1	6.22	—	—	—	—	—

Table D-82 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Stable Isotope (‰)												
δD	6	1406	02/08/02	NF	1	1	-85	—	—	—	—	—
$\delta^{15}N$ (NO_3)	6	1406	02/08/02	NF	1	1	ISV[i]	—	—	—	—	—
$\delta^{18}O$	6	1406	02/08/02	NF	1	1	-11.9	—	—	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

[i] ISV = Insufficient sample volume.

Table D-83
Well R-25 Screen 7 Fourth Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	7	1605	02/11/02	NF[e]	1	1	65000	—[f]	—	—	—	—
Dissolved Oxygen	7	1605	02/11/02	NF	1	1	8100	—	—	—	—	—
pH	7	1605	02/11/02	NF	1	1	7.80	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	7	1605	02/11/02	NF	1	1	121	—	—	0/1	—	0/1
Temperature (°C)	7	1605	02/11/02	NF	1	1	12.9	—	—	0/1	—	0/1
Turbidity (NTU[g])	7	1605	02/11/02	NF	1	1	2.51	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	7	1605	02/11/02	F[h]	1	1	49300	—	—	—	—	—
Aluminum	7	1605	02/11/02	F	1	0	—	[50]	50	0/1	5000	0/1
Aluminum	7	1605	02/11/02	NF	1	0	—	[50]	—	—	—	—
Ammonia (as N)	7	1605	02/11/02	F	1	0	—	[50]	—	—	—	—
Antimony	7	1605	02/11/02	F	1	1	0.37	—	6	0/1	—	—
Antimony	7	1605	02/11/02	NF	1	1	0.26	—	—	—	—	—
Arsenic	7	1605	02/11/02	F	1	0	—	[5]	50	0/1	100	0/1
Arsenic	7	1605	02/11/02	NF	1	0	—	[5]	—	—	—	—
Barium	7	1605	02/11/02	F	1	1	34	—	2000	0/1	1000	0/1
Barium	7	1605	02/11/02	NF	1	1	30.4	—	—	—	—	—
Beryllium	7	1605	02/11/02	F	1	1	0.05	—	4	0/1	—	—
Beryllium	7	1605	02/11/02	NF	1	0	—	[0.2]	—	—	—	—
Boron	7	1605	02/11/02	F	1	1	34.1	—	—	—	750	0/1
Boron	7	1605	02/11/02	NF	1	1	34.2	—	—	—	—	—
Bromide	7	1605	02/11/02	F	1	0	—	[100]	—	—	—	—
Cadmium	7	1605	02/11/02	F	1	0	—	[1]	5	0/1	10	0/1

Table D-83 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Cadmium	7	1605	02/11/02	NF	1	0	—	[1]	—	—	—	—
Calcium	7	1605	02/11/02	F	1	1	11200	—	—	—	—	—
Calcium	7	1605	02/11/02	NF	1	1	10700	—	—	—	—	—
Chloride	7	1605	02/11/02	F	1	1	1590	—	250000	0/1	250000	0/1
Chromium	7	1605	02/11/02	F	1	1	1.39	—	100	0/1	50	0/1
Chromium	7	1605	02/11/02	NF	1	1	9.57	—	—	—	—	—
Cobalt	7	1605	02/11/02	F	1	0	—	[5]	—	—	50	0/1
Cobalt	7	1605	02/11/02	NF	1	0	—	[5]	—	—	—	—
Copper	7	1605	02/11/02	F	1	0	—	[5]	1300	0/1	1000	0/1
Copper	7	1605	02/11/02	NF	1	0	—	[5]	—	—	—	—
Cyanide (total)	7	1605	02/11/02	NF	1	0	—	[5]	—	—	—	—
Fluoride	7	1605	02/11/02	F	1	1	154	—	4000	0/1	1600	0/1
Iron	7	1605	02/11/02	F	1	1	22.9	—	300	0/1	1000	0/1
Iron	7	1605	02/11/02	NF	1	1	123	—	—	—	—	—
Lead	7	1605	02/11/02	F	1	0	—	[2]	15	0/1	50	0/1
Lead	7	1605	02/11/02	NF	1	0	—	[2]	—	—	—	—
Magnesium	7	1605	02/11/02	F	1	1	2860	—	—	—	—	—
Magnesium	7	1605	02/11/02	NF	1	1	2750	—	—	—	—	—
Manganese	7	1605	02/11/02	F	1	1	1.71	—	50	0/1	200	0/1
Manganese	7	1605	02/11/02	NF	1	1	4.84	—	—	—	—	—
Mercury	7	1605	02/11/02	F	1	0	—	[0.2]	2	0/1	—	—
Mercury	7	1605	02/11/02	NF	1	0	—	[0.2]	—	—	2	0/1
Molybdenum	7	1605	02/11/02	F	1	1	1.68	—	—	—	—	—
Molybdenum	7	1605	02/11/02	NF	1	1	2.8	—	—	—	—	—
Nickel	7	1605	02/11/02	F	1	0	—	[5]	100	0/1	200	0/1
Nickel	7	1605	02/11/02	NF	1	1	4.77	—	—	—	—	—
Nitrate + Nitrite (as N)	7	1605	02/11/02	F	1	1	280	—	10000	0/1	—	—

