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Periodic Monitoring Report for Pajarito Watershed, December 3–December 19, 2007

Prepared by the Environmental Programs Directorate

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Periodic Monitoring Report for Pajarito Watershed, December 3–December 19, 2007

July 2008

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EXECUTIVE SUMMARY

This report provides the results of the periodic monitoring event (PME) conducted by Los Alamos National Laboratory in the Pajarito Watershed. This PME was conducted pursuant to the "Interim Facility-Wide Groundwater Monitoring Plan," prepared under the Compliance Order on Consent.

The PME documented in this report occurred from December 3 to December 19, 2007. This event included the sampling of groundwater wells or well ports, springs, and base-flow stations. Unreported results from a previous PME are also included. These results were not available for inclusion in the previous PME because they were still in the process of data validation.

Water samples obtained from various locations during this PME were analyzed for target analyte list metals, volatile organic compounds, cyanide, semivolatile organic compounds, pesticides, polychlorinated biphenyls, high explosives, radionuclides, low-level tritium, inorganics, perchlorate, stable isotopes, and field parameters (alkalinity, dissolved oxygen, pH, specific conductance, temperature, and turbidity).

Aluminum, in a surface water sample collected during this PME from the station Pajarito 0.5 mi above SR 501 exceeded the New Mexico aquatic life acute screening level.

Six results from groundwater samples collected during this PME from Pajarito Canyon exceeded screening levels. Chloride and total dissolved solids in intermediate well 03-B-10 exceeded the New Mexico Water Quality Control Commission groundwater standard screening levels. Aluminum and iron in Kieling Spring and iron in Bulldog Spring also exceeded these screening levels. RDX in Bulldog Spring exceeded the 10^{-5} U.S. Environmental Protection Agency tap water risk screening level.

CONTENTS

1.0 INTRODUCTION 1

 1.1 Background..... 1

 1.2 Conceptual Model..... 2

2.0 SCOPE OF ACTIVITIES 2

3.0 MONITORING RESULTS 2

 3.1 Methods and Procedures 2

 3.2 Field Parameter Results 2

 3.3 Water-Level Observations 2

 3.4 Deviations from Planned Scope 3

4.0 ANALYTICAL DATA RESULTS..... 3

 4.1 Methods and Procedures 3

 4.2 Analytical Data..... 3

 4.2.1 Surface Water (Base Flow) 5

 4.2.2 Groundwater..... 5

 4.3 Sampling Program Modifications 6

5.0 INVESTIGATION-DERIVED WASTE 6

6.0 SUMMARY 6

 6.1 Monitoring Results 6

 6.2 Analytical Results 6

 6.2.1 Surface Water (Base Flow) 6

 6.2.2 Groundwater..... 6

 6.3 Data Gaps..... 6

7.0 REFERENCES 7

Figures

Figure 2.0-1 Watershed monitoring locations..... 9

Figure 3.3-1 Alluvial groundwater elevations 10

Figure 3.3-2 Intermediate and regional groundwater elevations..... 11

Figure 4.2-1 Analytical results 12

Tables

Table 2.0-1 Monitoring Locations and General Information..... 13

Table 3.4-1 Observations and Deviations 16

Table 4.2-1 Cleanup Standards, Risk-Based Screening Levels, and Risk-Based Cleanup Levels for Groundwater and Surface Water at Los Alamos National Laboratory 16

Table 4.2-2 Results above Screening Levels for Groundwater and Surface Water 17

Appendixes

Appendix A	Conceptual Model
Appendix B	Field Parameter Results
Appendix C	Groundwater-Level Measurements
Appendix D	Analytical Results
Appendix E	Screening Results
Appendix F	Investigation-Derived Waste Management
Appendix G	Analytical Reports and Previously Unreported Data (on CD enclosed with this document)

Acronyms and Abbreviations

AK	acceptable knowledge
AOC	area of concern
BCG	Biota Concentration Guide (DOE)
bgs	below ground surface
C	cancer
Consent Order	Compliance Order on Consent
DCG	Derived Concentration Guidelines (DOE)
DOE	Department of Energy (U.S.)
DOT	Department of Transportation (U.S.)
ENV	Environmental Protection Water Quality
EPA	Environmental Protection Agency (U.S.)
EP-WES	Environmental Programs–Waste and Environmental Services
F	filtered
IDW	investigation-derived waste
IFGMP	Interim Facility-Wide Groundwater Monitoring Plan
LANL	Los Alamos National Laboratory
MCL	maximum contaminant level (EPA)
MDL	method detection limit
msl	mean sea level
N	noncancer
NMED	New Mexico Environment Department
NMWQCC	New Mexico Water Quality Control Commission
NOI	notice of intent
NTU	nephelometric turbidity unit
PCB	polychlorinated biphenyl
PME	periodic monitoring event
PMR	periodic monitoring report

PPE	personal protective equipment
QA	quality assurance
QC	quality control
RCRA	Resource Conservation and Recovery Act
RPF	Records Processing Facility
SOP	standard operating procedure
SVOC	semivolatile organic compound
SWMU	solid waste management unit
TA	technical area
TSD	treatment, storage, and disposal
UF	unfiltered
VOC	volatile organic compound
WAC	waste acceptance criteria
WCSF	waste characterization strategy form
WPF	waste profile form

1.0 INTRODUCTION

This report provides documentation of quarterly groundwater and surface-water monitoring conducted by Los Alamos National Laboratory (LANL or the Laboratory) in the Pajarito Watershed pursuant to the "Interim Facility-Wide Groundwater Monitoring Plan" (IFGMP) (LANL 2006, 094043), prepared under the Compliance Order on Consent (Consent Order). This report includes the periodic monitoring event (PME) that occurred from December 3 to December 19, 2007, and included sampling at groundwater wells or well ports, springs, and base-flow stations.

The Consent Order identifies New Mexico Water Quality Control Commission (NMWQCC) groundwater standards, including alternative abatement standards and U.S. Environmental Protection Agency (EPA) drinking water maximum contaminant levels (MCLs), as cleanup levels for groundwater when corrective action is implemented. NMWQCC groundwater standards, MCLs, and EPA tap water screening levels are used as screening levels for monitoring data and are provided in this report.

This report presents the following information:

- general background information on the watershed
- the watershed conceptual model
- field measurement monitoring results
- water-quality monitoring results
- results of the screening analysis (comparing these PME results with screening levels and results from previous reports)
- summary based on the data and the screening analysis
- Information on radioactive materials and radionuclides, including the results of sampling and analysis of radioactive constituents, is voluntarily provided to the New Mexico Environment Department (NMED) in accordance with U.S. Department of Energy (DOE) policy. Data that were not reported in the previous periodic monitoring report (PMR) because they were still in the process of data validation are included in Appendix D.

1.1 Background

This section describes the physical characteristics of the Pajarito Watershed, some of the investigatory activities conducted, and the Laboratory activities that have potentially impacted groundwater and surface water.

Pajarito Canyon is located on the Pajarito Plateau in the central part of the Laboratory. The Pajarito Canyon watershed is approximately 13 mi² and heads in the Santa Fe National Forest, approximately 2.9 mi (4.6 km) west of the Laboratory boundary at an elevation of approximately 10,434 ft (3180 m). Pajarito Canyon trends east-southeast across both the Laboratory and Los Alamos County. It discharges into the Rio Grande in White Rock Canyon at an elevation of 5422 ft (1653 m). Twomile Canyon and Threemile Canyon are major tributaries that join Pajarito Canyon, approximately 7.3 mi (11.7 km) and 4.9 mi (9.3 km), respectively, upstream of the Rio Grande.

The primary Laboratory use of the Pajarito Canyon watershed has been as the canyon-floor location for the Los Alamos Critical Experiments Laboratory at Technical Area 18 (TA-18) and for mesa-top surface and subsurface Material Disposal Areas (MDAs) F and Q at TA-06; M at TA-09; and G, H, J, and L at TA-54.

The technical areas located within this watershed include TA-03, TA-06, TA-07, TA-08, TA-09, TA-14, TA-15, TA-18, TA-22, TA-23, TA-27, TA-36, TA-40, TA-46, TA-50, TA-54, TA-55, TA-58, TA-59, TA-64, TA-65, TA-66, TA-67, and TA-69. The contaminant release history from approximately 379 solid waste management units (SWMUs) and areas of concern (AOCs) includes releases or possible releases from outfalls, septic systems, spills, open detonations from firing sites, and MDAs. Laboratory-related contamination has been detected in Pajarito Canyon water samples obtained from perennial and ephemeral streams, alluvial groundwater, and springs supplied by intermediate groundwater from the Bandelier Tuff.

Other uses within the watershed area include surface and subsurface MDAs and a buffer zone for mesa-top firing activities. To a lesser extent, the canyon has been used for liquid waste disposal. The early discharges were associated with outfalls, surface runoff, and dispersion from firing sites located at TA-06, TA-07, TA-08, TA-09, TA-12 (former), TA-15, TA-18, TA-22, TA-27 (former), and TA-69. Additional discharges began with the continued expansion of Laboratory operations to new sites from the 1950s to the 1970s, specifically TA-03, TA-36, TA-40, TA-48, and TA-59. Discharges to Pajarito Canyon and its tributaries have decreased as fewer firing sites within the watershed remained active during the past decades, and many outfalls have either been rendered inactive or were rerouted to the Laboratory's sanitary waste treatment facility at TA-46 during the 1980s and 1990s.

1.2 Conceptual Model

The conceptual model for the Pajarito Watershed is shown in Appendix A of this document.

2.0 SCOPE OF ACTIVITIES

The PME for the Pajarito Watershed was conducted pursuant to the 2007 IFGMP.

Table 2.0-1 provides the location name, sample collection date, port name, port depth, screened interval, top and bottom screen depths, base flow or water level, and the water-level method for each of the monitored locations. These locations are shown in Figure 2.0-1.

3.0 MONITORING RESULTS

3.1 Methods and Procedures

All methods and procedures used to perform the field activities associated with the PME are documented in the 2007 IFGMP (LANL 2007, 096665).

3.2 Field Parameter Results

Appendix B contains the field parameter results for the PME and the three PMEs immediately before the December 2007 sampling event.

3.3 Water-Level Observations

The periodic monitoring water-level data for this event and the previous three monitoring events are located in Appendix C. For wells equipped with transducers, the reported water level is the water-level measurement taken earliest on the day of sampling. All manual measurements are reported at the time immediately before sampling. The water-level measurements taken during these periodic monitoring events are shown graphically in Figures 3.3-1 through 3.3-2.

3.4 Deviations from Planned Scope

Table 3.4-1 describes the deviations from the planned scope of the PME.

4.0 ANALYTICAL DATA RESULTS

4.1 Methods and Procedures

All methods and procedures used to perform the analytical activities of the PME are documented in the 2007 IFGMP (LANL 2007, 096665).

4.2 Analytical Data

Appendix D presents the analytical data from the PME and from the three sampling events before November–December 2007. The screening levels with which the results are compared are shown in Table 4.2-1. The analytical laboratory reports (including chains of custody, etc.) can be found in Appendix G.

Appendix D contains all data obtained during the PME (i.e., all data that have been independently validated for conformance with Laboratory requirements), with the following constraints.

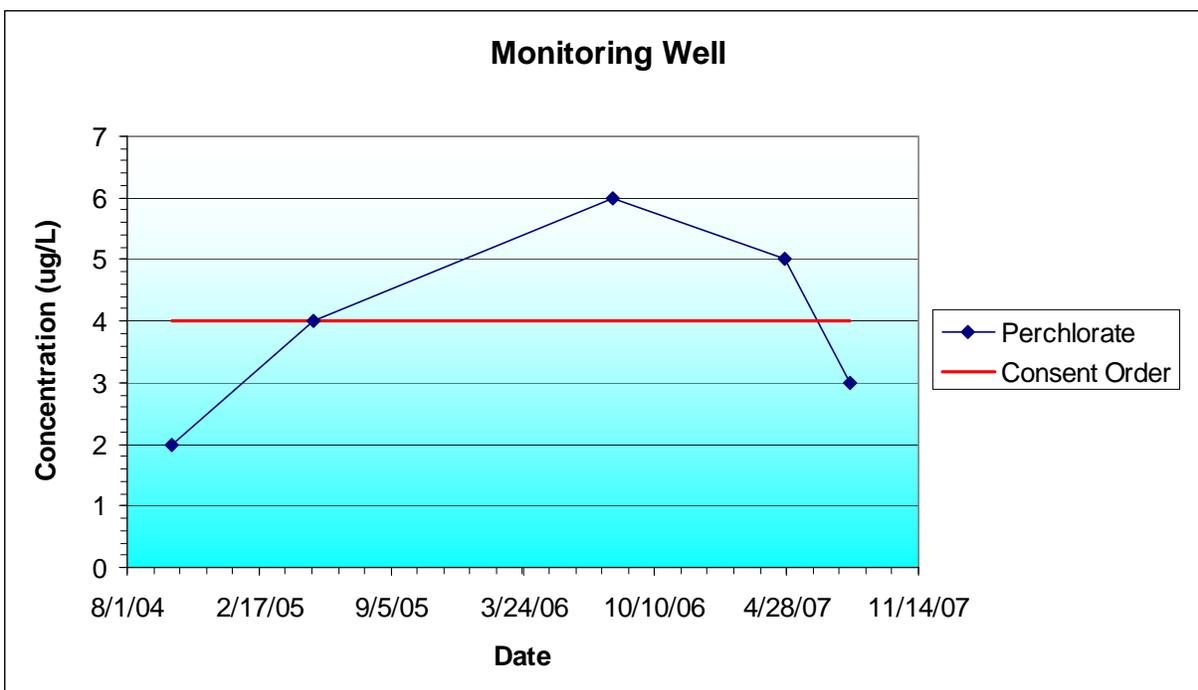
- All data
 - ❖ Data that are R-qualified (rejected because of noncompliance regarding quality control [QC] acceptance criteria) during independent validation are considered “not detected” but are still reported. Analytical laboratory QC results, including matrix spike and matrix spike duplicates, are not included in the data set.
- Radionuclides
 - ❖ All low-detection-limit tritium data are reported. Results greater than 3 times the 1 standard deviation total propagated analytical uncertainty (or 3σ) are considered to be detections.
 - ❖ Americium-241 and uranium-235 are reported only by chemical separation alpha spectroscopy. No gamma spectroscopy results are presented for these analytes.
 - ❖ Only cesium-137, cobalt-60, neptunium-237, potassium-40, and sodium-22 are reported (or analyzed) for the gamma spectroscopy suite.
 - ❖ Otherwise, all detections are reported at all locations (i.e., results without a laboratory qualifier of U or X abbreviations that indicate the analyte was not detected).
- Nonradionuclides
 - ❖ All results, excluding nondetections, are reported. Field duplicates, reanalyses, field blanks, trip blanks, equipment blanks, and different analytical methods are also reported.

The screening levels applied to all media are listed in Table 4.2-1. Table 4.2-1 indicates the type of screening level and its source.

Data for PMRs are evaluated using the following screening process.

- Surface-water and groundwater perchlorate data were compared with the screening level of 4 µg/L established in Section VIII.A.1.a of the Consent Order. Surface-water sample results were compared with all surface-water standards without consideration of the designated use for the particular reach. The NMWQCC groundwater standards apply to the dissolved (filtered) portion of specified contaminants; however, the standards for mercury, organic compounds, and nonaqueous phase liquids apply to the total unfiltered concentrations of the contaminants.
- As required by the Consent Order, EPA Region 6 tap water screening levels are used for constituents having no other regulatory standard and for which toxicological information is published. For these screening levels, the tables indicate a risk type of C (excess cancer risk level of 10^{-5}) or N (noncancer). The Consent Order specifies screening for excess cancer risk at a risk level of 10^{-5} (rather than 10^{-6} as given in the Region 6 tables). Therefore, the Region 6 values were multiplied by 10 to obtain the 10^{-5} excess cancer risk level.
- The analytical results for radioactivity are compared with the DOE Biota Concentration Guide (BCG) for surface water and Derived Concentration Guidelines (DCG) for groundwater.
- Tables in Appendix E show all values for perchlorate, radionuclides, organic compounds, and all values greater than half the lowest applicable screening level values for metals and general inorganic compounds.

Analytical results are presented graphically in Figure 4.2-1. Figure 4.2-1 contains diagrams displaying a series of select analytes. An example of a diagram displaying perchlorate concentration is shown below.



Perchlorate concentrations

The analytes displayed in Figure 4.2-1 were selected from data acquired during the PME. The analytes shown on the figure were chosen for display because of their concentrations compared with screening levels and historical presence in surface water and groundwater in this watershed.

Radionuclides are not shown on the diagrams. The solid red lines, when shown, depict applicable screening levels. Note that some standards or screening levels may exceed the highest concentration displayed and may not appear on the diagram. Screening-level values are in Tables E-1 through E-9 in Appendix E.

Tables E-1 through E-4 (Appendix E) compare the surface-water analytical data with screening levels. Graphical representations of select surface-water analytical results are shown in Figure 4.2-1.

Tables E-5 through E-9 (Appendix E) compare the groundwater analytical data with screening levels. Graphical representations of select groundwater analytical results are shown in Figure 4.2-1.

Table 4.2-2 shows results for surface water and groundwater (by hydrogeologic zone for a specific analytical suite) that are above a screening level. Multiple detections of a particular constituent at a location are counted as one result. For example, if aluminum is detected above a screening level in both a primary sample and a field duplicate, only one result is shown.

4.2.1 Surface Water (Base Flow)

The filtered aluminum concentration of 2130 µg/L at location Pajarito 0.5 mi above SR-501 was above the New Mexico aquatic life acute screening level of 750 µg/L that applies in this ephemeral reach. Results for filtered aluminum at this location over 4 yr have ranged from nondetection (<95 µg/L) to 4090 µg/L and the larger values appear to correlate with larger turbidity values. Turbidity results have ranged from 1.2 nephelometric turbidity units (NTUs) to 32 NTUs, with the recent result of 15.8 NTUs.

4.2.2 Groundwater

Table 4.2.2 lists results above standards or screening levels for groundwater and surface water.

The filtered iron result at alluvial well 18-BG-1 of 1400 µg/L was above the NMWQCC groundwater standard screening level (applicable domestic water supply) of 1000 µg/L. This result is the second highest of six measurements taken since August 2006.

The chloride and TDS measurements at 03-B-10 (566 µg/L and 1200 µg/L) were above their respective NMWQCC groundwater standard screening levels (applicable to domestic water supply) of 250 µg/L and 1000 µg/L.

One filtered aluminum and two filtered iron results at intermediate spring monitoring locations were above their NMWQCC groundwater standard screening levels (applicable to irrigation use and domestic water supply, respectively) of 5000 µg/L and 1000 µg/L. The aluminum and iron results at Kieling Spring were 5660 µg/L and 2800 µg/L. The filtered iron result at Bulldog Spring was 1260 µg/L, above the 1000 µg/L screening level. These results are in the range of the highly variable results measured at each location since 2004.

At Bulldog Spring the RDX concentration of 6.42 µg/L was above the 6.11 µg/L EPA tap water 10⁻⁵ risk screening level. This is the first RDX result measured at this location above the screening level since sampling began in 2004. Seven prior sample results ranged from 1.1 to 5.1 µg/L.

4.3 Sampling Program Modifications

No modifications to the periodic monitoring sampling for the Pajarito Watershed are proposed at this time.

5.0 INVESTIGATION-DERIVED WASTE

Appendix F discusses the management of wastes produced during the PME. A copy of the waste management records for waste streams was included in Appendix F of the initial PMR (LANL 2007, 101349).

6.0 SUMMARY

6.1 Monitoring Results

An evaluation of the field parameter monitoring results presented in Appendix B and subsequent monitoring events will be provided in the annual update to the IFGMP.

6.2 Analytical Results

6.2.1 Surface Water (Base Flow)

The types of contaminants detected and their concentrations are consistent with data reported from previous monitoring events in this watershed.

Overall, one constituent, aluminum, in surface-water samples collected during this PME from Pajarito Canyon exceeded screening levels (Table 4.2-2).

6.2.2 Groundwater

The contaminants detected are consistent with data reported from previous monitoring events in this watershed.

Overall, six results from groundwater samples collected during this PME from Pajarito Canyon exceeded screening levels (Table 4.2-2). Chloride and total dissolved solids in intermediate well 03-B-10 exceeded NMWQCC groundwater standard screening levels. Aluminum and iron in Kieling Spring and iron in Bulldog Spring also exceeded these screening levels. RDX in Bulldog Spring exceeded the 10^{-5} EPA tap water risk screening level.

6.3 Data Gaps

A summary of the field parameter gaps encountered during the PME is in Table 3.4-1. The table provides a detailed account of sampling event deviations.

7.0 REFERENCES

The following list includes all documents cited in this report. Parenthetical information following each reference provides the author(s), publication date, and ER ID number. This information is also included in text citations. ER ID numbers are assigned by the Environmental Programs Directorate's Records Processing Facility (RPF) and are used to locate the document at the RPF and, where applicable in the Program master reference set.

Copies of the master reference set are maintained at the NMED Hazardous Waste Bureau; DOE–Los Alamos Site Office; EPA, Region 6; and the Directorate. The set was developed to ensure that the administrative authority has all material needed to review this document, and it is updated with every document submitted to the administrative authority. Documents previously submitted to the administrative authority are not included.

LANL (Los Alamos National Laboratory), July 2006. "Interim Facility-Wide Groundwater Monitoring Plan, Revision 1.1," Los Alamos National Laboratory document LA-UR-06-4975, Los Alamos, New Mexico. (LANL 2006, 094043)

LANL (Los Alamos National Laboratory), May 2007. "2007 Interim Facility-Wide Groundwater Monitoring Plan," Los Alamos National Laboratory document LA-UR-07-3271, Los Alamos, New Mexico. (LANL 2007, 096665)

LANL (Los Alamos National Laboratory), November 2007. "Periodic Monitoring Report for Pajarito Watershed December 4–December 20, 2006; March 19–April 8, 2007; and June 25–July 15, 2007," Los Alamos National Laboratory document LA-UR-07-7244, Los Alamos, New Mexico. (LANL 2007, 101349)

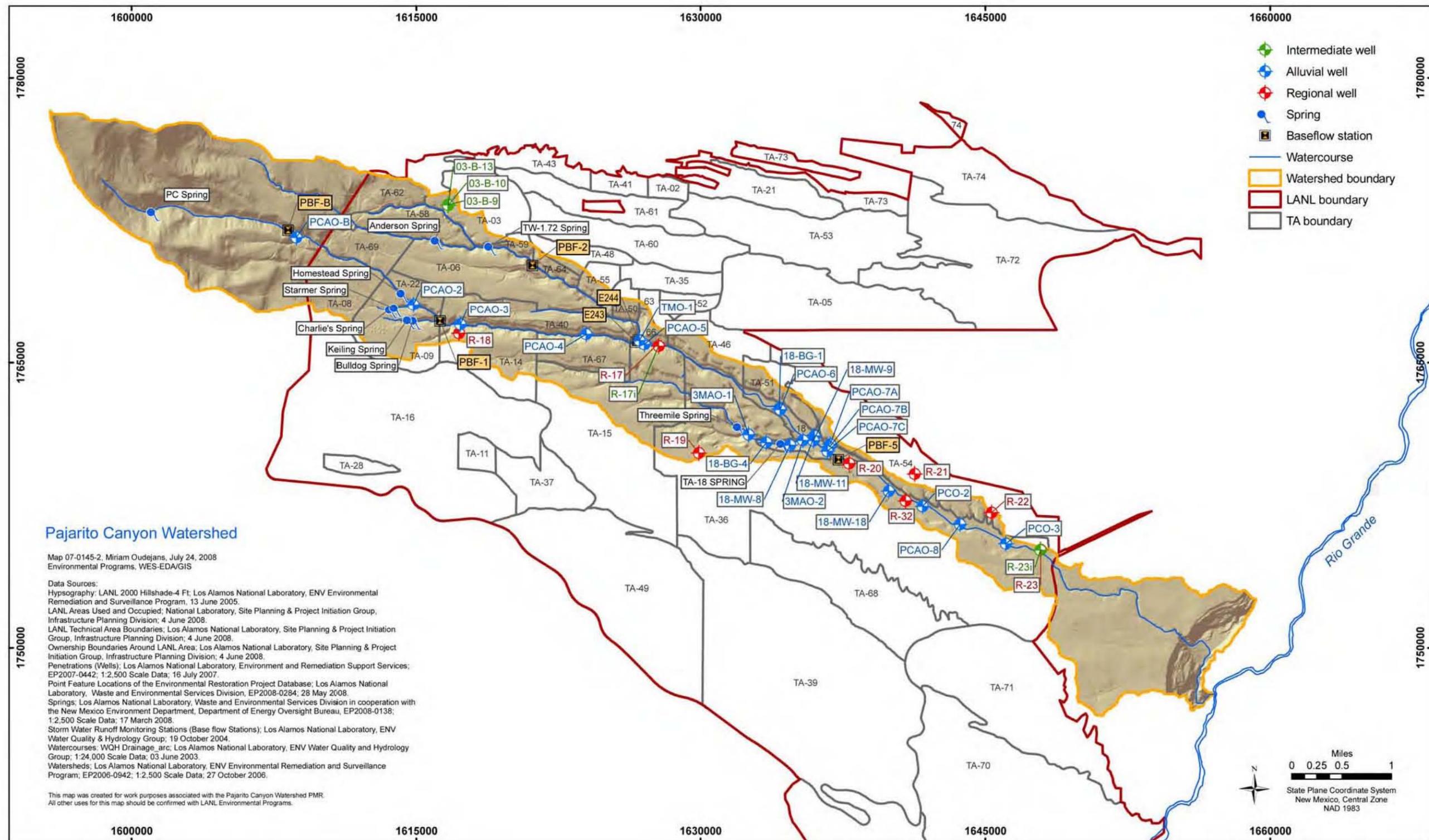


Figure 2.0-1 Watershed monitoring locations

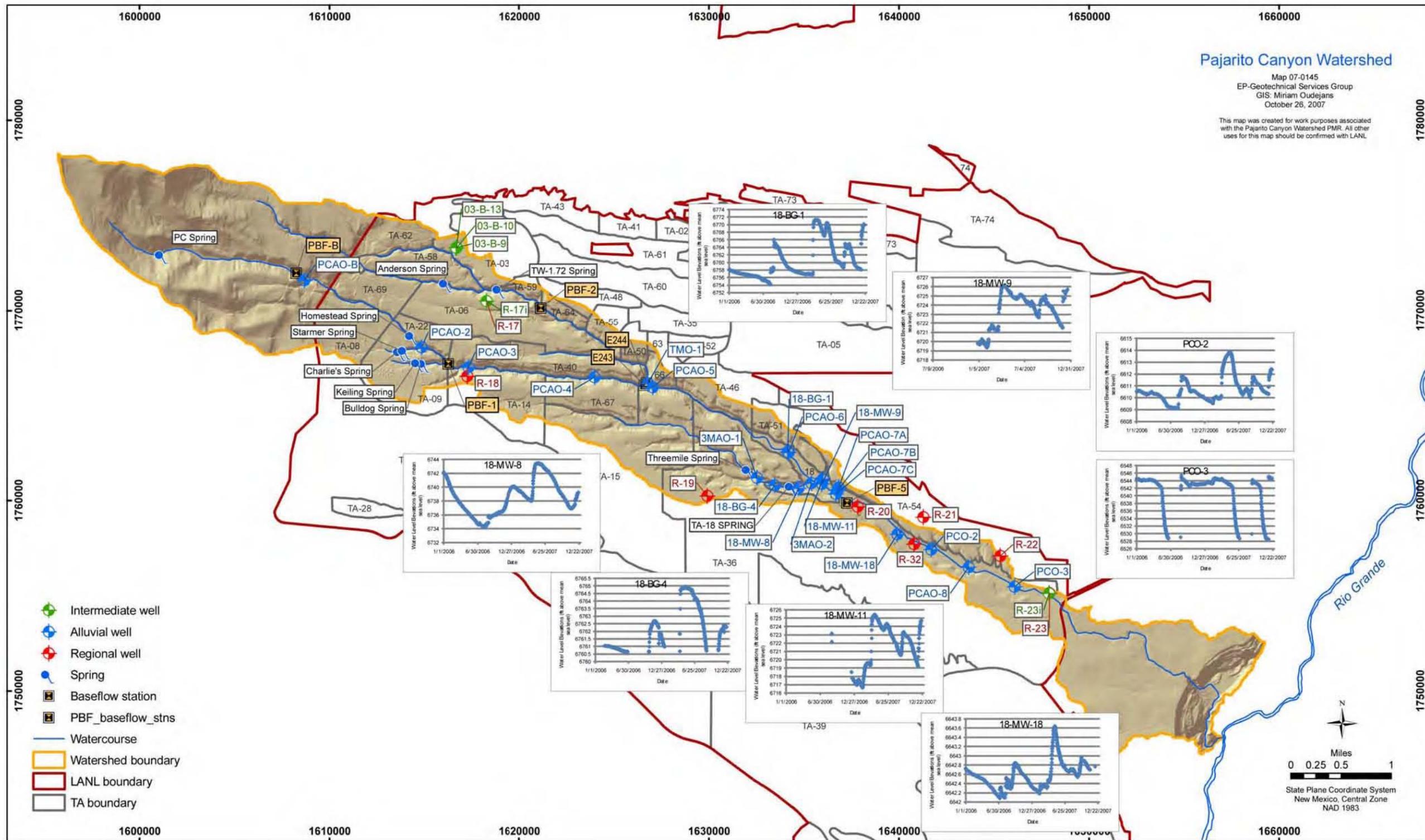


Figure 3.3-1 Alluvial groundwater elevations

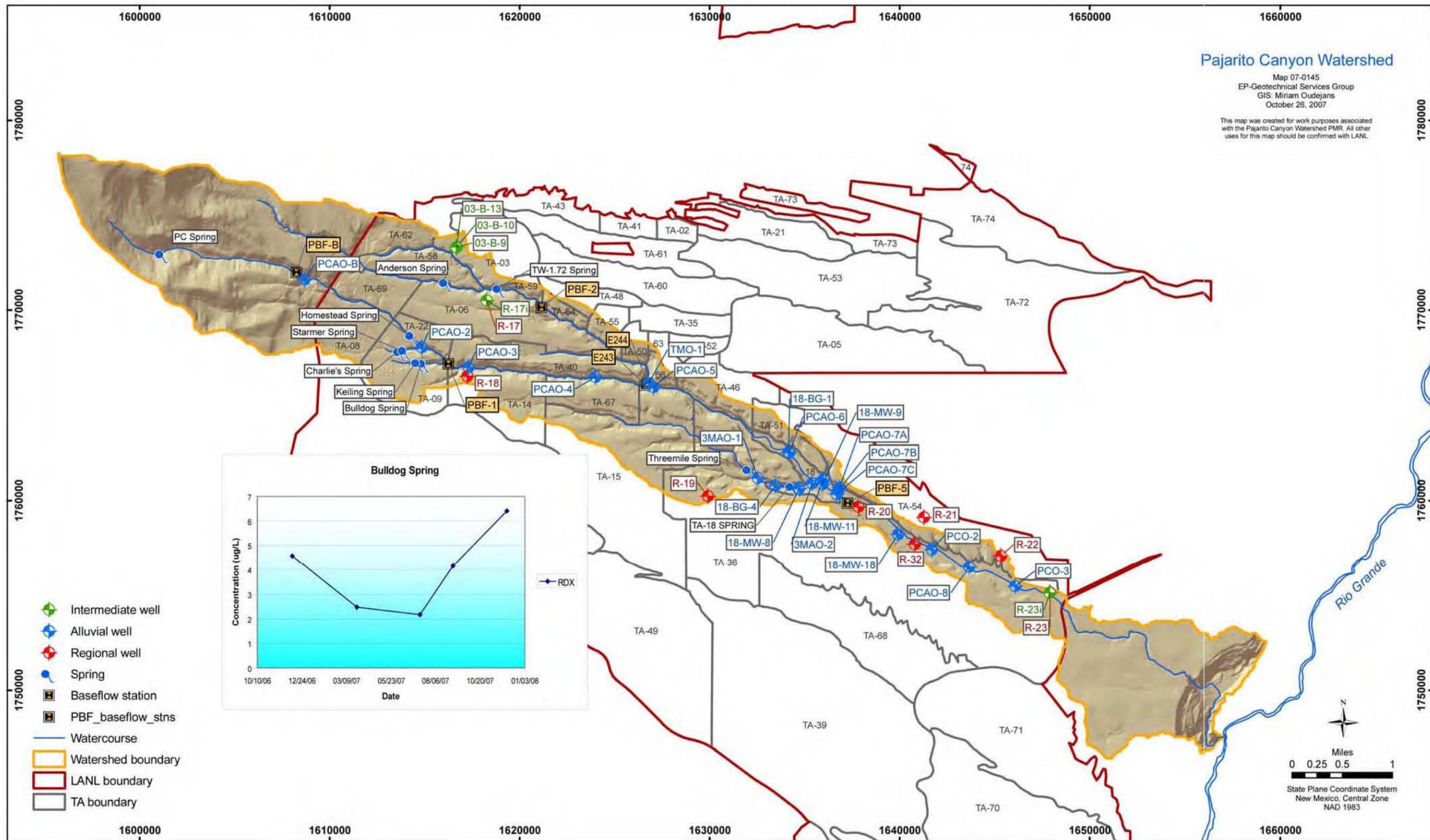


Figure 4.2-1 Analytical results

**Table 2.0-1
Monitoring Locations and General Information**

Location	Sample Collection Date	Port Name	Port Depth (ft)	Screened Interval (ft)	Top Screen Depth (ft)	Bottom Screen Depth (ft)	Instantaneous Stream Flow (ft ³ /s)	Water Level (ft above msl ^a)	Water-Level Method
Base Flow									
Pajarito 0.5 mi above SR-501	17-Dec-07	n/a ^b	n/a	n/a	n/a	n/a	Not collected ^c	n/a	n/a
Pajarito above Twomile	17-Dec-07	n/a	n/a	n/a	n/a	n/a	0.8	n/a	n/a
Pajarito below confluences of South and North Anchor East Basin	03-Dec-07	n/a	n/a	n/a	n/a	n/a	1.0	n/a	n/a
Pajarito below TA-18	11-Dec-07	n/a	n/a	n/a	n/a	n/a	Dry	n/a	n/a
Two Mile Canyon below TA-59	17-Dec-07	n/a	n/a	n/a	n/a	n/a	Ice on top of base flow.	n/a	n/a
Twomile above Pajarito	17-Dec-07	n/a	n/a	n/a	n/a	n/a	0.6	n/a	n/a
Springs									
Anderson Spring	10-Dec-07	n/a	n/a	n/a	n/a	n/a	0.02	n/a	n/a
Bulldog Spring	03-Dec-07	n/a	n/a	n/a	n/a	n/a	0.01	n/a	n/a
Charlie's Spring	03-Dec-07	n/a	n/a	n/a	n/a	n/a	0.01	n/a	n/a
Homestead Spring	03-Dec-07	n/a	n/a	n/a	n/a	n/a	0.005	n/a	n/a
Keiling Spring	03-Dec-07	n/a	n/a	n/a	n/a	n/a	0.004	n/a	n/a
PC Spring	18-Dec-07	n/a	n/a	n/a	n/a	n/a	0.005	n/a	n/a
Starmer Spring	03-Dec-07	n/a	n/a	n/a	n/a	n/a	0.01	n/a	n/a
TA-18 Spring	12-Dec-07	n/a	n/a	n/a	n/a	n/a	0.002	n/a	n/a
Threemile Spring	11-Dec-07	n/a	n/a	n/a	n/a	n/a	No sample collected	n/a	n/a
TW-1.72 Spring	11-Dec-07	n/a	n/a	n/a	n/a	n/a	No sample collected	n/a	n/a

Table 2.0-1 (continued)

Location	Sample Collection Date	Port Name	Port Depth (ft)	Screened Interval (ft)	Top Screen Depth (ft)	Bottom Screen Depth (ft)	Instantaneous Stream Flow (ft ³ /s)	Water Level (ft above msl ^a)	Water-Level Method
Alluvial									
18-BG-1	04-Dec-07	Single	10	25	10	35	n/a	6767.95	Transducer
18-BG-4	04-Dec-07	Single	2.5	4	2.5	6.5	n/a	Well purged dry with no recharge	na ^d
18-MW-11	05-Dec-07	Single	27	20	27	47	n/a	na	Transducer
18-MW-18	06-Dec-07	Single	12.5	10.5	12.5	23	n/a	na	Transducer
18-MW-8	05-Dec-07	Single	8	30	8	38	n/a	6738.33	Transducer
18-MW-9	18-Dec-07	Single	6	25	6	31	n/a	na	Transducer
PCO-2	06-Dec-07	Single	1.5	8	1.5	9.5	n/a	na	Transducer
PCO-3	07-Dec-07	Single	5.7	12	5.7	17.7	n/a	6544.62	Transducer
Intermediate									
03-B-9	18-Dec-07	Single	na	na	na	na	n/a	No sample collected cancelled by project lead.	na
03-B-10	17-Dec-07	Single	20.6	10	20.6	30.6	n/a	na	Transducer
03-B-13	18-Dec-07	Single	21.5	10	21.5	31.5	n/a	na	Transducer
R-19	10-Dec-07	MP1A	844.2	16.4	827.2	843.6	n/a	Port dry	n/a
R-19	10-Dec-07	MP2A	909.3	16.3	893.3	909.6	n/a	6168.93	Transducer
R-23i	19-Dec-07	P1A	400.3	19.7	400.3	420	n/a	na	Transducer
R-23i	19-Dec-07	P3A	524	23	524	547	n/a	Not sampled	na
Regional									
R-17	05-Dec-07	P1A	1057	23	1057	1080	n/a	5878.86	Manual
R-17	06-Dec-07	P2A	1124	10	1124	1134	n/a	5883.10	Manual
R-18	04-Dec-07	Single	1358	23	1358	1381	n/a	6110.56	Manual
R-19	10-Dec-07	MP3A	1191	44	1171.4	1215.4	n/a	5887.5	Transducer
R-19	06-Dec-07	MP4A	1413	7.2	1410.2	1417.4	n/a	5880.67	Transducer
R-19	06-Dec-07	MP5A	1586	7.2	1582.6	1589.8	n/a	5878.16	Transducer

Table 2.0-1 (continued)

Location	Sample Collection Date	Port Name	Port Depth (ft)	Screened Interval (ft)	Top Screen Depth (ft)	Bottom Screen Depth (ft)	Instantaneous Stream Flow (ft ³ /s)	Water Level (ft above msl ^a)	Water-Level Method
R-19	07-Dec-07	MP6A	1730	7.1	1726.8	1733.9	n/a	5871.37	Transducer
R-19	10-Dec-07	MP7A	1835	7.1	1832.4	1839.5	n/a	5868.45	Transducer
R-22	18-Dec-07	MP1A	907.1	41.9	872.3	914.2	n/a	5761.74	Transducer
R-22	17-Dec-07	MP2A	962.8	41.9	947	988.9	n/a	5754.82	Transducer
R-22	18-Dec-07	MP3A	1274	6.7	1272.2	1278.9	n/a	5699.3	Transducer
R-22	18-Dec-07	MP4A	1378	6.7	1378.2	1384.9	n/a	5693.79	Transducer
R-22	18-Dec-07	MP5A	1448	5	1447.3	1452.3	n/a	5693.7	Transducer
R-23	06-Dec-07	Single	816	57.2	816	873.2	n/a	5696.75	Manual
R-32	14-Dec-07	MP1A	870.9	7.7	867.5	875.2	n/a	na	Transducer
R-32	14-Dec-07	MP3A	976	7.7	972.9	980.6	n/a	na	Transducer

^a msl = Mean sea level.

^b n/a = Not applicable.

^c See Table 3.4-1 for explanation.

^d na = Not available.

**Table 3.4-1
Observations and Deviations**

Sampling Problems			
Location	Deviation	Cause	Comment
03-B-9	No data are included in this report for this location.	No sample collected, well was open to stormwater runoff.	Location will be checked again during next scheduled sampling round.
18-BG-4	No data are included in this report for this location.	The location was not sampled on 12/04/07 because the well purged dry.	Location will be sampled when sufficient water is present during a future sampling event.
Pajarito below TA-18	No data are included in this report for this location.	The location was not sampled on 12/11/07 because it was dry.	Location will be sampled when sufficient water is present during a future sampling event.
R-19, Screen 1	No data are included in this report for this location.	The location was not sampled on 12/10/07 because it was dry.	Location will be sampled when sufficient water is present during a future sampling event.
Threemile Spring, TW-1.72 Spring	No data are included in this report for this location.	The locations were not sampled on 12/11/07 because the springs were submerged by base flow.	Location will be sampled when it is no longer submerged.

**Table 4.2-1
Cleanup Standards, Risk-Based Screening Levels,
and Risk-Based Cleanup Levels for Groundwater and
Surface Water at Los Alamos National Laboratory**

Standard Type	Groundwater	Surface Water
BCG	n/a ^a	x ^b
DOE 100-mrem Public Dose DCG	x	n/a
DOE 4-mrem Drinking Water DCG	x	n/a
EPA MCL	x	n/a
EPA Region 6 Tap Water Screening Level	x	n/a
New Mexico Environmental Improvement Board Radiation Protection Standards	x	x
NMWQCC Fisheries Standards Chronic	n/a	x
NMWQCC Fisheries Standards Chronic, Hardness = 100 mg/L	n/a	x
NMWQCC Groundwater Standard	x	n/a
NMWQCC Livestock Watering Standard	n/a	x
NMWQCC Wildlife Habitat Standard	n/a	x
NMWQCC Human Health Standard Ephemeral	n/a	x
NMWQCC Human Health Standard Perennial	n/a	x

^a n/a = Not applicable.