Table D-83 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Oxalate	7	1605	02/11/02	F	1	0	—	[600]	—	—	—	—
Perchlorate	7	1605	02/11/02	F	1	0	—	[4]	—	—	—	—
Phosphorus (total)	7	1605	02/11/02	F	1	1	490	—	—	—	—	—
Potassium	7	1605	02/11/02	F	1	1	1330	—	—	—	—	—
Potassium	7	1605	02/11/02	NF	1	1	1290	—	—	—	—	—
Selenium	7	1605	02/11/02	F	1	0	—	[5]	50	0/1	50	0/1
Selenium	7	1605	02/11/02	NF	1	0	—	[5]	—	—	—	—
Silica	7	1605	02/11/02	F	1	1	56500	—	—	—	—	—
Silica	7	1605	02/11/02	NF	1	1	55000	—	—	—	—	—
Silver	7	1605	02/11/02	F	1	0	—	[5]	100	0/1	50	0/1
Silver	7	1605	02/11/02	NF	1	0	—	[5]	—	—	—	—
Sodium	7	1605	02/11/02	F	1	1	10900	—	—	—	—	—
Sodium	7	1605	02/11/02	NF	1	1	11000	—	—	—	—	—
Strontium	7	1605	02/11/02	F	1	1	66.9	—	—	—	—	—
Strontium	7	1605	02/11/02	NF	1	1	64.2	—	—	—	—	—
Sulfate	7	1605	02/11/02	F	1	1	2180	—	250000	0/1	600000	0/1
Thallium	7	1605	02/11/02	F	1	0	—	[0.5]	2	0/1	—	—
Thallium	7	1605	02/11/02	NF	1	0	—	[0.5]	—	—	—	—
Total Kjeldahl Nitrogen	7	1605	02/11/02	F	1	0	—	[100]	—	—	—	—
Uranium	7	1605	02/11/02	F	1	1	0.39	—	20	0/1	5000	0/1
Uranium	7	1605	02/11/02	NF	1	1	0.43	—	—	—	—	—
Vanadium	7	1605	02/11/02	F	1	1	4.36	—	—	—	—	—
Vanadium	7	1605	02/11/02	NF	1	1	4.15	—	—	—	—	—
Zinc	7	1605	02/11/02	F	1	1	15.1	—	5000	0/1	10000	0/1
Zinc	7	1605	02/11/02	NF	1	1	9.54	—	—	—	—	—

Table D-83 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Stable Isotope (‰)												
δD	7	1605	02/11/02	NF	1	1	-82	—	—	—	—	—
$\delta^{15}N$ (NO_3)	7	1605	02/11/02	NF	1	1	ISV[i]	—	—	—	—	—
$\delta^{18}O$	7	1605	02/11/02	NF	1	1	-11.7	—	—	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

[i] ISV = Insufficient sample volume.

Table D-84
Well R-25 Screen 8 Fourth Round Sample Results: Data Summary for Inorganic Chemicals

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Field Parameter												
Field Alkalinity (total as $CaCO_3$)	8	1796	02/12/02	NF[e]	1	1	67000	—[f]	—	—	—	—
Dissolved Oxygen	8	1796	02/12/02	NF	1	1	8900	—	—	—	—	—
pH	8	1796	02/12/02	NF	1	1	8.06	—	>6 & <9	0/1	>6 & <9	0/1
Specific Conductance (µS/cm)	8	1796	02/12/02	NF	1	1	135	—	—	0/1	—	0/1
Temperature (°C)	8	1796	02/12/02	NF	1	1	13.2	—	—	0/1	—	0/1
Turbidity (NTU[g])	8	1796	02/12/02	NF	1	1	3.44	—	—	0/1	—	0/1
Analyte												
Lab Alkalinity (total as $CaCO_3$)	8	1796	02/12/02	F[h]	1	1	73900	—	—	—	—	—
Aluminum	8	1796	02/12/02	F	1	0	—	[50]	50	0/1	5000	0/1
Aluminum	8	1796	02/12/02	NF	1	1	69.8	—	—	—	—	—
Ammonia (as N)	8	1796	02/12/02	F	1	0	—	[50]	—	—	—	—
Antimony	8	1796	02/12/02	F	1	1	0.44	—	6	0/1	—	—
Antimony	8	1796	02/12/02	NF	1	1	0.6	—	—	—	—	—
Arsenic	8	1796	02/12/02	F	1	0	—	[5]	50	0/1	100	0/1
Arsenic	8	1796	02/12/02	NF	1	0	—	[5]	—	—	—	—
Barium	8	1796	02/12/02	F	1	1	17.6	—	2000	0/1	1000	0/1
Barium	8	1796	02/12/02	NF	1	1	18	—	—	—	—	—
Beryllium	8	1796	02/12/02	F	1	0	—	[0.2]	4	0/1	—	—
Beryllium	8	1796	02/12/02	NF	1	0	—	[0.2]	—	—	—	—
Boron	8	1796	02/12/02	F	1	1	34.5	—	—	—	750	0/1
Boron	8	1796	02/12/02	NF	1	1	36.3	—	—	—	—	—
Bromide	8	1796	02/12/02	F	1	0	—	[100]	—	—	—	—
Cadmium	8	1796	02/12/02	F	1	0	—	[1]	5	0/1	10	0/1

Table D-84 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Cadmium	8	1796	02/12/02	NF	1	0	—	[1]	—	—	—	—
Calcium	8	1796	02/12/02	F	1	1	11000	—	—	—	—	—
Calcium	8	1796	02/12/02	NF	1	1	11000	—	—	—	—	—
Chloride	8	1796	02/12/02	F	1	1	1700	—	250000	0/1	250000	0/1
Chromium	8	1796	02/12/02	F	1	0	—	[5]	100	0/1	50	0/1
Chromium	8	1796	02/12/02	NF	1	1	4.68	—	—	—	—	—
Cobalt	8	1796	02/12/02	F	1	0	—	[5]	—	—	50	0/1
Cobalt	8	1796	02/12/02	NF	1	0	—	[5]	—	—	—	—
Copper	8	1796	02/12/02	F	1	0	—	[5]	1300	0/1	1000	0/1
Copper	8	1796	02/12/02	NF	1	0	—	[5]	—	—	—	—
Cyanide (total)	8	1796	02/12/02	NF	1	0	—	[5]	—	—	—	—
Fluoride	8	1796	02/12/02	F	1	1	215	—	4000	0/1	1600	0/1
Iron	8	1796	02/12/02	F	1	1	21.1	—	300	0/1	1000	0/1
Iron	8	1796	02/12/02	NF	1	1	207	—	—	—	—	—
Lead	8	1796	02/12/02	F	1	0	—	[2]	15	0/1	50	0/1
Lead	8	1796	02/12/02	NF	1	1	0.11	—	—	—	—	—
Magnesium	8	1796	02/12/02	F	1	1	2630	—	—	—	—	—
Magnesium	8	1796	02/12/02	NF	1	1	2660	—	—	—	—	—
Manganese	8	1796	02/12/02	F	1	1	1.23	—	50	0/1	200	0/1
Manganese	8	1796	02/12/02	NF	1	1	2.78	—	—	—	—	—
Mercury	8	1796	02/12/02	F	1	0	—	[0.2]	2	0/1	—	—
Mercury	8	1796	02/12/02	NF	1	0	—	[0.2]	—	—	2	0/1
Molybdenum	8	1796	02/12/02	F	1	1	1.52	—	—	—	—	—
Molybdenum	8	1796	02/12/02	NF	1	1	1.98	—	—	—	—	—
Nickel	8	1796	02/12/02	F	1	0	—	[5]	100	0/1	200	0/1
Nickel	8	1796	02/12/02	NF	1	1	2.58	—	—	—	—	—
Nitrate + Nitrite (as N)	8	1796	02/12/02	F	1	1	390	—	10000	0/1	—	—