^b x = Standard applied to data screen for this report.

**Table 4.2-2
Results above Screening Levels for Groundwater and Surface Water**

Location	Date	Analyte	Result	Units	Screening Level	Screening-Level Origin
Surface Water						
Pajarito 0.5 mi above SR-501	12/17/07	Aluminum	2130	µg/L	750	NM Aquatic Life Acute
Alluvial Groundwater						
18-BG-1	12/04/07	Iron	1400	µg/L	1000	NMWQCC STD
Intermediate Groundwater						
03-B-10	12/17/07	Chloride	566	mg/L	250	NMWQCC GW STD
03-B-10	12/17/07	TDS	1200	mg/L	1000	NMWQCC GW STD
Kieling Spring	12/03/07	Aluminum	5660	µg/L	5000	NMWQCC GW STD
Kieling Spring	12/03/07	Iron	2800	µg/L	1000	NMWQCC GW STD
Bulldog Spring	12/03/07	Iron	1260	µg/L	1000	NMWQCC GW STD
Bulldog Spring	12/03/07	RDX	6.42	µg/L	6.11	EPA Tap Screening Level

Note: Multiple detections of a particular constituent at a location are counted as one result

Appendix A

Conceptual Model

Canyon	Contaminant Sources	Alluvial Groundwater Contaminants	Intermediate Groundwater Contaminants	Regional Groundwater Contaminants
Pajarito, Twomile, and Threemile Canyons	Major dry sources, past major and minor present liquid sources	Chloride above and nitrate at one-half New Mexico Water Quality Control Commission (NMWQCC) groundwater standards	Dichloroethene[1,1-] and trichloroethane[1,1,1-] are above NMWQCC groundwater standards. RDX is above U.S. Environmental Protection Agency excess cancer risk level. Trichloroethene, dichloroethane[1,1-], dioxane[1,4-] are present.	Trace of RDX

Appendix B

Field Parameter Results

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
03-B-10	7661	20.6	12/14/06	WG	Alkalinity-CO ₃ +HCO ₃	32	mg/L	FN06120G3B1001
03-B-10	7661	20.6	12/17/07	WG	Dissolved Oxygen	2.42	mg/L	CAPA-08-9319
03-B-10	7661	20.6	09/18/07	WG	Dissolved Oxygen	3.41	mg/L	FU07090G3B1001
03-B-10	7661	20.6	07/10/07	WG	Dissolved Oxygen	0.81	mg/L	FU07060G3B1001
03-B-10	7661	20.6	03/29/07	WG	Dissolved Oxygen	0.63	mg/L	FU07030G3B1001
03-B-10	7661	20.6	12/14/06	WG	Dissolved Oxygen	2.7	mg/L	FN06120G3B1001
03-B-10	7661	20.6	12/14/06	WG	Iron	420	µg/L	FN06120G3B1001
03-B-10	7661	20.6	12/17/07	WG	Oxidation-Reduction Potential	390	mV	CAPA-08-9319
03-B-10	7661	20.6	09/18/07	WG	Oxidation-Reduction Potential	253	mV	FU07090G3B1001
03-B-10	7661	20.6	07/10/07	WG	Oxidation-Reduction Potential	302	mV	FU07060G3B1001
03-B-10	7661	20.6	03/29/07	WG	Oxidation-Reduction Potential	346	mV	FU07030G3B1001
03-B-10	7661	20.6	12/14/06	WG	Oxidation-Reduction Potential	455.7	mV	FN06120G3B1001
03-B-10	7661	20.6	12/17/07	WG	pH	5.75	SU	CAPA-08-9319
03-B-10	7661	20.6	09/18/07	WG	pH	5.72	SU	FU07090G3B1001
03-B-10	7661	20.6	07/10/07	WG	pH	6.16	SU	FU07060G3B1001
03-B-10	7661	20.6	03/29/07	WG	pH	6.12	SU	FU07030G3B1001
03-B-10	7661	20.6	12/14/06	WG	pH	5.98	SU	FN06120G3B1001
03-B-10	7661	20.6	12/17/07	WG	Purge Volume	1	gal.	CAPA-08-9319
03-B-10	7661	20.6	07/10/07	WG	Purge Volume	5	gal.	FU07060G3B1001
03-B-10	7661	20.6	12/17/07	WG	Specific Conductance	2.14	µS/cm	CAPA-08-9319
03-B-10	7661	20.6	09/18/07	WG	Specific Conductance	424	µS/cm	FU07090G3B1001
03-B-10	7661	20.6	07/10/07	WG	Specific Conductance	577	µS/cm	FU07060G3B1001
03-B-10	7661	20.6	03/29/07	WG	Specific Conductance	1493	µS/cm	FU07030G3B1001
03-B-10	7661	20.6	12/14/06	WG	Specific Conductance	280	µS/cm	FN06120G3B1001
03-B-10	7661	20.6	12/17/07	WG	Temperature	12.8	deg C	CAPA-08-9319
03-B-10	7661	20.6	09/18/07	WG	Temperature	14.7	deg C	FU07090G3B1001

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
03-B-10	7661	20.6	07/10/07	WG	Temperature	14.6	deg C	FU07060G3B1001
03-B-10	7661	20.6	03/29/07	WG	Temperature	12.4	deg C	FU07030G3B1001
03-B-10	7661	20.6	12/14/06	WG	Temperature	13.5	deg C	FN06120G3B1001
03-B-10	7661	20.6	12/17/07	WG	Turbidity	8.03	NTU	CAPA-08-9319
03-B-10	7661	20.6	09/18/07	WG	Turbidity	77.1	NTU	FU07090G3B1001
03-B-10	7661	20.6	07/10/07	WG	Turbidity	41.6	NTU	FU07060G3B1001
03-B-10	7661	20.6	03/29/07	WG	Turbidity	15.8	NTU	FU07030G3B1001
03-B-10	7661	20.6	12/14/06	WG	Turbidity	44.8	NTU	FN06120G3B1001
03-B-13	7671	21.5	12/18/07	WG	Dissolved Oxygen	9.99	mg/L	CAPA-08-9316
03-B-13	7671	21.5	09/14/07	WG	Dissolved Oxygen	1.82	mg/L	FU07090G3B1301
03-B-13	7671	21.5	07/10/07	WG	Dissolved Oxygen	0.65	mg/L	FU07060G3B1301
03-B-13	7671	21.5	03/29/07	WG	Dissolved Oxygen	1.09	mg/L	FU07030G3B1301
03-B-13	7671	21.5	12/18/06	WG	Dissolved Oxygen	1	mg/L	FN06120G3B1301
03-B-13	7671	21.5	12/18/07	WG	Oxidation-Reduction Potential	348	mV	CAPA-08-9316
03-B-13	7671	21.5	09/14/07	WG	Oxidation-Reduction Potential	186	mV	FU07090G3B1301
03-B-13	7671	21.5	07/10/07	WG	Oxidation-Reduction Potential	225	mV	FU07060G3B1301
03-B-13	7671	21.5	03/29/07	WG	Oxidation-Reduction Potential	275	mV	FU07030G3B1301
03-B-13	7671	21.5	12/18/06	WG	Oxidation-Reduction Potential	448.1	mV	FN06120G3B1301
03-B-13	7671	21.5	12/18/07	WG	pH	7.1	SU	CAPA-08-9316
03-B-13	7671	21.5	09/14/07	WG	pH	5.96	SU	FU07090G3B1301
03-B-13	7671	21.5	07/10/07	WG	pH	6.15	SU	FU07060G3B1301
03-B-13	7671	21.5	03/29/07	WG	pH	6.05	SU	FU07030G3B1301
03-B-13	7671	21.5	12/18/06	WG	pH	5.91	SU	FN06120G3B1301
03-B-13	7671	21.5	12/18/07	WG	Purge Volume	1	gal.	CAPA-08-9316
03-B-13	7671	21.5	09/14/07	WG	Purge Volume	11	gal.	FU07090G3B1301
03-B-13	7671	21.5	07/10/07	WG	Purge Volume	5.5	gal.	FU07060G3B1301
03-B-13	7671	21.5	12/18/07	WG	Specific Conductance	2.18	μS/cm	CAPA-08-9316
03-B-13	7671	21.5	09/14/07	WG	Specific Conductance	367	μS/cm	FU07090G3B1301

July 2008

B-2

EP2008-0395

EP2008-0395

B-3

July 2008

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
03-B-13	7671	21.5	07/10/07	WG	Specific Conductance	491	μS/cm	FU07060G3B1301
03-B-13	7671	21.5	03/29/07	WG	Specific Conductance	1428	μS/cm	FU07030G3B1301
03-B-13	7671	21.5	12/18/06	WG	Specific Conductance	356	μS/cm	FN06120G3B1301
03-B-13	7671	21.5	12/18/07	WG	Temperature	13	deg C	CAPA-08-9316
03-B-13	7671	21.5	09/14/07	WG	Temperature	13.8	deg C	FU07090G3B1301
03-B-13	7671	21.5	07/10/07	WG	Temperature	15.2	deg C	FU07060G3B1301
03-B-13	7671	21.5	03/29/07	WG	Temperature	11.9	deg C	FU07030G3B1301
03-B-13	7671	21.5	12/18/06	WG	Temperature	13.3	deg C	FN06120G3B1301
03-B-13	7671	21.5	12/18/07	WG	Turbidity	25.9	NTU	CAPA-08-9316
03-B-13	7671	21.5	09/14/07	WG	Turbidity	100	NTU	FU07090G3B1301
03-B-13	7671	21.5	07/10/07	WG	Turbidity	48.1	NTU	FU07060G3B1301
03-B-13	7671	21.5	03/29/07	WG	Turbidity	10.5	NTU	FU07030G3B1301
03-B-13	7671	21.5	12/18/06	WG	Turbidity	27.2	NTU	FN06120G3B1301
18-BG-1	5741	10	12/04/07	WG	Dissolved Oxygen	5.85	mg/L	CAPA-08-9353
18-BG-1	5741	10	09/10/07	WG	Dissolved Oxygen	4.8	mg/L	FU07090G18B101
18-BG-1	5741	10	06/28/07	WG	Dissolved Oxygen	3.65	mg/L	FU07060G18B101
18-BG-1	5741	10	03/20/07	WG	Dissolved Oxygen	7.58	mg/L	FU07030G18B101
18-BG-1	5741	10	08/29/06	WG	Dissolved Oxygen	7.6	mg/L	FU06080G18B101
18-BG-1	5741	10	12/04/07	WG	Oxidation-Reduction Potential	663	mV	CAPA-08-9353
18-BG-1	5741	10	09/10/07	WG	Oxidation-Reduction Potential	531	mV	FU07090G18B101
18-BG-1	5741	10	06/28/07	WG	Oxidation-Reduction Potential	328	mV	FU07060G18B101
18-BG-1	5741	10	03/20/07	WG	Oxidation-Reduction Potential	204.1	mV	FU07030G18B101
18-BG-1	5741	10	08/29/06	WG	Oxidation-Reduction Potential	313.5	mV	FU06080G18B101
18-BG-1	5741	10	12/04/07	WG	pH	6.4	SU	CAPA-08-9353
18-BG-1	5741	10	09/10/07	WG	pH	6.38	SU	FU07090G18B101
18-BG-1	5741	10	06/28/07	WG	pH	6.25	SU	FU07060G18B101
18-BG-1	5741	10	03/20/07	WG	pH	6.35	SU	FU07030G18B101
18-BG-1	5741	10	12/04/07	WG	Purge Volume	9.5	gal.	CAPA-08-9353

Periodic Monitoring Report for Pajarito Watershed

July 2008

B-4

EP2008-0395

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
18-BG-1	5741	10	06/28/07	WG	Purge Volume	11	gal.	FU07060G18B101
18-BG-1	5741	10	12/04/07	WG	Specific Conductance	189.1	μS/cm	CAPA-08-9353
18-BG-1	5741	10	09/10/07	WG	Specific Conductance	184.1	μS/cm	FU07090G18B101
18-BG-1	5741	10	06/28/07	WG	Specific Conductance	177.1	μS/cm	FU07060G18B101
18-BG-1	5741	10	03/20/07	WG	Specific Conductance	192.3	μS/cm	FU07030G18B101
18-BG-1	5741	10	12/04/07	WG	Temperature	13.5	deg C	CAPA-08-9353
18-BG-1	5741	10	09/10/07	WG	Temperature	15.2	deg C	FU07090G18B101
18-BG-1	5741	10	06/28/07	WG	Temperature	16.2	deg C	FU07060G18B101
18-BG-1	5741	10	03/20/07	WG	Temperature	13	deg C	FU07030G18B101
18-BG-1	5741	10	08/29/06	WG	Temperature	15.2	deg C	FU06080G18B101
18-BG-1	5741	10	12/04/07	WG	Turbidity	28.3	NTU	CAPA-08-9353
18-BG-1	5741	10	09/10/07	WG	Turbidity	20	NTU	FU07090G18B101
18-BG-1	5741	10	06/28/07	WG	Turbidity	19.4	NTU	FU07060G18B101
18-BG-1	5741	10	03/20/07	WG	Turbidity	4.96	NTU	FU07030G18B101
18-BG-1	5741	10	08/29/06	WG	Turbidity	31.1	NTU	FU06080G18B101
18-MW-11	7971	27	09/13/07	WG	pH	6.54	SU	FU07090G181101
18-MW-11	7971	27	07/03/07	WG	pH	6.57	SU	FU07060G181101
18-MW-11	7971	27	03/28/07	WG	pH	6.5	SU	FU07030G181101
18-MW-11	7971	27	12/12/06	WG	pH	6.53	SU	FU06120G181101
18-MW-11	7971	27	09/13/07	WG	Specific Conductance	182.4	μS/cm	FU07090G181101
18-MW-11	7971	27	07/03/07	WG	Specific Conductance	208	μS/cm	FU07060G181101
18-MW-11	7971	27	03/28/07	WG	Specific Conductance	313	μS/cm	FU07030G181101
18-MW-11	7971	27	12/12/06	WG	Specific Conductance	208	μS/cm	FU06120G181101
18-MW-18	5311	12.5	12/06/07	WG	Dissolved Oxygen	7.13	mg/L	CAPA-08-9305
18-MW-18	5311	12.5	09/12/07	WG	Dissolved Oxygen	6.32	mg/L	FU07090G181801
18-MW-18	5311	12.5	06/26/07	WG	Dissolved Oxygen	4.24	mg/L	FU07060G181801
18-MW-18	5311	12.5	03/19/07	WG	Dissolved Oxygen	7.68	mg/L	FU07030G181801
18-MW-18	5311	12.5	08/28/06	WG	Dissolved Oxygen	7.8	mg/L	FU06080G181801

Periodic Monitoring Report for Paijito Watershed

EP2008-0395

B-5

July 2008

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
18-MW-18	5311	12.5	12/06/07	WG	Oxidation-Reduction Potential	474	mV	CAPA-08-9305
18-MW-18	5311	12.5	09/12/07	WG	Oxidation-Reduction Potential	398	mV	FU07090G181801
18-MW-18	5311	12.5	06/26/07	WG	Oxidation-Reduction Potential	344	mV	FU07060G181801
18-MW-18	5311	12.5	03/19/07	WG	Oxidation-Reduction Potential	185.6	mV	FU07030G181801
18-MW-18	5311	12.5	08/28/06	WG	Oxidation-Reduction Potential	248.7	mV	FU06080G181801
18-MW-18	5311	12.5	12/06/07	WG	pH	6.64	SU	CAPA-08-9305
18-MW-18	5311	12.5	09/12/07	WG	pH	6.78	SU	FU07090G181801
18-MW-18	5311	12.5	06/26/07	WG	pH	6.65	SU	FU07060G181801
18-MW-18	5311	12.5	03/19/07	WG	pH	6.68	SU	FU07030G181801
18-MW-18	5311	12.5	12/06/07	WG	Specific Conductance	526	μS/cm	CAPA-08-9305
18-MW-18	5311	12.5	09/12/07	WG	Specific Conductance	475	μS/cm	FU07090G181801
18-MW-18	5311	12.5	06/26/07	WG	Specific Conductance	503	μS/cm	FU07060G181801
18-MW-18	5311	12.5	03/19/07	WG	Specific Conductance	865	μS/cm	FU07030G181801
18-MW-18	5311	12.5	12/06/07	WG	Temperature	14.7	deg C	CAPA-08-9305
18-MW-18	5311	12.5	09/12/07	WG	Temperature	16.4	deg C	FU07090G181801
18-MW-18	5311	12.5	06/26/07	WG	Temperature	14.9	deg C	FU07060G181801
18-MW-18	5311	12.5	03/19/07	WG	Temperature	14.5	deg C	FU07030G181801
18-MW-18	5311	12.5	08/28/06	WG	Temperature	16.1	deg C	FU06080G181801
18-MW-18	5311	12.5	12/06/07	WG	Turbidity	6.74	NTU	CAPA-08-9305
18-MW-18	5311	12.5	09/12/07	WG	Turbidity	1.19	NTU	FU07090G181801
18-MW-18	5311	12.5	06/26/07	WG	Turbidity	1.06	NTU	FU07060G181801
18-MW-18	5311	12.5	03/19/07	WG	Turbidity	4.02	NTU	FU07030G181801
18-MW-18	5311	12.5	08/28/06	WG	Turbidity	15.6	NTU	FU06080G181801
18-MW-8	5781	8	12/05/07	WG	Dissolved Oxygen	6.24	mg/L	CAPA-08-9310
18-MW-8	5781	8	09/13/07	WG	Dissolved Oxygen	6.14	mg/L	FU07090G18M801
18-MW-8	5781	8	06/27/07	WG	Dissolved Oxygen	4.42	mg/L	FU07060G18M801
18-MW-8	5781	8	03/21/07	WG	Dissolved Oxygen	6.42	mg/L	FU07030G18M801
18-MW-8	5781	8	12/11/06	WG	Dissolved Oxygen	8.38	mg/L	FU06120G18M801

Periodic Monitoring Report for Pajarito Watershed

July 2008

B-6

EP2008-0395

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
18-MW-8	5781	8	12/05/07	WG	Oxidation-Reduction Potential	582	mV	CAPA-08-9310
18-MW-8	5781	8	09/13/07	WG	Oxidation-Reduction Potential	422	mV	FU07090G18M801
18-MW-8	5781	8	06/27/07	WG	Oxidation-Reduction Potential	326	mV	FU07060G18M801
18-MW-8	5781	8	03/21/07	WG	Oxidation-Reduction Potential	228.5	mV	FU07030G18M801
18-MW-8	5781	8	12/11/06	WG	Oxidation-Reduction Potential	564.9	mV	FU06120G18M801
18-MW-8	5781	8	12/05/07	WG	pH	6.47	SU	CAPA-08-9310
18-MW-8	5781	8	09/13/07	WG	pH	6.43	SU	FU07090G18M801
18-MW-8	5781	8	06/27/07	WG	pH	6.49	SU	FU07060G18M801
18-MW-8	5781	8	03/21/07	WG	pH	6.47	SU	FU07030G18M801
18-MW-8	5781	8	12/11/06	WG	pH	6.47	SU	FU06120G18M801
18-MW-8	5781	8	12/05/07	WG	Specific Conductance	186.8	μS/cm	CAPA-08-9310
18-MW-8	5781	8	09/13/07	WG	Specific Conductance	180.4	μS/cm	FU07090G18M801
18-MW-8	5781	8	06/27/07	WG	Specific Conductance	204	μS/cm	FU07060G18M801
18-MW-8	5781	8	03/21/07	WG	Specific Conductance	208	μS/cm	FU07030G18M801
18-MW-8	5781	8	12/11/06	WG	Specific Conductance	188.5	μS/cm	FU06120G18M801
18-MW-8	5781	8	12/05/07	WG	Temperature	12.2	deg C	CAPA-08-9310
18-MW-8	5781	8	09/13/07	WG	Temperature	15.3	deg C	FU07090G18M801
18-MW-8	5781	8	06/27/07	WG	Temperature	13.47	deg C	FU07060G18M801
18-MW-8	5781	8	03/21/07	WG	Temperature	11.8	deg C	FU07030G18M801
18-MW-8	5781	8	12/11/06	WG	Temperature	12.1	deg C	FU06120G18M801
18-MW-8	5781	8	12/05/07	WG	Turbidity	3.08	NTU	CAPA-08-9310
18-MW-8	5781	8	09/13/07	WG	Turbidity	2.35	NTU	FU07090G18M801
18-MW-8	5781	8	06/27/07	WG	Turbidity	2.17	NTU	FU07060G18M801
18-MW-8	5781	8	03/21/07	WG	Turbidity	3.41	NTU	FU07030G18M801
18-MW-8	5781	8	12/11/06	WG	Turbidity	9.14	NTU	FU06120G18M801
18-MW-9	5791	6	12/18/07	WG	Dissolved Oxygen	6.59	mg/L	CAPA-08-9362
18-MW-9	5791	6	09/12/07	WG	Dissolved Oxygen	5.76	mg/L	FU07090G18M901
18-MW-9	5791	6	06/28/07	WG	Dissolved Oxygen	3.6	mg/L	FU07060G18M901

Periodic Monitoring Report for Paijito Watershed

EP2008-0395

B-7

July 2008

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
18-MW-9	5791	6	03/22/07	WG	Dissolved Oxygen	5.66	mg/L	FU07030G18M901
18-MW-9	5791	6	12/11/06	WG	Dissolved Oxygen	7.1	mg/L	FU06120G18M901
18-MW-9	5791	6	12/18/07	WG	Oxidation-Reduction Potential	480	mV	CAPA-08-9362
18-MW-9	5791	6	09/12/07	WG	Oxidation-Reduction Potential	327	mV	FU07090G18M901
18-MW-9	5791	6	06/28/07	WG	Oxidation-Reduction Potential	508	mV	FU07060G18M901
18-MW-9	5791	6	03/22/07	WG	Oxidation-Reduction Potential	219.8	mV	FU07030G18M901
18-MW-9	5791	6	12/11/06	WG	Oxidation-Reduction Potential	548	mV	FU06120G18M901
18-MW-9	5791	6	12/18/07	WG	pH	6.53	SU	CAPA-08-9362
18-MW-9	5791	6	09/12/07	WG	pH	6.51	SU	FU07090G18M901
18-MW-9	5791	6	06/28/07	WG	pH	6.06	SU	FU07060G18M901
18-MW-9	5791	6	03/22/07	WG	pH	5.72	SU	FU07030G18M901
18-MW-9	5791	6	12/11/06	WG	pH	6.44	SU	FU06120G18M901
18-MW-9	5791	6	12/18/07	WG	Specific Conductance	203	μS/cm	CAPA-08-9362
18-MW-9	5791	6	09/12/07	WG	Specific Conductance	204	μS/cm	FU07090G18M901
18-MW-9	5791	6	06/28/07	WG	Specific Conductance	213	μS/cm	FU07060G18M901
18-MW-9	5791	6	03/22/07	WG	Specific Conductance	255	μS/cm	FU07030G18M901
18-MW-9	5791	6	12/11/06	WG	Specific Conductance	228	μS/cm	FU06120G18M901
18-MW-9	5791	6	12/18/07	WG	Temperature	13.5	deg C	CAPA-08-9362
18-MW-9	5791	6	09/12/07	WG	Temperature	15.2	deg C	FU07090G18M901
18-MW-9	5791	6	06/28/07	WG	Temperature	16.6	deg C	FU07060G18M901
18-MW-9	5791	6	03/22/07	WG	Temperature	11.4	deg C	FU07030G18M901
18-MW-9	5791	6	12/11/06	WG	Temperature	12.2	deg C	FU06120G18M901
18-MW-9	5791	6	12/18/07	WG	Turbidity	4.27	NTU	CAPA-08-9362
18-MW-9	5791	6	09/12/07	WG	Turbidity	4.48	NTU	FU07090G18M901
18-MW-9	5791	6	06/28/07	WG	Turbidity	3.74	NTU	FU07060G18M901
18-MW-9	5791	6	03/22/07	WG	Turbidity	1.6	NTU	FU07030G18M901
18-MW-9	5791	6	12/11/06	WG	Turbidity	2.01	NTU	FU06120G18M901
Anderson Spring	—*	—	12/10/07	WG	Dissolved Oxygen	9.91	mg/L	CAPA-08-9287

Periodic Monitoring Report for Pajarito Watershed

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
Anderson Spring	—	—	09/11/07	WG	Dissolved Oxygen	92	mg/L	FU07090GANDS01
Anderson Spring	—	—	07/06/07	WG	Dissolved Oxygen	7.7	mg/L	FU07060GANDS01
Anderson Spring	—	—	03/27/07	WG	Dissolved Oxygen	7.6	mg/L	FU07030GANDS01
Anderson Spring	—	—	12/11/06	WG	Dissolved Oxygen	8.3	mg/L	FU06120GANDS01
Anderson Spring	—	—	12/10/07	WG	Oxidation-Reduction Potential	307	mV	CAPA-08-9287
Anderson Spring	—	—	03/27/07	WG	Oxidation-Reduction Potential	336.9	mV	FU07030GANDS01
Anderson Spring	—	—	12/11/06	WG	Oxidation-Reduction Potential	264.8	mV	FU06120GANDS01
Anderson Spring	—	—	08/22/06	WG	Oxidation-Reduction Potential	154.8	mV	FU06080GANDS01
Anderson Spring	—	—	12/10/07	WG	pH	7.04	SU	CAPA-08-9287
Anderson Spring	—	—	09/11/07	WG	pH	6.59	SU	FU07090GANDS01
Anderson Spring	—	—	07/06/07	WG	pH	6.96	SU	FU07060GANDS01
Anderson Spring	—	—	03/27/07	WG	pH	6.38	SU	FU07030GANDS01
Anderson Spring	—	—	12/11/06	WG	pH	7.22	SU	FU06120GANDS01
Anderson Spring	—	—	12/10/07	WG	Specific Conductance	153.4	μS/cm	CAPA-08-9287
Anderson Spring	—	—	09/11/07	WG	Specific Conductance	149.3	μS/cm	FU07090GANDS01
Anderson Spring	—	—	07/06/07	WG	Specific Conductance	151.7	μS/cm	FU07060GANDS01
Anderson Spring	—	—	03/27/07	WG	Specific Conductance	120.1	μS/cm	FU07030GANDS01
Anderson Spring	—	—	12/11/06	WG	Specific Conductance	207	μS/cm	FU06120GANDS01
Anderson Spring	—	—	12/10/07	WG	Temperature	11.2	deg C	CAPA-08-9287
Anderson Spring	—	—	09/11/07	WG	Temperature	12.6	deg C	FU07090GANDS01
Anderson Spring	—	—	07/06/07	WG	Temperature	12	deg C	FU07060GANDS01
Anderson Spring	—	—	03/27/07	WG	Temperature	10.7	deg C	FU07030GANDS01
Anderson Spring	—	—	12/11/06	WG	Temperature	11	deg C	FU06120GANDS01
Bulldog Spring	—	—	12/03/07	WG	Dissolved Oxygen	8.1	mg/L	CAPA-08-9215
Bulldog Spring	—	—	09/04/07	WG	Dissolved Oxygen	8.32	mg/L	FU070800GSLB01
Bulldog Spring	—	—	07/10/07	WG	Dissolved Oxygen	7.45	mg/L	FU070600GSLB01
Bulldog Spring	—	—	03/26/07	WG	Dissolved Oxygen	8	mg/L	FU070300GSLB01
Bulldog Spring	—	—	12/07/06	WG	Dissolved Oxygen	149.1	mg/L	FU061200GSLB01

July 2008

B-8

EP2008-0395

EP2008-0395

B-9

July 2008

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
Bulldog Spring	—	—	12/03/07	WG	pH	7.5	SU	CAPA-08-9215
Bulldog Spring	—	—	09/04/07	WG	pH	7.16	SU	FU070800GSLB01
Bulldog Spring	—	—	07/10/07	WG	pH	7.19	SU	FU070600GSLB01
Bulldog Spring	—	—	03/26/07	WG	pH	6.89	SU	FU070300GSLB01
Bulldog Spring	—	—	12/07/06	WG	pH	7.65	SU	FU061200GSLB01
Bulldog Spring	—	—	12/03/07	WG	Purge Volume	5	gal.	CAPA-08-9215
Bulldog Spring	—	—	07/10/07	WG	Purge Volume	10	gal.	FU070600GSLB01
Bulldog Spring	—	—	12/03/07	WG	Specific Conductance	198.9	μS/cm	CAPA-08-9215
Bulldog Spring	—	—	09/04/07	WG	Specific Conductance	199.7	μS/cm	FU070800GSLB01
Bulldog Spring	—	—	07/10/07	WG	Specific Conductance	176	μS/cm	FU070600GSLB01
Bulldog Spring	—	—	03/26/07	WG	Specific Conductance	232	μS/cm	FU070300GSLB01
Bulldog Spring	—	—	12/07/06	WG	Specific Conductance	177.8	μS/cm	FU061200GSLB01
Bulldog Spring	—	—	12/03/07	WG	Temperature	9.68	deg C	CAPA-08-9215
Bulldog Spring	—	—	09/04/07	WG	Temperature	10.3	deg C	FU070800GSLB01
Bulldog Spring	—	—	07/10/07	WG	Temperature	13	deg C	FU070600GSLB01
Bulldog Spring	—	—	03/26/07	WG	Temperature	9.4	deg C	FU070300GSLB01
Bulldog Spring	—	—	12/07/06	WG	Temperature	8.6	deg C	FU061200GSLB01
Bulldog Spring	—	—	12/03/07	WG	Turbidity	53.3	NTU	CAPA-08-9215
Bulldog Spring	—	—	09/04/07	WG	Turbidity	57.2	NTU	FU070800GSLB01
Bulldog Spring	—	—	07/10/07	WG	Turbidity	14	NTU	FU070600GSLB01
Bulldog Spring	—	—	03/26/07	WG	Turbidity	40.5	NTU	FU070300GSLB01
Bulldog Spring	—	—	12/07/06	WG	Turbidity	5.15	NTU	FU061200GSLB01
Charlie's Spring	—	—	12/03/07	WG	Dissolved Oxygen	11.11	mg/L	CAPA-08-9224
Charlie's Spring	—	—	09/05/07	WG	Dissolved Oxygen	7.8	mg/L	FU07080GCHRS01
Charlie's Spring	—	—	07/09/07	WG	Dissolved Oxygen	8.05	mg/L	FU07060GCHRS01
Charlie's Spring	—	—	03/21/07	WG	Dissolved Oxygen	8	mg/L	FU07030GCHRS01
Charlie's Spring	—	—	12/06/06	WG	Dissolved Oxygen	5.7	mg/L	FU06120GCHRS01
Charlie's Spring	—	—	12/03/07	WG	Oxidation-Reduction Potential	295	mV	CAPA-08-9224

Periodic Monitoring Report for Pajarito Watershed

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
Charlie's Spring	—	—	07/09/07	WG	Oxidation-Reduction Potential	253	mV	FU07060GCHRS01
Charlie's Spring	—	—	03/21/07	WG	Oxidation-Reduction Potential	241	mV	FU07030GCHRS01
Charlie's Spring	—	—	12/06/06	WG	Oxidation-Reduction Potential	366.1	mV	FU06120GCHRS01
Charlie's Spring	—	—	08/31/06	WG	Oxidation-Reduction Potential	207.5	mV	FU06080GCHRS01
Charlie's Spring	—	—	12/03/07	WG	pH	6.46	SU	CAPA-08-9224
Charlie's Spring	—	—	09/05/07	WG	pH	6.42	SU	FU07080GCHRS01
Charlie's Spring	—	—	07/09/07	WG	pH	6.66	SU	FU07060GCHRS01
Charlie's Spring	—	—	03/21/07	WG	pH	6.23	SU	FU07030GCHRS01
Charlie's Spring	—	—	12/06/06	WG	pH	6.53	SU	FU06120GCHRS01
Charlie's Spring	—	—	12/03/07	WG	Purge Volume	6	gal.	CAPA-08-9224
Charlie's Spring	—	—	07/09/07	WG	Purge Volume	5	gal.	FU07060GCHRS01
Charlie's Spring	—	—	12/03/07	WG	Specific Conductance	41.5	μS/cm	CAPA-08-9224
Charlie's Spring	—	—	09/05/07	WG	Specific Conductance	157.5	μS/cm	FU07080GCHRS01
Charlie's Spring	—	—	07/09/07	WG	Specific Conductance	77.4	μS/cm	FU07060GCHRS01
Charlie's Spring	—	—	03/21/07	WG	Specific Conductance	168.5	μS/cm	FU07030GCHRS01
Charlie's Spring	—	—	12/06/06	WG	Specific Conductance	201	μS/cm	FU06120GCHRS01
Charlie's Spring	—	—	12/03/07	WG	Temperature	9.5	deg C	CAPA-08-9224
Charlie's Spring	—	—	09/05/07	WG	Temperature	11.3	deg C	FU07080GCHRS01
Charlie's Spring	—	—	07/09/07	WG	Temperature	12.6	deg C	FU07060GCHRS01
Charlie's Spring	—	—	03/21/07	WG	Temperature	9.2	deg C	FU07030GCHRS01
Charlie's Spring	—	—	12/06/06	WG	Temperature	6.1	deg C	FU06120GCHRS01
Charlie's Spring	—	—	12/03/07	WG	Turbidity	58.4	NTU	CAPA-08-9224
Charlie's Spring	—	—	09/05/07	WG	Turbidity	75.4	NTU	FU07080GCHRS01
Charlie's Spring	—	—	07/09/07	WG	Turbidity	8.59	NTU	FU07060GCHRS01
Charlie's Spring	—	—	03/21/07	WG	Turbidity	24.8	NTU	FU07030GCHRS01
Charlie's Spring	—	—	12/06/06	WG	Turbidity	3.16	NTU	FU06120GCHRS01
Homestead Spring	—	—	12/03/07	WG	Dissolved Oxygen	9.49	mg/L	CAPA-08-9232
Homestead Spring	—	—	09/05/07	WG	Dissolved Oxygen	5.4	mg/L	FU070800GSMH01

July 2008

B-10

EP2008-0395

EP2008-0395

B-11

July 2008

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
Homestead Spring	—	—	07/09/07	WG	Dissolved Oxygen	5.16	mg/L	FU070600GSMH01
Homestead Spring	—	—	03/21/07	WG	Dissolved Oxygen	6.3	mg/L	FU070300GSMH01
Homestead Spring	—	—	12/12/06	WG	Dissolved Oxygen	5.4	mg/L	FU061200GSMH01
Homestead Spring	—	—	12/03/07	WG	Oxidation-Reduction Potential	76	mV	CAPA-08-9232
Homestead Spring	—	—	07/09/07	WG	Oxidation-Reduction Potential	86	mV	FU070600GSMH01
Homestead Spring	—	—	03/21/07	WG	Oxidation-Reduction Potential	300	mV	FU070300GSMH01
Homestead Spring	—	—	12/12/06	WG	Oxidation-Reduction Potential	380.2	mV	FU061200GSMH01
Homestead Spring	—	—	08/23/06	WG	Oxidation-Reduction Potential	257.9	mV	FU060800GSMH01
Homestead Spring	—	—	12/03/07	WG	pH	6.22	SU	CAPA-08-9232
Homestead Spring	—	—	09/05/07	WG	pH	6.23	SU	FU070800GSMH01
Homestead Spring	—	—	07/09/07	WG	pH	6.37	SU	FU070600GSMH01
Homestead Spring	—	—	03/21/07	WG	pH	5.84	SU	FU070300GSMH01
Homestead Spring	—	—	12/12/06	WG	pH	6.07	SU	FU061200GSMH01
Homestead Spring	—	—	12/03/07	WG	Purge Volume	2.5	gal.	CAPA-08-9232
Homestead Spring	—	—	07/09/07	WG	Purge Volume	1	gal.	FU070600GSMH01
Homestead Spring	—	—	12/03/07	WG	Specific Conductance	26.9	μS/cm	CAPA-08-9232
Homestead Spring	—	—	09/05/07	WG	Specific Conductance	155.5	μS/cm	FU070800GSMH01
Homestead Spring	—	—	07/09/07	WG	Specific Conductance	110.3	μS/cm	FU070600GSMH01
Homestead Spring	—	—	03/21/07	WG	Specific Conductance	136.5	μS/cm	FU070300GSMH01
Homestead Spring	—	—	12/12/06	WG	Specific Conductance	86.1	μS/cm	FU061200GSMH01
Homestead Spring	—	—	12/03/07	WG	Temperature	8	deg C	CAPA-08-9232
Homestead Spring	—	—	09/05/07	WG	Temperature	13.5	deg C	FU070800GSMH01
Homestead Spring	—	—	07/09/07	WG	Temperature	10.9	deg C	FU070600GSMH01
Homestead Spring	—	—	03/21/07	WG	Temperature	8.4	deg C	FU070300GSMH01
Homestead Spring	—	—	12/12/06	WG	Temperature	8.8	deg C	FU061200GSMH01
Homestead Spring	—	—	12/03/07	WG	Turbidity	64.6	NTU	CAPA-08-9232
Homestead Spring	—	—	09/05/07	WG	Turbidity	60.7	NTU	FU070800GSMH01
Homestead Spring	—	—	07/09/07	WG	Turbidity	10.2	NTU	FU070600GSMH01

Periodic Monitoring Report for Pajarito Watershed

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
Homestead Spring	—	—	03/21/07	WG	Turbidity	23.3	NTU	FU070300GSMH01
Homestead Spring	—	—	12/12/06	WG	Turbidity	5.5	NTU	FU061200GSMH01
Kieling Spring	—	—	12/03/07	WG	Dissolved Oxygen	7.88	mg/L	CAPA-08-9210
Kieling Spring	—	—	09/04/07	WG	Dissolved Oxygen	6.93	mg/L	FU070800GSLK01
Kieling Spring	—	—	07/10/07	WG	Dissolved Oxygen	6.54	mg/L	FU070600GSLK01
Kieling Spring	—	—	03/26/07	WG	Dissolved Oxygen	8	mg/L	FU070300GSLK01
Kieling Spring	—	—	12/07/06	WG	Dissolved Oxygen	9.95	mg/L	FU061200GSLK01
Kieling Spring	—	—	12/03/07	WG	pH	6.52	SU	CAPA-08-9210
Kieling Spring	—	—	09/04/07	WG	pH	6.98	SU	FU070800GSLK01
Kieling Spring	—	—	07/10/07	WG	pH	6.88	SU	FU070600GSLK01
Kieling Spring	—	—	03/26/07	WG	pH	6.72	SU	FU070300GSLK01
Kieling Spring	—	—	12/07/06	WG	pH	7.18	SU	FU061200GSLK01
Kieling Spring	—	—	12/03/07	WG	Purge Volume	2	gal.	CAPA-08-9210
Kieling Spring	—	—	07/10/07	WG	Purge Volume	1.5	gal.	FU070600GSLK01
Kieling Spring	—	—	12/03/07	WG	Specific Conductance	105.3	μS/cm	CAPA-08-9210
Kieling Spring	—	—	09/04/07	WG	Specific Conductance	155.5	μS/cm	FU070800GSLK01
Kieling Spring	—	—	07/10/07	WG	Specific Conductance	128.7	μS/cm	FU070600GSLK01
Kieling Spring	—	—	03/26/07	WG	Specific Conductance	144.7	μS/cm	FU070300GSLK01
Kieling Spring	—	—	12/07/06	WG	Specific Conductance	156.9	μS/cm	FU061200GSLK01
Kieling Spring	—	—	12/03/07	WG	Temperature	9.9	deg C	CAPA-08-9210
Kieling Spring	—	—	09/04/07	WG	Temperature	10.7	deg C	FU070800GSLK01
Kieling Spring	—	—	07/10/07	WG	Temperature	12.8	deg C	FU070600GSLK01
Kieling Spring	—	—	03/26/07	WG	Temperature	10	deg C	FU070300GSLK01
Kieling Spring	—	—	12/07/06	WG	Temperature	8.6	deg C	FU061200GSLK01
Kieling Spring	—	—	12/03/07	WG	Turbidity	71.3	NTU	CAPA-08-9210
Kieling Spring	—	—	09/04/07	WG	Turbidity	58.8	NTU	FU070800GSLK01
Kieling Spring	—	—	07/10/07	WG	Turbidity	10.3	NTU	FU070600GSLK01
Kieling Spring	—	—	03/26/07	WG	Turbidity	57.4	NTU	FU070300GSLK01

July 2008

B-12

EP2008-0395

EP2008-0395

B-13

July 2008

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
Kieling Spring	—	—	12/07/06	WG	Turbidity	8.14	NTU	FU061200GSLK01
Pajarito 0.5 mi above SR-501	—	—	12/17/07	WS	Dissolved Oxygen	10.1	mg/L	CAPA-08-9236
Pajarito 0.5 mi above SR-501	—	—	09/13/07	WP	Dissolved Oxygen	3.2	mg/L	FU07090PPBFB01
Pajarito 0.5 mi above SR-501	—	—	06/28/07	WS	Dissolved Oxygen	6.67	mg/L	FU07060PPBFB01
Pajarito 0.5 mi above SR-501	—	—	03/21/07	WS	Dissolved Oxygen	10.08	mg/L	FU07030PPBFB01
Pajarito 0.5 mi above SR-501	—	—	12/05/06	WS	Dissolved Oxygen	12.84	mg/L	FU06110PPBFB01
Pajarito 0.5 mi above SR-501	—	—	12/17/07	WS	Oxidation-Reduction Potential	264	mV	CAPA-08-9236
Pajarito 0.5 mi above SR-501	—	—	12/17/07	WS	pH	7.28	SU	CAPA-08-9236
Pajarito 0.5 mi above SR-501	—	—	09/13/07	WP	pH	7.08	SU	FU07090PPBFB01
Pajarito 0.5 mi above SR-501	—	—	06/28/07	WS	pH	7.56	SU	FU07060PPBFB01
Pajarito 0.5 mi above SR-501	—	—	03/21/07	WS	pH	7.1	SU	FU07030PPBFB01
Pajarito 0.5 mi above SR-501	—	—	12/05/06	WS	pH	7.44	SU	FU06110PPBFB01
Pajarito 0.5 mi above SR-501	—	—	12/17/07	WS	Specific Conductance	46.7	μS/cm	CAPA-08-9236
Pajarito 0.5 mi above SR-501	—	—	09/13/07	WP	Specific Conductance	103	μS/cm	FU07090PPBFB01
Pajarito 0.5 mi above SR-501	—	—	06/28/07	WS	Specific Conductance	89.1	μS/cm	FU07060PPBFB01
Pajarito 0.5 mi above SR-501	—	—	03/21/07	WS	Specific Conductance	95.7	μS/cm	FU07030PPBFB01
Pajarito 0.5 mi above SR-501	—	—	12/05/06	WS	Specific Conductance	73.8	μS/cm	FU06110PPBFB01
Pajarito 0.5 mi above SR-501	—	—	12/17/07	WS	Temperature	2	deg C	CAPA-08-9236
Pajarito 0.5 mi above SR-501	—	—	09/13/07	WP	Temperature	15.8	deg C	FU07090PPBFB01
Pajarito 0.5 mi above SR-501	—	—	06/28/07	WS	Temperature	17.6	deg C	FU07060PPBFB01
Pajarito 0.5 mi above SR-501	—	—	03/21/07	WS	Temperature	5.1	deg C	FU07030PPBFB01
Pajarito 0.5 mi above SR-501	—	—	12/05/06	WS	Temperature	-0.1	deg C	FU06110PPBFB01
Pajarito 0.5 mi above SR-501	—	—	12/17/07	WS	Turbidity	15.8	NTU	CAPA-08-9236
Pajarito 0.5 mi above SR-501	—	—	09/13/07	WP	Turbidity	6.62	NTU	FU07090PPBFB01
Pajarito 0.5 mi above SR-501	—	—	06/28/07	WS	Turbidity	2.72	NTU	FU07060PPBFB01
Pajarito 0.5 mi above SR-501	—	—	03/21/07	WS	Turbidity	14.4	NTU	FU07030PPBFB01
Pajarito 0.5 mi above SR-501	—	—	12/05/06	WS	Turbidity	1.72	NTU	FU06110PPBFB01
Pajarito above Twomile	—	—	12/17/07	WS	Dissolved Oxygen	11.5	mg/L	CAPA-08-9270

Periodic Monitoring Report for Pajarito Watershed

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
Pajarito above Twomile	—	—	09/12/07	WP	Dissolved Oxygen	6.6	mg/L	FU070900P24301
Pajarito above Twomile	—	—	06/27/07	WS	Dissolved Oxygen	7	mg/L	FU070600P24301
Pajarito above Twomile	—	—	04/03/07	WS	Dissolved Oxygen	8.9	mg/L	FU070300P24301
Pajarito above Twomile	—	—	08/29/06	WP	Dissolved Oxygen	140	mg/L	FU060800P24301
Pajarito above Twomile	—	—	12/17/07	WS	pH	7.22	SU	CAPA-08-9270
Pajarito above Twomile	—	—	09/12/07	WP	pH	7.32	SU	FU070900P24301
Pajarito above Twomile	—	—	06/27/07	WS	pH	6.9	SU	FU070600P24301
Pajarito above Twomile	—	—	04/03/07	WS	pH	7.3	SU	FU070300P24301
Pajarito above Twomile	—	—	03/06/07	WM	pH	7.1	SU	FU070300M24301
Pajarito above Twomile	—	—	12/17/07	WS	Purge Volume	0.8	gal.	CAPA-08-9270
Pajarito above Twomile	—	—	12/17/07	WS	Specific Conductance	131.8	μS/cm	CAPA-08-9270
Pajarito above Twomile	—	—	09/12/07	WP	Specific Conductance	152.8	μS/cm	FU070900P24301
Pajarito above Twomile	—	—	06/27/07	WS	Specific Conductance	123.6	μS/cm	FU070600P24301
Pajarito above Twomile	—	—	04/03/07	WS	Specific Conductance	1503	μS/cm	FU070300P24301
Pajarito above Twomile	—	—	08/29/06	WP	Specific Conductance	156.5	μS/cm	FU060800P24301
Pajarito above Twomile	—	—	12/17/07	WS	Temperature	1.9	deg C	CAPA-08-9270
Pajarito above Twomile	—	—	09/12/07	WP	Temperature	16.2	deg C	FU070900P24301
Pajarito above Twomile	—	—	06/27/07	WS	Temperature	16.1	deg C	FU070600P24301
Pajarito above Twomile	—	—	04/03/07	WS	Temperature	8.7	deg C	FU070300P24301
Pajarito above Twomile	—	—	08/29/06	WP	Temperature	14.3	deg C	FU060800P24301
Pajarito above Twomile	—	—	12/17/07	WS	Turbidity	30.6	NTU	CAPA-08-9270
Pajarito above Twomile	—	—	09/12/07	WP	Turbidity	27.5	NTU	FU070900P24301
Pajarito above Twomile	—	—	06/27/07	WS	Turbidity	25.6	NTU	FU070600P24301
Pajarito above Twomile	—	—	04/03/07	WS	Turbidity	24.2	NTU	FU070300P24301
Pajarito above Twomile	—	—	08/29/06	WP	Turbidity	23.1	NTU	FU060800P24301
Pajarito below confluences of South and North Anchor East Basin	—	—	12/03/07	WS	Dissolved Oxygen	8.53	mg/L	CAPA-08-9228
Pajarito below confluences of South and	—	—	09/04/07	WS	Dissolved Oxygen	6.38	mg/L	FU07090PPBF101

July 2008

B-14

EP2008-0395

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
North Anchor East Basin								
Pajarito below confluences of South and North Anchor East Basin	—	—	06/28/07	WS	Dissolved Oxygen	7.58	mg/L	FU07060PPBF101
Pajarito below confluences of South and North Anchor East Basin	—	—	03/20/07	WS	Dissolved Oxygen	9.22	mg/L	FU07030PPBF101
Pajarito below confluences of South and North Anchor East Basin	—	—	12/08/06	WS	Dissolved Oxygen	11.02	mg/L	FU06110PPBF101
Pajarito below confluences of South and North Anchor East Basin	—	—	12/03/07	WS	pH	7.55	SU	CAPA-08-9228
Pajarito below confluences of South and North Anchor East Basin	—	—	09/04/07	WS	pH	7.34	SU	FU07090PPBF101
Pajarito below confluences of South and North Anchor East Basin	—	—	06/28/07	WS	pH	7.33	SU	FU07060PPBF101
Pajarito below confluences of South and North Anchor East Basin	—	—	03/20/07	WS	pH	7.3	SU	FU07030PPBF101
Pajarito below confluences of South and North Anchor East Basin	—	—	12/08/06	WS	pH	7.05	SU	FU06110PPBF101
Pajarito below confluences of South and North Anchor East Basin	—	—	12/03/07	WS	Purge Volume	1	gal.	CAPA-08-9228
Pajarito below confluences of South and North Anchor East Basin	—	—	12/03/07	WS	Specific Conductance	166	μS/cm	CAPA-08-9228
Pajarito below confluences of South and North Anchor East Basin	—	—	09/04/07	WS	Specific Conductance	154.4	μS/cm	FU07090PPBF101
Pajarito below confluences of South and North Anchor East Basin	—	—	06/28/07	WS	Specific Conductance	120	μS/cm	FU07060PPBF101
Pajarito below confluences of South and North Anchor East Basin	—	—	03/20/07	WS	Specific Conductance	155.8	μS/cm	FU07030PPBF101
Pajarito below confluences of South and North Anchor East Basin	—	—	12/08/06	WS	Specific Conductance	147.1	μS/cm	FU06110PPBF101
Pajarito below confluences of South and North Anchor East Basin	—	—	12/03/07	WS	Temperature	6.4	deg C	CAPA-08-9228
Pajarito below confluences of South and North Anchor East Basin	—	—	09/04/07	WS	Temperature	15.7	deg C	FU07090PPBF101

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
North Anchor East Basin								
Pajarito below confluences of South and North Anchor East Basin	—	—	06/28/07	WS	Temperature	15.6	deg C	FU07060PPBF101
Pajarito below confluences of South and North Anchor East Basin	—	—	03/20/07	WS	Temperature	28.5	deg C	FU07030PPBF101
Pajarito below confluences of South and North Anchor East Basin	—	—	12/08/06	WS	Temperature	1.7	deg C	FU06110PPBF101
Pajarito below confluences of South and North Anchor East Basin	—	—	12/03/07	WS	Turbidity	68	NTU	CAPA-08-9228
Pajarito below confluences of South and North Anchor East Basin	—	—	09/04/07	WS	Turbidity	72	NTU	FU07090PPBF101
Pajarito below confluences of South and North Anchor East Basin	—	—	06/28/07	WS	Turbidity	9.54	NTU	FU07060PPBF101
Pajarito below confluences of South and North Anchor East Basin	—	—	03/20/07	WS	Turbidity	7.6	NTU	FU07030PPBF101
Pajarito below confluences of South and North Anchor East Basin	—	—	12/08/06	WS	Turbidity	8.52	NTU	FU06110PPBF101
PC Spring	—	—	12/18/07	WG	Dissolved Oxygen	8.8	mg/L	CAPA-08-9294
PC Spring	—	—	09/19/07	WG	Dissolved Oxygen	7.3	mg/L	FU070900GSCP01
PC Spring	—	—	07/11/07	WG	Dissolved Oxygen	13.65	mg/L	FU070600GSCP01
PC Spring	—	—	03/28/07	WG	Dissolved Oxygen	9.6	mg/L	FU070300GSCP01
PC Spring	—	—	12/14/06	WG	Dissolved Oxygen	8.39	mg/L	FU061200GSCP01
PC Spring	—	—	12/18/07	WG	Oxidation-Reduction Potential	394	mV	CAPA-08-9294
PC Spring	—	—	03/28/07	WG	Oxidation-Reduction Potential	302.1	mV	FU070300GSCP01
PC Spring	—	—	12/14/06	WG	Oxidation-Reduction Potential	377.4	mV	FU061200GSCP01
PC Spring	—	—	08/31/06	WG	Oxidation-Reduction Potential	322.6	mV	FU060800GSCP01
PC Spring	—	—	12/18/07	WG	pH	5.89	SU	CAPA-08-9294
PC Spring	—	—	09/19/07	WG	pH	6.73	SU	FU070900GSCP01
PC Spring	—	—	07/11/07	WG	pH	6.86	SU	FU070600GSCP01
PC Spring	—	—	03/28/07	WG	pH	6.19	SU	FU070300GSCP01

July 2008

B-16

EP2008-0395

EP2008-0395

B-17

July 2008

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
PC Spring	—	—	12/14/06	WG	pH	7.1	SU	FU061200GSCP01
PC Spring	—	—	12/18/07	WG	Specific Conductance	73.1	μS/cm	CAPA-08-9294
PC Spring	—	—	09/19/07	WG	Specific Conductance	75.4	μS/cm	FU070900GSCP01
PC Spring	—	—	07/11/07	WG	Specific Conductance	71.7	μS/cm	FU070600GSCP01
PC Spring	—	—	03/28/07	WG	Specific Conductance	71.4	μS/cm	FU070300GSCP01
PC Spring	—	—	12/14/06	WG	Specific Conductance	74.4	μS/cm	FU061200GSCP01
PC Spring	—	—	12/18/07	WG	Temperature	5.6	deg C	CAPA-08-9294
PC Spring	—	—	09/19/07	WG	Temperature	8.9	deg C	FU070900GSCP01
PC Spring	—	—	07/11/07	WG	Temperature	8	deg C	FU070600GSCP01
PC Spring	—	—	03/28/07	WG	Temperature	5.3	deg C	FU070300GSCP01
PC Spring	—	—	12/14/06	WG	Temperature	5.3	deg C	FU061200GSCP01
PC Spring	—	—	12/18/07	WG	Turbidity	4.66	NTU	CAPA-08-9294
PC Spring	—	—	09/19/07	WG	Turbidity	1.59	NTU	FU070900GSCP01
PC Spring	—	—	07/11/07	WG	Turbidity	7.97	NTU	FU070600GSCP01
PC Spring	—	—	03/28/07	WG	Turbidity	13.7	NTU	FU070300GSCP01
PC Spring	—	—	12/14/06	WG	Turbidity	1.81	NTU	FU061200GSCP01
PCO-2	5331	1.5	12/06/07	WG	Dissolved Oxygen	6.09	mg/L	CAPA-08-9302
PCO-2	5331	1.5	09/11/07	WG	Dissolved Oxygen	5.28	mg/L	FU070900G2CP01
PCO-2	5331	1.5	03/20/07	WG	Dissolved Oxygen	8.03	mg/L	FU070300G2CP01
PCO-2	5331	1.5	08/30/05	WG	Dissolved Oxygen	1.9	mg/L	FU05070G2CP01
PCO-2	5331	1.5	12/06/07	WG	Oxidation-Reduction Potential	555	mV	CAPA-08-9302
PCO-2	5331	1.5	09/11/07	WG	Oxidation-Reduction Potential	325	mV	FU070900G2CP01
PCO-2	5331	1.5	03/20/07	WG	Oxidation-Reduction Potential	239	mV	FU070300G2CP01
PCO-2	5331	1.5	08/30/05	WG	Oxidation-Reduction Potential	-117.9	mV	FU05070G2CP01
PCO-2	5331	1.5	12/06/07	WG	pH	6.88	SU	CAPA-08-9302
PCO-2	5331	1.5	09/11/07	WG	pH	6.81	SU	FU070900G2CP01
PCO-2	5331	1.5	03/20/07	WG	pH	6.72	SU	FU070300G2CP01
PCO-2	5331	1.5	08/30/05	WG	pH	7.03	SU	FU05070G2CP01

Periodic Monitoring Report for Pajarito Watershed

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
PCO-2	5331	1.5	12/06/07	WG	Purge Volume	6.5	gal.	CAPA-08-9302
PCO-2	5331	1.5	09/11/07	WG	Purge Volume	6	gal.	FU070900G2CP01
PCO-2	5331	1.5	12/06/07	WG	Specific Conductance	322	μS/cm	CAPA-08-9302
PCO-2	5331	1.5	09/11/07	WG	Specific Conductance	396	μS/cm	FU070900G2CP01
PCO-2	5331	1.5	03/20/07	WG	Specific Conductance	583	μS/cm	FU070300G2CP01
PCO-2	5331	1.5	08/30/05	WG	Specific Conductance	356	μS/cm	FU05070G2CP01
PCO-2	5331	1.5	12/06/07	WG	Temperature	12.7	deg C	CAPA-08-9302
PCO-2	5331	1.5	09/11/07	WG	Temperature	15.4	deg C	FU070900G2CP01
PCO-2	5331	1.5	03/20/07	WG	Temperature	8.9	deg C	FU070300G2CP01
PCO-2	5331	1.5	08/30/05	WG	Temperature	16	deg C	FU05070G2CP01
PCO-2	5331	1.5	12/06/07	WG	Turbidity	20.2	NTU	CAPA-08-9302
PCO-2	5331	1.5	09/11/07	WG	Turbidity	11.6	NTU	FU070900G2CP01
PCO-2	5331	1.5	03/20/07	WG	Turbidity	55.6	NTU	FU070300G2CP01
PCO-2	5331	1.5	08/30/05	WG	Turbidity	7.8	NTU	FU05070G2CP01
PCO-3	5341	5.7	12/07/07	WG	Dissolved Oxygen	3.19	mg/L	CAPA-08-9358
PCO-3	5341	5.7	09/11/07	WG	Dissolved Oxygen	1.94	mg/L	FU070900G3CP01
PCO-3	5341	5.7	04/04/07	WG	Dissolved Oxygen	1.16	mg/L	FU070300G3CP01
PCO-3	5341	5.7	12/13/06	WG	Dissolved Oxygen	2.2	mg/L	FU061200G3CP02
PCO-3	5341	5.7	08/23/05	WG	Dissolved Oxygen	2.3	mg/L	FU05080G3CP01
PCO-3	5341	5.7	12/07/07	WG	Oxidation-Reduction Potential	182	mV	CAPA-08-9358
PCO-3	5341	5.7	09/11/07	WG	Oxidation-Reduction Potential	1.59	mV	FU070900G3CP01
PCO-3	5341	5.7	04/04/07	WG	Oxidation-Reduction Potential	79	mV	FU070300G3CP01
PCO-3	5341	5.7	12/13/06	WG	Oxidation-Reduction Potential	322.8	mV	FU061200G3CP02
PCO-3	5341	5.7	08/23/05	WG	Oxidation-Reduction Potential	-178.6	mV	FU05080G3CP01
PCO-3	5341	5.7	12/07/07	WG	pH	6.79	SU	CAPA-08-9358
PCO-3	5341	5.7	09/11/07	WG	pH	6.56	SU	FU070900G3CP01
PCO-3	5341	5.7	04/04/07	WG	pH	6.68	SU	FU070300G3CP01
PCO-3	5341	5.7	12/13/06	WG	pH	6.61	SU	FU061200G3CP02

July 2008

B-18

EP2008-0395

EP2008-0395

B-19

July 2008

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
PCO-3	5341	5.7	08/23/05	WG	pH	6.84	SU	FU05080G3CP01
PCO-3	5341	5.7	12/07/07	WG	Purge Volume	11	gal.	CAPA-08-9358
PCO-3	5341	5.7	09/11/07	WG	Purge Volume	11	gal.	FU070900G3CP01
PCO-3	5341	5.7	12/07/07	WG	Specific Conductance	1503	μS/cm	CAPA-08-9358
PCO-3	5341	5.7	09/11/07	WG	Specific Conductance	888	μS/cm	FU070900G3CP01
PCO-3	5341	5.7	04/04/07	WG	Specific Conductance	1006	μS/cm	FU070300G3CP01
PCO-3	5341	5.7	12/13/06	WG	Specific Conductance	1461	μS/cm	FU061200G3CP02
PCO-3	5341	5.7	08/23/05	WG	Specific Conductance	177.8	μS/cm	FU05080G3CP01
PCO-3	5341	5.7	12/07/07	WG	Temperature	11.8	deg C	CAPA-08-9358
PCO-3	5341	5.7	09/11/07	WG	Temperature	17.5	deg C	FU070900G3CP01
PCO-3	5341	5.7	04/04/07	WG	Temperature	9.5	deg C	FU070300G3CP01
PCO-3	5341	5.7	12/13/06	WG	Temperature	12.9	deg C	FU061200G3CP02
PCO-3	5341	5.7	08/23/05	WG	Temperature	14.4	deg C	FU05080G3CP01
PCO-3	5341	5.7	12/07/07	WG	Turbidity	1.78	NTU	CAPA-08-9358
PCO-3	5341	5.7	09/11/07	WG	Turbidity	4.76	NTU	FU070900G3CP01
PCO-3	5341	5.7	04/04/07	WG	Turbidity	0.91	NTU	FU070300G3CP01
PCO-3	5341	5.7	12/13/06	WG	Turbidity	3.65	NTU	FU061200G3CP02
PCO-3	5341	5.7	08/23/05	WG	Turbidity	2.4	NTU	FU05080G3CP01
R-17	7031	1057	12/05/07	WG	Dissolved Oxygen	6.8	mg/L	CAPA-08-9327
R-17	7031	1057	09/18/07	WG	Dissolved Oxygen	7.3	mg/L	FU07080GR17101
R-17	7031	1057	10/19/06	WG	Dissolved Oxygen	3.15	mg/L	FU06090GR17101
R-17	7031	1057	12/05/07	WG	Oxidation-Reduction Potential	216	mV	CAPA-08-9327
R-17	7031	1057	10/19/06	WG	Oxidation-Reduction Potential	224.5	mV	FU06090GR17101
R-17	7031	1057	12/05/07	WG	pH	7.45	SU	CAPA-08-9327
R-17	7031	1057	09/18/07	WG	pH	7.96	SU	FU07080GR17101
R-17	7031	1057	07/03/07	WG	pH	7.89	SU	FU07060GR17101
R-17	7031	1057	04/25/07	WG	pH	7.95	SU	FU07040GR17101
R-17	7031	1057	12/05/07	WG	Specific Conductance	82.1	μS/cm	CAPA-08-9327

Periodic Monitoring Report for Pajarito Watershed

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
R-17	7031	1057	09/18/07	WG	Specific Conductance	125.6	μS/cm	FU07080GR17101
R-17	7031	1057	07/03/07	WG	Specific Conductance	119	μS/cm	FU07060GR17101
R-17	7031	1057	04/25/07	WG	Specific Conductance	128	μS/cm	FU07040GR17101
R-17	7031	1057	12/05/07	WG	Temperature	19	deg C	CAPA-08-9327
R-17	7031	1057	09/18/07	WG	Temperature	22.2	deg C	FU07080GR17101
R-17	7031	1057	07/03/07	WG	Temperature	22	deg C	FU07060GR17101
R-17	7031	1057	04/25/07	WG	Temperature	21	deg C	FU07040GR17101
R-17	7031	1057	10/19/06	WG	Temperature	19.2	deg C	FU06090GR17101
R-17	7031	1057	12/05/07	WG	Turbidity	1.49	NTU	CAPA-08-9327
R-17	7031	1057	09/18/07	WG	Turbidity	3.27	NTU	FU07080GR17101
R-17	7031	1057	07/03/07	WG	Turbidity	1.85	NTU	FU07060GR17101
R-17	7031	1057	04/25/07	WG	Turbidity	4.22	NTU	FU07040GR17101
R-17	7031	1057	10/19/06	WG	Turbidity	19.5	NTU	FU06090GR17101
R-17	7041	1124	12/06/07	WG	Dissolved Oxygen	6.27	mg/L	CAPA-08-9332
R-17	7041	1124	09/18/07	WG	Dissolved Oxygen	6.1	mg/L	FU07080GR17201
R-17	7041	1124	10/17/06	WG	Dissolved Oxygen	3.19	mg/L	FU06090GR17201
R-17	7041	1124	12/06/07	WG	Oxidation-Reduction Potential	434	mV	CAPA-08-9332
R-17	7041	1124	10/17/06	WG	Oxidation-Reduction Potential	204	mV	FU06090GR17201
R-17	7041	1124	12/06/07	WG	pH	7.95	SU	CAPA-08-9332
R-17	7041	1124	09/18/07	WG	pH	7.95	SU	FU07080GR17201
R-17	7041	1124	07/03/07	WG	pH	7.75	SU	FU07060GR17201
R-17	7041	1124	04/25/07	WG	pH	7.96	SU	FU07040GR17201
R-17	7041	1124	12/06/07	WG	Purge Volume	1.75	gal.	CAPA-08-9332
R-17	7041	1124	09/18/07	WG	Purge Volume	175	gal.	FU07080GR17201
R-17	7041	1124	07/03/07	WG	Purge Volume	75	gal.	FU07060GR17201
R-17	7041	1124	12/06/07	WG	Specific Conductance	106.4	μS/cm	CAPA-08-9332
R-17	7041	1124	09/18/07	WG	Specific Conductance	113.7	μS/cm	FU07080GR17201
R-17	7041	1124	07/03/07	WG	Specific Conductance	110.1	μS/cm	FU07060GR17201

July 2008

B-20

EP2008-0395

EP2008-0395

B-21

July 2008

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
R-17	7041	1124	04/25/07	WG	Specific Conductance	113.3	μS/cm	FU07040GR17201
R-17	7041	1124	12/06/07	WG	Temperature	20.3	deg C	CAPA-08-9332
R-17	7041	1124	09/18/07	WG	Temperature	23	deg C	FU07080GR17201
R-17	7041	1124	07/03/07	WG	Temperature	23	deg C	FU07060GR17201
R-17	7041	1124	04/25/07	WG	Temperature	21.7	deg C	FU07040GR17201
R-17	7041	1124	10/17/06	WG	Temperature	21.2	deg C	FU06090GR17201
R-17	7041	1124	12/06/07	WG	Turbidity	0.15	NTU	CAPA-08-9332
R-17	7041	1124	09/18/07	WG	Turbidity	0.63	NTU	FU07080GR17201
R-17	7041	1124	07/03/07	WG	Turbidity	0.45	NTU	FU07060GR17201
R-17	7041	1124	04/25/07	WG	Turbidity	0.38	NTU	FU07040GR17201
R-17	7041	1124	10/17/06	WG	Turbidity	9.97	NTU	FU06090GR17201
R-18	5861	1358	12/04/07	WG	Dissolved Oxygen	6	mg/L	CAPA-08-9366
R-18	5861	1358	09/04/07	WG	Dissolved Oxygen	4.2	mg/L	FU070800G18R01
R-18	5861	1358	06/26/07	WG	Dissolved Oxygen	4.77	mg/L	FU070600G18R01
R-18	5861	1358	03/22/07	WG	Dissolved Oxygen	5.1	mg/L	FU070300G18R01
R-18	5861	1358	12/18/06	WG	Dissolved Oxygen	5.39	mg/L	FU061200G18R01
R-18	5861	1358	12/04/07	WG	Oxidation-Reduction Potential	288	mV	CAPA-08-9366
R-18	5861	1358	09/04/07	WG	Oxidation-Reduction Potential	193	mV	FU070800G18R01
R-18	5861	1358	06/26/07	WG	Oxidation-Reduction Potential	490	mV	FU070600G18R01
R-18	5861	1358	03/22/07	WG	Oxidation-Reduction Potential	335	mV	FU070300G18R01
R-18	5861	1358	12/18/06	WG	Oxidation-Reduction Potential	65.7	mV	FU061200G18R01
R-18	5861	1358	12/04/07	WG	pH	7.74	SU	CAPA-08-9366
R-18	5861	1358	09/04/07	WG	pH	7.67	SU	FU070800G18R01
R-18	5861	1358	06/26/07	WG	pH	7.64	SU	FU070600G18R01
R-18	5861	1358	03/22/07	WG	pH	7.51	SU	FU070300G18R01
R-18	5861	1358	12/18/06	WG	pH	7.44	SU	FU061200G18R01
R-18	5861	1358	12/04/07	WG	Purge Volume	1.5	gal.	CAPA-08-9366
R-18	5861	1358	09/04/07	WG	Purge Volume	230	gal.	FU070800G18R01

Periodic Monitoring Report for Pajarito Watershed

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
R-18	5861	1358	06/26/07	WG	Purge Volume	150	gal.	FU070600G18R01
R-18	5861	1358	12/04/07	WG	Specific Conductance	104	μS/cm	CAPA-08-9366
R-18	5861	1358	09/04/07	WG	Specific Conductance	111.4	μS/cm	FU070800G18R01
R-18	5861	1358	06/26/07	WG	Specific Conductance	69.3	μS/cm	FU070600G18R01
R-18	5861	1358	03/22/07	WG	Specific Conductance	100.3	μS/cm	FU070300G18R01
R-18	5861	1358	12/18/06	WG	Specific Conductance	110.7	μS/cm	FU061200G18R01
R-18	5861	1358	12/04/07	WG	Temperature	18.8	deg C	CAPA-08-9366
R-18	5861	1358	09/04/07	WG	Temperature	17.2	deg C	FU070800G18R01
R-18	5861	1358	06/26/07	WG	Temperature	18.3	deg C	FU070600G18R01
R-18	5861	1358	03/22/07	WG	Temperature	15.5	deg C	FU070300G18R01
R-18	5861	1358	12/18/06	WG	Temperature	13.7	deg C	FU061200G18R01
R-18	5861	1358	12/04/07	WG	Turbidity	0.35	NTU	CAPA-08-9366
R-18	5861	1358	09/04/07	WG	Turbidity	0.5	NTU	FU070800G18R01
R-18	5861	1358	06/26/07	WG	Turbidity	0.15	NTU	FU070600G18R01
R-18	5861	1358	03/22/07	WG	Turbidity	0.43	NTU	FU070300G18R01
R-18	5861	1358	12/18/06	WG	Turbidity	1.37	NTU	FU061200G18R01
R-19	232	909.3	12/10/07	WG	Dissolved Oxygen	3.9	mg/L	CAPA-08-9392
R-19	232	909.3	09/04/07	WG	Dissolved Oxygen	4.1	mg/L	FU07080G19R201
R-19	232	909.3	08/20/02	WG	Dissolved Oxygen	4.6	mg/L	GU0208G19R201
R-19	232	909.3	12/10/07	WG	pH	7.23	SU	CAPA-08-9392
R-19	232	909.3	09/04/07	WG	pH	8.57	SU	FU07080G19R201
R-19	232	909.3	06/26/07	WG	pH	8.15	SU	FU07060G19R201
R-19	232	909.3	12/11/06	WG	pH	7.94	SU	FU06120G19R201
R-19	232	909.3	08/18/06	WG	pH	8.63	SU	FU06080G19R201
R-19	232	909.3	12/10/07	WG	Specific Conductance	33.6	μS/cm	CAPA-08-9392
R-19	232	909.3	09/04/07	WG	Specific Conductance	161.9	μS/cm	FU07080G19R201
R-19	232	909.3	06/26/07	WG	Specific Conductance	158.1	μS/cm	FU07060G19R201
R-19	232	909.3	12/11/06	WG	Specific Conductance	167.9	μS/cm	FU06120G19R201

July 2008

B-22

EP2008-0395

EP2008-0395

B-23

July 2008

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
R-19	232	909.3	08/18/06	WG	Specific Conductance	159	μS/cm	FU06080G19R201
R-19	232	909.3	12/10/07	WG	Temperature	11.2	deg C	CAPA-08-9392
R-19	232	909.3	09/04/07	WG	Temperature	22.8	deg C	FU07080G19R201
R-19	232	909.3	06/26/07	WG	Temperature	24.7	deg C	FU07060G19R201
R-19	232	909.3	12/11/06	WG	Temperature	17.3	deg C	FU06120G19R201
R-19	232	909.3	08/18/06	WG	Temperature	23.6	deg C	FU06080G19R201
R-19	232	909.3	12/10/07	WG	Turbidity	0.5	NTU	CAPA-08-9392
R-19	232	909.3	09/04/07	WG	Turbidity	0.38	NTU	FU07080G19R201
R-19	232	909.3	06/26/07	WG	Turbidity	0.18	NTU	FU07060G19R201
R-19	232	909.3	12/11/06	WG	Turbidity	0.12	NTU	FU06120G19R201
R-19	232	909.3	08/18/06	WG	Turbidity	0.2	NTU	FU06080G19R201
R-19	282	1190.7	12/10/07	WG	Dissolved Oxygen	5.3	mg/L	CAPA-08-9394
R-19	282	1190.7	09/04/07	WG	Dissolved Oxygen	3.69	mg/L	FU07080G19R301
R-19	282	1190.7	08/22/02	WG	Dissolved Oxygen	5.7	mg/L	GU0208G19R301
R-19	282	1190.7	12/10/07	WG	pH	7.61	SU	CAPA-08-9394
R-19	282	1190.7	09/04/07	WG	pH	8.19	SU	FU07080G19R301
R-19	282	1190.7	07/02/07	WG	pH	8.04	SU	FU07060G19R301
R-19	282	1190.7	04/02/07	WG	pH	7.85	SU	FU07030G19R301
R-19	282	1190.7	12/11/06	WG	pH	7.78	SU	FU06120G19R301
R-19	282	1190.7	12/10/07	WG	Specific Conductance	120	μS/cm	CAPA-08-9394
R-19	282	1190.7	09/04/07	WG	Specific Conductance	125.3	μS/cm	FU07080G19R301
R-19	282	1190.7	07/02/07	WG	Specific Conductance	109.9	μS/cm	FU07060G19R301
R-19	282	1190.7	04/02/07	WG	Specific Conductance	123.2	μS/cm	FU07030G19R301
R-19	282	1190.7	12/11/06	WG	Specific Conductance	128.5	μS/cm	FU06120G19R301
R-19	282	1190.7	12/10/07	WG	Temperature	12.5	deg C	CAPA-08-9394
R-19	282	1190.7	09/04/07	WG	Temperature	23.3	deg C	FU07080G19R301
R-19	282	1190.7	07/02/07	WG	Temperature	23.4	deg C	FU07060G19R301
R-19	282	1190.7	04/02/07	WG	Temperature	21.2	deg C	FU07030G19R301

Periodic Monitoring Report for Pajarito Watershed

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
R-19	282	1190.7	12/11/06	WG	Temperature	15.2	deg C	FU06120G19R301
R-19	282	1190.7	12/10/07	WG	Turbidity	0.3	NTU	CAPA-08-9394
R-19	282	1190.7	09/04/07	WG	Turbidity	0.31	NTU	FU07080G19R301
R-19	282	1190.7	07/02/07	WG	Turbidity	0.13	NTU	FU07060G19R301
R-19	282	1190.7	04/02/07	WG	Turbidity	0.22	NTU	FU07030G19R301
R-19	282	1190.7	12/11/06	WG	Turbidity	0.16	NTU	FU06120G19R301
R-19	352	1412.9	09/10/07	WG	pH	7.84	SU	FU07080G19R401
R-19	352	1412.9	06/28/07	WG	pH	8.7	SU	FU07060G19R401
R-19	352	1412.9	04/03/07	WG	pH	7.85	SU	FU07030G19R401
R-19	352	1412.9	12/12/06	WG	pH	7.58	SU	FU06120G19R401
R-19	352	1412.9	09/10/07	WG	Specific Conductance	109.2	μS/cm	FU07080G19R401
R-19	352	1412.9	06/28/07	WG	Specific Conductance	103.6	μS/cm	FU07060G19R401
R-19	352	1412.9	04/03/07	WG	Specific Conductance	103.9	μS/cm	FU07030G19R401
R-19	352	1412.9	12/12/06	WG	Specific Conductance	212	μS/cm	FU06120G19R401
R-19	402	1586.1	09/20/01	WG	Alkalinity-CO ₃ +HCO ₃	79	mg/L	GW19-01-0038
R-19	402	1586.1	07/12/01	WG	Alkalinity-CO ₃ +HCO ₃	123	mg/L	GW19-01-0023
R-19	402	1586.1	09/05/07	WG	pH	6.73	SU	FU07090G19R501
R-19	402	1586.1	06/26/07	WG	pH	6.72	SU	FU07060G19R501
R-19	402	1586.1	04/03/07	WG	pH	6.47	SU	FU07030G19R501
R-19	402	1586.1	12/11/06	WG	pH	6.75	SU	FU06120G19R501
R-19	402	1586.1	09/05/07	WG	Specific Conductance	253	μS/cm	FU07090G19R501
R-19	402	1586.1	06/26/07	WG	Specific Conductance	230	μS/cm	FU07060G19R501
R-19	402	1586.1	04/03/07	WG	Specific Conductance	104.4	μS/cm	FU07030G19R501
R-19	402	1586.1	12/11/06	WG	Specific Conductance	243	μS/cm	FU06120G19R501
R-19	502	1834.7	12/10/07	WG	Dissolved Oxygen	6.1	mg/L	CAPA-08-9400
R-19	502	1834.7	08/26/02	WG	Dissolved Oxygen	6.6	mg/L	GU0208G19R701
R-19	502	1834.7	12/10/07	WG	pH	7.58	SU	CAPA-08-9400
R-19	502	1834.7	06/27/07	WG	pH	7.51	SU	FU07060G19R701

July 2008

B-24

EP2008-0395

EP2008-0395

B-25

July 2008

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
R-19	502	1834.7	08/18/06	WG	pH	7.12	SU	FU06080G19R701
R-19	502	1834.7	07/28/05	WG	pH	7.6	SU	FU0507G19R701
R-19	502	1834.7	06/16/04	WG	pH	7.75	SU	GU0406G19R701
R-19	502	1834.7	12/10/07	WG	Specific Conductance	253	μS/cm	CAPA-08-9400
R-19	502	1834.7	06/27/07	WG	Specific Conductance	316	μS/cm	FU07060G19R701
R-19	502	1834.7	08/18/06	WG	Specific Conductance	324	μS/cm	FU06080G19R701
R-19	502	1834.7	07/28/05	WG	Specific Conductance	292	μS/cm	FU0507G19R701
R-19	502	1834.7	06/16/04	WG	Specific Conductance	263	μS/cm	GU0406G19R701
R-19	502	1834.7	12/10/07	WG	Temperature	11.6	deg C	CAPA-08-9400
R-19	502	1834.7	06/27/07	WG	Temperature	25.5	deg C	FU07060G19R701
R-19	502	1834.7	08/18/06	WG	Temperature	23.3	deg C	FU06080G19R701
R-19	502	1834.7	07/28/05	WG	Temperature	25.6	deg C	FU0507G19R701
R-19	502	1834.7	06/16/04	WG	Temperature	24	deg C	GU0406G19R701
R-19	502	1834.7	12/10/07	WG	Turbidity	22.9	NTU	CAPA-08-9400
R-19	502	1834.7	06/27/07	WG	Turbidity	15	NTU	FU07060G19R701
R-19	502	1834.7	08/18/06	WG	Turbidity	14.9	NTU	FU06080G19R701
R-19	502	1834.7	07/28/05	WG	Turbidity	73.2	NTU	FU0507G19R701
R-19	502	1834.7	06/16/04	WG	Turbidity	33.1	NTU	GU0406G19R701
R-22	682	907.1	12/18/07	WG	Dissolved Oxygen	2.9	mg/L	CAPA-08-9403
R-22	682	907.1	09/19/07	WG	Dissolved Oxygen	2.9	mg/L	FU07090G22R101
R-22	682	907.1	06/27/05	WG	Dissolved Oxygen	3.38	mg/L	FU0506G22R101
R-22	682	907.1	07/08/02	WG	Dissolved Oxygen	3.1	mg/L	GU0207G22R101
R-22	682	907.1	12/18/07	WG	pH	6.73	SU	CAPA-08-9403
R-22	682	907.1	09/19/07	WG	pH	6.48	SU	FU07090G22R101
R-22	682	907.1	07/10/07	WG	pH	6.59	SU	FU07060G22R101
R-22	682	907.1	03/22/07	WG	pH	6.54	SU	FU07030G22R101
R-22	682	907.1	12/06/06	WG	pH	6.74	SU	FU06120G22R101
R-22	682	907.1	12/18/07	WG	Specific Conductance	710	μS/cm	CAPA-08-9403

Periodic Monitoring Report for Pajarito Watershed

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
R-22	682	907.1	09/19/07	WG	Specific Conductance	742	μS/cm	FU07090G22R101
R-22	682	907.1	07/10/07	WG	Specific Conductance	727	μS/cm	FU07060G22R101
R-22	682	907.1	03/22/07	WG	Specific Conductance	678	μS/cm	FU07030G22R101
R-22	682	907.1	12/06/06	WG	Specific Conductance	321	μS/cm	FU06120G22R101
R-22	682	907.1	12/18/07	WG	Temperature	16.3	deg C	CAPA-08-9403
R-22	682	907.1	09/19/07	WG	Temperature	21.2	deg C	FU07090G22R101
R-22	682	907.1	07/10/07	WG	Temperature	28	deg C	FU07060G22R101
R-22	682	907.1	03/22/07	WG	Temperature	17.5	deg C	FU07030G22R101
R-22	682	907.1	12/06/06	WG	Temperature	19.1	deg C	FU06120G22R101
R-22	682	907.1	12/18/07	WG	Turbidity	6.35	NTU	CAPA-08-9403
R-22	682	907.1	09/19/07	WG	Turbidity	2.14	NTU	FU07090G22R101
R-22	682	907.1	07/10/07	WG	Turbidity	14.1	NTU	FU07060G22R101
R-22	682	907.1	03/22/07	WG	Turbidity	0.85	NTU	FU07030G22R101
R-22	682	907.1	12/06/06	WG	Turbidity	9.76	NTU	FU06120G22R101
R-22	772	1273.5	12/18/07	WG	Dissolved Oxygen	4.9	mg/L	CAPA-08-9404
R-22	772	1273.5	09/17/07	WG	Dissolved Oxygen	5.82	mg/L	FU07090G22R301
R-22	772	1273.5	06/29/05	WG	Dissolved Oxygen	6.6	mg/L	FU0506G22R301
R-22	772	1273.5	07/09/02	WG	Dissolved Oxygen	3.5	mg/L	GU0207G22R301
R-22	772	1273.5	12/18/07	WG	pH	8.83	SU	CAPA-08-9404
R-22	772	1273.5	09/17/07	WG	pH	8.76	SU	FU07090G22R301
R-22	772	1273.5	07/09/07	WG	pH	8.73	SU	FU07060G22R301
R-22	772	1273.5	03/20/07	WG	pH	8.52	SU	FU07030G22R301
R-22	772	1273.5	12/08/06	WG	pH	8.53	SU	FU06120G22R301
R-22	772	1273.5	12/18/07	WG	Specific Conductance	183.9	μS/cm	CAPA-08-9404
R-22	772	1273.5	09/17/07	WG	Specific Conductance	219	μS/cm	FU07090G22R301
R-22	772	1273.5	07/09/07	WG	Specific Conductance	210	μS/cm	FU07060G22R301
R-22	772	1273.5	03/20/07	WG	Specific Conductance	210	μS/cm	FU07030G22R301
R-22	772	1273.5	12/08/06	WG	Specific Conductance	226	μS/cm	FU06120G22R301