Table D-84 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Oxalate	8	1796	02/12/02	F	1	0	—	[600]	—	—	—	—
Perchlorate	8	1796	02/12/02	F	1	0	—	[4]	—	—	—	—
Phosphorus (total)	8	1796	02/12/02	F	1	1	530	—	—	—	—	—
Potassium	8	1796	02/12/02	F	1	1	2090	—	—	—	—	—
Potassium	8	1796	02/12/02	NF	1	1	2030	—	—	—	—	—
Selenium	8	1796	02/12/02	F	1	1	3.23	—	50	0/1	50	0/1
Selenium	8	1796	02/12/02	NF	1	0	—	[5]	—	—	—	—
Silica	8	1796	02/12/02	F	1	1	55210	—	—	—	—	—
Silica	8	1796	02/12/02	NF	1	1	54360	—	—	—	—	—
Silver	8	1796	02/12/02	F	1	1	0.311	—	100	0/1	50	0/1
Silver	8	1796	02/12/02	NF	1	0	—	[5]	—	—	—	—
Sodium	8	1796	02/12/02	F	1	1	13400	—	—	—	—	—
Sodium	8	1796	02/12/02	NF	1	1	14300	—	—	—	—	—
Strontium	8	1796	02/12/02	F	1	1	96.1	—	—	—	—	—
Strontium	8	1796	02/12/02	NF	1	1	95.1	—	—	—	—	—
Sulfate	8	1796	02/12/02	F	1	1	2380	—	250000	0/1	600000	0/1
Thallium	8	1796	02/12/02	F	1	0	—	[0.5]	2	0/1	—	—
Thallium	8	1796	02/12/02	NF	1	0	—	[0.5]	—	—	—	—
Total Kjeldahl Nitrogen	8	1796	02/12/02	F	1	0	—	[100]	—	—	—	—
Uranium	8	1796	02/12/02	F	1	1	0.56	—	20	0/1	5000	0/1
Uranium	8	1796	02/12/02	NF	1	1	0.55	—	—	—	—	—
Vanadium	8	1796	02/12/02	F	1	1	4.39	—	—	—	—	—
Vanadium	8	1796	02/12/02	NF	1	1	4.59	—	—	—	—	—
Zinc	8	1796	02/12/02	F	1	0	—	[5]	5000	0/1	10000	0/1
Zinc	8	1796	02/12/02	NF	1	1	6.13	—	—	—	—	—

Table D-84 (continued)

Parameter and Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Stable Isotope (‰)												
δD	8	1796	02/12/02	NF	1	1	-82	—	—	—	—	—
$\delta^{15}N$ (NO_3)	8	1796	02/12/02	NF	1	1	10.5	—	—	—	—	—
$\delta^{18}O$	8	1796	02/12/02	NF	1	1	-11.6	—	—	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] NTU = Nephelometric turbidity unit.

[h] F = Filtered.

Table D-85
Well R-25 Screen 1 Fourth Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Acetone	1	755	02/04/02	NF[e]	1	1	3	—[f]	—	—	—	—
Amino-2,6-dinitrotoluene[4-]	1	755	02/04/02	NF	1	1	1.7	—	—	—	—	—
Dissolved Organic Carbon	1	755	02/04/02	F[g]	1	1	1500	—	—	—	—	—
DNX	1	755	02/04/02	NF	1	1	0.15	—	—	—	—	—
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	1	755	02/04/02	NF	1	1	6.4	—	—	—	—	—
Humic Substances, Hydrophilic Acids	1	755	02/04/02	F	1	1	200	—	—	—	—	—
Humic Substances, Hydrophilic Bases	1	755	02/04/02	F	1	1	—	[100]	—	—	—	—
Humic Substances, Hydrophilic Neutrals	1	755	02/04/02	F	1	1	200	—	—	—	—	—
Humic Substances, Hydrophilic Total	1	755	02/04/02	F	1	1	400	—	—	—	—	—
Humic Substances, Hydrophobic Acids	1	755	02/04/02	F	1	1	600	—	—	—	—	—
Humic Substances, Hydrophobic Bases	1	755	02/04/02	F	1	1	—	[100]	—	—	—	—
Humic Substances, Hydrophobic Neutrals	1	755	02/04/02	F	1	1	500	—	—	—	—	—
Humic Substances, Hydrophobic Total	1	755	02/04/02	F	1	1	1000	—	—	—	—	—
Methylene Chloride	1	755	02/04/02	NF	1	1	0.53	—	5	0/1	100	0/1
Hexahydro-1-nitroso-3,5-dinitro-1,3,5-triazine	1	755	02/04/02	NF	1	1	0.27	—	—	—	—	—
Hexahydro-1,3,5-trinitro-1,3,5-triazine	1	755	02/04/02	NF	1	1	41.6	—	—	—	—	—