July 2008

B-26

EP2008-0395

EP2008-0395

B-27

July 2008

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
R-22	772	1273.5	12/18/07	WG	Temperature	20.1	deg C	CAPA-08-9404
R-22	772	1273.5	09/17/07	WG	Temperature	23.5	deg C	FU07090G22R301
R-22	772	1273.5	07/09/07	WG	Temperature	27.3	deg C	FU07060G22R301
R-22	772	1273.5	03/20/07	WG	Temperature	23.9	deg C	FU07030G22R301
R-22	772	1273.5	12/08/06	WG	Temperature	19.9	deg C	FU06120G22R301
R-22	772	1273.5	12/18/07	WG	Turbidity	0.24	NTU	CAPA-08-9404
R-22	772	1273.5	09/17/07	WG	Turbidity	0.83	NTU	FU07090G22R301
R-22	772	1273.5	07/09/07	WG	Turbidity	0.43	NTU	FU07060G22R301
R-22	772	1273.5	03/20/07	WG	Turbidity	4.31	NTU	FU07030G22R301
R-22	772	1273.5	12/08/06	WG	Turbidity	0.49	NTU	FU06120G22R301
R-23	1771	816	12/06/07	WG	Dissolved Oxygen	6.71	mg/L	CAPA-08-9335
R-23	1771	816	09/06/07	WG	Dissolved Oxygen	4.1	mg/L	FU070900GR2301
R-23	1771	816	06/25/07	WG	Dissolved Oxygen	5.1	mg/L	FU070600GR2301
R-23	1771	816	03/19/07	WG	Dissolved Oxygen	4.38	mg/L	FU070300GR2301
R-23	1771	816	12/18/06	WG	Dissolved Oxygen	6.47	mg/L	FU061200GR2301
R-23	1771	816	12/06/07	WG	Oxidation-Reduction Potential	390	mV	CAPA-08-9335
R-23	1771	816	09/06/07	WG	Oxidation-Reduction Potential	408	mV	FU070900GR2301
R-23	1771	816	06/25/07	WG	Oxidation-Reduction Potential	217	mV	FU070600GR2301
R-23	1771	816	03/19/07	WG	Oxidation-Reduction Potential	404	mV	FU070300GR2301
R-23	1771	816	12/18/06	WG	Oxidation-Reduction Potential	365.4	mV	FU061200GR2301
R-23	1771	816	12/06/07	WG	pH	7.97	SU	CAPA-08-9335
R-23	1771	816	09/06/07	WG	pH	7.89	SU	FU070900GR2301
R-23	1771	816	06/25/07	WG	pH	7.88	SU	FU070600GR2301
R-23	1771	816	03/19/07	WG	pH	7.7	SU	FU070300GR2301
R-23	1771	816	12/18/06	WG	pH	7.92	SU	FU061200GR2301
R-23	1771	816	12/06/07	WG	Specific Conductance	157.4	μS/cm	CAPA-08-9335
R-23	1771	816	09/06/07	WG	Specific Conductance	151.3	μS/cm	FU070900GR2301
R-23	1771	816	06/25/07	WG	Specific Conductance	165.6	μS/cm	FU070600GR2301

Periodic Monitoring Report for Pajarito Watershed

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
R-23	1771	816	03/19/07	WG	Specific Conductance	165.8	μS/cm	FU070300GR2301
R-23	1771	816	12/18/06	WG	Specific Conductance	151	μS/cm	FU061200GR2301
R-23	1771	816	12/06/07	WG	Temperature	21.8	deg C	CAPA-08-9335
R-23	1771	816	09/06/07	WG	Temperature	23.8	deg C	FU070900GR2301
R-23	1771	816	06/25/07	WG	Temperature	22.4	deg C	FU070600GR2301
R-23	1771	816	03/19/07	WG	Temperature	21	deg C	FU070300GR2301
R-23	1771	816	12/18/06	WG	Temperature	20	deg C	FU061200GR2301
R-23	1771	816	12/06/07	WG	Turbidity	0.48	NTU	CAPA-08-9335
R-23	1771	816	09/06/07	WG	Turbidity	1.05	NTU	FU070900GR2301
R-23	1771	816	06/25/07	WG	Turbidity	0.58	NTU	FU070600GR2301
R-23	1771	816	03/19/07	WG	Turbidity	0.71	NTU	FU070300GR2301
R-23	1771	816	12/18/06	WG	Turbidity	1.77	NTU	FU061200GR2301
R-23i	7011	470.2	12/19/07	WG	Dissolved Oxygen	3.54	mg/L	CAPA-08-9378
R-23i	7011	470.2	06/20/07	WG	Dissolved Oxygen	2.69	mg/L	FU0706GR23I 01
R-23i	7011	470.2	04/24/07	WG	Dissolved Oxygen	2.07	mg/L	FU0704GR23I 01
R-23i	7011	470.2	02/28/07	WG	Dissolved Oxygen	1.77	mg/L	FU0702GR23I 01
R-23i	7011	470.2	10/03/06	WG	Dissolved Oxygen	3.7	mg/L	FU0609GR23I 02
R-23i	7011	470.2	12/19/07	WG	Oxidation-Reduction Potential	232	mV	CAPA-08-9378
R-23i	7011	470.2	06/20/07	WG	Oxidation-Reduction Potential	295	mV	FU0706GR23I 01
R-23i	7011	470.2	04/24/07	WG	Oxidation-Reduction Potential	257	mV	FU0704GR23I 01
R-23i	7011	470.2	02/28/07	WG	Oxidation-Reduction Potential	90	mV	FU0702GR23I 01
R-23i	7011	470.2	10/03/06	WG	Oxidation-Reduction Potential	8.9	mV	FU0609GR23I 02
R-23i	7011	470.2	12/19/07	WG	pH	8.11	SU	CAPA-08-9378
R-23i	7011	470.2	06/20/07	WG	pH	8.05	SU	FU0706GR23I 01
R-23i	7011	470.2	04/24/07	WG	pH	7.9	SU	FU0704GR23I 01
R-23i	7011	470.2	02/28/07	WG	pH	7.95	SU	FU0702GR23I 01
R-23i	7011	470.2	10/03/06	WG	pH	7.96	SU	FU0609GR23I 02
R-23i	7011	470.2	12/19/07	WG	Purge Volume	46	gal.	CAPA-08-9378

July 2008

B-28

EP2008-0395

EP2008-0395

B-29

July 2008

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
R-23i	7011	470.2	12/19/07	WG	Specific Conductance	239	μS/cm	CAPA-08-9378
R-23i	7011	470.2	06/20/07	WG	Specific Conductance	211	μS/cm	FU0706GR23I 01
R-23i	7011	470.2	04/24/07	WG	Specific Conductance	237	μS/cm	FU0704GR23I 01
R-23i	7011	470.2	02/28/07	WG	Specific Conductance	74.7	μS/cm	FU0702GR23I 01
R-23i	7011	470.2	10/03/06	WG	Specific Conductance	207	μS/cm	FU0609GR23I 02
R-23i	7011	470.2	12/19/07	WG	Temperature	15.5	deg C	CAPA-08-9378
R-23i	7011	470.2	06/20/07	WG	Temperature	17.1	deg C	FU0706GR23I 01
R-23i	7011	470.2	04/24/07	WG	Temperature	15.6	deg C	FU0704GR23I 01
R-23i	7011	470.2	02/28/07	WG	Temperature	15.2	deg C	FU0702GR23I 01
R-23i	7011	470.2	10/03/06	WG	Temperature	18.5	deg C	FU0609GR23I 02
R-23i	7011	470.2	12/19/07	WG	Turbidity	0.9	NTU	CAPA-08-9378
R-23i	7011	470.2	06/20/07	WG	Turbidity	0.83	NTU	FU0706GR23I 01
R-23i	7011	470.2	04/24/07	WG	Turbidity	2.69	NTU	FU0704GR23I 01
R-23i	7011	470.2	02/28/07	WG	Turbidity	2.66	NTU	FU0702GR23I 01
R-23i	7011	470.2	10/03/06	WG	Turbidity	9.2	NTU	FU0609GR23I 02
R-32	1031	870.9	12/14/07	WG	Dissolved Oxygen	4.27	mg/L	CAPA-08-9338
R-32	1031	870.9	12/14/07	WG	Oxidation-Reduction Potential	291	mV	CAPA-08-9338
R-32	1031	870.9	12/14/07	WG	pH	7.89	SU	CAPA-08-9338
R-32	1031	870.9	12/14/07	WG	Purge Volume	300	gal.	CAPA-08-9338
R-32	1031	870.9	12/14/07	WG	Specific Conductance	139.5	μS/cm	CAPA-08-9338
R-32	1031	870.9	12/14/07	WG	Temperature	18.9	deg C	CAPA-08-9338
R-32	1031	870.9	12/14/07	WG	Turbidity	4.18	NTU	CAPA-08-9338
Starmer Spring	—	—	12/03/07	WG	Dissolved Oxygen	11.31	mg/L	CAPA-08-9219
Starmer Spring	—	—	09/20/07	WG	Dissolved Oxygen	7.5	mg/L	FU070800GSTS01
Starmer Spring	—	—	07/10/07	WG	Dissolved Oxygen	7.74	mg/L	FU070600GSTS01
Starmer Spring	—	—	03/21/07	WG	Dissolved Oxygen	7.3	mg/L	FU070300GSTS01
Starmer Spring	—	—	12/06/06	WG	Dissolved Oxygen	6.21	mg/L	FU061200GSTS01
Starmer Spring	—	—	12/03/07	WG	pH	6.07	SU	CAPA-08-9219

Periodic Monitoring Report for Pajarito Watershed

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
Starmer Spring	—	—	09/20/07	WG	pH	6.1	SU	FU070800GSTS01
Starmer Spring	—	—	07/10/07	WG	pH	6.57	SU	FU070600GSTS01
Starmer Spring	—	—	03/21/07	WG	pH	6.31	SU	FU070300GSTS01
Starmer Spring	—	—	12/06/06	WG	pH	6.27	SU	FU061200GSTS01
Starmer Spring	—	—	12/03/07	WG	Purge Volume	5	gal.	CAPA-08-9219
Starmer Spring	—	—	07/10/07	WG	Purge Volume	10	gal.	FU070600GSTS01
Starmer Spring	—	—	12/03/07	WG	Specific Conductance	341	μS/cm	CAPA-08-9219
Starmer Spring	—	—	09/20/07	WG	Specific Conductance	142.5	μS/cm	FU070800GSTS01
Starmer Spring	—	—	07/10/07	WG	Specific Conductance	78.4	μS/cm	FU070600GSTS01
Starmer Spring	—	—	03/21/07	WG	Specific Conductance	753.2	μS/cm	FU070300GSTS01
Starmer Spring	—	—	12/06/06	WG	Specific Conductance	131.7	μS/cm	FU061200GSTS01
Starmer Spring	—	—	12/03/07	WG	Temperature	9.7	deg C	CAPA-08-9219
Starmer Spring	—	—	09/20/07	WG	Temperature	10.8	deg C	FU070800GSTS01
Starmer Spring	—	—	07/10/07	WG	Temperature	10.7	deg C	FU070600GSTS01
Starmer Spring	—	—	03/21/07	WG	Temperature	9.2	deg C	FU070300GSTS01
Starmer Spring	—	—	12/06/06	WG	Temperature	8	deg C	FU061200GSTS01
Starmer Spring	—	—	12/03/07	WG	Turbidity	60.9	NTU	CAPA-08-9219
Starmer Spring	—	—	09/20/07	WG	Turbidity	64.9	NTU	FU070800GSTS01
Starmer Spring	—	—	07/10/07	WG	Turbidity	4.82	NTU	FU070600GSTS01
Starmer Spring	—	—	03/21/07	WG	Turbidity	24.6	NTU	FU070300GSTS01
Starmer Spring	—	—	12/06/06	WG	Turbidity	5.68	NTU	FU061200GSTS01
TA-18 Spring	—	—	12/12/07	WG	Dissolved Oxygen	4.24	mg/L	CAPA-08-9277
TA-18 Spring	—	—	09/17/07	WG	Dissolved Oxygen	1.7	mg/L	FU070800GS1801
TA-18 Spring	—	—	06/26/07	WG	Dissolved Oxygen	2.17	mg/L	FU070600GS1801
TA-18 Spring	—	—	03/20/07	WG	Dissolved Oxygen	4.2	mg/L	FU070300GS1801
TA-18 Spring	—	—	06/22/05	WG	Dissolved Oxygen	1.31	mg/L	FU05060GS1801
TA-18 Spring	—	—	12/12/07	WG	Oxidation-Reduction Potential	218	mV	CAPA-08-9277
TA-18 Spring	—	—	06/26/07	WG	Oxidation-Reduction Potential	144	mV	FU070600GS1801

July 2008

B-30

EP2008-0395

EP2008-0395

B-31

July 2008

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
TA-18 Spring	—	—	03/20/07	WG	Oxidation-Reduction Potential	215	mV	FU070300GS1801
TA-18 Spring	—	—	12/12/07	WG	pH	5.95	SU	CAPA-08-9277
TA-18 Spring	—	—	09/17/07	WG	pH	6.01	SU	FU070800GS1801
TA-18 Spring	—	—	06/26/07	WG	pH	6.01	SU	FU070600GS1801
TA-18 Spring	—	—	03/20/07	WG	pH	6.38	SU	FU070300GS1801
TA-18 Spring	—	—	06/22/05	WG	pH	6.57	SU	FU05060GS1801
TA-18 Spring	—	—	12/12/07	WG	Purge Volume	1	gal.	CAPA-08-9277
TA-18 Spring	—	—	12/12/07	WG	Specific Conductance	190.4	μS/cm	CAPA-08-9277
TA-18 Spring	—	—	09/17/07	WG	Specific Conductance	212	μS/cm	FU070800GS1801
TA-18 Spring	—	—	06/26/07	WG	Specific Conductance	121.2	μS/cm	FU070600GS1801
TA-18 Spring	—	—	03/20/07	WG	Specific Conductance	174.4	μS/cm	FU070300GS1801
TA-18 Spring	—	—	06/22/05	WG	Specific Conductance	217	μS/cm	FU05060GS1801
TA-18 Spring	—	—	12/12/07	WG	Temperature	6.7	deg C	CAPA-08-9277
TA-18 Spring	—	—	09/17/07	WG	Temperature	15.2	deg C	FU070800GS1801
TA-18 Spring	—	—	06/26/07	WG	Temperature	15.4	deg C	FU070600GS1801
TA-18 Spring	—	—	03/20/07	WG	Temperature	7.2	deg C	FU070300GS1801
TA-18 Spring	—	—	06/22/05	WG	Temperature	14.4	deg C	FU05060GS1801
TA-18 Spring	—	—	12/12/07	WG	Turbidity	39.1	NTU	CAPA-08-9277
TA-18 Spring	—	—	09/17/07	WG	Turbidity	9.78	NTU	FU070800GS1801
TA-18 Spring	—	—	06/26/07	WG	Turbidity	2.85	NTU	FU070600GS1801
TA-18 Spring	—	—	03/20/07	WG	Turbidity	22.4	NTU	FU070300GS1801
TA-18 Spring	—	—	06/22/05	WG	Turbidity	2.4	NTU	FU05060GS1801
Two Mile Canyon below TA-59	—	—	12/19/07	WS	Dissolved Oxygen	8.28	mg/L	CAPA-08-9347
Two Mile Canyon below TA-59	—	—	09/11/07	WS	Dissolved Oxygen	7.1	mg/L	FU07090PPBF201
Two Mile Canyon below TA-59	—	—	06/27/07	WS	Dissolved Oxygen	4.1	mg/L	FU07060PPBF201
Two Mile Canyon below TA-59	—	—	04/02/07	WS	Dissolved Oxygen	9.34	mg/L	FU07030PPBF201
Two Mile Canyon below TA-59	—	—	08/25/06	WP	Dissolved Oxygen	3.74	mg/L	FU06080PPBF201
Two Mile Canyon below TA-59	—	—	12/19/07	WS	Oxidation-Reduction Potential	8.28	mV	CAPA-08-9347

Periodic Monitoring Report for Pajarito Watershed

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
Two Mile Canyon below TA-59	—	—	12/19/07	WS	pH	6.97	SU	CAPA-08-9347
Two Mile Canyon below TA-59	—	—	09/11/07	WS	pH	6.94	SU	FU07090PPBF201
Two Mile Canyon below TA-59	—	—	06/27/07	WS	pH	7.16	SU	FU07060PPBF201
Two Mile Canyon below TA-59	—	—	04/02/07	WS	pH	7.2	SU	FU07030PPBF201
Two Mile Canyon below TA-59	—	—	08/25/06	WP	pH	6.89	SU	FU06080PPBF201
Two Mile Canyon below TA-59	—	—	12/19/07	WS	Specific Conductance	153.8	μS/cm	CAPA-08-9347
Two Mile Canyon below TA-59	—	—	09/11/07	WS	Specific Conductance	271	μS/cm	FU07090PPBF201
Two Mile Canyon below TA-59	—	—	06/27/07	WS	Specific Conductance	464	μS/cm	FU07060PPBF201
Two Mile Canyon below TA-59	—	—	04/02/07	WS	Specific Conductance	673	μS/cm	FU07030PPBF201
Two Mile Canyon below TA-59	—	—	08/25/06	WP	Specific Conductance	274	μS/cm	FU06080PPBF201
Two Mile Canyon below TA-59	—	—	12/19/07	WS	Temperature	2.7	deg C	CAPA-08-9347
Two Mile Canyon below TA-59	—	—	09/11/07	WS	Temperature	14.2	deg C	FU07090PPBF201
Two Mile Canyon below TA-59	—	—	06/27/07	WS	Temperature	19.2	deg C	FU07060PPBF201
Two Mile Canyon below TA-59	—	—	04/02/07	WS	Temperature	6.2	deg C	FU07030PPBF201
Two Mile Canyon below TA-59	—	—	08/25/06	WP	Temperature	13.7	deg C	FU06080PPBF201
Two Mile Canyon below TA-59	—	—	12/19/07	WS	Turbidity	35.5	NTU	CAPA-08-9347
Two Mile Canyon below TA-59	—	—	09/11/07	WS	Turbidity	58.7	NTU	FU07090PPBF201
Two Mile Canyon below TA-59	—	—	06/27/07	WS	Turbidity	5.06	NTU	FU07060PPBF201
Two Mile Canyon below TA-59	—	—	04/02/07	WS	Turbidity	10.3	NTU	FU07030PPBF201
Two Mile Canyon below TA-59	—	—	08/25/06	WP	Turbidity	35.7	NTU	FU06080PPBF201
Twomile above Pajarito	—	—	12/17/07	WS	Dissolved Oxygen	12.62	mg/L	CAPA-08-9267
Twomile above Pajarito	—	—	09/12/07	WP	Dissolved Oxygen	7.6	mg/L	FU070900P24401
Twomile above Pajarito	—	—	06/27/07	WS	Dissolved Oxygen	5.62	mg/L	FU070600P24401
Twomile above Pajarito	—	—	04/03/07	WS	Dissolved Oxygen	9.42	mg/L	FU070300P24401
Twomile above Pajarito	—	—	08/29/06	WP	Dissolved Oxygen	134.4	mg/L	FU060800P24401
Twomile above Pajarito	—	—	12/17/07	WS	Oxidation-Reduction Potential	12.62	mV	CAPA-08-9267
Twomile above Pajarito	—	—	12/17/07	WS	pH	7.1	SU	CAPA-08-9267
Twomile above Pajarito	—	—	09/12/07	WP	pH	6.84	SU	FU070900P24401

July 2008

B-32

EP2008-0395

Location	Port	Depth (ft)	Date	Field Matrix	Analyte	Result	Units	Sample
Twomile above Pajarito	—	—	06/27/07	WS	pH	6.86	SU	FU070600P24401
Twomile above Pajarito	—	—	04/03/07	WS	pH	7	SU	FU070300P24401
Twomile above Pajarito	—	—	08/29/06	WP	pH	7.08	SU	FU060800P24401
Twomile above Pajarito	—	—	12/17/07	WS	Purge Volume	0.6	gal.	CAPA-08-9267
Twomile above Pajarito	—	—	12/17/07	WS	Specific Conductance	165.2	μS/cm	CAPA-08-9267
Twomile above Pajarito	—	—	09/12/07	WP	Specific Conductance	176	μS/cm	FU070900P24401
Twomile above Pajarito	—	—	06/27/07	WS	Specific Conductance	237	μS/cm	FU070600P24401
Twomile above Pajarito	—	—	04/03/07	WS	Specific Conductance	300	μS/cm	FU070300P24401
Twomile above Pajarito	—	—	08/29/06	WP	Specific Conductance	189.3	μS/cm	FU060800P24401
Twomile above Pajarito	—	—	12/17/07	WS	Temperature	2	deg C	CAPA-08-9267
Twomile above Pajarito	—	—	09/12/07	WP	Temperature	14.1	deg C	FU070900P24401
Twomile above Pajarito	—	—	06/27/07	WS	Temperature	17.2	deg C	FU070600P24401
Twomile above Pajarito	—	—	04/03/07	WS	Temperature	6.8	deg C	FU070300P24401
Twomile above Pajarito	—	—	08/29/06	WP	Temperature	14.1	deg C	FU060800P24401
Twomile above Pajarito	—	—	12/17/07	WS	Turbidity	43	NTU	CAPA-08-9267
Twomile above Pajarito	—	—	09/12/07	WP	Turbidity	47.8	NTU	FU070900P24401
Twomile above Pajarito	—	—	06/27/07	WS	Turbidity	4.85	NTU	FU070600P24401
Twomile above Pajarito	—	—	04/03/07	WS	Turbidity	9.01	NTU	FU070300P24401
Twomile above Pajarito	—	—	08/29/06	WP	Turbidity	39.9	NTU	FU060800P24401

* — = None.

July 2008

B-34

EP2008-0395

Appendix C

Groundwater-Level Measurements

Appendix D

Analytical Results

The following symbols, abbreviations, and acronyms are used throughout Appendix D.

—	none
*	(Inorganic) The result for this analyte in the Los Alamos National Laboratory (Laboratory) replicate analysis was outside acceptance criteria.
B	(Organic) This analyte was detected in the associated Laboratory method blank and the sample. (B) (Inorganic) The result for this analyte was greater than the instrument detection limit but less than the contract-required detection limit.
CS	client sample
CST	control sample triplicate
DUP	duplicate sample
E	(Organic) The result for this analyte exceeded the upper range of the instrument initial calibration curve. (E) (Inorganic) (inductively coupled plasma–atomic emission spectroscopy). The result for this analyte in the serial dilution analysis was outside acceptance criteria. (E) (Inorganic) (graphite furnace atomic absorption) The result for this analyte failed one or more Contract Laboratory Program acceptance criteria as explained in the case narrative.
EES6	The Laboratory’s Earth and Environmental Sciences Division (Hydrology, Geochemistry, and Geology Group)
EPA	U.S. Environmental Protection Agency
F	filtered
FD	field duplicate
FTB	field trip blank
GELC	General Engineering Laboratories
GEO	Geochron Analytical Laboratory
H	(Organic/Inorganic) The required extraction or analysis holding time for this result was exceeded.
HUFFMAN	Huffman Analytical Laboratory
Inorg	inorganic
J	(Organic/Inorganic) The required extraction or analysis holding time for this result was exceeded.
J-	Presumptive evidence of the presence of the material is at an estimated quantity with a suspected negative bias.
J+	The analyte is classified as detected, but the reported concentration value is expected to be more uncertain than usual with a potential positive bias.

LLEE	low-level electrolytic extraction
LT	(Rad) The result for this analyte is affected by spectral interference.
JN-	Presumptive evidence of the presence of the material is at an estimated quantity with a suspected negative bias.
JN+	Presumptive evidence of the presence of the material is at an estimated quantity with a suspected positive bias.
MDA	material disposal area
MDL	method detection limit
Met	metals
mV	millivolt
n/a	not applicable
NQ	No validation qualifier flag is associated with this result, and the analyte is classified as detected.
PARA	Paragon Analytical Laboratory
R	rejected
Rad	radionuclides
STSL	Severn Trent St. Louis Analytical Laboratory
SV	semivolatile organics
TPU	total propagated uncertainty
U	not detected
UF	unfiltered
UMTL	University of Miami Tritium Laboratory
VOA	volatile organic analysis
WG	groundwater
WM	snowmelt
WP	persistent water
WS	surface water

Pajarito Canyon Watershed Last Four Analytical Results for Sampling December 3–December 19, 2007

Table with 21 columns: Location, Port, Depth (ft), Date, Field Matrix, Field Prep, Lab Sample Type, Field OC Type, Suite, Method, Analyte Desc, Symbol, Result, 1-sigma TPU, MDA, MDL, Unit, Lab Qual, 2nd Qual, Request, Sample, Lab. Rows include various chemical and physical measurements like Perchlorate, Potassium, Silicon Dioxide, Sodium, Specific Conductance, Sulfate, and Total Dissolved Solids.

Pajarito Canyon Watershed Last Four Analytical Results for Sampling December 3–December 19, 2007

Table with 23 columns: Location, Port, Depth (ft), Date, Field Matrix, Field Prep, Lab Sample Type, Field OC Type, Suite, Method, Analyte Desc, Symbol, Result, 1-sigma TPU, MDA, MDL, Unit, Lab Qual, 2nd Qual, Request, Sample, Lab. It contains 100 rows of analytical data for various metals and radionuclides.

Pajarito Canyon Watershed Last Four Analytical Results for Sampling December 3–December 19, 2007

Table with columns: Location, Port, Depth (ft), Date, Field Matrix, Field Prep, Lab Sample Type, Field OC Type, Suite, Method, Analyte Desc, Symbol, Result, 1-sigma TPU, MDA, MDL, Unit, Lab Qual, 2nd Qual, Request, Sample, Lab. Contains 100 rows of analytical data.

Pajarito Canyon Watershed Last Four Analytical Results for Sampling December 3–December 19, 2007

Table with 22 columns: Location, Port, Depth (ft), Date, Field Matrix, Field Prep, Lab Sample Type, Field OC Type, Suite, Method, Analyte Desc, Symbol, Result, 1-sigma TPU, MDA, MDL, Unit, Lab Qual, 2nd Qual, Request, Sample, Lab. Rows include data for Potassium-40, Radium-226, Sodium-22, Strontium-90, and Uranium-234/235/236.

Pajarito Canyon Watershed Last Four Analytical Results for Sampling December 3–December 19, 2007

Table with 22 columns: Location, Port, Depth (ft), Date, Field Matrix, Field Prep, Lab Sample Type, Field OC Type, Suite, Method, Analyte Desc, Symbol, Result, 1-sigma TPU, MDA, MDL, Unit, Lab Qual, 2nd Qual, Request, Sample, Lab. Rows include various analytes like Nickel, Strontium, Vanadium, Zinc, Americium-241, and Cesium-137.

Pajarito Canyon Watershed Last Four Analytical Results for Sampling December 3–December 19, 2007

Table with 22 columns: Location, Port, Depth (ft), Date, Field Matrix, Field Prep, Lab Sample Type, Field OC Type, Suite, Method, Analyte Desc, Symbol, Result, 1-sigma TPU, MDA, MDL, Unit, Lab Qual, 2nd Qual, Request, Sample, Lab. It lists analytical results for various elements like Cesium-137, Cobalt-60, Gross gamma, Neptunium-237, and Plutonium-238 at Bulldog Spring.

Pajarito Canyon Watershed Last Four Analytical Results
for Sampling December 3–December 19, 2007

Table with 22 columns: Location, Port, Depth (ft), Date, Field Matrix, Field Prep, Lab Sample Type, Field OC Type, Suite, Method, Analyte Desc, Symbol, Result, 1-sigma TPU, MDA, MDL, Unit, Lab Qual, 2nd Qual, Request, Sample, Lab. The table contains 75 rows of analytical data for various parameters like Hardness, Magnesium, Nitrate-Nitrite as Nitrogen, Perchlorate, Potassium, Silicon Dioxide, and Sodium.

Pajarito Canyon Watershed Last Four Analytical Results for Sampling December 3–December 19, 2007

Table with 21 columns: Location, Port, Depth (ft), Date, Field Matrix, Field Prep, Lab Sample Type, Field QC Type, Suite, Method, Analyte Desc, Symbol, Result, 1-sigma TPU, MDA, MDL, Unit, Lab Qual, 2nd Qual, Request, Sample, Lab. Contains 80 rows of analytical data for various elements like Thallium, Uranium, Vanadium, Zinc, and Americium-241, Cesium-137, and Cobalt-60.

Pajarito Canyon Watershed Last Four Analytical Results for Sampling December 3–December 19, 2007

Table with 21 columns: Location, Port, Depth (ft), Date, Field Matrix, Field Prep, Lab Sample Type, Field OC Type, Suite, Method, Analyte Desc, Symbol, Result, 1-sigma TPU, MDA, MDL, Unit, Lab Qual, 2nd Qual, Request, Sample, Lab. Rows include data for various analytes like Cobalt-60, Gross gamma, Neptunium-237, Plutonium-238, and Potassium-40 at different locations and dates.

Pajarito Canyon Watershed Last Four Analytical Results for Sampling December 3–December 19, 2007

Table with 21 columns: Location, Port, Depth (ft), Date, Field Matrix, Field Prep, Lab Sample Type, Field OC Type, Suite, Method, Analyte Desc, Symbol, Result, 1-sigma TPU, MDA, MDL, Unit, Lab Qual, 2nd Qual, Request, Sample, Lab. Rows contain analytical data for various sampling locations and dates.

Pajarito Canyon Watershed Last Four Analytical Results for Sampling December 3–December 19, 2007

Table with 22 columns: Location, Port, Depth (ft), Date, Field Matrix, Field Prep, Lab Sample Type, Field QC Type, Suite, Method, Analyte Desc, Symbol, Result, 1-sigma TPU, MDA, MDL, Unit, Lab Qual, 2nd Qual, Request, Sample, Lab. It contains 94 rows of analytical data.

Pajarito Canyon Watershed Last Four Analytical Results for Sampling December 3–December 19, 2007

Table with 22 columns: Location, Port, Depth (ft), Date, Field Matrix, Field Prep, Lab Sample Type, Field QC Type, Suite, Method, Analyte Desc, Symbol, Result, 1-sigma TPU, MDA, MDL, Unit, Lab Qual, 2nd Qual, Request, Sample, Lab. Contains 100 rows of analytical data for various locations and analytes like Potassium, Sodium, Strontium, and Uranium.

Pajarito Canyon Watershed Last Four Analytical Results for Sampling December 3–December 19, 2007

Table with 21 columns: Location, Port, Depth (ft), Date, Field Matrix, Field Prep, Lab Sample Type, Field QC Type, Suite, Method, Analyte Desc, Symbol, Result, 1-sigma TPU, MDA, MDL, Unit, Lab Qual, 2nd Qual, Request, Sample, Lab. Rows include various chemical and physical parameters like Total Dissolved Solids, Total Kjeldahl Nitrogen, Total Organic Carbon, Total Phosphate as Phosphorus, pH, and various metals.

Pajarito Canyon Watershed Last Four Analytical Results
for Sampling December 3–December 19, 2007

Table with 22 columns: Location, Port, Depth (ft), Date, Field Matrix, Field Prep, Lab Sample Type, Field OC Type, Suite, Method, Analyte Desc, Symbol, Result, 1-sigma TPU, MDA, MDL, Unit, Lab Qual, 2nd Qual, Request, Sample, Lab. Rows include various sampling events for Sodium, Specific Conductance, Sulfate, Total Dissolved Solids, Total Kjeldahl Nitrogen, Total Organic Carbon, Total Phosphate as Phosphorus, and Barium.

Pajarito Canyon Watershed Last Four Analytical Results for Sampling December 3–December 19, 2007

Table with 21 columns: Location, Port, Depth (ft), Date, Field Matrix, Field Prep, Lab Sample Type, Field QC Type, Suite, Method, Analyte Desc, Symbol, Result, 1-sigma TPU, MDA, MDL, Unit, Lab Qual, 2nd Qual, Request, Sample, Lab. Rows include data for various analytes like Plutonium-238, Potassium-40, Radium-226, Sodium-22, and Strontium-90.

Pajarito Canyon Watershed Last Four Analytical Results
for Sampling December 3–December 19, 2007

Table with 22 columns: Location, Port, Depth (ft), Date, Field Matrix, Field Prep, Lab Sample Type, Field OC Type, Suite, Method, Analyte Desc, Symbol, Result, 1-sigma TPU, MDA, MDL, Unit, Lab Qual, 2nd Qual, Request, Sample, Lab. The table contains multiple rows of analytical data for various metals and radionuclides, including Nickel, Silicon Dioxide, Strontium, Uranium, Vanadium, and Zinc, with associated sampling details and quality control metrics.

Pajarito Canyon Watershed Last Four Analytical Results
for Sampling December 3–December 19, 2007

Table with 22 columns: Location, Port, Depth (ft), Date, Field Matrix, Field Prep, Lab Sample Type, Field OC Type, Suite, Method, Analyte Desc, Symbol, Result, 1-sigma TPU, MDA, MDL, Unit, Lab Qual, 2nd Qual, Request, Sample, Lab. Rows include data for Americium-241, Cesium-137, Cobalt-60, Gross gamma, and Neptunium-237.

Pajarito Canyon Watershed Last Four Analytical Results
for Sampling December 3–December 19, 2007

Table with 21 columns: Location, Port, Depth (ft), Date, Field Matrix, Field Prep, Lab Sample Type, Field OC Type, Suite, Method, Analyte Desc, Symbol, Result, 1-sigma TPU, MDA, MDL, Unit, Lab Qual, 2nd Qual, Request, Sample, Lab. Rows include data for Starmer Spring and TA-18 Spring across various sampling dates and analytes such as pH, Alkalinity, Calcium, Chloride, Cyanide, Fluoride, Hardness, Magnesium, and Potassium.

Pajarito Canyon Watershed Last Four Analytical Results for Sampling December 3–December 19, 2007

Table with 22 columns: Location, Port, Depth (ft), Date, Field Matrix, Field Prep, Lab Sample Type, Field OC Type, Suite, Method, Analyte Desc, Symbol, Result, 1-sigma TPU, MDA, MDL, Unit, Lab Qual, 2nd Qual, Request, Sample, Lab. Rows include data for Barium, Boron, Iron, Lead, and Manganese.

Pajarito Canyon Watershed Last Four Analytical Results for Sampling December 3–December 19, 2007

Table with 22 columns: Location, Port, Depth (ft), Date, Field Matrix, Field Prep, Lab Sample Type, Field OC Type, Suite, Method, Analyte Desc, Symbol, Result, 1-sigma TPU, MDA, MDL, Unit, Lab Qual, 2nd Qual, Request, Sample, Lab. It contains 48 rows of analytical data for various metals and radionuclides.

Pajarito Canyon Watershed Last Four Analytical Results for Sampling December 3–December 19, 2007

Table with 22 columns: Location, Port, Depth (ft), Date, Field Matrix, Field Prep, Lab Sample Type, Field QC Type, Suite, Method, Analyte Desc, Symbol, Result, 1-sigma TPU, MDA, MDL, Unit, Lab Qual, 2nd Qual, Request, Sample, Lab. Rows include various sampling events for Potassium-40, Sodium-22, Strontium-90, and Uranium-234/236, as well as Specific Conductance and pH measurements.

Pajarito Canyon Watershed Last Four Analytical Results
for Sampling December 3–December 19, 2007

Location	Port	Depth (ft)	Date	Field Matrix	Field Prep	Lab Sample Type	Field OC Type	Suite	Method	Analyte Desc	Symbol	Result	1-sigma TPU	MDA	MDL	Unit	Lab Qual	2nd Qual	Request	Sample	Lab
Two Mile Canyon below TA-59	—	—	08/25/06	WP	F	CS	—	Geninorg	EPA:150.1	pH	—	7	—	—	0.01	SU	H	J	170355	GF06080PPBF201	GELC
Two Mile Canyon below TA-59	—	—	08/25/06	WP	UF	CS	—	Geninorg	EPA:150.1	pH	—	7.04	—	—	0.01	SU	H	J	170355	GU06080PPBF201	GELC
Two Mile Canyon below TA-59	—	—	12/19/07	WS	UF	CS	FTB	Voa	SW-846:8260B	Carbon Disulfide	—	2.3	—	—	1.3	ug/L	J	J	08-442	CAPA-08-9348	GELC
Two Mile Canyon below TA-59	—	—	09/11/07	WS	UF	CS	—	Voa	SW-846:8260B	Carbon Disulfide	<	5	—	—	1.25	ug/L	UH	UJ	193550	GU07090PPBF201	GELC
Two Mile Canyon below TA-59	—	—	06/27/07	WS	UF	CS	—	Voa	SW-846:8260B	Carbon Disulfide	<	5	—	—	1.25	ug/L	U	—	188820	GU07060PPBF201	GELC
Two Mile Canyon below TA-59	—	—	04/02/07	WS	UF	CS	—	Voa	SW-846:8260B	Carbon Disulfide	<	5	—	—	1.25	ug/L	U	—	183582	GU07030PPBF201	GELC
Two Mile Canyon below TA-59	—	—	08/25/06	WP	UF	CS	—	Voa	SW-846:8260B	Carbon Disulfide	<	5	—	—	1.25	ug/L	U	—	170355	GU06080PPBF201	GELC
Twomile above Pajarito	—	—	09/12/07	WP	F	CS	—	Geninorg	EPA:120.1	Specific Conductance	—	195	—	—	1	uS/cm	—	—	193728	GF070900P24401	GELC
Twomile above Pajarito	—	—	06/27/07	WS	F	CS	—	Geninorg	EPA:120.1	Specific Conductance	—	293	—	—	1	uS/cm	—	—	188820	GF070600P24401	GELC
Twomile above Pajarito	—	—	04/03/07	WS	F	CS	—	Geninorg	EPA:120.1	Specific Conductance	—	321	—	—	1	uS/cm	—	—	183582	GF070300P24401	GELC
Twomile above Pajarito	—	—	08/29/06	WP	F	CS	—	Geninorg	EPA:120.1	Specific Conductance	—	216	—	—	1	uS/cm	—	—	170612	GF060800P24401	GELC
Twomile above Pajarito	—	—	08/29/06	WP	UF	CS	—	Geninorg	EPA:120.1	Specific Conductance	—	220	—	—	1	uS/cm	—	—	170612	GU060800P24401	GELC
Twomile above Pajarito	—	—	09/12/07	WP	F	CS	—	Geninorg	EPA:150.1	pH	—	7.83	—	—	0.01	SU	H	J	193728	GF070900P24401	GELC
Twomile above Pajarito	—	—	06/27/07	WS	F	CS	—	Geninorg	EPA:150.1	pH	—	6.85	—	—	0.01	SU	H	J	188820	GF070600P24401	GELC
Twomile above Pajarito	—	—	04/03/07	WS	F	CS	—	Geninorg	EPA:150.1	pH	—	7.31	—	—	0.01	SU	H	J	183582	GF070300P24401	GELC
Twomile above Pajarito	—	—	08/29/06	WP	F	CS	—	Geninorg	EPA:150.1	pH	—	7.31	—	—	0.01	SU	H	J	170612	GF060800P24401	GELC
Twomile above Pajarito	—	—	08/29/06	WP	UF	CS	—	Geninorg	EPA:150.1	pH	—	7.44	—	—	0.01	SU	H	J	170612	GU060800P24401	GELC

* — = None.

— = None.

Appendix E

Screening Results

The following pages provide (1) definitions for other codes, (2) laboratory qualifier codes, (3) secondary validation flag codes, and (4) secondary validation reason codes. Refer to each of these sets of codes while reviewing the tables in Appendix E.