Table D-85 (continued)

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Tetrachloroethene	1	755	02/04/02	NF	1	1	1.1	—	5	0/1	20	0/1
Hexahydro-1,3,5-trinitroso-1,3,5-triazine	1	755	02/04/02	NF	1	1	0.23	—	—	—	—	—
Total Organic Carbon	1	755	02/04/02	NF	1	1	1410	—	—	—	—	—
Trichloroethene	1	755	02/04/02	NF	1	1	1.7	—	5	0/1	100	0/1
Trinitrotoluene[2,4,6-]	1	755	02/04/02	NF	1	1	1.4	—	—	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] F = Filtered.

Table D-86
Well R-25 Screen 2 Fourth Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Acetone	2	892	02/05/02	NF[e]	1	1	11.8	—[f]	—	—	—	—
Carbon Disulfide	2	892	02/05/02	NF	1	1	1.5	—	—	—	—	—
Dissolved Organic Carbon	2	892	02/05/02	F[g]	1	1	3400	—	—	—	—	—
Humic Substances, Hydrophilic Acids	2	892	02/05/02	F	1	1	1100	—	—	—	—	—
Humic Substances, Hydrophilic Bases	2	892	02/05/02	F	1	1	100	—	—	—	—	—
Humic Substances, Hydrophilic Neutrals	2	892	02/05/02	F	1	1	300	—	—	—	—	—
Humic Substances, Hydrophilic Total	2	892	02/05/02	F	1	1	1500	—	—	—	—	—
Humic Substances, Hydrophobic Acids	2	892	02/05/02	F	1	1	1000	—	—	—	—	—
Humic Substances, Hydrophobic Bases	2	892	02/05/02	F	1	1	—	[100]	—	—	—	—
Humic Substances, Hydrophobic Neutrals	2	892	02/05/02	F	1	1	1000	—	—	—	—	—
Humic Substances, Hydrophobic Total	2	892	02/05/02	F	1	1	2000	—	—	—	—	—
Methylene Chloride	2	892	02/05/02	NF	1	1	0.68	—	5	0/1	100	0/1
Hexahydro-1,3,5-trinitro-1,3,5-triazine	2	892	02/05/02	NF	1	1	0.86	—	—	—	—	—
Tetrachloroethene	2	892	02/05/02	NF	1	1	0.38	—	5	0/1	20	0/1
Toluene	2	892	02/05/02	NF	1	1	0.18	—	1000	0/1	750	0/1

Table D-86 (continued)

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Total Organic Carbon	2	892	02/05/02	NF	1	1	2940	—	—	—	—	—
Trichloroethene	2	892	02/05/02	NF	1	1	0.39	—	5	0/1	100	0/1

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] F = Filtered.

Table D-87
Well R-25 Screen 4 Fourth Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Acetone	4	1192	02/06/02	NF[e]	1	1	3.4	—[f]	—	—	—	—
Dissolved Organic Carbon	4	1192	02/06/02	F[g]	1	1	1200	—	—	—	—	—
Humic Substances, Hydrophilic Acids	4	1192	02/06/02	F	1	1	400	—	—	—	—	—
Humic Substances, Hydrophilic Bases	4	1192	02/06/02	F	1	1	—	[100]	—	—	—	—
Humic Substances, Hydrophilic Neutrals	4	1192	02/06/02	F	1	1	—	[100]	—	—	—	—
Humic Substances, Hydrophilic Total	4	1192	02/06/02	F	1	1	400	—	—	—	—	—
Humic Substances, Hydrophobic Acids	4	1192	02/06/02	F	1	1	400	—	—	—	—	—
Humic Substances, Hydrophobic Bases	4	1192	02/06/02	F	1	1	0	—	—	—	—	—
Humic Substances, Hydrophobic Neutrals	4	1192	02/06/02	F	1	1	400	—	—	—	—	—
Humic Substances, Hydrophobic Total	4	1192	02/06/02	F	1	1	800	—	—	—	—	—
Methylene Chloride	4	1192	02/06/02	NF	1	1	0.85	—	5	0/1	100	0/1
Hexahydro-1-nitroso-3,5-dinitro-1,3,5-triazine	4	1192	02/06/02	NF	1	1	0.21	—	—	—	—	—
Tetrachloroethene	4	1192	02/06/02	NF	1	1	1	—	5	0/1	20	0/1
Toluene	4	1192	02/06/02	NF	1	1	0.24	—	1000	0/1	750	0/1