Definitions for Other Codes

Field Prep Code	
Field Prep Code	Description
ASHED	Ashed
CRUSH	Crushed
F	Filtered
NA	Not Applicable
SV	Sieved
UA	Unassigned
UF	Unfiltered
UNK	Unknown
Field QC Type Code	
Field QC Type Code	Description
CO	Collocated
EQB	Equipment Blank
FB	Field Blank
FD	Field Duplicate
FPR	Field Prepared Reagent
FPS	Field Prepared Spike
FR	Field Rinsate
FS	Field Split
FTB	Field Trip Blank
FTR	Field Triplicate
INB	Equipment blank taken during installation and not assoc with a sampling event
ITB	Trip blank taken during installation and not assoc with a sampling event
NA	Not Applicable
PE	Performance Evaluation
PEB	Performance Evaluation Blank
PEK	Performance Evaluation Known
RES	Resample
SS	Special Sampling Event, Data Unique
UA	Unassigned

Definitions for Other Codes (continued)

Analyte Suite Code	
Suite Code	Description
DIOX/FUR	Dioxins and Furans
DRO	Diesel Range Organics
GENINORG	General Inorganics
HERB	Herbicides
HEXP	High Explosives
METALS	Metal
PEST/PCB	Pesticides and PCBs
RAD	Radionuclides
SVOA	Semivolatile Organics
VOA	Volatile Organics
Lab Sample Type Code	
Lab Sample Type Code	Description
BLIND	Blind QC
BS	Blank Spike
BSD	Blank Spike Duplicate
CS	Client Sample
DL	Dilution
DUP	Duplicate
LCS	Lab Control Sample
LCSD	Lab Control Sample Duplicate
LCST	Laboratory Control Sample Triplicate
MB	Method Blank
MBD	Method Blank Duplicate
MBT	Method Blank Triplicate
MS	Matrix Spike
MSD	Matrix Spike Duplicate
MSQD	Matrix Spike Quadruplicate
MSQT	Fifth Matrix Spike
MST	Matrix Spike Triplicate
QNT	Fifth Replicate
QUD	Quadruplicate
RE	Reanalysis
REDP	Reanalysis Duplicate
RETRP	Reanalysis Triplicate
RI	Reissue
RID	Reissue Duplicate
SXT	Sixth Replicate
TOTC	Calculated Total
TOTCD	Calculated Total for a Duplicate
TRP	Triplicate

Laboratory Qualifier Codes

Lab Qualifier Code	Laboratory Qualifier Description
*	*(Inorganic)—The result for this analyte in the laboratory replicate analysis was outside acceptance criteria.
**	** (Organic) and (Inorganic)—The result for this analyte in the laboratory control sample analysis was outside acceptance criteria.
*E	*(Inorganic)—The result for this analyte in the Laboratory Replicate analysis was outside acceptance criteria. (E) (Organic)—The result for this analyte exceeded the upper range of the instrument initial calibration curve. (E) (Inorganic) (ICP-AES)—The result for this analyte in the serial dilution analysis was outside acceptance criteria. (E) (Inorganic) (GFAA)—The result for this analyte failed one or more CLP acceptance criteria as explained in the case narrative.
ABJ	(A) (Organic)—The tentatively Identified compound is an aldol condensate. (B) (Organic).—This analyte was detected in the associated Laboratory Method Blank and the sample. (J) (Organic)—The reported analyte is a tentatively identified compound (TIC).
AJ	A (Organic)—The tentatively Identified compound is an aldol condensate. (J) (Organic)—The reported analyte is a tentatively identified compound (TIC).
B	(B) (Organic)—This analyte was detected in the associated laboratory method blank and the sample. (B) (Inorganic)—The result for this analyte was greater than the instrument detection limit but less than the contract required detection limit.
B*	(B) (Organic)—This analyte was detected in the associated laboratory method blank and the sample. (B) (Inorganic)—The result for this analyte was greater than the Instrument detection limit but less than the contract required detection limit. *(Inorganic)—The result for this analyte in the laboratory replicate analysis was outside acceptance criteria.
B*E	(B) (Organic)—This analyte was detected in the associated laboratory method blank and the sample. (B) (Inorganic)—The result for this analyte was greater than the instrument detection limit but less than the contract required detection limit. *(Inorganic)—The result for this analyte in the laboratory replicate analysis was outside acceptance criteria. (E) (Organic)—The result for this analyte exceeded the upper range of the instrument initial calibration curve. (E) (Inorganic) (ICP-AES)—The result for this analyte in the serial dilution analysis was outside acceptance criteria. (E) (Inorganic) (GFAA)—The result for this analyte failed one or more CLP acceptance criteria as explained in the case narrative.
BE	(B) (Organic)—This analyte was detected in the associated laboratory method blank and the sample. (B) (Inorganic)—The result for this analyte was greater than the instrument detection limit but less than the contract required detection limit. (E) (Organic)—The result for this analyte exceeded the upper range of the instrument initial calibration curve. (E) (Inorganic) (ICP-AES)—The result for this analyte in the serial dilution analysis was outside acceptance criteria. (E) (Inorganic) (GFAA)—The result for this analyte failed one or more CLP acceptance criteria as explained in the case narrative.
BE*	(B) (Organic)—This analyte was detected in the associated laboratory method blank and the sample. (B) (Inorganic)—The result for this analyte was greater than the instrument detection limit but less than the contract required detection limit. (E) (Organic)—The result for this analyte exceeded the upper range of the instrument initial calibration curve. (E) (Inorganic) (ICP-AES)—The result for this analyte in the serial dilution analysis was outside acceptance criteria. (E) (Inorganic) (GFAA)—The result for this analyte failed one or more CLP acceptance criteria as explained in the case narrative. *(Inorganic)—The result for this analyte in the laboratory replicate analysis was outside acceptance criteria.

Laboratory Qualifier Codes (continued)

Lab Qualifier Code	Laboratory Qualifier Description
BEN	(B) (Organic)—This analyte was detected in the associated laboratory method blank and the sample. (B) (Inorganic)—The result for this analyte was greater than the Instrument detection limit but less than the contract required detection limit. (E) (Organic)—The result for this analyte exceeded the upper range of the instrument initial calibration curve. (E) (Inorganic) (ICP-AES)—The result for this analyte in the serial dilution analysis was outside acceptance criteria. (E) (Inorganic) (GFAA)—The result for this analyte failed one or more CLP acceptance criteria as explained in the case narrative. (N) (Organic)—The reported analyte is a tentatively identified compound (TIC). (N) (Inorganic)—The result for this analyte in the matrix spike sample was outside acceptance criteria.
BEN*	(B) (Organic)—This analyte was detected in the associated laboratory method blank and the sample. (B) (Inorganic)—The result for this analyte was greater than the instrument detection limit but less than the contract required detection limit. (E) (Organic)—The result for this analyte exceeded the upper range of the instrument initial calibration curve. (E) (Inorganic) (ICP-AES)—The result for this analyte in the serial dilution analysis was outside acceptance criteria. (E) (Inorganic) (GFAA)—The result for this analyte failed one or more CLP acceptance criteria as explained in the case narrative. (N) (Organic)—The reported analyte is a tentatively identified compound (TIC). (N) (Inorganic)—The result for this analyte in the matrix spike sample was outside acceptance criteria. *(Inorganic)—The result for this analyte in the laboratory replicate analysis was outside acceptance criteria.
BJ	(B) (Organic)—This analyte was detected in the associated Laboratory Method Blank and the sample. (B) (Inorganic)—The result for this analyte was greater than the instrument detection limit but less than the contract required detection limit. (J) (Organic/General Inorganics)—The result for this analyte was greater than the method detection limit (MDL) but less than the practical quantitation limit (PQL).
BJN	(B) (Organic)—This analyte was detected in the associated Laboratory Method Blank and the sample. (J) (Organic)—The reported analyte is a tentatively identified compound (TIC). (N) (Organic)—The reported analyte is a tentatively identified compound (TIC).
BJP	(B) (Organic)—This analyte was detected in the associated laboratory method blank and the sample. (B) (Inorganic)—The result for this analyte was greater than the instrument detection limit but less than the contract required detection limit. (J) (Organic/General Inorganics)—The result for this analyte was greater than the method detection limit (MDL) but less than the practical quantitation limit (PQL). (P) (Pesticides/PCBs)—The quantitative results for this analyte between the primary and secondary GC columns were greater than 25% difference. (P) (SW-846 EPA Method 8310 High Pressure Liquid Chromotography, HPLC results)—The quantitative results for this analyte between the primary and secondary HPLC columns or primary and secondary HPLC detectors were greater than 40% difference.
BN	(B) (Organic)—This analyte was detected in the associated laboratory method blank and the sample. (B) (Inorganic)—The result for this analyte was greater than the instrument detection limit but less than the contract required detection limit. (N) (Organic)—The reported analyte is a tentatively identified compound (TIC). (N) (Inorganic)—The result for this analyte in the matrix spike sample was outside acceptance criteria.
BN*	(B) (Organic)—This analyte was detected in the associated laboratory method blank and the sample. (B) (Inorganic)—The result for this analyte was greater than the instrument detection limit but less than the contract required detection limit. (N) (Organic)—The reported analyte is a tentatively identified compound (TIC). (N) (Inorganic)—The result for this analyte in the matrix spike sample was outside acceptance criteria. *(Inorganic)—The result for this analyte in the laboratory replicate analysis was outside acceptance criteria.

Laboratory Qualifier Codes (continued)

Lab Qualifier Code	Laboratory Qualifier Description
BNE	(B) (Organic)—This analyte was detected in the associated laboratory method blank and the sample. (B) (Inorganic)—The result for this analyte was greater than the instrument detection limit but less than the contract required detection limit. (N) (Organic)—The reported analyte is a tentatively identified compound (TIC). (N) (Inorganic)—The result for this analyte in the matrix spike sample was outside acceptance criteria. (E) (Organic)—The result for this analyte exceeded the upper range of the instrument initial calibration curve. (E) (Inorganic) (ICP-AES)—The result for this analyte in the serial dilution analysis was outside acceptance criteria. (E) (Inorganic) (GFAA)—The result for this analyte failed one or more CLP acceptance criteria as explained in the case narrative.
BP	(B) (Organic)—This analyte was detected in the associated laboratory method blank and the sample. (B) (Inorganic)—The result for this analyte was greater than the instrument detection limit but less than the contract required detection limit. (P) (Pesticides/PCBs)—The quantitative results for this analyte between the primary and secondary GC columns were greater than 25% difference. (P) (SW-846 EPA Method 8310 High Pressure Liquid Chromotography, HPLC results)—The quantitative results for this analyte between the primary and secondary HPLC columns or primary and secondary HPLC detectors were greater than 40% difference.
BPX	(B) (Organic)—This analyte was detected in the associated laboratory method blank and the sample. (B) (Inorganic)—The result for this analyte was greater than the instrument detection limit but less than the contract required detection limit. (P) (Pesticides/PCBs)—The quantitative results for this analyte between the primary and secondary GC columns were greater than 25% difference. (P) (SW-846 EPA Method 8310 High Pressure Liquid Chromotography, HPLC results)—The quantitative results for this analyte between the primary and secondary HPLC columns or primary and secondary HPLC detectors were greater than 40% difference. (X) (Organic/Inorganic)—The result for this analyte should be regarded as not detected.
BW	(B) (Organic)—This analyte was detected in the associated laboratory method blank and the sample. (B) (Inorganic)—The result for this analyte was greater than the instrument detection limit but less than the contract required detection limit. (W) (Inorganic GFAA CLP)—The result for this analyte in the postdigestion spike sample was outside acceptance criteria.
D	(D) (Organic)—The result for this analyte was reported from a dilution.
DJ	(D) (Organic)—The result for this analyte was reported from a dilution. (J) (Organic/General Inorganics)—The result for this analyte was greater than the method detection limit (MDL) but less than the practical quantitation limit (PQL).
DP	(D) (Organic)—The result for this analyte was reported from a dilution. (P) (Pesticides/PCBs)—The quantitative results for this analyte between the primary and secondary GC columns were greater than 25% difference. (P) (SW-846 EPA Method 8310 High Pressure Liquid Chromotography, HPLC results)—The quantitative results for this analyte between the primary and secondary HPLC columns or primary and secondary HPLC detectors were greater than 40% difference.
DPX	(D) (Organic)—The result for this analyte was reported from a dilution. (P) (Pesticides/PCBs)—The quantitative results for this analyte between the primary and secondary GC columns were greater than 25% difference. (P) (SW-846 EPA Method 8310 High Pressure Liquid Chromotography, HPLC results)—The quantitative results for this analyte between the primary and secondary HPLC columns or primary and secondary HPLC detectors were greater than 40% difference. (X) (Organic/Inorganic)—The result for this analyte should be regarded as not detected.

Laboratory Qualifier Codes (continued)

Lab Qualifier Code	Laboratory Qualifier Description
E	(E) (Organic)—The result for this analyte exceeded the upper range of the instrument initial calibration curve. (E) (Inorganic) (ICP-AES)—The result for this analyte in the serial dilution analysis was outside acceptance criteria. (E) (Inorganic) (GFAA)—The result for this analyte failed one or more CLP acceptance criteria as explained in the case narrative.
E*	(E) (Organic)—The result for this analyte exceeded the upper range of the instrument initial calibration curve. (E) (Inorganic) (ICP-AES)—The result for this analyte in the serial dilution analysis was outside acceptance criteria. (E) (Inorganic) (GFAA)—The result for this analyte failed one or more CLP acceptance criteria as explained in the case narrative. *(Inorganic)—The result for this analyte in the Laboratory Replicate analysis was outside acceptance criteria.
EJ	(E) (Organic)—The result for this analyte exceeded the upper range of the instrument initial calibration curve. (E) (Inorganic) (ICP-AES)—The result for this analyte in the serial dilution analysis was outside acceptance criteria. (E) (Inorganic) (GFAA)—The result for this analyte failed one or more CLP acceptance criteria as explained in the case narrative. (J) (Organic/General Inorganics)—The result for this analyte was greater than the method detection limit (MDL) but less than the practical quantitation limit (PQL).
EJ*	(E) (Organic)—The result for this analyte exceeded the upper range of the instrument initial calibration curve. (E) (Inorganic) (ICP-AES)—The result for this analyte in the serial dilution analysis was outside acceptance criteria. (E) (Inorganic) (GFAA)—The result for this analyte failed one or more CLP acceptance criteria as explained in the case narrative. (J) (Organic/General Inorganics)—The result for this analyte was greater than the method detection limit (MDL) but less than the practical quantitation limit (PQL). *(Inorganic)—The result for this analyte in the laboratory replicate analysis was outside acceptance criteria.
EJN	(E) (Organic)—The result for this analyte exceeded the upper range of the instrument initial calibration curve. (E) (Inorganic) (ICP-AES)—The result for this analyte in the serial dilution analysis was outside acceptance criteria. (E) (Inorganic) (GFAA)—The result for this analyte failed one or more CLP acceptance criteria as explained in the case narrative. (J) (Organic/General Inorganics)—The result for this analyte was greater than the method detection limit (MDL) but less than the practical quantitation limit (PQL). (N) (Organic)—The reported analyte is a tentatively identified compound (TIC). (N) (Inorganic)—The result for this analyte in the matrix spike sample was outside acceptance criteria.
EN	(E) (Organic)—The result for this analyte exceeded the upper range of the instrument initial calibration curve. (E) (Inorganic) (ICP-AES)—The result for this analyte in the serial dilution analysis was outside acceptance criteria. (E) (Inorganic) (GFAA)—The result for this analyte failed one or more CLP acceptance criteria as explained in the case narrative. (N) (Organic)—The reported analyte is a tentatively identified compound (TIC). (N) (Inorganic)—The result for this analyte in the matrix spike sample was outside acceptance criteria.
EN*	(E) (Organic)—The result for this analyte exceeded the upper range of the instrument initial calibration curve. (E) (Inorganic) (ICP-AES)—The result for this analyte in the serial dilution analysis was outside acceptance criteria. (E) (Inorganic) (GFAA)—The result for this analyte failed one or more CLP acceptance criteria as explained in the case narrative. (N) (Organic)—The reported analyte is a tentatively identified compound (TIC). (N) (Inorganic)—The result for this analyte in the matrix spike sample was outside acceptance criteria. *(Inorganic)—The result for this analyte in the Laboratory Replicate analysis was outside acceptance criteria.
H	(H) (Organic/Inorganic)—The required extraction or analysis holding time for this result was exceeded.

Laboratory Qualifier Codes (continued)

Lab Qualifier Code	Laboratory Qualifier Description
H*	(H) (Organic/Inorganic)—The required extraction or analysis holding time for this result was exceeded. *(Organic) and (Inorganic)—The result for this analyte in the laboratory control sample analysis was outside acceptance criteria.
HJ	(H) (Organic/Inorganic)—The required extraction or analysis holding time for this result was exceeded. (J) (Organic/General Inorganics)—The result for this analyte was greater than the method detection limit (MDL) but less than the practical quantitation limit (PQL).
HJ*	(H) (Organic/Inorganic)—The required extraction or analysis holding time for this result was exceeded. (J) (Organic/General Inorganics)—The result for this analyte was greater than the method detection limit (MDL) but less than the practical quantitation limit (PQL). *(Inorganic)—The result for this analyte in the laboratory replicate analysis was outside acceptance criteria.
I	(I) (DIOXIN)—The lab is reporting an interference for the associated congener. The reported concentration is an Estimated Maximum Possible Concentration (EMPC) due to the reported interference.
J	(J) (Organic/General Inorganics)—The result for this analyte was greater than the method detection limit (MDL) but less than the practical quantitation limit (PQL).
J*	(J) (Organic/General Inorganics)—The result for this analyte was greater than the method detection limit (MDL) but less than the practical quantitation limit (PQL). *(Inorganic)—The result for this analyte in the Laboratory Replicate analysis was outside acceptance criteria.
JN	(J) (Organic/General Inorganics)—The result for this analyte was greater than the method detection limit (MDL) but less than the practical quantitation limit (PQL). (N) (Organic)—The reported analyte is a tentatively identified compound (TIC). (N) (Inorganic)—The result for this analyte in the matrix spike sample was outside acceptance criteria.
JN*	(J) (Organic/Inorganic/General Inorganics)—The result for this analyte was greater than the method detection limit (MDL) but less than the practical quantitation limit (PQL). (N) (Organic)—The reported analyte is a tentatively identified compound (TIC). (N) (Inorganic)—The result for this analyte in the matrix spike sample was outside acceptance criteria. *(Inorganic)—The result for this analyte in the laboratory replicate analysis was outside acceptance criteria.
JP	(J) (Organic/General Inorganics)—The result for this analyte was greater than the method detection limit (MDL) but less than the Practical Quantitation Limit (PQL). (P) (Pesticides/PCBs)—The quantitative results for this analyte between the primary and secondary GC columns were greater than 25% difference. (P) (SW-846 EPA Method 8310 High Pressure Liquid Chromatography, HPLC results)—The quantitative results for this analyte between the primary and secondary HPLC columns or primary and secondary HPLC detectors were greater than 40% difference.
JPX	(J) (Organic/General Inorganics)—The result for this analyte was greater than the method detection limit (MDL) but less than the practical quantitation limit (PQL). (P) (Pesticides/PCBs)—The quantitative results for this analyte between the primary and secondary GC columns were greater than 25% difference. (P) (SW-846 EPA Method 8310 High Pressure Liquid Chromatography, HPLC results)—The quantitative results for this analyte between the primary and secondary HPLC columns or primary and secondary HPLC detectors were greater than 40% difference. (X) (Organic/Inorganic)—The result for this analyte should be regarded as not detected.
JX	(J) (Organic/General Inorganics)—The result for this analyte was greater than the method detection limit (MDL) but less than the practical quantitation limit (PQL). (X) (Organic/Inorganic)—The result for this analyte should be regarded as not detected.

Laboratory Qualifier Codes (continued)

Lab Qualifier Code	Laboratory Qualifier Description
L	(L) (Inorganic)—The result for this analyte in the serial dilution sample indicates physical and chemical interferences are present.
LT	(LT) (Rad)—The result for this analyte is affected by spectral interference.
N	(N) (Organic)—The reported analyte is a tentatively identified compound (TIC). (N) (Inorganic)—The result for this analyte in the matrix spike sample was outside acceptance criteria.
N*	(N) (Organic)—The reported analyte is a tentatively identified compound (TIC). (N) (Inorganic)—The result for this analyte in the matrix spike sample was outside acceptance criteria. *(Inorganic)—The result for this analyte in the Laboratory Replicate analysis was outside acceptance criteria.
P	(P) (Pesticides/PCBs)—The quantitative results for this analyte between the primary and secondary GC columns were greater than 25% difference. (P) (SW-846 EPA Method 8310 High Pressure Liquid Chromotography, HPLC results)—The quantitative results for this analyte between the primary and secondary HPLC columns or primary and secondary HPLC detectors were greater than 40% difference.
PJ	(P) (Pesticides/PCBs)—The quantitative results for this analyte between the primary and secondary GC columns were greater than 25% difference. (P) (SW-846 EPA Method 8310 High Pressure Liquid Chromotography, HPLC results)—The quantitative results for this analyte between the primary and secondary HPLC columns or primary and secondary HPLC detectors were greater than 40% difference. (J) (Organic/General Inorganics)—The result for this analyte was greater than the method detection limit (MDL) but less than the practical quantitation limit (PQL).
PX	(P) (Pesticides/PCBs)—The quantitative results for this analyte between the primary and secondary GC columns were greater than 25% difference. (P) (SW-846 EPA Method 8310 High Pressure Liquid Chromotography, HPLC results)—The quantitative results for this analyte between the primary and secondary HPLC columns or primary and secondary HPLC detectors were greater than 40% difference. (X) (Organic/Inorganic)—The result for this analyte should be regarded as not detected.
Q	(Q)—The result for this analyte was reported at an elevated reporting limit.
SI	(SI) (Rad)—Gamma spectroscopy result should be regarded as an uncertain identification due to spectral interference.
SQ	(SQ) (Rad)—Gamma spectroscopy result should be regarded as an uncertain identification due to spectral interference.
TI	(TI) (Rad)—Gamma spectroscopy result should be regarded as an uncertain identification due to spectral interference.
U	(U) (Organic/Inorganic)—The result for this analyte was not detected at the specified reporting limit.
U*	(U) (Organic/Inorganic)—The result for this analyte was not detected at the specified reporting limit. *(Inorganic)—The result for this analyte in the Laboratory Replicate analysis was outside acceptance criteria.
UE	(U) (Organic/Inorganic)—The result for this analyte was not detected at the specified reporting limit. (E) (Organic)—The result for this analyte exceeded the upper range of the instrument initial calibration curve. (E) (Inorganic) (ICP-AES)—The result for this analyte in the serial dilution analysis was outside acceptance criteria. (E) (Inorganic) (GFAA)—The result for this analyte failed one or more CLP acceptance criteria as explained in the case narrative.

Laboratory Qualifier Codes (continued)

Lab Qualifier Code	Laboratory Qualifier Description
UEN	(U) (Organic/Inorganic)—The result for this analyte was not detected at the specified reporting limit. (E) (Organic)—The result for this analyte exceeded the upper range of the instrument initial calibration curve. (E) (Inorganic) (ICP-AES)—The result for this analyte in the serial dilution analysis was outside acceptance criteria. (E) (Inorganic) (GFAA)—The result for this analyte failed one or more CLP acceptance criteria as explained in the case narrative. (N) (Organic)—The reported analyte is a tentatively identified compound (TIC). (N) (Inorganic)—The result for this analyte in the matrix spike sample was outside acceptance criteria.
UH	(U) (Organic/Inorganic)—The result for this analyte was not detected at the specified reporting limit. (H) (Organic/Inorganic)—The required extraction or analysis holding time for this result was exceeded.
UH*	(U) (Organic/Inorganic)—The result for this analyte was not detected at the specified reporting limit. (H) (Organic/Inorganic)—The required extraction or analysis holding time for this result was exceeded. *(Inorganic)—The result for this analyte in the Laboratory Replicate analysis was outside acceptance criteria.
UI	(UI) (Rad)—Gamma spectroscopy result should be regarded as an uncertain identification.
UJ	(UJ) (Organic)—Legacy CST lab code should not be used.
UL	UL (all suites)—Not detected legacy—This lab qualifier code is applied by WQ personnel for CST data and other legacy data that was reported as not detected using the less than symbol without the laboratory assigning a U lab code.
UN	(U) (Organic/Inorganic)—The result for this analyte was not detected at the specified reporting limit. (N) (Organic)—The reported analyte is a tentatively identified compound (TIC). (N) (Inorganic)—The result for this analyte in the matrix spike sample was outside acceptance criteria.
UN*	(U) (Organic/Inorganic)—The result for this analyte was not detected at the specified reporting limit. (N) (Organic)—The reported analyte is a tentatively identified compound (TIC). (N) (Inorganic)—The result for this analyte in the matrix spike sample was outside acceptance criteria. *(Inorganic)—The result for this analyte in the Laboratory Replicate analysis was outside acceptance criteria.
UUI	(UUI) (Rad)—Gamma spectroscopy result should be regarded as an uncertain identification and the lab assigned these gamma spectroscopy results as not detected.
UW	(U) (Organic/Inorganic)—The result for this analyte was not detected at the specified reporting limit. (W) (Inorganic GFAA CLP)—The result for this analyte in the postdigestion spike sample was outside acceptance criteria.
UY2	(UY2) (Rad)—Result should be regarded as an uncertain identification due to spectral interference.
W	(W) (Inorganic GFAA CLP)—The result for this analyte in the postdigestion spike sample was outside acceptance criteria.
X	(X) (Organic/Inorganic)—The result for this analyte should be regarded as not detected.
XB	(X) (Organic/Inorganic)—The result for this analyte should be regarded as not detected. (B) (Organic)—This analyte was detected in the associated laboratory method blank and the sample. (B) (Inorganic)—The result for this analyte was greater than the instrument detection limit but less than the contract required detection limit.

Secondary Validation Flag Codes

Valid Flag Code	Valid Flag Desc
A	The contractually required supporting documentation for this datum is absent.
GUP	Matrix and Units are inconsistent.
IUP	Matrix and Units are inconsistent.
J	The analyte is classified as detected but the reported concentration value is expected to be more uncertain than usual.
J+	The analyte is classified as detected but the reported concentration value is expected to be more uncertain than usual with a potential positive bias.
J-	The analyte is classified as detected but the reported concentration value is expected to be more uncertain than usual with a potential negative bias.
JN+	Presumptive evidence of the presence of the material at an estimated quantity with a suspected positive bias.
JN-	Presumptive evidence of the presence of the material at an estimated quantity with a suspected negative bias.
JPM	The analyte is classified as detected but the reported concentration value is expected to be more uncertain than usual. Manual review of raw data is recommended to determine if the observed noncompliances with quality acceptance criteria adversely impacts data use.
LIMIT	The limit type is uncertain.
MS	Invalid validation flag. MS indicates a laboratory matrix spike sample.
MSD	Invalid validation flag. MSD indicates a laboratory matrix spike duplicate sample.
N	Presumptive evidence of the presence of the material.
NJ	(Organic)—Analyte has been tentatively identified and the associated numerical value is estimated based upon 1:1 response factor to the nearest eluting internal standard
NQ	No validation qualifier flag is associated with this result, and the analyte is classified as detected.
NUP	Matrix and Units are inconsistent B
P	Use professional judgment based on data use. A decision must be made by the project manager or a delegate with regard to the need for further review of the data. This review should include some consideration of potential impact that could result from using the P-qualified data.
PM	Manual review of raw data is recommended to determine if the observed noncompliances with quality acceptance criteria adversely impacts data use.
R	The reported sample result is classified as rejected due to serious noncompliances regarding quality control acceptance criteria. The presence or absence of the analyte cannot be verified based on routine validation alone

July 2008

E-10

EP2008-0395

Secondary Validation Flag Codes (continued)

Valid Flag Code	Valid Flag Description
RPM	The reported sample result is classified as rejected due to serious noncompliances regarding quality control acceptance criteria. The presence or absence of the analyte cannot be verified based on routine validation alone.
RUP	Matrix and units are inconsistent C.
U	The analyte is classified as not detected.
UA	Invalid validation flag of unknown meaning.
UJ	The analyte is classified as not detected, with an expectation that the reported result is more uncertain than usual.
VUP	Matrix and units are inconsistent D.

Secondary Validation Reason Codes

Valid Reason Code	Valid Reason Description
C12d	VOC_C12d
DR12a	ORGANIC_ODRO12a
DR3b	ORGANIC_ODRO3b
DR9a	ORGANIC_ODRO9a
G165b	GAMMA_GR165b
G165c	GAMMA_GR165c
G16b	GAMMA_G16b
G16bc	GAMMA_GR16bc
G16c	GAMMA_G16c
G3TPU	The sample result is less than or equal to 3 times the 1-sigma total propagated uncertainty.
G9a	GAMMA_G9a
G9ra	GAMMA_G9ra
GADM1	GAMMA_GADMIN1
GADMI	GAMMA_GADMIN1
GCZ	CST put zeros in the TPU field to indicate nondetects, therefore not detected (U).
GI16b	GAMMA_GI16b
GI16c	GAMMA_GI16c
GI16d	GAMMA_GI16d
GI4	GAMMA_GI4
GI5	GAMMA_GI5
GIQ	GIQ
GIR16	GAMMA_GIR16c
GJCST	Chemical Sciences and Technology validators assigned a J qualifier to this sample result. The hardcopy validation report should be reviewed to determine the reason for applying the J qualifier.
GJLAB	GJLAB_GAMMA

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
GLCS	The percent recovery from the laboratory control sample for this analyte was less than 10%.
GNONE	A reason code is not available in the database for the data qualifier(s) applied to this sample result.
GNPO	The reported result should be regarded as rejected because no peak was observed for this radionuclide in the gamma spectrum.
GNQ	The reported result should be regarded as rejected because the gamma spectrum peak was not quantitated.
GR1	The tracer yield information is missing. Data may not be acceptable for use.
GR10	GAMMA_GR10
GR10a	GAMMA_GR10a
GR11	GAMMA_GR11
GR15b	GAMMA_GR15b
GR15c	GAMMA_GR15c
GR16	GAMMA_GR16
GR165	GAMMA_GR165b
GR166	GAMMA_GR166
GR16a	GAMMA_GR16a
GR16b	GAMMA_GR16b
GR16c	GAMMA_GR16c
GR16d	GAMMA_GR16d
GR16g	GAMMA_GR16g
GR17c	GAMMA_GR17c
GR19	The validator identified quality deficiencies in the reported data that require qualification.
GR1a	The tracer %R value is less than 10%.
GR1c	The MDC for the affected analytes are qualified as estimated because the associated tracer recovery was less than 30% but greater than 10% and the result is a nondetect.
GR1d	The results for the affected analytes are qualified as estimated and biased high because the associated tracer yield was greater than 105%.
GR3	The matrix spike information is missing. Data may not be acceptable for use.
GR3a	ORGANIC_OGRO3a

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
GR3b	ORGANIC_OGRO3b
GR3c	ORGANIC_OGRO3c
GR3d	ORGANIC_OGRO3d
GR3e	The results for the affected analytes are qualified as estimated and biased low because the associate matrix spike recovery was less than the LAL but greater than 10%, and the results are nondetect.
GR4	GAMMA_GR4
GR4a	The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration is less than or equal to 5x the associated sample concentration.
GR5	GAMMA_GR5
GR54	GAMMA_GR54
GR5a	The MDC and/or TPU documentation is missing. Data may not be acceptable for use.
GR5b	GR5b
GR6	GAMMA_GR6
GR6a	GR6a
GR6b	The results for the affected analytes should be regarded as rejected because the LCS %R was less than 10%.
GR6c	The results for the affected analytes are qualified as estimated and biased low because the associated LCS was less than the LAL but greater than 10%, and the results are detected.
GR6d	The results for the affected analytes are qualified as estimated and biased low because the associated LCS was less than the LAL but greater than 10%, and the results are nondetect.
GR6e	GR6e
GR7	GAMMA_GR7
GR7a	The results for the affected analytes are qualified as estimated because the associated duplicate results were prepared separately from the original analysis.
GR7b	GAMMA_GR7b
GR7c	The affected analytes are qualified as rejected because the RER was greater than 4.
GR8	GAMMA_GR8
GR9	GAMMA_GR9

July 2008

E-14

EP2008-0395

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
GR9a	GAMMA_GR9a
GR9b	GAMMA_GR9b
GRA	GAMMA_GRA
GRLAB	R Lab Gamma
GRNA	GAMMA_GRNA
GRR16	GAMMA_GRR16c
GRR1b	GAMMA_GRR1b
GRR6c	GAMMA_GRR16c
GSI	The reported result for this radionuclide should be regarded as rejected (R) due to spectral interference in the gamma spectrum.
GTI	The reported result should be regarded as rejected because the radionuclide identification based on the gamma spectrum is tentative.
GUJC	This analyte should be regarded as not detected because the analytical laboratory assigned a U lab qualifier. Chemical Sciences and Technology validators assigned the J qualifier. The hardcopy validation report should be reviewed to determine the reason for applying the J qualifier.
GULAB	This analyte should be regarded as not detected because the analytical laboratory assigned a U lab qualifier.
GUP_R	Gamma: Units and matrix inconsistent.
GZR	The result for this radionuclide was reported as zero (0); therefore, this analyte should be regarded as not detected.
GZUNC	Chemical Sciences and Technology division reported this result with an uncertainty value of zero (0), indicating that this analyte should be regarded as not detected.
G_LIA	The sample was lost in analysis. Results are not available for this sample.
G_MDA	The limit type (e.g., MDA, MDC, or DLC) was not reported by the analytical laboratory; the reported limit value has been saved in the MDA field.
G_NQ	No data qualifier flag has been applied to this sample result.
G_TPU	Result less than or equal to 3 * 1-sigma TPU, therefore not detected (U).
H10	The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference.
H11	The required retention time information is missing. Data may not be acceptable for use.
H11a	The affected analytes should be regarded as rejected because the associated retention times have shifted by more than 0.05 minutes from the initial calibration.
H12	Required LCS data are missing. The LCS analyte recoveries could not be evaluated. Data may not be acceptable for use.
H12a	H12a

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
H12b	HEXP_H12b
H12c	HEXP_H12c
H12d	HEXP_H12d
H14a	Insufficient sample volume was received for a matrix spike and/or a matrix spike duplicate analysis.
H14b	The matrix spike and/or the matrix spike duplicate analyses were not performed on a sample associated with a LANL request number.
H14c	The matrix spike and/or the matrix spike duplicate were analyzed on a sample associated with a different LANL request number but no summary was included.
H15	Because the sample was damaged, lost, or of insufficient quantity, the laboratory was unable to analyze it.
H16	Required calibration information is missing or samples were analyzed on an expired calibration. Data may not be acceptable for use.
H19	The validator identified quality deficiencies in the reported data that require qualification.
H3	The surrogate percent recovery is greater than the UAL, which indicates the potential for a high bias in the results and the potential for false positive results
H3a	The surrogate percent recovery is less than the LAL but greater than 10%R, which indicates the potential for a low bias in the detected results.
H3b	The surrogate is less than 10%R, which indicates the potential for a severely low bias in the results.
H3c	The reporting limit is approximated for nondetects because a surrogate percent recovery is lower than the LAL but greater than or equal to 10%R, which indicates an increased potential for false negative results.
H3d	The surrogate recovery is less than 10% and the result is a nondetect, which indicates significant potential for false negative results.
H3e	At least one surrogate percent recovery exceeds its upper UAL and at least one surrogate is less than its LAL, which indicates a greater than normal degree of uncertainty in the data.
H3f	At least one surrogate is less than 10%R and the sample result is a detect, which indicates the potential for a severely low bias in the results.
H3g	Required surrogate information is missing. Data may not be acceptable for use.
H4	The sample result is greater than the EQL and less than 5 times the concentration of the related analyte in the blank, which indicates that the reported detection is considered indistinguishable from blank contamination.
H4a	The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5x.
H4b	Required method blank information is missing. Data may not be acceptable for use.
H5	The sample result is less than the EQL and less than 5 times the concentration of the analyte in the method blank, which indicates the reported detection is considered indistinguishable from contamination in the blank.

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
H5a	Method-blank data is missing, or method blank was not analyzed. Data may not be acceptable for use.
H6	The recovery of the LCS analyte is greater than the UAL, which indicates the potential for high bias in the results and for false positive results.
H6a	HEXP_H6a
H6b	The of the LCS analyte percent recovery is less than the LAL and greater than or equal to 10%R, which indicates (1) the reporting limit is approximate and probably biased low for nondetected results, and (2) that detected results likely are biased low.
H6c	H6c
H6d	The result is a nondetect and the %R value of surrogates or the analyte in the LCS is less than 10%R, which indicates a greatly increased potential for false negative results.
H7	The affected results were not analyzed with a valid 5 point calibration curve and/or a standard at the reporting limit.
H7a	HEXP_H7a
H7c	The affected analytes should be regarded as estimated and/or rejected because the associated analyte did not have a standard at the reporting limit.
H8	HEXP_H8
H8a	The required confirmation column analysis data is missing. Data may not be acceptable for use.
H9	The holding time is exceeded. The data user should conduct a technical evaluation of the data of interest with respect to the effects of exceeding the holding time. Factors to consider include how long the holding time was exceeded, sample preservation, sample storage practices, use of the data, levels of contamination found in the sample, and the physical, chemical, and biological stability of the target analytes in the sample matrix.
H9a	H9a
H9b	HEXP_H9b
HEQLM	The result should be regarded as estimated (J) because the result was less than the EQL but greater than the MDL.
HERB	ORGANIC_HERB 3A
HERB1	ORGANIC_HERB12A
HERB3	ORGANIC_HERB3
HERB4	ORGANIC_HERB4
HERB8	ORGANIC_HERB8
HERB9	ORGANIC_HERB9
HHOLD	The result should be regarded as rejected (R) because the holding time was exceeded by more than 2 times.

EP2008-0395

E-17

July 2008

Periodic Monitoring Report for Pajarito Watershed

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
HJCST	CST assigned the J qualifier, need hard copy to determine CST's reason.
HNONE	No reason for historic HEXP data.
HNQ	HNQ
HQCBL	The J or R qualifier should not be accepted because the qualifier was assigned by CST based on a noncertified standard. The J or R qualifier should be ignored.
HR12a	ORGANIC_HERB12A
HR12b	ORGANIC_HERB12B
HR12c	ORGANIC_HERB12C
HR12d	ORGANIC_HERB12D
HR3a	ORGANIC_HERB 3A
HR3b	ORGANIC_HERB 3D
HR3d	ORGANIC_HERB3D
HR9	ORGANIC_HERB 9
HRLAB	R Lab HEXP
HSM	HEXP_SPECTRAL MATCH
HUJCS	This analyte should be regarded as not detected because the laboratory assigned a U lab qualifier. CST assigned the J qualifier, need hard copy to determine CST's reason.
HUJL	HUJL
HUJLA	HUJLA_HEXP
HULAB	This analyte should be regarded as not detected because the laboratory assigned a U lab qualifier.
HWQ1	Relative percent difference of the MS/MSD is greater than the acceptance criteria.
HWQ10	Calibration Verification %D exceeded 60%
HWQ2	The spike percent recovery value is greater than or equal to the upper acceptance limit and the result is a detect, which indicates a potential high bias in the sample results.
HWQ3	The spike percent recovery value is greater than 10% and less than the lower acceptance limit, which indicates a potential low bias in the results.
HWQ4	The spike percent recovery value is less than 10% which increases the potential for false negatives being reported. This could be caused by analytical interferences.

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
HWQ5	Nonspecified quality control failure; see validation report
HWQ6	The sample was improperly preserved.
HWQ7	Calibration % RSD was greater than the acceptance criteria but less than 60%
HWQ8	Calibration % RSD was greater than 60%
HWQ9	Calibration verification %D exceeded acceptance criteria but was less than 60%
Hba	HEXP_Hba
I	INORGANIC_I
I1	The sample result was reported as detected between the IDL and the EDL. Reported result may be less precise than results that are reported as being above the EDL.
I10	The duplicate sample RPD is greater than the advisory limit and the sample result is a detect. Manual review is suggested to determine the source of the difference between analyses.
I10a	The duplicate sample RPD is greater than the advisory limit and the sample result is a nondetect. Manual review is suggested to determine the source of the difference between analyses.
I10b	The affected analytes should be regarded as estimated because the duplicate results were not analyzed on a LANL sample.
I10c	The affected analytes should be regarded as estimated because the duplicate results exceeded the RPD requirements.
I10d	The affected analytes should be regarded as estimated because the duplicate results were greater than 2x the RL and the RPD was greater than 20 for water and 35 for soils.
I110	INORGANIC_I110
I113a	INORGANIC_I113a
I114b	INORGANIC_I114b
I13	INORGANIC_I13
I134b	INORGANIC_I134b
I13a	Insufficient sample volume was received for a duplicate-sample analysis.
I13b	The duplicate-sample analysis was not performed on a sample associated with this request number.
I13d	INORGANIC_I13d
I14	I14
I14a	Insufficient sample volume was received for a matrix-spike analysis.

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
I14b	The matrix-spike analysis was not performed on a sample associated with this request number.
I15	The sample was damaged, lost, or there was insufficient quantity and the analytical laboratory was unable to analyze it.
I15a	An ICV was not reported for this sample.
I15b	A CCV was not reported for this sample.
I16	Relative percent difference is greater than 10% in the serial dilution sample.
I16a	The affected analytes should be regarded as rejected because the ICV/CCV recovered high.
I16b	INORGANIC_I16b
I16c	The affected analytes should be regarded as estimated because the ICV/CCV recovered low.
I16d	The affected analytes should be regarded as rejected because the ICV/CCV recovered less than 10%.
I16e	The affected analytes should be regarded as rejected because the initial calibrations correlation coefficient was less than 0.995
I16z	The affected analytes should be regarded as rejected because the ICV/CCV was not analyzed with the associated samples.
I17d	INORGANIC_I17d
I18	The affected analytes should be regarded as estimated because a serial dilution sample was not analyzed.
I18a	The affected analytes should be regarded as estimated because a serial dilution sample was not analyzed on a LANL sample.
I18b	The affected analytes should be regarded as estimated because the serial dilution sample RPD exceeded criteria.
I19	INORGANIC_I19
I1a	INORGANIC_I1a
I20	INORGANIC_I20
I24b	INORGANIC_I24b
I2h	INORGANIC_I2h
I3	The spike percent recovery value is greater than or equal to the upper acceptance limit (125%) but less than or equal to 150% and the result is a detect, which indicates a potential high bias in the sample results.
I3a	The spike percent recovery value is greater than 30% and less than the lower acceptance limit (75%), and the sample result is a detect, which indicates a potential low bias in the results.
I3b	INORGANIC_I3b
I3c	INORGANIC_I3c

July 2008

E-20

EP2008-0395

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
I3d	The spike percent recovery value is less than 30%, and the result is a nondetect, which increases the potential for false negatives being reported. This could be caused by analytical interferences.
I3e	The spike percent recovery value is greater than 30% and less than the lower acceptance limit (75%), and the sample result is a nondetect, which indicates a potential for false negatives being reported.
I3e I	INORGANIC_I3e I4
I3eI4	INORGANIC_I3e I4
I3f	The spike percent recovery value is less than 30% and the sample result is a detect, which indicates a potential low bias.
I3g	The sample result is undetected and the spike percent recovery value is greater than 150%, which indicates a potential bias in the sample result.
I3h	The sample result is detected and the spike percent recovery value is greater than 150%, which indicates a potential high bias in the sample result.
I3j	INORGANIC_I3j
I3I	INORGANIC_I3I
I4	INORGANIC_I4
I4a	In comparison with the preparation blank, the sample result is greater than the EDL but less than or equal to 5 times the concentration of the related analyte in the blank.
I4b	Preparation blank data were not reported by the analytical laboratory.
I5	The sample result is less than the estimated detection limit (EDL) and is considered to be not detected.
I6	The percent recovery value of the analyte in the LCS is greater than the upper acceptance limit, which indicates a potential for quantitation problems in the analyses and the potential for false positive results being reported.
I6a	The percent recovery value of the analyte in the LCS is less than the lower acceptance limit and the analyte is a detect, which indicates a potential for quantitation problems in the analyses and the potential for false negative results being reported.
I6b	The percent recovery value of the analyte in the LCS is less than the lower acceptance limit and the analyte is a nondetect, which indicates a potential for quantitation problems in the analyses and the potential for false negative results being reported.
I6c	The corresponding LCS or LCS analyte was not analyzed with the associated batch.
I7	The ICS percent recovery value is greater than 120% and the result is a detect, which indicates potential quantitation problems in the analyses and the potential for false positive results being reported.
I7a	The ICS percent recovery value is greater than or equal to 50% and less than 80% and the result is a detect, which indicates a potential for a low bias.
I7b	The ICS percent recovery value is less than 50%, which indicates a greatly increased potential for false negative sample results being reported.

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
I7c	The ICS percent recovery value is greater than or equal to 50% and less than 80%, and the result is a nondetect, which indicates a potential for false negative results being reported.
I7d	The ICS data was not provided by the analytical laboratory.
I9	The holding time is exceeded. Positive results may be biased low and nondetected analytes may be false negatives. An evaluation of the data with respect to the technical implications of exceeding the holding time is recommended. Factors to consider include sample preservation; sample storage practices; data use; levels of contamination found in the sample; and the physical, chemical, and biological stability of the target analytes in the sample matrix.
I9a	The affected analytes should be regarded as estimated because the extraction holding time was exceeded by 2 times the acceptable holding time.
IADM1	INORGANIC_IADMIN1
IADMI	INORGANIC_IADMIN1
ICSTZ	CST put zeros in the TPU field to indicate nondetects, therefore not detected (U).
IDRPD	IDRPD
IEQL	INORGANIC_IEQL/MDL
IEQL/	INORGANIC_IEQL/MDL
IH6a	INORGANIC_IH6a
IHOLD	IHOLD
IICP	IICP
IJCST	CST assigned the J qualifier, need hard copy to determine CST's reason.
IJLAB	IJLAB
ILCS	ILCS
ILIA	ILIA
ILOWS	VOC_LOWSTD
ILS	VOC_LOW STD
IMS10	IMS10
IMS30	IMS30
INONE	No reason for historical inorganic data
INQ	INQ

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
IPM	INORGANIC_IPM
IQCBL	IQCBL
IR10b	INORGANIC_IR10b
IR14b	INORGANIC_IR14b
IR3	INORGANIC_IR3
IR3a	INORGANIC_IR3a
IR4	INORGANIC_IR4
IR5	INORGANIC_IR5
IR6a	INORGANIC_IR6a
IR7	INORGANIC_IR7
IR9a	INORGANIC_IR9a
IR9b	INORGANIC_IR9b
IRCST	CST assigned the R qualifier, need hard copy to determine CST's reason.
IU1	INORGANIC_IU1
IU3e	INORGANIC_IU3e
IUA	INORGANIC_IUA
IUJCS	This analyte should be regarded as not detected because the laboratory assigned a U lab qualifier. CST assigned the J qualifier, need hard copy to determine CST's reason.
IUJLA	IUJLA
IULAB	This analyte should be regarded as not detected because the laboratory assigned a U lab qualifier.
IUP_R	Inorganic: Units and matrix are inconsistent.
IUUJ	This analyte should be regarded as not detected because the laboratory assigned a U lab qualifier. CST assigned the J qualifier, need hard copy to determine CST's reason.
IV3a	INORGANIC_IV3a
IWQ1	The sample temperature was elevated
IWQ2	Negative blank samples results were greater than the MDL

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
IWQ3	Failed serial dilution RPD
IWQ4	Sample should have been preserved by acidification but was not. Error was not corrected at the laboratory.
IWQ5	Sample should not have been acidified but was. Error could not be corrected at the laboratory.
IWQ6	Nonspecified quality control failure; see validation report
IWQ7	Reporting limit verification recovery was greater than the acceptance criteria.
IZR	IZR
Id	INORGANIC_Id
Is	INORGANIC_Is
J+	VOC_J+
J-	VOC_J-
J_LAB	The analytical laboratory qualified the detected result as estimated (J) because the result was less than the PQL but greater than the MDL.
LB	Gross contamination exists from a source other than the standard.
LB1	Method-blank data are missing, or method blank was not analyzed at the required frequency.
LB2	ICB/CCB data are missing, or ICB/CCB was not run at the required frequency.
LB9	The sample result is less than 5 times the concentration of the related analyte in the blank.
LC1	The frequency of the CCV did not meet method criteria.
LC2	The CCV %D failed high.
LC3	The CCV %D failed low.
LCO	Suspected carryover. Compound detected in sample at value < 5X PQL. The previous sample had a value > high standard and required dilution.
LDL1	No CRI was analyzed to verify the reporting limit.
LDL2	The CRI recovery failed high.
LDL3	The CRI recovery failed low.
LDS1	An initial dilution was performed and the surrogate recovery was >= 10% OR <10% but some sample results are >PQL.
LDS2	An initial dilution was performed and the surrogate recovery was 0% and sample results are nondetect.
LDS3	The sample result in a diluted sample was nondetect.
LDS4	The instrument response for a diluted sample result was < half the lowest calibration standard and the sample result is detect.

July 2008

E-24

EP2008-0395

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
LH1	The holding time is exceeded for sample analysis
LH2	The holding time is exceeded for sample extraction
LH3	The holding time is exceeded by greater than twice the specified holding time
LI	Required calibration information is missing or samples were analyzed on an expired calibration. Data may not be acceptable for use.
LI2	A second source ICV (or second standard made from the same stock) was not used to verify the calibration
LI3	The initial calibration %RSD or correlation coefficient failed to meet acceptance criteria.
LI4	The initial calibration slope or RF criteria were not met.
LI5	The initial calibration y-intercept criteria were not met.
LI6	An insufficient number of calibration standards were used and/or all standards were not analyzed within a 24 hour period. Data may not be acceptable for use.
LI7	Points were removed from the calibration curve and the reporting limits were not adjusted accordingly.
LIR1	Chlorine isotope ratio criteria not met.
LIS	Required IS information is missing.
LIS1	The IS area count failed high.
LIS2	The IS area count failed low.
LIS4	The IS RT is >30sec from that of the associated standard.
LIV2	The ICV %D failed high.
LIV3	The ICV %D failed low.
LL1	The frequency of the LCS did not meet the specified criteria.
LL2	The LCS %R failed high.
LL3	The LCS %R failed low.
LL4	The LCS %Rs failed both high and low, or the LCS/LSCD RPD failed to meet criteria.
LMS1	An applicable MS/MSD analysis was not performed.
LMS2	The MS/MSD %R failed high.
LMS3	The MS/MSD %R failed low.
LMS4	Relative percent difference of the MS/MSD is greater than the acceptance criteria or the recoveries fail both high and low.

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
LOW S	VOC_LOW STD
LOWST	VOC_LOWSTD
LP1	The sample was improperly preserved.
LP3	Sample not maintained at required temperature
LR1	The sample result exceeded the calibration range.
LR2	Because the sample was damaged, lost, or of insufficient quantity, the laboratory was unable to analyze it.
LRP1	There is no measure of precision for the sample, i.e., no replicate, MSD or LCSD was performed.
LRP2	The replicate precision criteria are not met.
LS	Required surrogate information is missing. Data may not be acceptable for use.
LS1	Surrogate failed high.
LS2	Surrogate failed low.
LS4	The surrogate %R in the blank did not meet acceptance criteria.
LWQ1	specified quality control failure; see report
MDL	ORGANIC_OEQL/MDL
N3TPU	NONE_<3*TPU result less than or equal to 3 * 1-sigma TPU, therefore not detected (U).
NJCST	NONE_J_CST
NJLAB	NONE_J_LAB
NND	NONE_NONDETECT
NNQ	NONE_NQ
NQ	The analytical laboratory did not qualify the analyte as not detected and/or any other standard qualifier. The analyte is detected in the sample.
NS12a	SVOC_SVV12a
NS12c	SVOC_SVV12c
NS1a	SVOC_SVVS1a
NUA	NONE_NUA
NULAB	NONE_U_LAB This analyte should be regarded as not detected because the laboratory assigned a U lab qualifier.
NUP_R	Units and matrix are inconsistent.

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
O12d	ORGANIC_OSV12d
O5XBL	ORGANIC_O5XBLANK
ODRO1	ORGANIC_ODRO12a
ODRO3	ORGANIC_ODRO3
ODRO4	ORGANIC_ODRO4
ODRO5	ODRO5_ORGANIC
ODRO7	ODRO7_ORGANIC
ODRO9	ORGANIC_ODRO9
OEQL/	ORGANIC_OEQL/MDL
OGR3b	OGR3b_ORGANIC
OGR3c	OGR3c_ORGANIC
OGRO3	ORGANIC_OGRO3
OGRO7	OGRO7_ORGANIC
OGRO9	ORGANIC_OGRO9
OH12b	ORGANIC_OH12b
OH9	ORGANIC_OH9
OI3	ORGANIC_OI3
OI4	ORGANIC_OI4
OI9	ORGANIC_OI9
ONONE	ORGANIC_ONONE
ONQ	ONQ
OP12a	ORGANIC_OP12a
OP12b	ORGANIC_OP12b
OP3	ORGANIC_OP3
OP3a	ORGANIC_OP3a
OP3b	ORGANIC_OP3b

EP2008-0395

E-27

July 2008

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
OP3c	ORGANIC_OP3c
OP3d	ORGANIC_OP3d
OP4	ORGANIC_OP4
OP5	ORGANIC_OP5
OP6	ORGANIC_OP6
OP7	ORGANIC_OP7
OP7a	ORGANIC_OP7a
OP9	ORGANIC_OP9
OP9a	OP9a Organic
OPa	ORGANIC_OPa
OR1	INORGANIC_OR1
OSIN	ORGANIC_OSIN
OSV12	ORGANIC_OSV12d
OSV1a	ORGANIC_OSV1a
OSV3	ORGANIC_OSV3
OSV3a	ORGANIC_OSV3a
OSV4	ORGANIC_OSV4
OSV4a	ORGANIC_OSV4a
OSV7	ORGANIC_OSV7
OSV7a	ORGANIC_OSV7a
OSV9	ORGANIC_OSV9
OUJLA	O_UJ_LAB
OULAB	O_U_LAB This analyte should be regarded as not detected because the laboratory assigned a U lab qualifier.
OV3	OV3
OV36	ORGANIC_OV36
OV3a	ORGANIC_OV3a

July 2008

E-28

EP2008-0395

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
OV3b	ORGANIC_OV3b
OV3c	ORGANIC_OV3c
OV4	INORGANIC_OV4
OV7	ORGANIC_OV7
OV7a	ORGANIC_OV7a
OV9	ORGANIC_OV9
P10	The breakdown criteria have been exceeded, which indicates poor instrument performance, which can result in a low bias in the reported results and potential the labile compounds Endrin and 4,4'-DDT.
P10a	The breakdown criteria have been exceeded, which indicates poor instrument performance, which can result in a high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.
P10b	The breakdown recovery data are missing. The analyte breakdown could not be evaluated.
P10c	The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference.
P11	The surrogate retention time has shifted by more than 0.05 min, possibly affecting analyte identification and causing false positives or negatives to be reported.
P11a	The surrogate recovery data are missing. Surrogate recoveries could not be evaluated.
P11b	The affected analytes are considered estimated because the confirmed analytes was outside the retention time windows.
P12	The LCS data are missing. The LCS analyte recoveries could not be evaluated.
P12a	The LCS analyte is less than 10%R, which indicates the potential for a severely low bias in the results.
P12b	The LCS analyte is greater than 10%R but less than the LAL, which indicates the potential for a low bias in the results.
P12c	The result is a nondetect and the LCS analyte is greater than 10%R but less than the LAL, which indicates the potential for false negative results.
P12d	The LCS analyte %R value is greater than the UAL, which indicates the potential for high bias in the results and for false positive results.
P13	The Florisil cleanup not conducted; interferences may have increased analytical uncertainty and the potential for both false positives and false negatives.
P13a	The GPC cleanup was not conducted on this soil sample; interferences may have increased analytical uncertainty and the potential for both false positives and false negatives.
P13b	The appropriate cleanup was not conducted; interferences may have increased the analytical uncertainty and the potential for both false positives and false negatives. Examples of required cleanups are sulfur contamination (sulfur cleanup required), interferences in PCB samples (sulfuric acid cleanup required), and high molecular weight interferences in water samples (GPC cleanup required).

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
P14a	Insufficient sample volume was received for a matrix spike and/or a matrix spike duplicate analysis.
P14b	The matrix spike and/or the matrix spike duplicate analysis were not performed on a sample associated with a LANL request number.
P14c	The matrix spike and/or the matrix spike duplicate were analyzed on a sample associated with a different LANL request number but no summary was included.
P15	Because the sample was damaged, lost, or of insufficient quantity, the laboratory was unable to analyze it.
P16	Required continuing calibration information is missing. Data may not be acceptable for use.
P19	The validator identified quality deficiencies in the reported data that require qualification.
P23B	P23B
P3	The surrogate %R value is greater than the UAL, which indicates the potential for a high bias in the results and a potential for false positive results.
P3a	The surrogate is greater than 10%R but less than the LAL, which indicates the potential for low bias in the results.
P3b	The surrogate is less than 10%R, which indicates the potential for a severely low bias in the results.
P3c	The result is less than the EQL and the surrogate %R value is greater than 10 % but less than the LAL, which indicates a potential for false negative results being reported.
P3d	The result is less than the EQL and the surrogate less than 10%R, which indicates a significant potential for false negative results.
P3e	One surrogate recovery is greater than the UAL and one surrogate recovery is less than the LAL, which indicates increased uncertainty in reported results.
P3f	The surrogate information is missing. Data may not be acceptable for use.
P4	The sample result is a detect but less than 5 times the concentration of the related analyte in the blank, which indicates that the reported detection is considered indistinguishable from blank contamination.
P46	PESTPCB_P46
P4a	The method blank or instrument blank documentation is missing.
P4b	The surrogate information is missing. Data may not be acceptable for use.
P5	PESTPCB_P5
P6	PESTPCB_P6
P7	The percent relative standard deviation (%RSD) or percent difference (%D) exceeds the applicable acceptance criterion, which indicates potential quantitation problems in the analyses and the potential for false negative results.

July 2008

E-30

EP2008-0395

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
P77	The affected analytes are considered estimated because the associated continuing calibration standard was not analyzed within 72 h of the initial analysis. This is for multicomponent analytes.
P7a	The multicomponent analyte standard was not analyzed within 72 h of a multicomponent analyte detection. Quantitation of the multicomponent detection in the sample may not be accurate.
P7b	PESTPCB_P7b
P7c	PESTPCB_P7c
P8	This analyte should be regarded as not detected because it was not confirmed on a second dissimilar column.
P8a	The required confirmation column analysis data is missing. Data may not be acceptable for use.
P9	The holding time is exceeded. The data user should conduct a technical evaluation of the data of interest with respect to the impact of exceeding the holding time. Factors to consider include sample preservation, sample storage practices, use of the data, levels of contamination found in the sample, and the physical, chemical, and biological stability of the target analytes in the sample matrix.
P913	PESTPCB_P913
P9a	The affected analytes should be regarded as estimated because the extraction holding time was exceeded by 2 times the acceptable holding time.
P9b	The results for the affected analytes are rejected because the analytical holding time was exceeded.
PC	PESTPCB_PC
PEQL	P_EQL/MDL The result should be regarded as estimated (J) because the result was less than the EQL but greater than the MDL.
PHOLD	P_HOLD_TIME
PJCST	P_J_CST
PJLAB	PJLAB_PESTPCB
PLIA	P_LIA
PNONE	No reason for historic AROCLOR data.
PNQ	P_NQ
PQCBL	P_QC_BLIND
PS10	P_Surr < 10%
PUJCS	This analyte should be regarded as not detected because the laboratory assigned a U lab qualifier. CST assigned the J qualifier, need hard copy to determine CST's reason.
PUJLA	P_U_LAB

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
PULAB	This analyte should be regarded as not detected because the laboratory assigned a U lab qualifier.
PV3	PESTPCB_PV3
PV4	PESTPCB_PV4
PWQ1	No MS/MSD data was included in the data package.
PWQ10	Calibration verification %D exceeded acceptance criteria but was less than 60%
PWQ11	Calibration Verification %D exceeded 60%
PWQ2	Relative percent difference of the MS/MSD is greater than the acceptance criteria.
PWQ3	The spike percent recovery value is greater than or equal to the upper acceptance limit and the result is a detect, which indicates a potential high bias in the sample results.
PWQ4	The spike percent recovery value is greater than 10% and less than the lower acceptance limit, which indicates a potential low bias in the results.
PWQ5	The spike percent recovery value is less than 10% which increases the potential for false negatives being reported. This could be caused by analytical interferences.
PWQ6	Nonspecified quality control failure; see validation report
PWQ7	The sample was improperly preserved.
PWQ8	Calibration % RSD was greater than the acceptance criteria but less than 60%.
PWQ9	Calibration % RSD was greater than 60%.
R 6B	RAD_R 6B
R1	The tracer /carrier %R value is < 10%.
R10	RAD_R10
R10a	RAD_R10a
R10b	RAD_R10b
R11	The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3x the 1 sigma TPU.
R11a	RAD_R11a
R11b	RAD_R11b
R11c	RAD_R11c
R11d	RAD_R11d

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
R14	RAD_R14
R14a	Insufficient sample volume was received for a matrix-spike analysis.
R14b	The matrix-spike analysis was not performed on a sample associated with this RN
R16	RAD_R16
R16a	Result is greater than the MDC for the following fission and activation products with half-lives less than 365 days: Ce-144, Co-57, Mn-54, Pa-233, Se-75, and Zn-65.
R16b	Result is greater than the MDC for the following radionuclides not reliably measured by gamma spectroscopy: Ac-228, Ba-140, Bi-212, I-129, La-140, Np-237, Pa-231, Pa-234, Pb-210, Pb-211, Ra,-223, Ra-224, Ra-226, and Rn-219.
R16c	Result is greater than the MDC for the following naturally occurring radionuclides that are reliably measured by gamma spectroscopy and that can provide an indication of the quality of the gamma spectroscopy measurement: Bi-211, Bi-214, K-40, Pb-212, Pb-214, Th-227, Th-234, Tl-208, and annihilation radiation.
R16d	Result is greater than the MDC for the following six radionuclides typically used by the analytical labs in their LCSs for instrument calibration and checks on instrument performance: Cd-109, Ce-139, Hg-203, Sn-113, Sr-85, and Y-88.
R19	The validator identified quality deficiencies in the reported data that require qualification.
R1a	The tracer %R value is 10%–30% inclusive and the sample result is greater than the MDA.
R1b	The tracer %R value is 10%–30% inclusive and the sample result is less than the MDA.
R1c	The MDC for the affected analytes are qualified as estimated because the associated tracer recovery was less than 30% but greater than 10% and the result is a nondetect.
R1d	The results for the affected analytes are qualified as estimated and biased high because the associated tracer yield was greater than 105%.
R1e	The tracer/carrier %R value is not reported.
R1x	The tracer %R value is less than 10%.
R1z	The tracer %R value is less than 30% but greater than 10% and the sample result is a detect.
R3	The matrix spike %R value is greater than the upper limit and the sample result is greater than the MDA.
R3TPU	P_UJ_LAB
R3a	The matrix spike %R value is less than the lower limit and the sample result is greater than the MDA.
R3b	The matrix-spike %R value is less than 10% and the result is not detected.
R3c	The matrix spike %R value is less than the lower limit and the sample result is less than the MDA.

EP2008-0395

E-33

July 2008

Periodic Monitoring Report for Pajarito Watershed

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
R3d	The results for the affected analytes are qualified as estimated and biased low because the associate matrix spike recovery was less than the LAL but greater than 10%, and the results are detected.
R3e	The results for the affected analytes are qualified as estimated and biased low because the associate matrix spike recovery was less than the LAL but greater than 10%, and the results are nondetect.
R4	The sample result is greater than the MDA but less than 5 times the amount found in the blank.
R4a	The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration is less than or equal to 5x the associated sample concentration.
R4b	Blank data is either missing from or not reported in the data record package.
R4z	The method blank information is missing. The data may be acceptable for use.
R5	Analyte is not detected because the amount reported is less than the MDC.
R5a	The MDC and/or TPU documentation is missing. Data may not be acceptable for use.
R5b	This analyte should be regarded as rejected because spectral interferences prevents positive identification of the analytes.
R6	Recovery of the analyte in the LCS is greater than the upper limit and the analyte result is greater than the MDA.
R6a	Recovery of analyte in the LCS is less than the lower limit and the analyte is greater than the MDA in the sample.
R6b	The results for the affected analytes should be regarded as rejected because the LCS %R was less than 10%.
R6c	The results for the affected analytes are qualified as estimated and biased low because the associated LCS was less than the LAL but greater than 10%, and the results are detected.
R6d	The results for the affected analytes are qualified as estimated and biased low because the associated LCS was less than the LAL but greater than 10%, and the results are nondetect.
R6e	The LCS data is missing from the data record package.
R7	The duplicate information is missing. Data may not be acceptable for use.
R7a	The results for the affected analytes are qualified as estimated because the associated duplicate results were prepared separately from the original analysis.
R7b	The duplicate and sample results have a DER (duplicate error ratio) that is greater than 2.0.
R7c	The affected analytes are qualified as rejected because the RER was greater than 4.
R8	RAD_R8
R9	The results for the affected analytes should be regarded as estimated because the holding time was exceeded.

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
R96	RAD_R96
R9a	The results for the affected analytes should be regarded as rejected because the holding time was exceeded by 2 times the method published holding times.
R9b	RAD_R9b
RA	R_Accidentally_
RB7	RAD_RB7
RC0TP	R_CST_ZERO_TPU
RC0UN	R_CST_0_UNC
RI14a	RAD_RI14a
RI14b	RAD_RI14b
RI3	RAD_RI3
RI3a	RAD_RI3a
RI4	RAD_RI4
RI5	RAD_RI5
RI6	RAD_RI6
RIA	RAD_RIA
RIB	RAD_RIB
RJCST	R_J_CST
RJLAB	R_J_LAB
RLIA	R_LIA
RNONE	No reason for historical RAD data.
RNQ	R_NQ
RPA	RAD_RPA
RQCBL	RQCBL_RAD
RQCMX	R_Samp_QC_Mixed
RRLAB	R Lab RAD

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
RSQLP	RAD_SQLPLUR9B
RT30	R_Tracer < 30%
RUJCS	This analyte should be regarded as not detected because the laboratory assigned a U lab qualifier. CST assigned the J qualifier, need hard copy to determine CST's reason.
RUJLA	RUJLA_RAD
RULAB	This analyte should be regarded as not detected because the laboratory assigned a U lab qualifier.
RUP_R	RAD: Units and matrix inconsistent.
RWQ1	Planchets were flamed
RWQ2	Result values are less than 3 times the MDC
RWQ3	Less than the negative MDC
RWQ4	Planchets were not flamed
RWQ5	The tracer %R value is greater than 105% but less than 125%
RWQ6	The tracer %R value is greater than 125%
RWQ7	Nonspecified quality control failure; see validation report
RZUNC	R_ZERO_UNCERT
R_MDA	R_MDA
Rb	RAD_Rb
SEQLM	The result should be regarded as estimated (J) because the result was less than the EQL but greater than the MDL.
SHOLD	SHOLD
SJCST	SJCST
SJLAB	SJLAB
SNQ	SNQ
SPECT	HEXP_SPECTRAL MATCH
SQCBL	SQCBL
SQLPL	RAD_SQLPLUR9B
SRO9	ORGANIC_SRO9

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
SSU10	SSU10
SUJCS	This analyte should be regarded as not detected because the laboratory assigned a U lab qualifier. CST assigned the J qualifier, need hard copy to determine CST's reason.
SUJLA	SUJLA
SULAB	SULAB
SV0	The IS retention time has shifted by more than ?30 sec, which could affect compound identification and result in false positives or negatives.
SV1	The IS area count for the quantitating IS is outside the -50% ± 100% window in relation to the previous continuing calibration, which could affect the quantitation accuracy of the associated analytes and the correct quantitation of surrogate %R values.
SV10	The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference.
SV11	TICs are not reported but were requested by ER Project. The validator contacted the laboratory that had not provided TICs.
SV12	The LCS documentation is missing. Data may not be acceptable for use.
SV12a	The LCS percent recovery was less than 10%.
SV12b	The LCS percent recovery was less than the LAL but greater than 10% and the result is detected.
SV12c	The LCS percent recovery was less than the LAL but greater than 10% and the result is not detected.
SV12d	The affected analytes should be regarded as estimated and biased high because the LCS percent recovery was greater than the UAL.
SV13c	SVOC_SV13c
SV15	Because the sample was damaged, lost, or of insufficient quantity, the laboratory was unable to analyze it.
SV16	Required calibration information is missing or samples were analyzed on an expired calibration. Data may not be acceptable for use.
SV16a	The results for the affected analytes are rejected because the instrument performance sample (DFTPP) did not pass method acceptance criteria.
SV19	The affected analytes are qualified because the data validator identified quality deficiencies in the reported data.
SV1a	The area count for the quantitating IS is less than 50% of the area count for the previous continuing calibration, greatly increasing the potential for false negative results.
SV1b	The area count for the quantitating IS is greater than 200% of the area count for the previous continuing calibration.
SV2	The quantitating IS area count is less than 10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation.
SV2a	Required IS information is missing. Data may not be acceptable for use.
SV2c	SVOC_SV2c

EP2008-0395

E-37

July 2008

Periodic Monitoring Report for Pajarito Watershed

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
SV3	The %R values for two or more surrogates in either SV fraction is greater than the UAL, which indicates the potential for high bias in the results and the potential for false positive results.
SV3a	Two or more surrogates in either SV fraction are greater than or equal to 10%R but less than the LAL, which indicates the potential for low bias in the results.
SV3b	A surrogate in the related fraction is less than 10%R, and the result is a detect, which indicates the potential for severely low bias in the results.
SV3c	The result is a nondetect and two or more surrogates are greater than or equal to 10%R but less than the LAL, which indicates increased potential for false negative results.
SV3d	The result is a nondetect and a surrogate in the related fraction is less than 10%R, which indicates a greatly increased potential for false negative results.
SV3e	The %R value of one surrogate in a fraction is greater than the UAL and one is less than the LAL but greater than or equal to 10%R, which indicates a greater than normal uncertainty in the results.
SV3f	Required surrogate information is missing. Data may not be acceptable for use.
SV4	The sample result is greater than the EQL and less than or equal to 5 times (10 times for common phthalates) the concentration of the related analyte in the blank, which indicates the reported detection is considered indistinguishable from contamination in the blank.
SV4a	The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5x (10x for common lab contaminants).
SV4b	Required method blank information is missing. Data may not be acceptable for use.
SV5	The sample result is less than the EQL and less than or equal to 5 times (10 times for common phthalates) the concentration of the analyte in the blank, which indicates the detected result was indistinguishable from contamination in the blank.
SV5a	Method-blank data is missing, or method blank was not analyzed. Data may not be acceptable for use.
SV5v7	SVOC_SV5v7a
SV6	SVOC_SV6
SV6b	SVOC_SV6b
SV7	The affected results were not analyzed with a valid 5 point calibration curve and/or a standard at the reporting limit.
SV7a	The affected analytes were analyzed with a initial calibration curve that exceeded the %RSD criteria and/or a continuing calibration standard that exceeded %D criteria.
SV7b	The affected analytes were analyzed with a RRF of less than 0.05.
SV8	The affected analyte is considered not detected because mass spectrum did not meet specifications.

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
SV8a	The mass spectrum documentation is missing. Data may not be acceptable for use.
SV9	The extraction holding time is exceeded. The data user should evaluate the data of interest with respect to the effect of exceeding the holding time. Factors to consider include sample preservation, sample storage practices, use of the data, levels of contamination found in the sample, and the physical, chemical, and biological stability of the target analytes in the sample matrix.
SV9a	The affected analytes are regarded as rejected because the extraction holding time was exceeded by 2 times the method published holding time requirements.
SV9b	The affected analytes are regarded as rejected because the analytical holding time was exceeded.
SVA	SVOC_SVA
SVC	SVOC_SVC
SVD	SVOC_SVD
SVI	SVOC_SVI
SVIA	SVOC_SVIA
SVNON	No reason for historic SVOC data.
SVPM	SVOC_SVPM
SVS	SVOC_SVS
SVV12	SVOC_SVV12a
SVV1a	SVOC_SVV1a
SVV3	SVOC_SVV3
SVV4	SVOC_SVV4
SVV5	SVOC_SVV5
SVV7a	SVOC_SVV7a
SVV9	SVOC_SVV9
SVVS1	SVOC_SVVS1a
SWQ1	Relative percent difference of the MS/MSD is greater than the acceptance criteria.
SWQ10	Calibration Verification %D exceeded 60%
SWQ11	The LCS recovery was greater than the acceptance criteria

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
SWQ2	The spike percent recovery value is greater than or equal to the upper acceptance limit and the result is a detect, which indicates a potential high bias in the sample results.
SWQ3	The spike percent recovery value is greater than 10% and less than the lower acceptance limit, which indicates a potential low bias in the results.
SWQ4	The spike percent recovery value is less than 10% which increases the potential for false negatives being reported. This could be caused by analytical interferences.
SWQ5	Nonspecified quality control failure; see validation report
SWQ6	The sample was improperly preserved.
SWQ7	Calibration % RSD was greater than the acceptance criteria but less than 60%
SWQ8	Calibration %RSD exceeded 60%
SWQ9	Calibration Verification %D was greater than the acceptance criteria but less than 60%
UNK	Unknown
U_LAB	The analytical laboratory qualified the analyte as not detected.
V	VOC_V
V+	VOC_V+
V0	The IS retention time has shifted by more than 30 seconds, which could affect compound identification and cause false positives or negatives to be reported.
V1	The IS area count for the quantitating IS is outside the $-50\% \pm 100\%$ window in relation to the previous continuing calibration. This condition could affect the quantitation accuracy of the associated analytes.
V10	The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference.
V11	TICs are not reported by the analytical laboratory but were requested by the ER Project. The analytical laboratory was contacted and TICs were not provided.
V12	The LCS documentation is missing. The data may not be acceptable for use.
V126	VOC_V126
V12a	The LCS percent recovery was less than 10%.
V12b	The LCS percent recovery was less than the LAL but greater than 10%. The result is biased low and is detected.
V12c	The LCS percent recovery was less than the LAL but greater than 10%. The result was not detected.
V12d	The LCS percent recovery was greater than the UAL. The result is detected and biased high.

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
V14a	Insufficient sample volume was received for a matrix spike and/or a matrix spike duplicate analysis.
V14b	The matrix spike and/or the matrix spike duplicate analysis was not performed on a sample associated with a LANL request number.
V14c	The matrix spike and/or the matrix spike duplicate was analyzed on a sample associated with a different LANL request number but no summary was included.
V15	Because the sample was damaged, lost, or of insufficient quantity, the laboratory was unable to analyze it.
V16	Required calibration information is missing or samples were analyzed on an expired calibration. Data may not be acceptable for use.
V16a	The results should be regarded as rejected because the BFB instrument performance sample did not pass method acceptance criteria.
V19	The validator identified quality deficiencies in the reported data that require qualification.
V1a	The area count for the quantitating IS is less than 50% of the area count for the previous continuing calibration, greatly increasing the potential for false negative results.
V1b	This analyte should be regarded as estimated because the IS failed high.
V1c	VOC_V1c
V1s	VOC_V1s
V2	The quantitating IS area is less than 10% of the expected value, which indicates an increased potential for false negative results and possibly other problems with sample quantitation.
V2a	Required IS information is missing. Data may not be acceptable for use.
V3	The surrogate percent recovery is greater than the UAL, which indicates the potential for a high bias in the results and the potential for false positive results.
V3a	The surrogate is less than the LAL but greater than or equal to 10%R, which indicates the potential for a low bias in the results.
V3b	The surrogate is less than 10%R and the result is a detect, which indicates the potential for a severely low bias in the results.
V3c	The surrogate is less than LAL and the result is a nondetect, which indicates the potential for a low bias in the results.
V3d	The surrogate is less than 10%R and the result is a nondetect, which indicates a greatly increased potential for false negative results.
V3e	At least one surrogate is greater than the UAL and one surrogate is less than the LAL, which indicates a greater than normal degree of uncertainty in the result.
V3f	Required surrogate information is missing. Data may not be acceptable for use.
V4	The sample result is less than or equal to 5 times (10 n for acetone, methylene chloride, and 2-butanone) the concentration of the related analyte in the method blank, which indicates the reported detection is considered indistinguishable from contamination in the blank.

EP2008-0395

E-41

July 2008

Periodic Monitoring Report for Pajarito Watershed

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
V4a	The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5x (10x for common lab contaminants).
V4b	Required method blank information is missing. Data may not be acceptable for use.
V5	VOC_V5
V5a	Method-blank data is missing, or method blank was not analyzed. Data may not be acceptable for use.
V5c	VOC_V5c
V6b	VOC_V6b
V7	The affected results were not analyzed with a valid 5 point calibration curve and/or a standard at the reporting limit.
V76	VOC_V76
V78	VOC_V78
V7a	The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or a continuing calibration standard that exceeded %D criteria.
V7b	The affected analytes were analyzed with a RRF of less than 0.05.
V8	The affected analyte is considered not detected because mass spectrum did not meet specifications.
V8a	The mass spectrum documentation is missing. Data may not be acceptable for use.
V9	The analytical and/or extraction holding time is exceeded. The data user should evaluate the data of interest with respect to the effects of exceeding the holding time. Factors to consider include sample preservation, sample storage practices, use of the data, levels of contamination found in the sample, and the physical, chemical, and biological stability of the target analytes in the sample matrix.
V9a	The affected analytes are regarded as rejected because the analytical/extraction holding time was exceeded by 2x the method published holding time requirements.
VC4	VOC_VC4
VEQL	The result should be regarded as estimated (J) because the result was less than the EQL, but greater than the MDL.
VI1	VOC_VI1
VI4	VOC_VI4
VI45	VOC_VI45
VIA	VOC_VIA
VIC	VOC_VIC

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
VJCST	VJCST
VJLAB	VJLAB
VLA	VOC_VLA
VNONE	No reason for historic VOC data.
VNQ	VNQ
VO	VOC_VO
VP	VOC_VP
VQCBL	VQCBL
VR5	VOC_VR5
VR7b	VOC_VR7b
VS	VOC_SPECTRUM
VSV1	VOC_VSV1
VSV1a	VOC_VSV1a
VSV3b	VOC_VSV3b
VSV3c	VOC_VSV3c
VSV4	VOC_VSV4
VSV5	VOC_VSV5
VSV7	VOC_VSV7
VSV7a	VOC_VSV7a
VU7a	VOC_VU7a
VUCST	VUCST
VUJCS	This analyte should be regarded as not detected because the laboratory assigned a U lab qualifier. CST assigned the J qualifier, need hard copy to determine CST's reason.
VUJLA	VUJLA
VULAB	This analyte should be regarded as not detected because the laboratory assigned a U lab qualifier.
VUP_R	VOC: Units and matrix inconsistent.

EP2008-0395

E-43

July 2008

Secondary Validation Reason Codes (continued)

Valid Reason Code	Valid Reason Description
VWQ1	Relative percent difference of the MS/MSD is greater than the acceptance criteria.
VWQ10	Calibration Verification %D exceeded 60%
VWQ11	The LCS recovery was greater than the acceptance criteria
VWQ2	The spike percent recovery value is greater than or equal to the upper acceptance limit but and the result is a detect, which indicates a potential high bias in the sample results.
VWQ3	The spike percent recovery value is greater than 10% and less than the lower acceptance limit, which indicates a potential low bias in the results.
VWQ4	The spike percent recovery value is less than 10% which increases the potential for false negatives being reported. This could be caused by analytical interferences.
VWQ5	Nonspecified quality control failure; see validation report
VWQ6	The sample was improperly preserved.
VWQ7	Calibration % RSD was greater than the acceptance criteria but less than 60%.
VWQ8	Calibration %RSD exceeded 60%.
VWQ9	Calibration Verification %D was greater than the acceptance criteria but less than 60%.

**Table E-1
Surface-Water Metals**

Location	Date	Analyte	Field Preparation Code	Field QC Type Code	Symbol	Result	Method Detection Limit	Unit	Lab Code	Lab Qualifier Code	Secondary Validation Flag Code	Secondary Validation Reason Code	Analytical Method Code	NM Aquatic Acute 100 mg	Ratio (Result/Scr Level)	NM Aquatic Chronic 100 mg	Ratio (Result/Scr Level)
Pajarito 0.5 mi above SR-501	12/17/07	Al	F	FD	—*	2130	68	µg/L	GELC	*	J	I10a	SW-846:6010B	750	2.84	87	24.48
Pajarito 0.5 mi above SR-501	12/17/07	Al	F	—	—	1830	68	µg/L	GELC	*	J	I10a	SW-846:6010B	750	2.44	87	21.03

* — = No data.

**Table E-2
Surface-Water Perchlorate**

Location	Date	Field QC Type Code	Field Preparation Code	Lab Sample Type Code	Analyte	Analytical Method Code	Symbol	Result	Method Detection Limit	Unit	Dilution Factor	Lab Qualifier Code	Secondary Validation Flag Code	Secondary Validation Reason Code	Lab Code
Pajarito 0.5 mi above SR-501	12/17/07	—*	F	CS	ClO4	SW-846:6850	—	0.273	0.05	µg/L	1	—	—	—	GELC
Pajarito 0.5 mi above SR-501	12/17/07	FD	F	CS	ClO4	SW-846:6850	—	0.288	0.05	µg/L	1	—	—	—	GELC

* — = No data.

**Table E-3
Groundwater Metals**

Zone	Location	Well Class	Port Depth(ft)	Date	Analyte	Field Preparation Code	Field QC Type Code	Symbol	Result	Mdl	Unit	Lab Code	Lab Qualifier Code	Secondary Validation Flag Code	Secondary Validation Reason Code	Analytical Method Code	NMWQCC STD	Ratio (Result/Scr Level)
Alluvial Spring	TA-18 Spring	SPRING	—*	12/12/07	Fe	F	—	—	523	25	µg/L	GELC	E	—	—	SW-846:6010B	1000	0.52
Alluvial	18-BG-1	SINGLE	10	12/04/07	Al	F	—	—	2850	68	µg/L	GELC	—	—	—	SW-846:6010B	5000	0.57
Alluvial	18-BG-1	SINGLE	10	12/04/07	Fe	F	—	—	1400	25	µg/L	GELC	—	—	—	SW-846:6010B	1000	1.4
Intermediate Spring	Kieling Spring	SPRING	—	12/03/07	Al	F	—	—	5660	68	µg/L	GELC	N	J+	I6b	SW-846:6010B	5000	1.13
Intermediate Spring	Kieling Spring	SPRING	—	12/03/07	Fe	F	—	—	2800	25	µg/L	GELC	—	—	—	SW-846:6010B	1000	2.8
Intermediate Spring	Bulldog Spring	SPRING	—	12/03/07	Al	F	—	—	2550	68	µg/L	GELC	N	J+	I6b	SW-846:6010B	5000	0.51
Intermediate Spring	Bulldog Spring	SPRING	—	12/03/07	Fe	F	—	—	1260	25	µg/L	GELC	—	—	—	SW-846:6010B	1000	1.26

* — = No data.