Table D-87 (continued)

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Total Organic Carbon	4	1192	02/06/02	NF	1	1	5070	—	—	—	—	—
Trichloroethene	4	1192	02/06/02	NF	1	1	0.9	—	5	0/1	100	0/1

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] F = Filtered.

Table D-88
Well R-25 Screen 5 Fourth Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Dissolved Organic Carbon	5	1303	02/07/02	F[e]	1	1	2000	—[f]	—	—	—	—
Humic Substances, Hydrophilic Acids	5	1303	02/07/02	F	1	1	—	[100]	—	—	—	—
Humic Substances, Hydrophilic Bases	5	1303	02/07/02	F	1	1	300	—	—	—	—	—
Humic Substances, Hydrophilic Neutrals	5	1303	02/07/02	F	1	1	200	—	—	—	—	—
Humic Substances, Hydrophilic Total	5	1303	02/07/02	F	1	1	500	—	—	—	—	—
Humic Substances, Hydrophobic Acids	5	1303	02/07/02	F	1	1	200	—	—	—	—	—
Humic Substances, Hydrophobic Bases	5	1303	02/07/02	F	1	1	—	[100]	—	—	—	—
Humic Substances, Hydrophobic Neutrals	5	1303	02/07/02	F	1	1	1300	—	—	—	—	—
Humic Substances, Hydrophobic Total	5	1303	02/07/02	F	1	1	1500	—	—	—	—	—
Total Organic Carbon	5	1303	02/07/02	NF[g]	1	1	3440	—	—	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] F = Filtered.

[f] — = Not available or not applicable.

[g] NF = Nonfiltered.

Table D-89
Well R-25 Screen 6 Fourth Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Amino-2,6-dinitrotoluene[4-]	6	1406	02/08/02	NF[e]	1	1	0.84	—[f]	—	—	—	—
Total Organic Carbon	6	1406	02/08/02	F[g]	1	1	660	—	—	—	—	—
Total Organic Carbon	6	1406	02/08/02	NF	1	1	723	—	—	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.
[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.
[c] NMED = New Mexico Environment Department.
[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.
[e] NF = Nonfiltered.
[f] — = Not available or not applicable.
[g] F = Filtered.

Table D-90
Well R-25 Screen 7 Fourth Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Total Organic Carbon	7	1605	02/11/02	F[e]	1	1	670	—[f]	—	—	—	—
Total Organic Carbon	7	1605	02/11/02	NF[g]	1	1	252	—	—	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.
[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.
[c] NMED = New Mexico Environment Department.
[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.
[e] F = Filtered.
[f] — = Not available or not applicable.
[g] NF = Nonfiltered.

Table D-91
Well R-25 Screen 8 Fourth Round Sample Results: Data Summary for Detected Organic Chemicals

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (µg/L)	Non-detected Value (µg/L)	Drinking Water MCL[b] (µg/L)	Frequency of Detects > Drinking Water MCL	NMED[c] Groundwater Standard[d] (µg/L)	Frequency of Detects > NMED Groundwater Standard
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	8	1796	02/12/02	NF[e]	1	1	0.73	—[f]	—	—	—	—
Hexahydro-1,3,5-trinitro-1,3,5-triazine	8	1796	02/12/02	NF	1	1	3.3	—	—	—	—	—
Total Organic Carbon	8	1796	02/12/02	F[g]	1	1	450	—	—	—	—	—
Total Organic Carbon	8	1796	02/12/02	NF	1	1	211	—	—	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NMED = New Mexico Environment Department.

[d] State of New Mexico groundwater standards are from *New Mexico Water Quality Control Commission Regulations, Ground and Surface Water Protection*, 20 NMAC 6.2.

[e] NF = Nonfiltered.

[f] — = Not available or not applicable.

[g] F = Filtered.

Table D-92
Well R-25 Screen 1 Fourth Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Americium-241	1	755	02/04/02	NF[c]	1	0	—[d]	[1.11]	—	—
Cesium-134	1	755	02/04/02	NF	1	0	—	[0.0647]	—	—
Cesium-137	1	755	02/04/02	NF	1	0	—	[0.689]	—	—
Cobalt-60	1	755	02/04/02	NF	1	0	—	[-0.255]	—	—
Europium-152	1	755	02/04/02	NF	1	0	—	[-1.94]	—	—
Gross Alpha Radiation	1	755	02/04/02	NF	1	1	1.31	—	—	—
Gross Beta Radiation	1	755	02/04/02	NF	1	1	1.15	—	—	—
Ruthenium-106	1	755	02/04/02	NF	1	0	—	[-4.56]	—	—
Sodium-22	1	755	02/04/02	NF	1	0	—	[-0.567]	—	—
Tritium	1	755	02/04/02	NF	1	1	52.35	—	20000	0/1
Uranium-234	1	755	02/04/02	F[e]	1	1	0.519	—	—	—
Uranium-234	1	755	02/04/02	NF	1	1	0.751	—	—	—
Uranium-235	1	755	02/04/02	F	1	0	—	[0.00509]	—	—
Uranium-235	1	755	02/04/02	NF	1	0	—	[0.043]	—	—
Uranium-238	1	755	02/04/02	F	1	1	0.375	—	—	—
Uranium-238	1	755	02/04/02	NF	1	1	0.413	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NF = Nonfiltered.

[d] — = Not available or not applicable.

[e] F = Filtered.

Table D-93
Well R-25 Screen 2 Fourth Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Americium-241	2	892	02/05/02	NF[c]	1	0	—[d]	[-2.6]	—	—
Cesium-134	2	892	02/05/02	NF	1	0	—	[-0.648]	—	—
Cesium-137	2	892	02/05/02	NF	1	0	—	[0.0899]	—	—
Cobalt-60	2	892	02/05/02	NF	1	0	—	[-0.36]	—	—
Europium-152	2	892	02/05/02	NF	1	0	—	[-0.611]	—	—
Gross Alpha Radiation	2	892	02/05/02	NF	1	1	6.24	—	—	—
Gross Beta Radiation	2	892	02/05/02	NF	1	1	5.02	—	—	—
Ruthenium-106	2	892	02/05/02	NF	1	0	—	[16.2]	—	—
Sodium-22	2	892	02/05/02	NF	1	0	—	[-0.527]	—	—
Tritium	2	892	02/05/02	NF	1	1	48.20	—	20000	0/1
Uranium-234	2	892	02/05/02	F[e]	1	1	0.222	—	—	—
Uranium-234	2	892	02/05/02	NF	1	1	0.423	—	—	—
Uranium-235	2	892	02/05/02	F	1	1	0.0381	—	—	—
Uranium-235	2	892	02/05/02	NF	1	0	—	[0.012]	—	—
Uranium-238	2	892	02/05/02	F	1	1	0.116	—	—	—
Uranium-238	2	892	02/05/02	NF	1	0	—	[0.307]	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NF = Nonfiltered.

[d] — = Not available or not applicable.

[e] F = Filtered.

Table D-94
Well R-25 Screen 4 Fourth Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Gross Alpha Radiation	4	1192	02/06/02	NF[c]	1	0	—[d]	[0.575]	—	—
Gross Beta Radiation	4	1192	02/06/02	NF	1	0	—	[1.14]	—	—
Tritium	4	1192	02/06/02	NF	1	1	34.15	—	20000	0/1
Uranium-234	4	1192	02/06/02	F[e]	1	1	0.315	—	—	—
Uranium-234	4	1192	02/06/02	NF	1	1	0.319	—	—	—
Uranium-235	4	1192	02/06/02	F	1	0	—	[0.013]	—	—
Uranium-235	4	1192	02/06/02	NF	1	0	—	[0.00413]	—	—
Uranium-238	4	1192	02/06/02	F	1	1	0.169	—	—	—
Uranium-238	4	1192	02/06/02	NF	1	1	0.181	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NF = Nonfiltered.