**Table E-4
Groundwater Organics**

Zone	Location	Well Class	Port Depth (ft)	Date	Fid QC Type Code	Fid Preparation Code	Lab Sample Type Code	Analytical Suite Code	Analyte Description	Analyte	Symbol	Result	Minimum Detection Level	Unit	Dilution Factor	Lab Qualifier Code	Secondary Validation Flag Code	Secondary Validation Reason Code	Anyl Meth Code	Lab Code	EPA MCL	Ratio (Result/Scr Level)	EPA TAP Screening Level C-5	Ratio (Result/Scr Level)	EPA TAP Screening Level N	Ratio (Result/Scr Level)	NMWOCC STD	Ratio (Result/Scr Level)
Alluvial	18-BG-1	SINGLE	10	12/04/07	PEB	UF	CS	VOA	Acetone	67-64-1	—*	1.56	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Alluvial	18-BG-1	SINGLE	10	12/04/07	FB	UF	CS	VOA	Acetone	67-64-1	—	1.88	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Alluvial	18-MW-11	SINGLE	27	12/05/07	FTB	UF	CS	VOA	Methylene Chloride	75-09-2	—	2.49	2	µg/L	1	J	J	V7c	SW-846:8260B	GELC	5.00E+00	0.5	8.94E+01	0.03	—	—	1.00E+02	0.02
Intermediate Spring	Kieling Spring	SPRING	—	12/03/07	FB	UF	CS	VOA	Acetone	67-64-1	—	1.58	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Intermediate Spring	Kieling Spring	SPRING	—	12/03/07	FB	UF	CS	VOA	Carbon Disulfide	75-15-0	—	4.31	1.3	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	—	—	—	—	1.04E+03	—	—	—
Intermediate Spring	Kieling Spring	SPRING	—	12/03/07	FTB	UF	CS	VOA	Acetone	67-64-1	—	1.3	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Intermediate Spring	Kieling Spring	SPRING	—	12/03/07	FTB	UF	CS	VOA	Carbon Disulfide	75-15-0	—	12	1.3	µg/L	1	—	—	—	SW-846:8260B	GELC	—	—	—	—	1.04E+03	0.01	—	—
Intermediate Spring	Kieling Spring	SPRING	—	12/03/07	—	UF	CS	HEXP	HMX	2691-41-0	—	0.279	0.1	µg/L	2	J	J	HE7c	SW-846:8321A_MOD	GELC	—	—	—	—	1.83E+03	—	—	—
Intermediate Spring	Kieling Spring	SPRING	—	12/03/07	—	UF	CS	HEXP	RDX	121-82-4	—	0.583	0.13	µg/L	2	—	J	HE7c	SW-846:8321A_MOD	GELC	—	—	6.11E+00	0.1	—	—	—	—
Intermediate Spring	Kieling Spring	SPRING	—	12/03/07	—	UF	CS	VOA	Acetone	67-64-1	—	1.86	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Intermediate Spring	Bulldog Spring	SPRING	—	12/03/07	FB	UF	CS	VOA	Acetone	67-64-1	—	1.41	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Intermediate Spring	Bulldog Spring	SPRING	—	12/03/07	FTB	UF	CS	VOA	Acetone	67-64-1	—	1.34	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Intermediate Spring	Bulldog Spring	SPRING	—	12/03/07	FTB	UF	CS	VOA	Carbon Disulfide	75-15-0	—	8.03	1.3	µg/L	1	—	—	—	SW-846:8260B	GELC	—	—	—	—	1.04E+03	0.01	—	—
Intermediate Spring	Bulldog Spring	SPRING	—	12/03/07	FTB	UF	CS	VOA	Methylene Chloride	75-09-2	—	2.02	2	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	5.00E+00	0.4	8.94E+01	0.02	—	—	1.00E+02	0.02
Intermediate Spring	Bulldog Spring	SPRING	—	12/03/07	—	UF	CS	HEXP	Amino-2,6-dinitrotoluene[4-]	19406-51-0	—	0.199	0.13	µg/L	2	J	J	J_LAB	SW-846:8321A_MOD	GELC	—	—	—	—	—	—	—	—
Intermediate Spring	Bulldog Spring	SPRING	—	12/03/07	—	UF	CS	HEXP	HMX	2691-41-0	—	7.66	0.1	µg/L	2	—	J	HE7c	SW-846:8321A_MOD	GELC	—	—	—	—	1.83E+03	—	—	—
Intermediate Spring	Bulldog Spring	SPRING	—	12/03/07	—	UF	CS	HEXP	RDX	121-82-4	—	6.42	0.13	µg/L	2	—	J	HE7c	SW-846:8321A_MOD	GELC	—	—	6.11E+00	1.05	—	—	—	—
Intermediate Spring	Bulldog Spring	SPRING	—	12/03/07	—	UF	CS	VOA	Acetone	67-64-1	—	1.69	1.3	µg/L	1	HJ	J-	V9	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Intermediate	03-B-10	SINGLE	20.6	12/17/07	FB	UF	CS	VOA	Acetone	67-64-1	—	7.09	1.3	µg/L	1	—	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Intermediate	03-B-10	SINGLE	20.6	12/17/07	FTB	UF	CS	VOA	Acetone	67-64-1	—	6.44	1.3	µg/L	1	—	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Intermediate	03-B-10	SINGLE	20.6	12/17/07	—	UF	CS	GRO	Total Petroleum Hydrocarbons Gasoline Range Org.	TPH-GRO	—	27	18	µg/L	1	J	J	J_LAB	SW-846:8015M_Purgeable	GELC	—	—	—	—	—	—	—	—
Intermediate	03-B-10	SINGLE	20.6	12/17/07	—	UF	CS	SVOA	Dioxane[1,4-]	123-91-1	—	14	1.1	µg/L	1	—	J	SV7c	SW-846:8270C	GELC	—	—	6.11E+01	0.23	—	—	—	—
Intermediate	03-B-10	SINGLE	20.6	12/17/07	—	UF	CS	VOA	Acetone	67-64-1	—	7	1.3	µg/L	1	—	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Intermediate	03-B-10	SINGLE	20.6	12/17/07	—	UF	CS	VOA	Chloroform	67-66-3	—	0.391	0.25	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	8.00E+01	—	1.67E+00	0.23	—	—	1.00E+02	—
Intermediate	03-B-10	SINGLE	20.6	12/17/07	—	UF	CS	VOA	Dichloroethane[1,1-]	75-34-3	—	0.981	0.3	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	—	—	—	—	1.22E+03	—	2.50E+01	0.04

Table E-4 (continued)

Zone	Location	Well Class	Port Depth (ft)	Date	Fid QC Type Code	Fid Preparation Code	Lab Sample Type Code	Analytical Suite Code	Analyte Description	Analyte	Symbol	Result	Minimum Detection Level	Unit	Dilution Factor	Lab Qualifier Code	Secondary Validation Flag Code	Secondary Validation Reason Code	Anyl Meth Code	Lab Code	EPA MCL	Ratio (Result/Scr Level)	EPA TAP Screening Level C-5	Ratio (Result/Scr Level)	EPA TAP Screening Level N	Ratio (Result/Scr Level)	NMWOCC STD	Ratio (Result/Scr Level)
Intermediate	03-B-10	SINGLE	20.6	12/17/07	—	UF	CS	VOA	Dichloroethene[1,1,-]	75-35-4	—	1.95	0.3	µg/L	1	—	—	—	SW-846:8260B	GELC	7.00E+00	0.28	—	—	3.39E+02	0.01	5.00E+00	0.39
Intermediate	03-B-10	SINGLE	20.6	12/17/07	—	UF	CS	VOA	Trichloroethane[1,1,1,-]	71-55-6	—	53.4	0.3	µg/L	1	—	—	—	SW-846:8260B	GELC	2.00E+02	0.27	—	—	8.36E+02	0.06	6.00E+01	0.89
Intermediate	03-B-10	SINGLE	20.6	12/17/07	—	UF	CS	VOA	Trichloroethene	79-01-6	—	0.534	0.25	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	5.00E+00	0.11	1.66E+00	0.32	—	—	1.00E+02	0.01
Regional	R-18	SINGLE	1358	12/04/07	FB	UF	CS	VOA	Acetone	67-64-1	—	2.14	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Regional	R-18	SINGLE	1358	12/04/07	FD	UF	CS	HEXP	RDX	121-82-4	—	0.249	0.13	µg/L	2	J	J	J_LAB	SW-846:8321A_MOD	GELC	—	—	6.11E+00	0.04	—	—	—	—
Regional	R-18	SINGLE	1358	12/04/07	FD	UF	CS	VOA	Acetone	67-64-1	—	1.49	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Regional	R-18	SINGLE	1358	12/04/07	FD	UF	CS	VOA	Carbon Disulfide	75-15-0	—	1.26	1.3	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	—	—	—	—	1.04E+03	—	—	—
Regional	R-18	SINGLE	1358	12/04/07	PEB	UF	CS	VOA	Acetone	67-64-1	—	1.82	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Regional	R-18	SINGLE	1358	12/04/07	—	UF	CS	HEXP	RDX	121-82-4	—	0.256	0.13	µg/L	2	J	J	HE1c	SW-846:8321A_MOD	GELC	—	—	6.11E+00	0.04	—	—	—	—
Regional	R-17	MULTI	1124	12/06/07	FTB	UF	CS	VOA	Carbon Disulfide	75-15-0	—	3.37	1.3	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	—	—	—	—	1.04E+03	—	—	—
Regional	R-20	MULTI	1149.7	12/03/07	FTB	UF	CS	VOA	Acetone	67-64-1	—	1.28	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Regional	R-20	MULTI	1149.7	12/03/07	FTB	UF	CS	VOA	Carbon Disulfide	75-15-0	—	2.2	1.3	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	—	—	—	—	1.04E+03	—	—	—
Regional	R-20	MULTI	1149.7	12/03/07	—	UF	CS	VOA	Acetone	67-64-1	—	1.79	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Regional	R-20	MULTI	1149.7	12/03/07	—	UF	CS	VOA	Toluene	108-88-3	—	65.1	0.25	µg/L	1	—	—	—	SW-846:8260B	GELC	1.00E+03	0.07	—	—	2.28E+03	0.03	7.50E+02	0.09
Regional	R-20	MULTI	1149.7	12/03/07	FTB	UF	CS	VOA	Acetone	67-64-1	—	1.26	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Regional	R-20	MULTI	1149.7	12/03/07	FTB	UF	CS	VOA	Methylene Chloride	75-09-2	—	2.29	2	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	5.00E+00	0.46	8.94E+01	0.03	—	—	1.00E+02	0.02
Regional	R-20	MULTI	1149.7	12/03/07	—	UF	CS	VOA	Acetone	67-64-1	—	1.5	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Regional	R-20	MULTI	1149.7	12/03/07	—	UF	CS	VOA	Carbon Disulfide	75-15-0	—	1.62	1.3	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	—	—	—	—	1.04E+03	—	—	—
Regional	R-20	MULTI	1149.7	12/03/07	—	UF	CS	VOA	Toluene	108-88-3	—	60.5	0.25	µg/L	1	—	—	—	SW-846:8260B	GELC	1.00E+03	0.06	—	—	2.28E+03	0.03	7.50E+02	0.08
Regional	R-20	MULTI	1149.7	12/03/07	FD	UF	CS	VOA	Acetone	67-64-1	—	1.42	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Regional	R-20	MULTI	1149.7	12/03/07	FD	UF	CS	VOA	Toluene	108-88-3	—	29.2	0.25	µg/L	1	—	—	—	SW-846:8260B	GELC	1.00E+03	0.03	—	—	2.28E+03	0.01	7.50E+02	0.04
Regional	R-20	MULTI	1149.7	12/03/07	FTB	UF	CS	VOA	Acetone	67-64-1	—	1.41	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Regional	R-20	MULTI	1149.7	12/03/07	FTB	UF	CS	VOA	Carbon Disulfide	75-15-0	—	1.59	1.3	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	—	—	—	—	1.04E+03	—	—	—
Regional	R-20	MULTI	1149.7	12/03/07	FTB	UF	CS	VOA	Toluene	108-88-3	—	0.45	0.25	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	1.00E+03	—	—	—	2.28E+03	—	7.50E+02	—
Regional	R-20	MULTI	1149.7	12/03/07	FTB	UF	CS	VOA	Acetone	67-64-1	—	1.29	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Regional	R-20	MULTI	1149.7	12/03/07	FTB	UF	CS	VOA	Carbon Disulfide	75-15-0	—	1.71	1.3	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	—	—	—	—	1.04E+03	—	—	—

Table E-4 (continued)

Zone	Location	Well Class	Port Depth (ft)	Date	Fid QC Type Code	Fid Preparation Code	Lab Sample Type Code	Analytical Suite Code	Analyte Description	Analyte	Symbol	Result	Minimum Detection Level	Unit	Dilution Factor	Lab Qualifier Code	Secondary Validation Flag Code	Secondary Validation Reason Code	Anyl Meth Code	Lab Code	EPA MCL	Ratio (Result/Scr Level)	EPA TAP Screening Level C-5	Ratio (Result/Scr Level)	EPA TAP Screening Level N	Ratio (Result/Scr Level)	NMWQCC STD	Ratio (Result/Scr Level)
Regional	R-20	MULTI	1149.7	12/03/07	FTB	UF	CS	VOA	Methylene Chloride	75-09-2	—	2.38	2	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	5.00E+00	0.48	8.94E+01	0.03	—	—	1.00E+02	0.02
Regional	R-20	MULTI	1149.7	12/03/07	—	UF	CS	VOA	Acetone	67-64-1	—	1.52	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Regional	R-20	MULTI	1149.7	12/03/07	—	UF	CS	VOA	Toluene	108-88-3	—	33.3	0.25	µg/L	1	—	—	—	SW-846:8260B	GELC	1.00E+03	0.03	—	—	2.28E+03	0.01	7.50E+02	0.04
Regional	R-20	MULTI	1149.7	12/05/07	EQB	UF	CS	VOA	Toluene	108-88-3	—	6.29	0.25	µg/L	1	—	—	—	SW-846:8260B	GELC	1.00E+03	0.01	—	—	2.28E+03	—	7.50E+02	0.01
Regional	R-20	MULTI	1149.7	12/05/07	FTB	F	CS	VOA	Naphthalene	91-20-3	—	0.899	0.25	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	—	—	—	—	6.20E+00	0.14	3.00E+01	0.03
Regional	R-32	MULTI	870.9	12/14/07	FD	UF	CS	SVOA	Bis(2-ethylhexyl)phthalate	117-81-7	—	4.97	2.3	µg/L	1	J	J	J_LAB	SW-846:8270C	GELC	6.00E+00	0.83	4.80E+01	0.1	—	—	—	—
Regional	R-32	MULTI	870.9	12/14/07	—	UF	CS	SVOA	Bis(2-ethylhexyl)phthalate	117-81-7	—	4.54	2	µg/L	1	J	J	J_LAB	SW-846:8270C	GELC	6.00E+00	0.76	4.80E+01	0.09	—	—	—	—
Regional	R-32	MULTI	870.9	12/14/07	—	UF	CS	VOA	Toluene	108-88-3	—	4.32	0.25	µg/L	1	—	—	—	SW-846:8260B	GELC	1.00E+03	—	—	—	2.28E+03	—	7.50E+02	0.01

* — = No data.

Table E-5
Groundwater General Inorganics

Analyte	Zone	Location	Well Class	Port Depth (ft)	Date	Field Preparation Code	Field QC Type Code	Lab Sample Type Code	Symbol	Result	Uncertainty	Method Detection Limit	Unit	Lab Code	Lab Qualifier Code	Secondary Validation Flag Code	Secondary Validation Reason Code	NMWQCC STD	Ratio (Result/Scr Level)
Cl(-1)	Intermediate	03-B-10	SINGLE	20.6	12/17/07	F	—*	CS	—	566	—	6.6	mg/L	GELC	—	—	—	250	2.26
TDS	Intermediate	03-B-10	SINGLE	20.6	12/17/07	F	—	CS	—	1200	—	2.4	mg/L	GELC	—	—	—	1000	1.2

* — = No data.

**Table E-6
Groundwater Perchlorate**

Zone	Location	Well Class	Port Depth (ft)	Date	Field QC Type Code	Field Preparation Code	Analytical Method Code	Symbol	Result	Method Detection Limit	Unit	Dilution Factor	Lab Qualifier Code	Secondary Validation Flag Code	Secondary Validation Reason Code	Lab Code
Alluvial Spring	TA-18 Spring	SPRING	—*	12/12/07	—	F	SW-846:6850	<	0.2	0.05	µg/L	1	U	U	U_LAB	GELC
Alluvial	18-BG-1	SINGLE	10	12/04/07	—	F	SW-846:6850	—	0.295	0.05	µg/L	1	—	—	—	GELC
Alluvial	18-MW-11	SINGLE	27	12/05/07	—	F	SW-846:6850	—	0.323	0.05	µg/L	1	—	—	—	GELC
Alluvial	18-MW-18	SINGLE	13	12/06/07	—	F	SW-846:6850	—	0.174	0.05	µg/L	1	J	J	J_LAB	GELC
Intermediate Spring	Kieling Spring	SPRING	—	12/03/07	—	F	SW-846:6850	—	0.5	0.05	µg/L	1	—	—	—	GELC
Intermediate Spring	Bulldog Spring	SPRING	—	12/03/07	—	F	SW-846:6850	—	0.698	0.05	µg/L	1	—	—	—	GELC
Intermediate	03-B-10	SINGLE	21	12/17/07	—	F	SW-846:6850	—	0.0654	0.05	µg/L	1	J	J	J_LAB	GELC
Regional	R-18	SINGLE	1358	12/04/07	FD	F	SW-846:6850	—	0.233	0.05	µg/L	1	—	—	—	GELC
Regional	R-18	SINGLE	1358	12/04/07	—	F	SW-846:6850	—	0.231	0.05	µg/L	1	—	—	—	GELC
Regional	R-17	MULTI	1124	12/06/07	—	F	SW-846:6850	—	0.252	0.05	µg/L	1	—	—	—	GELC
Regional	R-19	MULTI	1413	12/06/07	—	F	SW-846:6850	—	0.26	0.05	µg/L	1	—	—	—	GELC
Regional	R-19	MULTI	1413	12/06/07	EQB	UF	SW-846:6850	<	0.2	0.05	µg/L	1	U	U	U_LAB	GELC
Regional	R-19	MULTI	1586	12/06/07	EQB	UF	SW-846:6850	<	0.2	0.05	µg/L	1	U	U	U_LAB	GELC
Regional	R-23	SINGLE	816	12/06/07	—	F	SW-846:6850	—	0.425	0.05	µg/L	1	—	—	—	GELC
Regional	R-32	MULTI	871	12/14/07	—	F	SW-846:6850	—	0.335	0.05	µg/L	1	—	—	—	GELC
Regional	R-32	MULTI	871	12/14/07	FD	F	SW-846:6850	—	0.345	0.05	µg/L	1	—	—	—	GELC

* — = No data.

**Table E-1
Surface-Water Metals**

Location	Date	Analyte	Field Preparation Code	Field QC Type Code	Symbol	Result	Method Detection Limit	Unit	Lab Code	Lab Qualifier Code	Secondary Validation Flag Code	Secondary Validation Reason Code	Analytical Method Code	NM Aquatic Acute 100 mg	Ratio (Result/Scr Level)	NM Aquatic Chronic 100 mg	Ratio (Result/Scr Level)
Pajarito 0.5 mi above SR-501	12/17/07	Al	F	FD	—*	2130	68	µg/L	GELC	*	J	I10a	SW-846:6010B	750	2.84	87	24.48
Pajarito 0.5 mi above SR-501	12/17/07	Al	F	—	—	1830	68	µg/L	GELC	*	J	I10a	SW-846:6010B	750	2.44	87	21.03

* — = No data.

**Table E-2
Surface-Water Perchlorate**

Location	Date	Field QC Type Code	Field Preparation Code	Lab Sample Type Code	Analyte	Analytical Method Code	Symbol	Result	Method Detection Limit	Unit	Dilution Factor	Lab Qualifier Code	Secondary Validation Flag Code	Secondary Validation Reason Code	Lab Code
Pajarito 0.5 mi above SR-501	12/17/07	—*	F	CS	ClO4	SW-846:6850	—	0.273	0.05	µg/L	1	—	—	—	GELC
Pajarito 0.5 mi above SR-501	12/17/07	FD	F	CS	ClO4	SW-846:6850	—	0.288	0.05	µg/L	1	—	—	—	GELC

* — = No data.

**Table E-3
Groundwater Metals**

Zone	Location	Well Class	Port Depth(ft)	Date	Analyte	Field Preparation Code	Field QC Type Code	Symbol	Result	Mdl	Unit	Lab Code	Lab Qualifier Code	Secondary Validation Flag Code	Secondary Validation Reason Code	Analytical Method Code	NMWQCC STD	Ratio (Result/Scr Level)
Alluvial Spring	TA-18 Spring	SPRING	—*	12/12/07	Fe	F	—	—	523	25	µg/L	GELC	E	—	—	SW-846:6010B	1000	0.52
Alluvial	18-BG-1	SINGLE	10	12/04/07	Al	F	—	—	2850	68	µg/L	GELC	—	—	—	SW-846:6010B	5000	0.57
Alluvial	18-BG-1	SINGLE	10	12/04/07	Fe	F	—	—	1400	25	µg/L	GELC	—	—	—	SW-846:6010B	1000	1.4
Intermediate Spring	Kieling Spring	SPRING	—	12/03/07	Al	F	—	—	5660	68	µg/L	GELC	N	J+	I6b	SW-846:6010B	5000	1.13
Intermediate Spring	Kieling Spring	SPRING	—	12/03/07	Fe	F	—	—	2800	25	µg/L	GELC	—	—	—	SW-846:6010B	1000	2.8
Intermediate Spring	Bulldog Spring	SPRING	—	12/03/07	Al	F	—	—	2550	68	µg/L	GELC	N	J+	I6b	SW-846:6010B	5000	0.51
Intermediate Spring	Bulldog Spring	SPRING	—	12/03/07	Fe	F	—	—	1260	25	µg/L	GELC	—	—	—	SW-846:6010B	1000	1.26

* — = No data.

**Table E-4
Groundwater Organics**

Zone	Location	Well Class	Port Depth (ft)	Date	Fid QC Type Code	Fid Preparation Code	Lab Sample Type Code	Analytical Suite Code	Analyte Description	Analyte	Symbol	Result	Minimum Detection Level	Unit	Dilution Factor	Lab Qualifier Code	Secondary Validation Flag Code	Secondary Validation Reason Code	Anyl Meth Code	Lab Code	EPA MCL	Ratio (Result/Scr Level)	EPA TAP Screening Level C-5	Ratio (Result/Scr Level)	EPA TAP Screening Level N	Ratio (Result/Scr Level)	NMWOCC STD	Ratio (Result/Scr Level)
Alluvial	18-BG-1	SINGLE	10	12/04/07	PEB	UF	CS	VOA	Acetone	67-64-1	—*	1.56	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Alluvial	18-BG-1	SINGLE	10	12/04/07	FB	UF	CS	VOA	Acetone	67-64-1	—	1.88	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Alluvial	18-MW-11	SINGLE	27	12/05/07	FTB	UF	CS	VOA	Methylene Chloride	75-09-2	—	2.49	2	µg/L	1	J	J	V7c	SW-846:8260B	GELC	5.00E+00	0.5	8.94E+01	0.03	—	—	1.00E+02	0.02
Intermediate Spring	Kieling Spring	SPRING	—	12/03/07	FB	UF	CS	VOA	Acetone	67-64-1	—	1.58	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Intermediate Spring	Kieling Spring	SPRING	—	12/03/07	FB	UF	CS	VOA	Carbon Disulfide	75-15-0	—	4.31	1.3	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	—	—	—	—	1.04E+03	—	—	—
Intermediate Spring	Kieling Spring	SPRING	—	12/03/07	FTB	UF	CS	VOA	Acetone	67-64-1	—	1.3	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Intermediate Spring	Kieling Spring	SPRING	—	12/03/07	FTB	UF	CS	VOA	Carbon Disulfide	75-15-0	—	12	1.3	µg/L	1	—	—	—	SW-846:8260B	GELC	—	—	—	—	1.04E+03	0.01	—	—
Intermediate Spring	Kieling Spring	SPRING	—	12/03/07	—	UF	CS	HEXP	HMX	2691-41-0	—	0.279	0.1	µg/L	2	J	J	HE7c	SW-846:8321A_MOD	GELC	—	—	—	—	1.83E+03	—	—	—
Intermediate Spring	Kieling Spring	SPRING	—	12/03/07	—	UF	CS	HEXP	RDX	121-82-4	—	0.583	0.13	µg/L	2	—	J	HE7c	SW-846:8321A_MOD	GELC	—	—	6.11E+00	0.1	—	—	—	—
Intermediate Spring	Kieling Spring	SPRING	—	12/03/07	—	UF	CS	VOA	Acetone	67-64-1	—	1.86	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Intermediate Spring	Bulldog Spring	SPRING	—	12/03/07	FB	UF	CS	VOA	Acetone	67-64-1	—	1.41	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Intermediate Spring	Bulldog Spring	SPRING	—	12/03/07	FTB	UF	CS	VOA	Acetone	67-64-1	—	1.34	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Intermediate Spring	Bulldog Spring	SPRING	—	12/03/07	FTB	UF	CS	VOA	Carbon Disulfide	75-15-0	—	8.03	1.3	µg/L	1	—	—	—	SW-846:8260B	GELC	—	—	—	—	1.04E+03	0.01	—	—
Intermediate Spring	Bulldog Spring	SPRING	—	12/03/07	FTB	UF	CS	VOA	Methylene Chloride	75-09-2	—	2.02	2	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	5.00E+00	0.4	8.94E+01	0.02	—	—	1.00E+02	0.02
Intermediate Spring	Bulldog Spring	SPRING	—	12/03/07	—	UF	CS	HEXP	Amino-2,6-dinitrotoluene[4-]	19406-51-0	—	0.199	0.13	µg/L	2	J	J	J_LAB	SW-846:8321A_MOD	GELC	—	—	—	—	—	—	—	—
Intermediate Spring	Bulldog Spring	SPRING	—	12/03/07	—	UF	CS	HEXP	HMX	2691-41-0	—	7.66	0.1	µg/L	2	—	J	HE7c	SW-846:8321A_MOD	GELC	—	—	—	—	1.83E+03	—	—	—
Intermediate Spring	Bulldog Spring	SPRING	—	12/03/07	—	UF	CS	HEXP	RDX	121-82-4	—	6.42	0.13	µg/L	2	—	J	HE7c	SW-846:8321A_MOD	GELC	—	—	6.11E+00	1.05	—	—	—	—
Intermediate Spring	Bulldog Spring	SPRING	—	12/03/07	—	UF	CS	VOA	Acetone	67-64-1	—	1.69	1.3	µg/L	1	HJ	J-	V9	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Intermediate	03-B-10	SINGLE	20.6	12/17/07	FB	UF	CS	VOA	Acetone	67-64-1	—	7.09	1.3	µg/L	1	—	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Intermediate	03-B-10	SINGLE	20.6	12/17/07	FTB	UF	CS	VOA	Acetone	67-64-1	—	6.44	1.3	µg/L	1	—	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Intermediate	03-B-10	SINGLE	20.6	12/17/07	—	UF	CS	GRO	Total Petroleum Hydrocarbons Gasoline Range Org.	TPH-GRO	—	27	18	µg/L	1	J	J	J_LAB	SW-846:8015M_Purgeable	GELC	—	—	—	—	—	—	—	—
Intermediate	03-B-10	SINGLE	20.6	12/17/07	—	UF	CS	SVOA	Dioxane[1,4-]	123-91-1	—	14	1.1	µg/L	1	—	J	SV7c	SW-846:8270C	GELC	—	—	6.11E+01	0.23	—	—	—	—
Intermediate	03-B-10	SINGLE	20.6	12/17/07	—	UF	CS	VOA	Acetone	67-64-1	—	7	1.3	µg/L	1	—	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Intermediate	03-B-10	SINGLE	20.6	12/17/07	—	UF	CS	VOA	Chloroform	67-66-3	—	0.391	0.25	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	8.00E+01	—	1.67E+00	0.23	—	—	1.00E+02	—
Intermediate	03-B-10	SINGLE	20.6	12/17/07	—	UF	CS	VOA	Dichloroethane[1,1-]	75-34-3	—	0.981	0.3	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	—	—	—	—	1.22E+03	—	2.50E+01	0.04

Table E-4 (continued)

Zone	Location	Well Class	Port Depth (ft)	Date	Fid QC Type Code	Fid Preparation Code	Lab Sample Type Code	Analytical Suite Code	Analyte Description	Analyte	Symbol	Result	Minimum Detection Level	Unit	Dilution Factor	Lab Qualifier Code	Secondary Validation Flag Code	Secondary Validation Reason Code	Anyl Meth Code	Lab Code	EPA MCL	Ratio (Result/Scr Level)	EPA TAP Screening Level C-5	Ratio (Result/Scr Level)	EPA TAP Screening Level N	Ratio (Result/Scr Level)	NMWWCC STD	Ratio (Result/Scr Level)
Intermediate	03-B-10	SINGLE	20.6	12/17/07	—	UF	CS	VOA	Dichloroethene[1,1,-]	75-35-4	—	1.95	0.3	µg/L	1	—	—	—	SW-846:8260B	GELC	7.00E+00	0.28	—	—	3.39E+02	0.01	5.00E+00	0.39
Intermediate	03-B-10	SINGLE	20.6	12/17/07	—	UF	CS	VOA	Trichloroethane[1,1,1,-]	71-55-6	—	53.4	0.3	µg/L	1	—	—	—	SW-846:8260B	GELC	2.00E+02	0.27	—	—	8.36E+02	0.06	6.00E+01	0.89
Intermediate	03-B-10	SINGLE	20.6	12/17/07	—	UF	CS	VOA	Trichloroethene	79-01-6	—	0.534	0.25	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	5.00E+00	0.11	1.66E+00	0.32	—	—	1.00E+02	0.01
Regional	R-18	SINGLE	1358	12/04/07	FB	UF	CS	VOA	Acetone	67-64-1	—	2.14	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Regional	R-18	SINGLE	1358	12/04/07	FD	UF	CS	HEXP	RDX	121-82-4	—	0.249	0.13	µg/L	2	J	J	J_LAB	SW-846:8321A_MOD	GELC	—	—	6.11E+00	0.04	—	—	—	—
Regional	R-18	SINGLE	1358	12/04/07	FD	UF	CS	VOA	Acetone	67-64-1	—	1.49	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Regional	R-18	SINGLE	1358	12/04/07	FD	UF	CS	VOA	Carbon Disulfide	75-15-0	—	1.26	1.3	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	—	—	—	—	1.04E+03	—	—	—
Regional	R-18	SINGLE	1358	12/04/07	PEB	UF	CS	VOA	Acetone	67-64-1	—	1.82	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Regional	R-18	SINGLE	1358	12/04/07	—	UF	CS	HEXP	RDX	121-82-4	—	0.256	0.13	µg/L	2	J	J-	HE1c	SW-846:8321A_MOD	GELC	—	—	6.11E+00	0.04	—	—	—	—
Regional	R-17	MULTI	1124	12/06/07	FTB	UF	CS	VOA	Carbon Disulfide	75-15-0	—	3.37	1.3	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	—	—	—	—	1.04E+03	—	—	—
Regional	R-20	MULTI	1149.7	12/03/07	FTB	UF	CS	VOA	Acetone	67-64-1	—	1.28	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Regional	R-20	MULTI	1149.7	12/03/07	FTB	UF	CS	VOA	Carbon Disulfide	75-15-0	—	2.2	1.3	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	—	—	—	—	1.04E+03	—	—	—
Regional	R-20	MULTI	1149.7	12/03/07	—	UF	CS	VOA	Acetone	67-64-1	—	1.79	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Regional	R-20	MULTI	1149.7	12/03/07	—	UF	CS	VOA	Toluene	108-88-3	—	65.1	0.25	µg/L	1	—	—	—	SW-846:8260B	GELC	1.00E+03	0.07	—	—	2.28E+03	0.03	7.50E+02	0.09
Regional	R-20	MULTI	1149.7	12/03/07	FTB	UF	CS	VOA	Acetone	67-64-1	—	1.26	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Regional	R-20	MULTI	1149.7	12/03/07	FTB	UF	CS	VOA	Methylene Chloride	75-09-2	—	2.29	2	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	5.00E+00	0.46	8.94E+01	0.03	—	—	1.00E+02	0.02
Regional	R-20	MULTI	1149.7	12/03/07	—	UF	CS	VOA	Acetone	67-64-1	—	1.5	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Regional	R-20	MULTI	1149.7	12/03/07	—	UF	CS	VOA	Carbon Disulfide	75-15-0	—	1.62	1.3	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	—	—	—	—	1.04E+03	—	—	—
Regional	R-20	MULTI	1149.7	12/03/07	—	UF	CS	VOA	Toluene	108-88-3	—	60.5	0.25	µg/L	1	—	—	—	SW-846:8260B	GELC	1.00E+03	0.06	—	—	2.28E+03	0.03	7.50E+02	0.08
Regional	R-20	MULTI	1149.7	12/03/07	FD	UF	CS	VOA	Acetone	67-64-1	—	1.42	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Regional	R-20	MULTI	1149.7	12/03/07	FD	UF	CS	VOA	Toluene	108-88-3	—	29.2	0.25	µg/L	1	—	—	—	SW-846:8260B	GELC	1.00E+03	0.03	—	—	2.28E+03	0.01	7.50E+02	0.04
Regional	R-20	MULTI	1149.7	12/03/07	FTB	UF	CS	VOA	Acetone	67-64-1	—	1.41	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Regional	R-20	MULTI	1149.7	12/03/07	FTB	UF	CS	VOA	Carbon Disulfide	75-15-0	—	1.59	1.3	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	—	—	—	—	1.04E+03	—	—	—
Regional	R-20	MULTI	1149.7	12/03/07	FTB	UF	CS	VOA	Toluene	108-88-3	—	0.45	0.25	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	1.00E+03	—	—	—	2.28E+03	—	7.50E+02	—
Regional	R-20	MULTI	1149.7	12/03/07	FTB	UF	CS	VOA	Acetone	67-64-1	—	1.29	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Regional	R-20	MULTI	1149.7	12/03/07	FTB	UF	CS	VOA	Carbon Disulfide	75-15-0	—	1.71	1.3	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	—	—	—	—	1.04E+03	—	—	—

Table E-4 (continued)

Zone	Location	Well Class	Port Depth (ft)	Date	Fid QC Type Code	Fid Preparation Code	Lab Sample Type Code	Analytical Suite Code	Analyte Description	Analyte	Symbol	Result	Minimum Detection Level	Unit	Dilution Factor	Lab Qualifier Code	Secondary Validation Flag Code	Secondary Validation Reason Code	Anyl Meth Code	Lab Code	EPA MCL	Ratio (Result/Scr Level)	EPA TAP Screening Level C-5	Ratio (Result/Scr Level)	EPA TAP Screening Level N	Ratio (Result/Scr Level)	NMWQCC STD	Ratio (Result/Scr Level)
Regional	R-20	MULTI	1149.7	12/03/07	FTB	UF	CS	VOA	Methylene Chloride	75-09-2	—	2.38	2	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	5.00E+00	0.48	8.94E+01	0.03	—	—	1.00E+02	0.02
Regional	R-20	MULTI	1149.7	12/03/07	—	UF	CS	VOA	Acetone	67-64-1	—	1.52	1.3	µg/L	1	J	J	V7c	SW-846:8260B	GELC	—	—	—	—	5.48E+03	—	—	—
Regional	R-20	MULTI	1149.7	12/03/07	—	UF	CS	VOA	Toluene	108-88-3	—	33.3	0.25	µg/L	1	—	—	—	SW-846:8260B	GELC	1.00E+03	0.03	—	—	2.28E+03	0.01	7.50E+02	0.04
Regional	R-20	MULTI	1149.7	12/05/07	EQB	UF	CS	VOA	Toluene	108-88-3	—	6.29	0.25	µg/L	1	—	—	—	SW-846:8260B	GELC	1.00E+03	0.01	—	—	2.28E+03	—	7.50E+02	0.01
Regional	R-20	MULTI	1149.7	12/05/07	FTB	F	CS	VOA	Naphthalene	91-20-3	—	0.899	0.25	µg/L	1	J	J	J_LAB	SW-846:8260B	GELC	—	—	—	—	6.20E+00	0.14	3.00E+01	0.03
Regional	R-32	MULTI	870.9	12/14/07	FD	UF	CS	SVOA	Bis(2-ethylhexyl)phthalate	117-81-7	—	4.97	2.3	µg/L	1	J	J	J_LAB	SW-846:8270C	GELC	6.00E+00	0.83	4.80E+01	0.1	—	—	—	—
Regional	R-32	MULTI	870.9	12/14/07	—	UF	CS	SVOA	Bis(2-ethylhexyl)phthalate	117-81-7	—	4.54	2	µg/L	1	J	J	J_LAB	SW-846:8270C	GELC	6.00E+00	0.76	4.80E+01	0.09	—	—	—	—
Regional	R-32	MULTI	870.9	12/14/07	—	UF	CS	VOA	Toluene	108-88-3	—	4.32	0.25	µg/L	1	—	—	—	SW-846:8260B	GELC	1.00E+03	—	—	—	2.28E+03	—	7.50E+02	0.01

* — = No data.

Table E-5
Groundwater General Inorganics

Analyte	Zone	Location	Well Class	Port Depth (ft)	Date	Field Preparation Code	Field QC Type Code	Lab Sample Type Code	Symbol	Result	Uncertainty	Method Detection Limit	Unit	Lab Code	Lab Qualifier Code	Secondary Validation Flag Code	Secondary Validation Reason Code	NMWQCC STD	Ratio (Result/Scr Level)
Cl(-1)	Intermediate	03-B-10	SINGLE	20.6	12/17/07	F	—*	CS	—	566	—	6.6	mg/L	GELC	—	—	—	250	2.26
TDS	Intermediate	03-B-10	SINGLE	20.6	12/17/07	F	—	CS	—	1200	—	2.4	mg/L	GELC	—	—	—	1000	1.2

* — = No data.

**Table E-6
Groundwater Perchlorate**

Zone	Location	Well Class	Port Depth (ft)	Date	Field QC Type Code	Field Preparation Code	Analytical Method Code	Symbol	Result	Method Detection Limit	Unit	Dilution Factor	Lab Qualifier Code	Secondary Validation Flag Code	Secondary Validation Reason Code	Lab Code
Alluvial Spring	TA-18 Spring	SPRING	—*	12/12/07	—	F	SW-846:6850	<	0.2	0.05	µg/L	1	U	U	U_LAB	GELC
Alluvial	18-BG-1	SINGLE	10	12/04/07	—	F	SW-846:6850	—	0.295	0.05	µg/L	1	—	—	—	GELC
Alluvial	18-MW-11	SINGLE	27	12/05/07	—	F	SW-846:6850	—	0.323	0.05	µg/L	1	—	—	—	GELC
Alluvial	18-MW-18	SINGLE	13	12/06/07	—	F	SW-846:6850	—	0.174	0.05	µg/L	1	J	J	J_LAB	GELC
Intermediate Spring	Kieling Spring	SPRING	—	12/03/07	—	F	SW-846:6850	—	0.5	0.05	µg/L	1	—	—	—	GELC
Intermediate Spring	Bulldog Spring	SPRING	—	12/03/07	—	F	SW-846:6850	—	0.698	0.05	µg/L	1	—	—	—	GELC
Intermediate	03-B-10	SINGLE	21	12/17/07	—	F	SW-846:6850	—	0.0654	0.05	µg/L	1	J	J	J_LAB	GELC
Regional	R-18	SINGLE	1358	12/04/07	FD	F	SW-846:6850	—	0.233	0.05	µg/L	1	—	—	—	GELC
Regional	R-18	SINGLE	1358	12/04/07	—	F	SW-846:6850	—	0.231	0.05	µg/L	1	—	—	—	GELC
Regional	R-17	MULTI	1124	12/06/07	—	F	SW-846:6850	—	0.252	0.05	µg/L	1	—	—	—	GELC
Regional	R-19	MULTI	1413	12/06/07	—	F	SW-846:6850	—	0.26	0.05	µg/L	1	—	—	—	GELC
Regional	R-19	MULTI	1413	12/06/07	EQB	UF	SW-846:6850	<	0.2	0.05	µg/L	1	U	U	U_LAB	GELC
Regional	R-19	MULTI	1586	12/06/07	EQB	UF	SW-846:6850	<	0.2	0.05	µg/L	1	U	U	U_LAB	GELC
Regional	R-23	SINGLE	816	12/06/07	—	F	SW-846:6850	—	0.425	0.05	µg/L	1	—	—	—	GELC
Regional	R-32	MULTI	871	12/14/07	—	F	SW-846:6850	—	0.335	0.05	µg/L	1	—	—	—	GELC
Regional	R-32	MULTI	871	12/14/07	FD	F	SW-846:6850	—	0.345	0.05	µg/L	1	—	—	—	GELC

* — = No data.