[d] — = Not available or not applicable.

[e] F = Filtered.

Table D-95
Well R-25 Screen 5 Fourth Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Gross Alpha Radiation	5	1303	02/07/02	NF[c]	1	0	—[d]	[2.33]	—	—
Gross Beta Radiation	5	1303	02/07/02	NF	1	0	—	[1.36]	—	—
Tritium	5	1303	02/07/02	NF	1	1	17.78	—	20000	0/1

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NF = Nonfiltered.

[d] — = Not available or not applicable.

Table D-96
Well R-25 Screen 6 Fourth Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Gross Alpha Radiation	6	1406	02/08/02	NF[c]	1	0	—[d]	[0.845]	—	—
Gross Beta Radiation	6	1406	02/08/02	NF	1	0	—	[0.593]	—	—
Tritium	6	1406	02/08/02	NF	1	1	7.50	—	20000	0/1
Uranium-234	6	1406	02/08/02	F[e]	1	1	0.42	—	—	—
Uranium-234	6	1406	02/08/02	NF	1	1	0.446	—	—	—
Uranium-235	6	1406	02/08/02	F	1	1	0.0197	—	—	—
Uranium-235	6	1406	02/08/02	NF	1	1	0.0336	—	—	—
Uranium-238	6	1406	02/08/02	F	1	1	0.232	—	—	—
Uranium-238	6	1406	02/08/02	NF	1	1	0.213	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NF = Nonfiltered.

[d] — = Not available or not applicable.

[e] F = Filtered.

Table D-97
Well R-25 Screen 7 Fourth Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Gross Alpha Radiation	7	1605	02/11/02	NF[c]	1	0	—[d]	[1.33]	—	—
Gross Beta Radiation	7	1605	02/11/02	NF	1	0	—	[1.75]	—	—
Tritium	7	1605	02/11/02	NF	1	1	3.00	—	20000	0/1
Uranium-234	7	1605	02/11/02	F[e]	1	1	0.229	—	—	—
Uranium-234	7	1605	02/11/02	NF	1	1	0.177	—	—	—
Uranium-235	7	1605	02/11/02	F	1	0	—	[0.00863]	—	—
Uranium-235	7	1605	02/11/02	NF	1	0	—	[0.0178]	—	—
Uranium-238	7	1605	02/11/02	F	1	1	0.15	—	—	—
Uranium-238	7	1605	02/11/02	NF	1	1	0.114	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NF = Nonfiltered.

[d] — = Not available or not applicable.

[e] F = Filtered.

Table D-98
Well R-25 Screen 8 Fourth Round Sample Results: Data Summary for Radionuclides

Analyte	Screen	Depth (ft)[a]	Collection Date	Field Preparation	Number of Analyses	Number of Detects	Detected Value (pCi/L)	Nondetected Value (pCi/L)	Drinking Water MCL[b] (pCi/L)	Frequency of Detects > Drinking Water MCL
Gross Alpha Radiation	8	1796	02/12/02	NF[c]	1	0	—[d]	[1.84]	—	—
Gross Beta Radiation	8	1796	02/12/02	NF	1	1	2.01	—	—	—
Tritium	8	1796	02/12/02	NF	1	1	3.06	—	20000	0/1
Uranium-234	8	1796	02/12/02	F[e]	1	1	0.466	—	—	—
Uranium-234	8	1796	02/12/02	NF	1	1	0.318	—	—	—
Uranium-235	8	1796	02/12/02	F	1	1	0.0376	—	—	—
Uranium-235	8	1796	02/12/02	NF	1	0	—	[0.0141]	—	—
Uranium-238	8	1796	02/12/02	F	1	1	0.124	—	—	—
Uranium-238	8	1796	02/12/02	NF	1	1	0.138	—	—	—

[a] The static water level for the regional aquifer at R-25 was 1286 ft when the well was drilled.

[b] MCL = Maximum contaminant level. US Environmental Protection Agency (EPA) MCLs are from *National Primary Drinking Water Regulations*, 40 CFR Part 141. US EPA secondary MCLs are from *National Secondary Drinking Water Regulations*, 40 CFR Part 143. State of New Mexico MCLs are from *Drinking Water Regulations*, 20 NMAC 7.1.

[c] NF = Nonfiltered.

[d] — = Not available or not applicable.

[e] F = Filtered.