**Table E-7
Groundwater Radionuclides**

Zone	Location	Well Class	Port Depth (ft)	Date	Analyte	Field Preparation Code	Lab Sample Type Code	Field QC Type Code	Symbol	Result	Uncertainty	Minimum Detectable Activity	Unit	Lab Code	Analytical Method Code	Lab Qualifier Code	Secondary Validation Flag Code	Secondary Validation Reason Code	DOE DCG Screening Level	Ratio (Result/Scr Level)	DOE DW DCG Screening Level	Ratio (Result/Scr Level)	EPA MCL	Ratio (Result/Scr Level)	NMWOCC Standard	Ratio (Result/Scr Level)	NMED Radiation Protection Screening Level	Ratio (Result/Scr Level)
Alluvial	18-BG-1	SINGLE	10	12/04/07	Ra-226	UF	CS	—*	—	1.71	0.31	0.5	pCi/L	GELC	EPA:903.1	—	—	—	100	0.02	4	0.43	5	0.34	30	0.06	60	0.03
Alluvial	18-BG-1	SINGLE	10	12/04/07	Ra-228	UF	CS	—	—	0.731	0.22	0.56	pCi/L	GELC	EPA:904	—	—	—	100	0.01	4	0.18	5	0.15	30	0.02	60	0.01
Alluvial	18-MW-11	SINGLE	27	12/05/07	Ra-226	UF	CS	—	<	0.445	0.15	0.4	pCi/L	GELC	EPA:903.1	—	U	R11	100	—	4	0.11	5	0.09	30	0.01	60	0.01
Alluvial	18-MW-11	SINGLE	27	12/05/07	Ra-228	UF	CS	—	—	0.898	0.28	0.75	pCi/L	GELC	EPA:904	—	—	—	100	0.01	4	0.22	5	0.18	30	0.03	60	0.01
Alluvial	18-MW-18	SINGLE	12.5	12/06/07	Ra-226	UF	CS	—	—	1.26	0.25	0.42	pCi/L	GELC	EPA:903.1	—	—	—	100	0.01	4	0.32	5	0.25	30	0.04	60	0.02
Intermediate	03-B-10	SINGLE	20.6	12/17/07	H-3	UF	CS	—	—	191	59	180	pCi/L	GELC	EPA:906.0	—	—	—	2000000	—	80000	—	20000	0.01	—	—	1000000	—
Intermediate	03-B-10	SINGLE	20.6	12/17/07	Ra-226	UF	CS	—	—	0.845	0.26	0.65	pCi/L	GELC	EPA:903.1	—	—	—	100	0.01	4	0.21	5	0.17	30	0.03	60	0.01
Intermediate	03-B-10	SINGLE	20.6	12/17/07	Sr-90	F	CS	—	—	2.31	0.26	0.26	pCi/L	GELC	EPA:905.0	—	—	—	1000	—	40	0.06	8	0.29	—	—	500	—
Intermediate	03-B-10	SINGLE	20.6	12/17/07	Sr-90	UF	CS	—	—	1.88	0.23	0.29	pCi/L	GELC	EPA:905.0	—	—	—	1000	—	40	0.05	8	0.24	—	—	500	—
Regional	R-18	SINGLE	1358	12/04/07	Ra-226	UF	CS	FD	—	1.01	0.22	0.42	pCi/L	GELC	EPA:903.1	—	—	—	100	0.01	4	0.25	5	0.2	30	0.03	60	0.02
Regional	R-17	MULTI	1124	12/06/07	Ra-226	UF	CS	—	—	1.95	0.32	0.44	pCi/L	GELC	EPA:903.1	—	—	—	100	0.02	4	0.49	5	0.39	30	0.07	60	0.03
Regional	R-17	MULTI	1124	12/06/07	Ra-228	UF	CS	—	—	1.46	0.33	0.73	pCi/L	GELC	EPA:904	—	—	—	100	0.01	4	0.37	5	0.29	30	0.05	60	0.02
Regional	R-19	MULTI	1412.9	12/06/07	Ra-226	UF	CS	—	—	0.634	0.17	0.4	pCi/L	GELC	EPA:903.1	—	—	—	100	0.01	4	0.16	5	0.13	30	0.02	60	0.01
Regional	R-32	MULTI	870.9	12/14/07	Ra-226	UF	CS	FD	—	1.2	0.24	0.39	pCi/L	GELC	EPA:903.1	—	—	—	100	0.01	4	0.3	5	0.24	30	0.04	60	0.02

* — = No data.

Appendix F

Investigation-Derived Waste Management

F-1.0 INTRODUCTION

This appendix describes the storage and disposal of investigation-derived waste (IDW) generated during this periodic groundwater monitoring event conducted in the Pajarito Watershed under the Los Alamos National Laboratory (the Laboratory) Interim Facility-Wide Groundwater Monitoring Plan (IFGMP). IDW is waste generated as a result of field investigation activities and may include, but is not limited to, purge water; contact waste, consisting of contaminated personal protective equipment (PPE), sampling supplies, plastic, and paper; fluids from the decontamination of PPE and sampling equipment; and all other wastes potentially contacting contaminants. IDW generated during implementation of the IFGMP is managed to protect human health and the environment, comply with applicable regulatory requirements, and adhere to Laboratory waste minimization goals. The wastes are managed in accordance with the Pajarito Watershed groundwater monitoring waste characterization strategy form (WCSF), submitted in the March 2007 periodic monitoring report (PMR) (LANL 2007, 095116). The WCSF provides information on IDW characterization, management, containerization, analytical methods, and estimated waste volumes. The Laboratory's 2007 "Los Alamos National Laboratory Hazardous Waste Minimization Report" (LANL 2006, 096015) is implemented during groundwater monitoring to minimize waste generation. The plan is updated annually as a requirement of Module VIII of the Laboratory's Hazardous Waste Facility Permit.

F-2.0 WASTE DETERMINATION

IDW characterization is completed through review of existing data and/or documentation, and sampling of the media being investigated (i.e., groundwater). The groundwater analyses are augmented, as needed, by direct sampling of containerized purge waters to fulfill a treatment or disposal facility's waste acceptance criteria (WAC). Under the 2007 IFGMP, the wastes from each sampling event were initially managed as hazardous wastes until the analytical data for that event were available. However, multiple analyses showed that the groundwater (and therefore the wastes) for a number of the wells were not hazardous. The 2007 IFGMP recognized this and allowed the number of sampling events used to make Resource Conservation and Recovery Act (RCRA) waste determinations to be based on acceptable knowledge (AK) of groundwater conditions within a watershed in the area of a well. AK includes reviews of existing analytical data and may also include source term/process identification performed to identify whether the water contains hazardous waste in accordance with 40 Code of Federal Regulations 262.11 (incorporated by 20.4.1.300 New Mexico Administrative Code).

F-3.0 WASTE MANAGEMENT

All IDW generated during this periodic monitoring event is being managed in accordance with applicable Environmental Programs—Waste and Environmental Services (EP-WES) and Environmental Protection Water Quality and Resource Conservation Recovery Group (ENV-RCRA) standard operating procedures (SOPs). These SOPs incorporate the requirements of all applicable U.S. Environmental Protection Agency (EPA) and New Mexico Environment Department (NMED) regulations, U.S. Department of Energy (DOE) orders, and Laboratory implementation requirements.

SOPs applicable to the characterization and management of IDW are the following:

- ENV-RCRA-SOP-010.0, "Land Application of Groundwater"
(<http://int.lanl.gov/orgs/env/rcra/docs/qa/ENV-RCRA-SOP-010-R0.pdf>)

- EP-ERSS-SOP-5022, “Characterization and Management of Environmental Restoration Project Waste,” which replaces SOP-1.06 and 1.10 (http://int.lanl.gov/environment/all/docs/qa/ep_qa/EP-ERSS-SOP-5022.pdf)

The IDW streams associated with groundwater monitoring are identified in Table F-1 and are briefly described below. Table F-1 summarizes the waste types, volumes, characterization methods, methods of on-site management, and disposition path for each of the waste streams. Only the wastes generated during this particular monitoring event are detailed in this section and in Table F-1. The number of samples used to make the waste determination varies by well, depending on the classifications described under the Waste Determination section, above. If the waste has not yet been characterized or shipped to the destination where it will be treated and/or disposed of, “Pending” appears in the Disposition Status column of Table F-1.

Purge water: The purge water waste stream consists of groundwater purged from wells in the Pajarito Watershed before sampling in order to ensure that representative samples are collected. Purge water is being managed and characterized in accordance with the WCSF and ENV-RCRA-SOP-010.0, “Land Application of Groundwater.” ENV-RCRA-SOP-010.0 implements the notice of intent (NOI) decision tree, which was approved by the NMED Ground Water Quality Bureau and Hazardous Waste Bureau on November 21, 2006.

During the monitoring activity, purge water was collected and containerized as it was removed from the wells. If purge water at a specific well has met the requirements for land application, it may have been directly land-applied, or it may have been containerized before land application. The type of container used depends on the volume of purge water expected and includes 5-gal. carboys, 55-gal. drums, and other containers. U.S. Department of Transportation- (DOT-) approved containers are used, as appropriate, for transport. The containers of purge water are managed in accordance with their classification as hazardous, mixed, nonhazardous, or radioactive waste, as follows.

- If purge water is hazardous or mixed waste, it is placed in registered hazardous waste accumulation areas that may be at the location of the wells or may be at other locations at the Laboratory. Unless a “contained-in” is granted by NMED (decision point D5 of the NOI decision tree) or investigation of the sources of the contamination determines that the waste does not contain hazardous waste, the hazardous waste is treated or disposed of at a permitted off-site TSD facility .
- Purge water that has been determined to be nonhazardous, including those for which a contained-in determination has been granted by NMED, are evaluated using ENV-RCRA-SOP-1.10 for land disposal. If land application criteria are met, the purge water is land-applied as specified in the NOI decision tree. If land application criteria cannot be met, the purge water is transported and disposed of at on-site facilities, if possible, or at an authorized off-site facility if the WACs of on-site facilities cannot be met (disposal pathways P3–P9 of the NOI decision tree).

Contact waste: The contact waste stream consists of wastes that “contacted” potentially contaminated environmental media (i.e., purge water) and cannot be decontaminated. It consists primarily of contaminated PPE (primarily gloves); disposable sampling supplies; and dry decontamination wastes, such as paper items. Contact waste is stored in containers (e.g., 55-gal. drums) at monitoring sites or at a consolidated accumulation area. DOT-approved containers are used, as appropriate, for transport. Characterization of this waste stream is being performed through AK of the waste materials, the methods of generation, and the levels of contamination observed in the environmental media (e.g., the results of analysis of associated water samples), and, if necessary, direct sampling of the containerized waste. The containers of purge water are managed in accordance with their classification as nonhazardous/nonradioactive, hazardous, mixed, or radioactive waste, as follows.

- Contact waste that has been in contact with nonhazardous, nonradioactive groundwater is disposed of at a New Mexico solid waste landfill using Waste Profile Form (WPF) 39268, a copy of which was included in Appendix F of the March 2007 PMR (LANL 2006, 096015).
- If the contact wastes are hazardous or mixed wastes, they are placed in registered hazardous waste accumulation areas that may be at the location of the wells or may be at other locations at the Laboratory. Unless a contained-in is granted by NMED (decision point D5 of the NOI decision tree) or a due diligence investigation of the sources of the contamination determines that the waste does not contain hazardous waste, the waste will be managed appropriately for its regulatory classification. If it is determined to be hazardous or mixed waste, it will be treated or disposed of at a permitted off-site treatment, storage and disposal (TSD) facility.
- If the contact wastes are nonhazardous but contain elevated radioactivity, the contact wastes may be designated as low-level radioactive waste and disposed of at Technical Area 54 (TA-54) Area G. Radioactive contact waste must be placed in registered radioactive accumulation areas that may be at the location of the wells or may be at other locations at the Laboratory. If the LANL Green Is Clean program verifies that the contact waste is nonradioactive, it is disposed of at a New Mexico solid waste landfill.

Decontamination fluids: Consistent with waste minimization practices, the Laboratory employs dry decontamination methods to the extent possible. However, if dry decontamination cannot be performed, liquid decontamination is used. The decontamination fluids waste stream consists of decontamination solutions and rinse waters, such as deionized water and Alconox. Liquid decontamination wastes are collected in containers at the point of generation. The decontamination fluids waste stream are characterized through AK of the waste materials, the levels of contamination observed in the environmental media (e.g., the results of the associated water samples), and, if necessary, direct sampling of the containerized waste. These wastes receive the same designation as the associated purge water. The containers of decontamination fluids are managed in accordance with their classification as nonhazardous, hazardous, mixed, or radioactive waste, as follows.

- Nonhazardous/nonradioactive decontamination fluids may be sent to the Sanitary Waste System or the Sanitary or Effluent Reclamation Facility. The Radioactive Liquid Waste Treatment Facility or the TA-53 evaporation basins treat radioactive wastewaters. Radioactive wastewaters must be placed in registered radioactive accumulation areas that may be at the location of the wells or may be at other locations at the Laboratory. If the decontamination fluids do not meet the WAC for these facilities, they are sent off-site for treatment and/or disposal.
- If the wastes are hazardous or mixed waste, they are placed in registered hazardous waste accumulation areas that may be at the location of the wells or may be at other locations at the Laboratory. Unless a contained-in is granted by NMED (decision point D5 of the NOI decision tree) or a due diligence investigation of the sources of the contamination determines that the waste does not contain hazardous waste, the waste will be managed appropriately for its regulatory classification. If it is determined to be hazardous or mixed waste, it will be treated or disposed of at a permitted off-site TSD facility.

F-4.0 REFERENCE

The following list includes all documents cited in this appendix. Parenthetical information following each reference provides the author(s), publication date, and ER ID number. This information is also included in text citations. ER ID numbers are assigned by the Environmental Programs Directorate's Records Processing Facility (RPF) and are used to locate the document at the RPF and, where applicable, in the master reference set.

Copies of the master reference set are maintained at the NMED Hazardous Waste Bureau; DOE–Los Alamos Site Office; EPA, Region 6; and the Directorate. The set was developed to ensure that the administrative authority has all material needed to review this document, and it is updated with every document submitted to the administrative authority. Documents previously submitted to the administrative authority are not included.

LANL (Los Alamos National Laboratory), November 2006. "Los Alamos National Laboratory Hazardous Waste Minimization Report," Los Alamos National Laboratory document LA-UR-06-8175, Los Alamos, New Mexico. (LANL 2006, 096015)

LANL (Los Alamos National Laboratory), March 2007. "Periodic Monitoring Report for Pajarito Watershed Sampled August 15–31, 2006," Los Alamos National Laboratory document LA-UR-07-1425, Los Alamos, New Mexico. (LANL 2007, 095116)

**Table F-1
Summary of IDW Generation and Management**

Waste Stream	Waste Type	Volume	Characterization Method	On-Site Management	Disposition Status
Purge Water	Mixed Low-level waste	11.5 gal.	Analytical results from groundwater monitoring samples and AK	Managed conservatively and collected in drums at satellite accumulation areas (SAAs). These wells have been determined to be hazardous based on data review and due diligence.	Pending transport to TA-54 for eventual transport to an off-site mixed low-level waste facility for treatment/disposal ^{a,b}
Purge Water	Nonhazardous, Nonradioactive	1643.5 gal.	Analytical results from groundwater monitoring samples and AK	Originally managed conservatively and collected in containers, stored at SAAs, or at less-than-90-d accumulation areas. These wastes have been determined to be nonhazardous based on data review or due diligence. The containers and accumulation areas have been downgraded to nonhazardous.	Pending land application review and approval
Contact Waste	Mixed Low-level waste	0.01 yd ³ (2 gal.)	AK	Zip-lock baggies accumulated in drums at SAAs	Pending transport to TA-54 for eventual transport to an off-site mixed low-level waste facility for treatment/disposal ^{a,b}
Contact Waste	Nonhazardous, Nonradioactive	0.11 yd ³ (23.5 gal.)	AK	Zip-lock baggies accumulated in containers	Disposed of at New Mexico solid waste landfill; WPF #39268 ^b
Contact Waste	Nonhazardous, Suspect radioactive	<0.01 yd ³ (1.5 gal.)	AK	Managed as described above	Pending Green Is Clean screening, segregation, or WPF approval
Decontamination Fluids	Nonhazardous, nonradioactive	17.5 gal.	Analytical results from groundwater monitoring samples and AK	Collected in 250 mL to 1-gal. bottles, stored in 55-gal. drums at accumulation areas	Pending WPF approval and disposal.

Notes: Volumes recorded represent volumes generated during this particular sample event. The associated disposal documents record volumes for multiple sample events.

^a The existing WPF was submitted in the March PMR (LANL 2007 095116).

^b Transport/disposal documentation is pending completion of transport.

Appendix G

*Analytical Reports and Previously Unreported Data
(on CD included with this document)*

CD Table of Contents

Request	Suite	Sample	Date	Location
08-304	HEXP	CAPA-08-9214	12/3/2007	Bulldog Spring
08-304	HEXP	CAPA-08-9215	12/3/2007	Bulldog Spring
08-304	HEXP	CAPA-08-9210	12/3/2007	Kieling Spring
08-304	HEXP	CAPA-08-9213	12/3/2007	Kieling Spring
08-306	GENINORG	CAPA-08-9215	12/3/2007	Bulldog Spring
08-306	GENINORG	CAPA-08-9216	12/3/2007	Bulldog Spring
08-306	GENINORG	CAPA-08-9210	12/3/2007	Kieling Spring
08-306	GENINORG	CAPA-08-9211	12/3/2007	Kieling Spring
08-306	HEXP	CAPA-08-9214	12/3/2007	Bulldog Spring
08-306	HEXP	CAPA-08-9215	12/3/2007	Bulldog Spring
08-306	HEXP	CAPA-08-9210	12/3/2007	Kieling Spring
08-306	HEXP	CAPA-08-9213	12/3/2007	Kieling Spring
08-306	METALS	CAPA-08-9215	12/3/2007	Bulldog Spring
08-306	METALS	CAPA-08-9216	12/3/2007	Bulldog Spring
08-306	METALS	CAPA-08-9210	12/3/2007	Kieling Spring
08-306	METALS	CAPA-08-9211	12/3/2007	Kieling Spring
08-306	PEST/PCB	CAPA-08-9214	12/3/2007	Bulldog Spring
08-306	PEST/PCB	CAPA-08-9215	12/3/2007	Bulldog Spring
08-306	PEST/PCB	CAPA-08-9210	12/3/2007	Kieling Spring
08-306	PEST/PCB	CAPA-08-9213	12/3/2007	Kieling Spring
08-306	RAD	CAPA-08-9215	12/3/2007	Bulldog Spring
08-306	RAD	CAPA-08-9216	12/3/2007	Bulldog Spring
08-306	RAD	CAPA-08-9210	12/3/2007	Kieling Spring
08-306	RAD	CAPA-08-9211	12/3/2007	Kieling Spring
08-306	SVOA	CAPA-08-9214	12/3/2007	Bulldog Spring
08-306	SVOA	CAPA-08-9215	12/3/2007	Bulldog Spring
08-306	SVOA	CAPA-08-9210	12/3/2007	Kieling Spring
08-306	SVOA	CAPA-08-9213	12/3/2007	Kieling Spring
08-306	VOA	CAPA-08-9214	12/3/2007	Bulldog Spring
08-306	VOA	CAPA-08-9215	12/3/2007	Bulldog Spring
08-306	VOA	CAPA-08-9217	12/3/2007	Bulldog Spring
08-306	VOA	CAPA-08-9210	12/3/2007	Kieling Spring
08-306	VOA	CAPA-08-9212	12/3/2007	Kieling Spring
08-306	VOA	CAPA-08-9213	12/3/2007	Kieling Spring
08-308	HEXP	CAPA-08-9230	12/3/2007	Homestead Spring
08-308	HEXP	CAPA-08-9232	12/3/2007	Homestead Spring
08-308	HEXP	CAPA-08-9234	12/3/2007	Homestead Spring
08-308	HEXP	CAPA-08-9219	12/3/2007	Starmer Spring
08-308	HEXP	CAPA-08-9220	12/3/2007	Starmer Spring

Periodic Monitoring Report for Pajarito Watershed

Request	Suite	Sample	Date	Location
08-313	VOA	GW20-08-9068	12/3/2007	R-20
08-313	VOA	GW20-08-9118	12/3/2007	R-20
08-313	VOA	GW20-08-9119	12/3/2007	R-20
08-313	VOA	GW20-08-9122	12/3/2007	R-20
08-313	VOA	GW20-08-9124	12/3/2007	R-20
08-313	VOA	GW20-08-9125	12/3/2007	R-20
08-313	VOA	GW20-08-9126	12/3/2007	R-20
08-313	VOA	GW20-08-9127	12/3/2007	R-20
08-322	HEXP	CAPA-08-9366	12/4/2007	R-18
08-322	HEXP	CAPA-08-9367	12/4/2007	R-18
08-322	HEXP	CAPA-08-9370	12/4/2007	R-18
08-322	HEXP	CAPA-08-9372	12/4/2007	R-18
08-325	GENINORG	CAPA-08-9366	12/4/2007	R-18
08-325	GENINORG	CAPA-08-9369	12/4/2007	R-18
08-325	GENINORG	CAPA-08-9370	12/4/2007	R-18
08-325	GENINORG	CAPA-08-9371	12/4/2007	R-18
08-325	HEXP	CAPA-08-9366	12/4/2007	R-18
08-325	HEXP	CAPA-08-9367	12/4/2007	R-18
08-325	HEXP	CAPA-08-9370	12/4/2007	R-18
08-325	HEXP	CAPA-08-9372	12/4/2007	R-18
08-325	METALS	CAPA-08-9366	12/4/2007	R-18
08-325	METALS	CAPA-08-9369	12/4/2007	R-18
08-325	METALS	CAPA-08-9370	12/4/2007	R-18
08-325	METALS	CAPA-08-9371	12/4/2007	R-18
08-325	PEST/PCB	CAPA-08-9366	12/4/2007	R-18
08-325	PEST/PCB	CAPA-08-9367	12/4/2007	R-18
08-325	PEST/PCB	CAPA-08-9370	12/4/2007	R-18
08-325	PEST/PCB	CAPA-08-9372	12/4/2007	R-18
08-325	RAD	CAPA-08-9366	12/4/2007	R-18
08-325	RAD	CAPA-08-9369	12/4/2007	R-18
08-325	RAD	CAPA-08-9370	12/4/2007	R-18
08-325	RAD	CAPA-08-9371	12/4/2007	R-18
08-325	SVOA	CAPA-08-9366	12/4/2007	R-18
08-325	SVOA	CAPA-08-9367	12/4/2007	R-18
08-325	SVOA	CAPA-08-9370	12/4/2007	R-18
08-325	VOA	CAPA-08-9366	12/4/2007	R-18
08-325	VOA	CAPA-08-9367	12/4/2007	R-18
08-325	VOA	CAPA-08-9368	12/4/2007	R-18
08-325	VOA	CAPA-08-9370	12/4/2007	R-18
08-325	VOA	CAPA-08-9372	12/4/2007	R-18
08-326	HEXP	CAPA-08-9350	12/4/2007	18-BG-1

Request	Suite	Sample	Date	Location
08-326	HEXP	CAPA-08-9353	12/4/2007	18-BG-1
08-326	HEXP	CAPA-08-9354	12/4/2007	18-BG-1
08-329	GENINORG	CAPA-08-9352	12/4/2007	18-BG-1
08-329	GENINORG	CAPA-08-9353	12/4/2007	18-BG-1
08-329	HEXP	CAPA-08-9350	12/4/2007	18-BG-1
08-329	HEXP	CAPA-08-9353	12/4/2007	18-BG-1
08-329	HEXP	CAPA-08-9354	12/4/2007	18-BG-1
08-329	METALS	CAPA-08-9352	12/4/2007	18-BG-1
08-329	METALS	CAPA-08-9353	12/4/2007	18-BG-1
08-329	PEST/PCB	CAPA-08-9350	12/4/2007	18-BG-1
08-329	PEST/PCB	CAPA-08-9353	12/4/2007	18-BG-1
08-329	PEST/PCB	CAPA-08-9354	12/4/2007	18-BG-1
08-329	RAD	CAPA-08-9352	12/4/2007	18-BG-1
08-329	RAD	CAPA-08-9353	12/4/2007	18-BG-1
08-329	SVOA	CAPA-08-9353	12/4/2007	18-BG-1
08-329	SVOA	CAPA-08-9354	12/4/2007	18-BG-1
08-329	VOA	CAPA-08-9350	12/4/2007	18-BG-1
08-329	VOA	CAPA-08-9351	12/4/2007	18-BG-1
08-329	VOA	CAPA-08-9353	12/4/2007	18-BG-1
08-329	VOA	CAPA-08-9354	12/4/2007	18-BG-1
08-330	VOA	GW20-08-9121	12/4/2007	R-20
08-330	VOA	GW20-08-9129	12/4/2007	R-20
08-335	VOA	GW20-08-9460	12/5/2007	R-20
08-336	VOA	GW20-08-9072	12/5/2007	R-20
08-337	HEXP	CAPA-08-9341	12/5/2007	18-MW-11
08-337	HEXP	CAPA-08-9342	12/5/2007	18-MW-11
08-338	GENINORG	CAPA-08-9341	12/5/2007	18-MW-11
08-338	GENINORG	CAPA-08-9343	12/5/2007	18-MW-11
08-338	HEXP	CAPA-08-9341	12/5/2007	18-MW-11
08-338	HEXP	CAPA-08-9342	12/5/2007	18-MW-11
08-338	METALS	CAPA-08-9341	12/5/2007	18-MW-11
08-338	METALS	CAPA-08-9343	12/5/2007	18-MW-11
08-338	PEST/PCB	CAPA-08-9341	12/5/2007	18-MW-11
08-338	PEST/PCB	CAPA-08-9342	12/5/2007	18-MW-11
08-338	RAD	CAPA-08-9341	12/5/2007	18-MW-11
08-338	RAD	CAPA-08-9343	12/5/2007	18-MW-11
08-338	SVOA	CAPA-08-9341	12/5/2007	18-MW-11
08-338	SVOA	CAPA-08-9342	12/5/2007	18-MW-11
08-338	VOA	CAPA-08-9341	12/5/2007	18-MW-11
08-338	VOA	CAPA-08-9342	12/5/2007	18-MW-11
08-338	VOA	CAPA-08-9344	12/5/2007	18-MW-11

Request	Suite	Sample	Date	Location
08-340	HEXP	CAPA-08-9310	12/5/2007	18-MW-8
08-340	HEXP	CAPA-08-9312	12/5/2007	18-MW-8
08-350	HEXP	CAPA-08-9326	12/5/2007	R-17
08-350	HEXP	CAPA-08-9327	12/5/2007	R-17
08-365	HEXP	CAPA-08-9302	12/6/2007	PCO-2
08-365	HEXP	CAPA-08-9304	12/6/2007	PCO-2
08-369	GENINORG	CAPA-08-9305	12/6/2007	18-MW-18
08-369	GENINORG	CAPA-08-9306	12/6/2007	18-MW-18
08-369	GENINORG	CAPA-08-9331	12/6/2007	R-17
08-369	GENINORG	CAPA-08-9332	12/6/2007	R-17
08-369	GENINORG	CAPA-08-9335	12/6/2007	R-23
08-369	GENINORG	CAPA-08-9336	12/6/2007	R-23
08-369	HEXP	CAPA-08-9305	12/6/2007	18-MW-18
08-369	HEXP	CAPA-08-9307	12/6/2007	18-MW-18
08-369	HEXP	CAPA-08-9330	12/6/2007	R-17
08-369	HEXP	CAPA-08-9332	12/6/2007	R-17
08-369	HEXP	CAPA-08-9334	12/6/2007	R-23
08-369	HEXP	CAPA-08-9335	12/6/2007	R-23
08-369	METALS	CAPA-08-9305	12/6/2007	18-MW-18
08-369	METALS	CAPA-08-9306	12/6/2007	18-MW-18
08-369	METALS	CAPA-08-9331	12/6/2007	R-17
08-369	METALS	CAPA-08-9332	12/6/2007	R-17
08-369	METALS	CAPA-08-9335	12/6/2007	R-23
08-369	METALS	CAPA-08-9336	12/6/2007	R-23
08-369	PEST/PCB	CAPA-08-9305	12/6/2007	18-MW-18
08-369	PEST/PCB	CAPA-08-9307	12/6/2007	18-MW-18
08-369	PEST/PCB	CAPA-08-9330	12/6/2007	R-17
08-369	PEST/PCB	CAPA-08-9332	12/6/2007	R-17
08-369	PEST/PCB	CAPA-08-9334	12/6/2007	R-23
08-369	PEST/PCB	CAPA-08-9335	12/6/2007	R-23
08-369	RAD	CAPA-08-9305	12/6/2007	18-MW-18
08-369	RAD	CAPA-08-9306	12/6/2007	18-MW-18
08-369	RAD	CAPA-08-9331	12/6/2007	R-17
08-369	RAD	CAPA-08-9332	12/6/2007	R-17
08-369	RAD	CAPA-08-9335	12/6/2007	R-23
08-369	RAD	CAPA-08-9336	12/6/2007	R-23
08-369	SVOA	CAPA-08-9305	12/6/2007	18-MW-18
08-369	SVOA	CAPA-08-9307	12/6/2007	18-MW-18
08-369	SVOA	CAPA-08-9330	12/6/2007	R-17
08-369	SVOA	CAPA-08-9332	12/6/2007	R-17
08-369	SVOA	CAPA-08-9334	12/6/2007	R-23

Request	Suite	Sample	Date	Location
08-369	SVOA	CAPA-08-9335	12/6/2007	R-23
08-369	VOA	CAPA-08-9305	12/6/2007	18-MW-18
08-369	VOA	CAPA-08-9307	12/6/2007	18-MW-18
08-369	VOA	CAPA-08-9308	12/6/2007	18-MW-18
08-369	VOA	CAPA-08-9329	12/6/2007	R-17
08-369	VOA	CAPA-08-9330	12/6/2007	R-17
08-369	VOA	CAPA-08-9332	12/6/2007	R-17
08-369	VOA	CAPA-08-9333	12/6/2007	R-23
08-369	VOA	CAPA-08-9334	12/6/2007	R-23
08-369	VOA	CAPA-08-9335	12/6/2007	R-23
08-370	HEXP	CAPA-08-9305	12/6/2007	18-MW-18
08-370	HEXP	CAPA-08-9307	12/6/2007	18-MW-18
08-370	HEXP	CAPA-08-9330	12/6/2007	R-17
08-370	HEXP	CAPA-08-9332	12/6/2007	R-17
08-370	HEXP	CAPA-08-9334	12/6/2007	R-23
08-370	HEXP	CAPA-08-9335	12/6/2007	R-23
08-372	GENINORG	CAPA-08-9380	12/6/2007	R-19
08-372	GENINORG	CAPA-08-9381	12/6/2007	R-19
08-372	GENINORG	CAPA-08-9409	12/6/2007	R-19
08-372	GENINORG	CAPA-08-9410	12/6/2007	R-19
08-372	HEXP	CAPA-08-9380	12/6/2007	R-19
08-372	HEXP	CAPA-08-9383	12/6/2007	R-19
08-372	METALS	CAPA-08-9380	12/6/2007	R-19
08-372	METALS	CAPA-08-9381	12/6/2007	R-19
08-372	METALS	CAPA-08-9409	12/6/2007	R-19
08-372	METALS	CAPA-08-9410	12/6/2007	R-19
08-372	PEST/PCB	CAPA-08-9380	12/6/2007	R-19
08-372	PEST/PCB	CAPA-08-9383	12/6/2007	R-19
08-372	RAD	CAPA-08-9380	12/6/2007	R-19
08-372	RAD	CAPA-08-9381	12/6/2007	R-19
08-372	SVOA	CAPA-08-9380	12/6/2007	R-19
08-372	SVOA	CAPA-08-9383	12/6/2007	R-19
08-372	VOA	CAPA-08-9380	12/6/2007	R-19
08-372	VOA	CAPA-08-9382	12/6/2007	R-19
08-372	VOA	CAPA-08-9383	12/6/2007	R-19
08-372	VOA	CAPA-08-9409	12/6/2007	R-19
08-372	VOA	CAPA-08-9410	12/6/2007	R-19
08-373	HEXP	CAPA-08-9380	12/6/2007	R-19
08-374	HEXP	CAPA-08-9356	12/7/2007	PCO-3
08-374	HEXP	CAPA-08-9358	12/7/2007	PCO-3
08-385	HEXP	CAPA-08-9285	12/10/2007	Anderson Spring

Request	Suite	Sample	Date	Location
08-390	VOA	CAPA-08-9384	12/10/2007	R-19
08-393	HEXP	CAPA-08-9277	12/12/2007	TA-18 Spring
08-393	HEXP	CAPA-08-9280	12/12/2007	TA-18 Spring
08-395	GENINORG	CAPA-08-9277	12/12/2007	TA-18 Spring
08-395	GENINORG	CAPA-08-9278	12/12/2007	TA-18 Spring
08-395	HEXP	CAPA-08-9277	12/12/2007	TA-18 Spring
08-395	HEXP	CAPA-08-9280	12/12/2007	TA-18 Spring
08-395	METALS	CAPA-08-9277	12/12/2007	TA-18 Spring
08-395	METALS	CAPA-08-9278	12/12/2007	TA-18 Spring
08-395	PEST/PCB	CAPA-08-9277	12/12/2007	TA-18 Spring
08-395	PEST/PCB	CAPA-08-9280	12/12/2007	TA-18 Spring
08-395	RAD	CAPA-08-9277	12/12/2007	TA-18 Spring
08-395	RAD	CAPA-08-9278	12/12/2007	TA-18 Spring
08-395	SVOA	CAPA-08-9277	12/12/2007	TA-18 Spring
08-395	SVOA	CAPA-08-9280	12/12/2007	TA-18 Spring
08-395	VOA	CAPA-08-9277	12/12/2007	TA-18 Spring
08-395	VOA	CAPA-08-9279	12/12/2007	TA-18 Spring
08-395	VOA	CAPA-08-9280	12/12/2007	TA-18 Spring
08-400	HEXP	CAPA-08-9337	12/14/2007	R-32
08-400	HEXP	CAPA-08-9338	12/14/2007	R-32
08-400	HEXP	CAPA-08-9720	12/14/2007	R-32
08-400	HEXP	CAPA-08-9722	12/14/2007	R-32
08-401	GENINORG	CAPA-08-9338	12/14/2007	R-32
08-401	GENINORG	CAPA-08-9339	12/14/2007	R-32
08-401	GENINORG	CAPA-08-9720	12/14/2007	R-32
08-401	GENINORG	CAPA-08-9721	12/14/2007	R-32
08-401	HEXP	CAPA-08-9337	12/14/2007	R-32
08-401	HEXP	CAPA-08-9338	12/14/2007	R-32
08-401	HEXP	CAPA-08-9720	12/14/2007	R-32
08-401	HEXP	CAPA-08-9722	12/14/2007	R-32
08-401	METALS	CAPA-08-9338	12/14/2007	R-32
08-401	METALS	CAPA-08-9339	12/14/2007	R-32
08-401	METALS	CAPA-08-9720	12/14/2007	R-32
08-401	METALS	CAPA-08-9721	12/14/2007	R-32
08-401	PEST/PCB	CAPA-08-9337	12/14/2007	R-32
08-401	PEST/PCB	CAPA-08-9338	12/14/2007	R-32
08-401	PEST/PCB	CAPA-08-9720	12/14/2007	R-32
08-401	PEST/PCB	CAPA-08-9722	12/14/2007	R-32
08-401	RAD	CAPA-08-9338	12/14/2007	R-32
08-401	RAD	CAPA-08-9339	12/14/2007	R-32
08-401	RAD	CAPA-08-9720	12/14/2007	R-32

Request	Suite	Sample	Date	Location
08-401	RAD	CAPA-08-9721	12/14/2007	R-32
08-401	SVOA	CAPA-08-9337	12/14/2007	R-32
08-401	SVOA	CAPA-08-9338	12/14/2007	R-32
08-401	SVOA	CAPA-08-9720	12/14/2007	R-32
08-401	VOA	CAPA-08-9337	12/14/2007	R-32
08-401	VOA	CAPA-08-9338	12/14/2007	R-32
08-401	VOA	CAPA-08-9340	12/14/2007	R-32
08-401	VOA	CAPA-08-9720	12/14/2007	R-32
08-401	VOA	CAPA-08-9722	12/14/2007	R-32
08-411	HEXP	CAPA-08-9270	12/17/2007	Pajarito above Twomile
08-411	HEXP	CAPA-08-9272	12/17/2007	Pajarito above Twomile
08-411	HEXP	CAPA-08-9267	12/17/2007	Twomile above Pajarito
08-411	HEXP	CAPA-08-9268	12/17/2007	Twomile above Pajarito
08-415	HEXP	CAPA-08-9319	12/17/2007	03-B-10
08-415	HEXP	CAPA-08-9320	12/17/2007	03-B-10
08-415	HEXP	CAPA-08-9236	12/17/2007	Pajarito 0.5 mi above SR-501
08-415	HEXP	CAPA-08-9239	12/17/2007	Pajarito 0.5 mi above SR-501
08-415	HEXP	CAPA-08-9719	12/17/2007	Pajarito 0.5 mi above SR-501
08-416	DRO	CAPA-08-9319	12/17/2007	03-B-10
08-416	GENINORG	CAPA-08-9317	12/17/2007	03-B-10
08-416	GENINORG	CAPA-08-9319	12/17/2007	03-B-10
08-416	GENINORG	CAPA-08-9236	12/17/2007	Pajarito 0.5 mi above SR-501
08-416	GENINORG	CAPA-08-9237	12/17/2007	Pajarito 0.5 mi above SR-501
08-416	GENINORG	CAPA-08-9718	12/17/2007	Pajarito 0.5 mi above SR-501
08-416	GENINORG	CAPA-08-9719	12/17/2007	Pajarito 0.5 mi above SR-501
08-416	GRO	CAPA-08-9319	12/17/2007	03-B-10
08-416	HEXP	CAPA-08-9319	12/17/2007	03-B-10
08-416	HEXP	CAPA-08-9320	12/17/2007	03-B-10
08-416	HEXP	CAPA-08-9236	12/17/2007	Pajarito 0.5 mi above SR-501
08-416	HEXP	CAPA-08-9239	12/17/2007	Pajarito 0.5 mi above SR-501
08-416	HEXP	CAPA-08-9719	12/17/2007	Pajarito 0.5 mi above SR-501
08-416	METALS	CAPA-08-9317	12/17/2007	03-B-10
08-416	METALS	CAPA-08-9319	12/17/2007	03-B-10
08-416	METALS	CAPA-08-9236	12/17/2007	Pajarito 0.5 mi above SR-501
08-416	METALS	CAPA-08-9237	12/17/2007	Pajarito 0.5 mi above SR-501
08-416	METALS	CAPA-08-9718	12/17/2007	Pajarito 0.5 mi above SR-501
08-416	METALS	CAPA-08-9719	12/17/2007	Pajarito 0.5 mi above SR-501
08-416	PEST/PCB	CAPA-08-9319	12/17/2007	03-B-10
08-416	PEST/PCB	CAPA-08-9320	12/17/2007	03-B-10
08-416	PEST/PCB	CAPA-08-9236	12/17/2007	Pajarito 0.5 mi above SR-501
08-416	PEST/PCB	CAPA-08-9239	12/17/2007	Pajarito 0.5 mi above SR-501

Request	Suite	Sample	Date	Location
08-416	PEST/PCB	CAPA-08-9719	12/17/2007	Pajarito 0.5 mi above SR-501
08-416	RAD	CAPA-08-9317	12/17/2007	03-B-10
08-416	RAD	CAPA-08-9319	12/17/2007	03-B-10
08-416	RAD	CAPA-08-9236	12/17/2007	Pajarito 0.5 mi above SR-501
08-416	RAD	CAPA-08-9237	12/17/2007	Pajarito 0.5 mi above SR-501
08-416	RAD	CAPA-08-9718	12/17/2007	Pajarito 0.5 mi above SR-501
08-416	RAD	CAPA-08-9719	12/17/2007	Pajarito 0.5 mi above SR-501
08-416	SVOA	CAPA-08-9319	12/17/2007	03-B-10
08-416	SVOA	CAPA-08-9320	12/17/2007	03-B-10
08-416	SVOA	CAPA-08-9236	12/17/2007	Pajarito 0.5 mi above SR-501
08-416	SVOA	CAPA-08-9239	12/17/2007	Pajarito 0.5 mi above SR-501
08-416	SVOA	CAPA-08-9719	12/17/2007	Pajarito 0.5 mi above SR-501
08-416	VOA	CAPA-08-9318	12/17/2007	03-B-10
08-416	VOA	CAPA-08-9319	12/17/2007	03-B-10
08-416	VOA	CAPA-08-9320	12/17/2007	03-B-10
08-416	VOA	CAPA-08-9236	12/17/2007	Pajarito 0.5 mi above SR-501
08-416	VOA	CAPA-08-9238	12/17/2007	Pajarito 0.5 mi above SR-501
08-416	VOA	CAPA-08-9239	12/17/2007	Pajarito 0.5 mi above SR-501
08-416	VOA	CAPA-08-9719	12/17/2007	Pajarito 0.5 mi above SR-501
08-425	HEXP	CAPA-08-9314	12/18/2007	03-B-13
08-425	HEXP	CAPA-08-9316	12/18/2007	03-B-13
08-425	HEXP	CAPA-08-9361	12/18/2007	18-MW-9
08-425	HEXP	CAPA-08-9362	12/18/2007	18-MW-9
08-425	HEXP	CAPA-08-9364	12/18/2007	18-MW-9
08-432	HEXP	CAPA-08-9388	12/17/2007	R-22
08-432	HEXP	CAPA-08-9391	12/17/2007	R-22
08-432	HEXP	CAPA-08-9964	12/18/2007	R-22
08-436	HEXP	CAPA-08-9375	12/19/2007	R-23i
08-436	HEXP	CAPA-08-9378	12/19/2007	R-23i
08-438	HEXP	CAPA-08-9346	12/19/2007	Two Mile Canyon below TA-59
08-442	HEXP	CAPA-08-9346	12/19/2007	Two Mile Canyon below TA-59
08-442	PEST/PCB	CAPA-08-9346	12/19/2007	Two Mile Canyon below TA-59
08-442	SVOA	CAPA-08-9346	12/19/2007	Two Mile Canyon below TA-59
08-442	VOA	CAPA-08-9346	12/19/2007	Two Mile Canyon below TA-59
08-442	VOA	CAPA-08-9348	12/19/2007	Two Mile Canyon below TA-59
08-447	HEXP	CAPA-08-9294	12/18/2007	PC Spring
08-447	HEXP	CAPA-08-9295	12/18/2007	PC Spring